



VNIVERSITAT E VALÈNCIA

Facultad de Psicología y Logopedia

**Variables psicológicas influyentes en el cuidado  
satisfactorio por parte de los cuidadores formales de  
personas con enfermedad mental usuarias de  
centros de salud mental**

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**Tesis Doctoral (compendio de publicaciones)**

**Doctorado en Promoción de la Autonomía y Atención Sociosanitaria a  
la Dependencia**

**Presentada por:**

Lluna María Bru-Luna

**Dirigida por:**

Dr. Manuel Martí-Vilar

(Departamento de Psicología Básica)

Dr. Francisco González-Sala

(Departamento de Psicología Evolutiva  
y de la Educación)

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## **Resumen**

La enfermedad mental es definida como una alteración de tipo emocional, cognitiva y/o del comportamiento en la que quedan afectados procesos psicológicos básicos cuya afectación puede generar discapacidades persistentes y situaciones de dependencia, por lo que cada vez es más necesario invertir recursos para atender las demandas de estas personas. Un cuidador profesional es la persona que, desde diferentes ámbitos, se encarga de realizar las funciones que exceden las propias capacidades de las personas para cuidar de sí mismas y de favorecer una mayor calidad de vida. En los últimos años, ha habido numerosos llamamientos para tener una visión más holística considerando los aspectos positivos del cuidador, y algunos autores comienzan a señalar que de la experiencia del cuidado también pueden derivarse resultados y emociones positivas tanto en la persona cuidada, como para el cuidador. Por ello, el principal objetivo de esta Tesis Doctoral es contribuir al fomento del cuidado satisfactorio por parte de cuidadores profesionales de personas con enfermedad mental para promover una mejora en la calidad de vida de ambas partes. Con la finalidad de cumplir con este propósito, se han establecido una serie de objetivos específicos en relación con los estudios incluidos en el compendio de publicaciones que componen esta Tesis Doctoral.

El primer estudio identifica las variables relacionadas con la atención profesional de las personas con enfermedad mental (es decir, las variables protectoras o estresantes), así como las principales intervenciones que se están implementando actualmente en relación con estas variables en este tipo de profesionales. El segundo trabajo analiza las diferentes investigaciones empíricas o intervenciones basadas en el enfoque de Atención Centrada en la Persona (ACP) en las que participan cuidadores profesionales con el objetivo de determinar las principales características de este

enfoque, así como los resultados que produce en cuidadores y personas con enfermedad mental.

Por otra parte, la tercera investigación analiza la consistencia interna del Person-Centered Care Assessment Tool (P-CAT), y analiza posibles factores que afectan a los índices de consistencia interna mediante un metaanálisis de generalización de fiabilidad. El cuarto estudio analiza la descripción de las características y las propiedades psicométricas en términos de fiabilidad y validez de los instrumentos existentes que permiten la evaluación de la inteligencia emocional, variable protectora en profesiones centradas en personas. Por último, el quinto trabajo analiza mediante una revisión sistemática las evidencias de validez realizadas en los estudios de validación del P-CAT, teniendo como marco los “Standards”.

En términos generales, existen múltiples factores de diversa índole que pueden influir en la calidad de la atención prestada por los cuidadores profesionales a las personas con enfermedad mental, como la satisfacción laboral, la inteligencia emocional, la toma de decisiones compartida, la atención orientada a la recuperación o la capacitación, entre otros. Por otra parte, aunque el P-CAT se desarrolló originalmente para entornos de residencias de ancianos, el uso del instrumento en otros tipos de entornos no parece producir problemas en la varianza de la fiabilidad. También se ha visto que en ninguna de las diferentes validaciones este instrumento hace uso de un marco teórico estructurado para la realización de las pruebas de validación. En definitiva, esta Tesis Doctoral ha aportado conocimientos acerca de la atención de calidad hacia las personas con enfermedad mental a través del estudio de las variables que influyen en el cuidado satisfactorio desde los cuidadores profesionales. Tratar a las personas con enfermedad mental debe ir más allá de intentar minimizar sus síntomas, debe además ayudar a su integración en la comunidad y prestar atención a incrementar

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su bienestar. Por ello, trata de favorecer en este sentido, en el ámbito teórico y práctico, la labor tanto de investigadores, como de profesionales de la salud y del cuidado.

De esta forma, la presente Tesis Doctoral pretende contribuir a la consecución de los Objetivos para el Desarrollo Sostenible (ODS) establecidos en 2015 por la Asamblea General de las Naciones Unidas, en concreto al objetivo número 3, enfocado en la salud y el bienestar.



## **Resum**

La malaltia mental és definida com una alteració de tipus emocional, cognitiva i/o del comportament en la qual queden afectats processos psicològics bàsics, l'afectació dels quals pot generar discapacitats persistents i situacions de dependència, per la qual cosa cada vegada és més necessari invertir recursos per a atendre les demandes d'aquestes persones. Un cuidador professional és la persona que, des de diferents àmbits, s'encarrega de realitzar les funcions que excedeixen les pròpies capacitats de les persones per a cuidar de si mateixes i d'afavorir una major qualitat de vida. En els últims anys, hi ha hagut nombroses crides per a tindre una visió més holística considerant els aspectes positius del cuidador, i alguns autors comencen a assenyalar que de l'experiència de la cura també poden derivar-se resultats i emocions positives tant en la persona cuidada, com per al cuidador. Per això, el principal objectiu d'aquesta Tesi Doctoral és contribuir al foment de la cura satisfactòria per part de cuidadors professionals de persones amb malaltia mental per a promoure una millora en la qualitat de vida de totes dues parts. Amb la finalitat de complir amb aquest propòsit, s'han establert una sèrie d'objectius específics en relació amb els estudis inclosos en el compendi de publicacions que componen aquesta Tesi Doctoral.

El primer estudi identifica les variables relacionades amb l'atenció professional a les persones amb malaltia mental (és a dir, les variables protectores o estressants), així com les principals intervencions que s'estan implementant actualment en relació amb aquestes variables en aquesta mena de professionals. El segon treball analitza les diferents investigacions empíriques o intervencions basades en l'enfocament d'Atenció Centrada en la Persona (ACP), en les quals participen cuidadors professionals amb l'objectiu de determinar les principals característiques d'aquest enfocament, així com els resultats que produeix en cuidadors i persones amb malaltia mental.

D'altra banda, la tercera investigació analitza la consistència interna del Person-Centered Care Assessment Tool (P-CAT), i analitza possibles factors que afecten els índexs de consistència interna mitjançant un metaanàlisi de generalització de fiabilitat. El quart estudi analitza la descripció de les característiques i les propietats psicomètriques en termes de fiabilitat i validesa dels instruments existents que permeten l'avaluació de la intel·ligència emocional, variable protectora en professions centrades en persones. Finalment, el cinqué treball analitza mitjançant una revisió sistemàtica les evidències de validesa realitzades en els estudis de validació del P-CAT, tenint com a marc els "Standards".

En termes generals, existeixen múltiples factors de diversa índole que poden influir en la qualitat de l'atenció prestada pels cuidadors professionals a les persones amb malaltia mental, com la satisfacció laboral, la intel·ligència emocional, la presa de decisions compartida, l'atenció orientada a la recuperació o la capacitació, entre altres. D'altra banda, encara que el P-CAT es va desenvolupar originalment per a entorns de residències d'ancians, l'ús de l'instrument en altres tipus d'entorns no sembla produir problemes en la variància de la fiabilitat. També s'ha vist que en cap de les diferents validacions aquest instrument fa ús d'un marc teòric estructurat per a la realització de les proves de validació. En definitiva, aquesta Tesi Doctoral ha aportat coneixements sobre l'atenció de qualitat cap a les persones amb malaltia mental a través de l'estudi de les variables que influeixen en la cura satisfactòria des dels cuidadors professionals. Tractar a les persones amb malaltia mental ha d'anar més enllà d'intentar minimitzar els seus símptomes, deu a més ajudar a la seua integració en la comunitat i parar atenció a incrementar el seu benestar. Per això, tracta d'afavorir en aquest sentit, en l'àmbit teòric i pràctic, la labor tant d'investigadors, com de professionals de la salut i de la cura.

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D'aquesta manera, la present Tesi Doctoral pretén contribuir a la consecució dels Objectius per al Desenvolupament Sostenible (ODS) establits en 2015 per l'Assemblea General de les Nacions Unides, en concret a l'objectiu número 3, enfocat en la salut i el benestar.



### **Abstract**

Mental illness is defined as an alteration of an emotional, cognitive, and/or behavioural nature in which basic psychological processes are involved. The affectation of these can generate persistent disabilities and situations of dependence, which is why it is increasingly necessary to invest resources to meet the demands of these people. A professional caregiver is the person who, from different areas, is responsible for carrying out the functions that exceed the person's own abilities to care for themselves, as well as to promote a better quality of life. In recent years, there have been numerous calls for a more holistic view of the positive aspects of caregiving. Also, some authors are beginning to point out that positive outcomes and emotions can also be derived from the caregiving experience for both the cared-for person and the caregiver. Therefore, the main objective of this Doctoral Thesis is to contribute to the promotion of satisfactory caregiving by professional caregivers of people with mental illness in order to promote an improvement in the quality of life of both sides. In order to fulfil this purpose, a series of specific objectives have been established in relation to the studies included in the compendium of publications that make up this Doctoral Thesis.

The first study identifies the variables related to the professional care of people with mental illness (i.e., protective or stressful variables), as well as the main interventions that are currently being implemented in relation to these variables in this type of professionals. The second paper analyses the different empirical research or interventions based on the Person-Centred Care (PCC) approach involving professional caregivers with the aim of determining the main characteristics of this approach, as well as the results it produces in caregivers and people with mental illness.

On the other hand, the third research analyses the internal consistency of the Person-Centered Care Assessment Tool (P-CAT), and analyses possible factors

affecting the internal consistency indices by means of a reliability generalisation meta-analysis. The fourth study analyses the description of the characteristics and psychometric properties in terms of reliability and validity of existing instruments that allow the assessment of emotional intelligence, a protective variable in people-centred professions. Finally, the fifth paper analyses by means of a systematic review the evidence of validity carried out in the validation studies of the P-CAT, using the “Standards” as a framework.

In general terms, there are multiple factors of various kinds that may influence the quality of care provided by professional caregivers to people with mental illness, such as job satisfaction, emotional intelligence, shared decision-making, recovery-oriented care, or training, among others. Moreover, although the P-CAT was originally developed for nursing home settings, the use of the instrument in other types of settings does not seem to produce problems in reliability variance. It has also been found that in none of the different validations, this instrument makes use of a structured theoretical framework for the validation tests. In short, this Doctoral Thesis has provided knowledge about quality care for people with mental illness through the study of the variables that influence the satisfactory care provided by professional caregivers. Treating people with mental illness must go beyond trying to minimise their symptoms; it must also help their integration into the community and pay attention to increasing their well-being. For this reason, it tries to favour in this sense, in the theoretical and practical field, the work of both researchers and health and care professionals.

In this way, this Doctoral Thesis aims to contribute to the achievement of the Sustainable Development Goals (SDGs) established in 2015 by the United Nations General Assembly, specifically goal number 3, focused on health and well-being.

## **Introducción**

### **1. La enfermedad mental**

#### ***1.1. Conceptualización***

La palabra enfermedad proviene del latín *infirmitas, infirmitatis*, que deriva del adjetivo *infirmus* y que significa “falta de solidez y salud”. Por su parte, el término mental deriva del latín *mentalis*, que significa “relativo al pensamiento”. Desde la Confederación Salud Mental España (2018) se define la enfermedad mental como “una alteración de tipo emocional, cognitiva y/o del comportamiento en la que quedan afectados procesos psicológicos básicos como son la emoción, la motivación, la cognición, la conciencia, la conducta, la percepción, el aprendizaje o el lenguaje”.

Por su parte, la Organización Mundial de la Salud (OMS; 2022a) define la salud mental como:

Un estado de bienestar mental que permite a las personas hacer frente a los momentos de estrés de la vida, desarrollar todas sus habilidades, poder aprender y trabajar adecuadamente y contribuir a la mejora de su comunidad. Es parte fundamental de la salud y el bienestar que sustenta nuestras capacidades individuales y colectivas para tomar decisiones, establecer relaciones y dar forma al mundo en el que vivimos. La salud mental es, además, un derecho humano fundamental. Y un elemento esencial para el desarrollo personal, comunitario y socioeconómico.

Con ello, se aborda una dimensión positiva en la que la salud se convierte en un estado de completo bienestar físico, mental y social, creando la idea de un continuo en el que existen diferentes grados y dejando de lado la obsoleta visión de salud como ausencia de enfermedad.

Para que una enfermedad mental pueda llegar a ser considerada como grave y duradera, se suelen contemplar tres dimensiones. Este grupo está compuesto sobre todo por trastornos de tipo mentales o emocionales, así como otros trastornos que pueden acabar siendo crónicos o deteriorando la capacidad funcional de las personas en los aspectos más básicos de su vida diaria (higiene, autocuidado, relaciones sociales, aprendizaje, ocio, etc.) y que, además, impiden el desarrollo normal de su independencia económica (Espinosa-López y Valiente-Ots, 2019; Goldman et al., 2006). De esta manera, las áreas que generalmente se tienen en cuenta son el tipo de diagnóstico, la duración y la discapacidad (Conselleria de Sanitat Universal i Salut Pública y Conselleria d'Igualtat i Polítiques Inclusives de la Generalitat Valenciana, 2018; Espinosa-López y Valiente-Ots, 2019):

1. Diagnóstico: las etiquetas diagnósticas ayudan a dar información genérica sobre la enfermedad y, de este modo, a planificar las asistencias sanitarias, aunque no aportan información específica sobre la persona y hay que tener en cuenta la gran variabilidad que puede haber entre sujetos con un mismo diagnóstico. Los principales trastornos que se enmarcan dentro de las enfermedades mentales graves y duraderas son aquellos que se caracterizan por conllevar trastornos del pensamiento, alucinaciones y sintomatología que produce una gran afectación en el funcionamiento, como la esquizofrenia y otros trastornos psicóticos. También se incluyen los trastornos que producen alteraciones en el estado de ánimo, los más característicos son el trastorno bipolar y los trastornos afectivos mayores, y los trastornos de la personalidad. A la hora de establecer diagnósticos se suelen utilizar sistemas de clasificación internacionales como el Manual diagnóstico y estadístico de los trastornos mentales (DSM-5; Asociación Americana de Psiquiatría

[APA], 2013) o la Clasificación internacional de enfermedades (CIE-11; OMS, 2022b).

2. Duración: los trastornos mentales graves y duraderos suelen presentarse de manera crónica. Como criterio para diagnosticar una enfermedad mental grave y duradera se ha establecido un mantenimiento de los síntomas y una afectación del funcionamiento psicosocial de un mínimo de dos años desde que da comienzo el trastorno.
3. Presencia de discapacidad: el criterio establecido para valorar la presencia de discapacidad es la existencia de puntuaciones moderadas o graves en la Escala de Evaluación Global de Funcionamiento, integrada en el eje V del DSM-IV-TR (APA, 2002), que evalúa la actividad global del paciente. La presencia de puntuaciones de tal magnitud señala una alteración severa en el funcionamiento laboral, social y familiar del sujeto.

## ***1.2. Etiología***

La etiología exacta de las enfermedades mentales todavía no se conoce con exactitud, sin embargo, la mayoría de las investigaciones recientes se basan en el modelo biopsicosocial (Engel, 1977) y señalan a una posible interacción ente aspectos biológicos, psicológicos, sociales y culturales como posibles causas (Engert et al., 2020; Huda, 2020; Porter, 2020).

El modelo biopsicosocial se distingue del tradicional modelo biomédico (que asume que la enfermedad se debe a desviaciones de la norma de variables biológicas medibles) en que también tiene en cuenta al propio paciente, así como al contexto social en el que vive, y señala a factores psicológicos y sociales como factores causales importantes (Engel, 1977). Así, la salud mental y, por consiguiente, la enfermedad mental, están determinadas por complejas interacciones entre factores biológicos,

individuales, familiares, comunitarios y estructurales que impactan de forma diferentes entre personas.

Los factores biológicos suelen englobar un desequilibrio de neurotransmisores en determinadas vías del sistema nervioso, lo que da lugar a un funcionamiento anormal, o alteraciones y/o lesiones en ciertas partes del cerebro. Otros factores de tipo biológico que pueden tener relación con el desarrollo de trastornos mentales son la herencia genética (que puede provocar una predisposición genética a sufrir la enfermedad), infecciones, daño prenatal, abuso de sustancias, desnutrición o exposición a toxinas, entre otros (OMS, 2022c).

Los factores psicológicos pueden resultar de gran importancia en el curso y evolución de una enfermedad mental. Este tipo de agentes incluyen aspectos cognitivos y de la personalidad entre otros, como estrategias de afrontamiento, habilidades sociales, capacidad para tomar decisiones y capacidad para solucionar problemas (OMS, 2022c; OMS, 2022d).

Los factores sociales también pueden influir y convertirse en factores estresantes que pueden llevar a desencadenar la enfermedad en una persona que padece predisposición. Entre las principales causas sociales que se incluyen se encuentran una vida familiar disfuncional, la muerte de un ser querido, un divorcio, cambio de colegio o de trabajo, aspectos culturales, redes sociales o grupos de apoyo escasos, etc. (OMS, 2022c; OMS, 2022d; Patalay y Fitzsimmons, 2018).

### ***1.3. Epidemiología***

La OMS (2022c) recoge datos acerca de la prevalencia de la enfermedad mental a nivel mundial antes de la pandemia. Así, afirma que entre 2000 y 2019 el 25% de la población vivía con un trastorno mental, lo que equivale a un total de 970 millones de

personas. En cuanto a la incidencia, asegura que entre 2005 y 2015, los problemas de salud mental aumentaron en un 18%. Además, también se prevé que 1 de cada 4 personas padecerán un trastorno mental a lo largo de su vida y que ésta será la principal causa de discapacidad en el mundo en 2030 (Confederación Salud Mental España, 2018).

A nivel nacional, los datos de la Confederación Salud Mental España (2018) muestran que existe una prevalencia de problemas de salud mental en torno al 9% de la población, y se prevé que el 25% de la población total padecerá algún tipo de trastorno a lo largo de su vida. Además, entre el 2.5% y el 3% de la población española padece un trastorno mental de tipo grave, lo que supone una afectación de más de un millón de personas. En el ámbito comunitario, el Plan de Atención Integral a las Personas con Trastorno Mental Grave 2018-2022, informa de una prevalencia en la Comunitat Valenciana en torno a 50.000 personas, unas 200.000 si se cuenta el impacto que estas enfermedades producen en las familias (Conselleria de Sanitat Universal i Salut Pública y Conselleria d'Igualtat i Polítiques Inclusives de la Generalitat Valenciana, 2018).

Por otra parte, los AVAD (años de vida perdidos ajustados por discapacidad) son indicadores importantes a la hora de valorar los trastornos mentales. Éstos combinan mortalidad y discapacidad equiparando las pérdidas de salud por muerte a las pérdidas por discapacidad. Así, los AVAD que se estiman en España para las enfermedades mentales son equiparables a las enfermedades crónicas más frecuentes (cardiovasculares y cáncer; de Pedro et al., 2016), en concreto, en 2015, los trastornos mentales y del comportamiento provocaron 1.115.322 AVAD (10.5% del global) en la población española. Además, estos trastornos también afectan a la salud de los jóvenes: llegan a producir el 23% de las pérdidas totales en hombres y mujeres de entre 15 y 49 años,

cifra que alcanza el 19% para los niños y niñas de entre 5 y 14 años (Red Nacional de Vigilancia Epidemiológica et al., 2017).

#### ***1.4. Problemas asociados***

El grupo de personas con enfermedad mental grave y duradera está compuesto sobre todo por sujetos que sufren síntomas de psicosis funcional (generalmente diagnosticadas con esquizofrenia, trastorno bipolar y trastorno de personalidad entre otros). Además, la sintomatología más característica y frecuente son los síntomas negativos, como alteraciones del pensamiento, del estado de ánimo, de la sensopercepción, de la neuropercepción, de la conducta y del control de impulsos, lo que puede llegar a generar discapacidades persistentes y situaciones de dependencia (APA, 2018; Instituto de Mayores y Servicios Sociales [IMSERSO], 2007; Sheffield et al., 2018). Esto provoca en las personas con enfermedad mental grave una gran variedad de retos de tipo biológico, social, político y económico, que repercute de igual manera en su red de apoyo. Asimismo, tanto numerosas investigaciones, como testimonios en primera persona, ofrecen información acerca de las alteraciones cognitivas a las que se enfrentan: dificultad para centrar y mantener la atención, para organizar y recordar las situaciones vividas en cada momento, así como numerosas experiencias sensoriales, creencias o interpretaciones anómalas (APA, 2018; Green et al., 2019; Lysaker y Klion, 2017; Sheffield et al., 2018).

Todo ello puede llegar a producir un malestar subjetivo debido a los obstáculos que encuentra la persona para poder integrarse en su contexto cultural y social más próximo. Además, suelen presentar numerosos factores de riesgo como problemas médicos más frecuentes que la población general, una tendencia alta al consumo de sustancias, estrés crónico, efectos secundarios de la medicación (sedación, trastornos metabólicos, obesidad, discinesia) y una incidencia elevada de muerte por suicidio

(10%; Conselleria de Sanitat Universal i Salut Pública y Conselleria d'Igualtat i Polítiques Inclusives de la Generalitat Valenciana, 2018; Espinosa-López y Valiente-Ots, 2019; IMSERSO, 2007; Lavagnino et al., 2021; Oakley et al., 2018; OMS, 2022c). Debido a estos factores de riesgo, pueden presentar una expectativa de vida de 10 años menos que la población sana y se estima que tienen entre un 40 y un 60% de probabilidades más de muerte temprana que la población general (Conselleria de Sanitat Universal i Salut Pública y Conselleria d'Igualtat i Polítiques Inclusives de la Generalitat Valenciana, 2018; Oakley et al., 2018). Asimismo, las tasas de desempleo que sufren suelen ser altísimas, lo que genera una gran dependencia económica (APA, 2018; IMSERSO, 2007; OMS, 2022c). Esto suele sumarse a la privación de derechos humanos, económicos, sociales y culturales que sufren, debido a la estigmatización y discriminación de la que muchas veces son víctimas (OMS, 2022c).

Tal y como se ha expuesto, todo ello hace que las enfermedades mentales supongan un elevado porcentaje de la carga mundial de morbilidad y constituyan las principales causas de discapacidad en el mundo, con tasas desproporcionadamente elevadas (Conselleria de Sanitat Universal i Salut Pública y Conselleria d'Igualtat i Polítiques Inclusives de la Generalitat Valenciana, 2018; Espinosa-López y Valiente-Ots, 2019; Oakley et al., 2018).

Por otra parte, en términos de pérdidas económicas, se calcula que el coste total de las enfermedades mentales será de 6 billones de dólares en 2030 (OMS, 2022c). En la Unión Europea, se estima que el impacto económico de la enfermedad mental pueda llegar a alcanzar el 4% del producto interior bruto, mientras que en España, la cantidad total de dinero asciende hasta los 2.000 millones de euros anuales entre costes directos sanitarios (53%) y no sanitarios (47%), lo que se traduce en coste total de un 2.7% del Sistema Nacional de Sanidad (Oliva-Montero et al., 2006; citado por Madoz-Gúrpede et

al., 2017; Organización para la Cooperación y el Desarrollo Económicos [OCDE], 2018). En todas las enfermedades, prácticamente la mitad del coste total para la sociedad es consecuencia de los costes indirectos, como la reducción de la productividad (OMS, 2022c). A pesar de ello, los sistemas de salud no han dado solución a la carga que suponen las enfermedades mentales y, por ello, se ha producido un enorme desajuste a nivel mundial entre la necesidad de tratamiento y su prestación. De hecho, la OMS (2013; 2022c) manifiesta que no hay suficientes recursos en los países para dar respuesta a las demandas que implica la salud mental y que existe una distribución poco equitativa y un uso ineficiente de esos recursos.

## **2. Cuidadores profesionales de personas con enfermedad mental**

Con la llegada del siglo XXI las estructuras familiares han variado y cada vez es más necesario invertir recursos para atender las demandas de las personas en situación de dependencia. Según la Clasificación Internacional del Funcionamiento, de la Discapacidad y de la Salud (CIF; OMS, 2001), la dependencia se define como el resultado de un déficit en la función corporal (funciones fisiológicas de los sistemas corporales, incluyendo las funciones psicológicas), que conlleva una limitación en la actividad. Cuando la adaptación del entorno no puede compensar esta limitación, se produce una restricción de la participación que hace que el individuo dependa de la ayuda de otros para realizar las actividades de la vida diaria (OMS, 2001). En la enfermedad mental, procesos psicológicos básicos como, entre otros, la cognición, la percepción, la conciencia, el comportamiento, el aprendizaje y el lenguaje, suelen verse afectados (APA, 2018; Green et al., 2019; Sheffield et al., 2018). Estos cambios pueden afectar al cuidado personal, al desempeño de las tareas domésticas, a las relaciones interpersonales, al funcionamiento profesional y a la participación en actividades de ocio o en la vida comunitaria (APA, 2020). Además, la enfermedad mental puede tener

profundas implicaciones en el malestar subjetivo, el bienestar psicológico y la calidad de vida de la persona (OMS, 2022c; Reed et al., 2009).

Todos estos factores pueden llegar a provocar una descompensación con el entorno y provocar situaciones de dependencia en las personas con enfermedad mental, especialmente en aquellas que padecen enfermedades mentales graves. En nuestro actual contexto social, cada vez más complejo y exigente, estas personas tienen las necesidades propias y comunes a todo ser humano y, además, debido a la discapacidad consecuencia de este tipo de enfermedad, presentan necesidades particulares muy diversas y complejas. A pesar de que estas personas pueden beneficiarse de sus potencialidades y fortalezas para llevar una vida digna y ser productivos para sí mismos y para la sociedad, en muchos casos sus discapacidades les producen una gran vulnerabilidad y dependencia de su red de apoyo (IMSERSO, 2007; OMS, 2022c).

Un cuidador profesional es la persona que, desde diferentes ámbitos, se encarga de realizar las funciones que exceden las propias capacidades de las personas para cuidar de sí mismas y de favorecer una mayor calidad de vida (Rodríguez-Rodríguez, 2005). Sus funciones suelen estar relacionadas con el fomento de la autonomía, la movilidad, la higiene, la alimentación o la seguridad, entre otros. Además, suponen un punto de apoyo mediante una interacción social funcional (Méndez et al., 2011). Generalmente está formado en el ámbito sociosanitario y, mediante un acuerdo formal, cumple con un horario de trabajo y recibe una remuneración a cambio (Cerquera y Galvis, 2014).

En contraste con la enorme cantidad de investigaciones que hay acerca de los efectos negativos sobre los cuidadores de personas mayores y/o con algún tipo de demencia y, en menor medida, de cuidadores no profesionales de personas con trastorno mental, son escasos los estudios enfocados en estudiar las consecuencias negativas que

trae para el cuidador profesional de personas con enfermedad mental el ejercicio de su profesión. El familiar que cuida de una persona con trastorno mental se expone a diario a numerosos y diferentes retos y factores de estrés, generando una pérdida de control personal que puede ocasionar alteraciones físicas, psicológicas, sociales, funcionales, comportamentales y económicas, y puede suponer una carga más pesada que el cuidado de personas que padecen otro tipo de enfermedad (del-Pino-Casado et al., 2021; Galiatsos et al., 2017 Navarro y Carbonell, 2018). Estas consecuencias pueden depender en cierta medida de una serie de estresores como la severidad de la enfermedad mental de la persona a cargo, su comportamiento, su grado de discapacidad, así como de factores internos y externos de la vida del cuidador (Lanzón y Díaz, 2015; van den Kieboom, 2020; Vella y Pai, 2012).

Aunque estas consecuencias no han sido estudiadas de igual manera en los cuidadores profesionales de personas con enfermedad mental, se ha visto que el trabajo en este tipo de profesiones, centrado en el contacto directo con personas con problemas de salud, puede inducir el llamado “síndrome de *burnout*” (Mantzorou y Koukia, 2018; Méndez et al., 2011). Este término fue acuñado por Freudenberg (1974) para describir el agotamiento físico y emocional que puede producirse en los trabajadores de determinadas instituciones sanitarias y que suele estar asociado a características del trabajo como jornadas laborales largas y variables, así como a un salario escaso y a unas exigencias sociales elevadas, que podrían afectar a la atención prestada.

Además, una revisión sistemática desarrollada por O'Connor et al. (2018), muestra que los profesionales de la salud mental presentan altos niveles de agotamiento emocional y despersonalización moderada; mientras que otro artículo que analizó las dimensiones del *burnout* en periodos distintos de tiempo, señala que se produjo un aumento significativo del agotamiento emocional y la despersonalización a lo largo del

proceso (Mijakoski et al., 2018). Esto demuestra que las exigencias y condiciones de los entornos de trabajo pueden convertirse en estresores que también pueden aumentar el agotamiento emocional de los trabajadores de forma crónica si persisten en el tiempo.

Williams y Tufford (2012) realizaron un estudio basado en entrevistas con pacientes para identificar la forma en que las relaciones con los cuidadores profesionales promovían la recuperación. Los hallazgos sugieren que hay muchas maneras en que la educación y la capacitación profesional pueden enfatizar los conocimientos, las actitudes y las habilidades que mejoran la recuperación. Las historias de los participantes también muestran que los sistemas y servicios deben diseñarse para apoyar una práctica profesional que promueva la recuperación. Esta línea está en consonancia con otras investigaciones (Avery et al., 2020; Fleury et al., 2018; Mötteli et al., 2019; Salgado et al., 2010). En consecuencia, se debe priorizar la creación de un espacio para el cuidado profesional en los servicios y en las interacciones con los pacientes, si se quiere crear un verdadero sistema de atención a la salud mental en el que la recuperación de una enfermedad mental grave sea posible. Por su parte, van Weeghel et al. (2005) colaboraron en un proyecto en cinco países europeos para definir las características de una buena atención comunitaria para personas con enfermedades mentales graves. Todas las partes implicadas otorgan máxima importancia a una relación de confianza y estimulación entre pacientes y profesionales y, en segundo lugar, a un tratamiento eficaz adaptado a las necesidades individuales.

Asimismo, una revisión sistemática realizada por Abraha et al. (2017) encontró un dato revelador: parece ser que los cuidadores son el agente que más impacto ejerce en la calidad de vida de la persona cuidada. Por este motivo, así como debido a la complejidad de trabajar con personas en situación de dependencia, resulta imprescindible una formación profesional continua y cualificada que parta de las

competencias técnicas que ya tienen, pero que se centre, también, en competencias comunicativas y afectivo-relacionales (Escotorín y Roche, 2011; Lamote et al., 2018). Además, dada la gran carga que supone para estos profesionales el cuidado y las numerosas dificultades con la que se encuentran diariamente, se ha de tener indudablemente en cuenta su propio bienestar y plantearse objetivos de intervención dirigidos a suministrarles apoyo de distintos tipos para mejorar su calidad de vida (Graham et al., 2019). “De hecho, proporcionar ayuda a los cuidadores ha sido señalado no sólo como un derecho de éstos, sino también como una acertada inversión” (Izal et al., 2003, p. 40).

### ***2.1. Variables influyentes en el cuidado satisfactorio***

En los últimos años, ha habido numerosos llamamientos para tener una visión más holística considerando los aspectos positivos del cuidador. Algunos autores han comenzado a señalar que de la experiencia del cuidado también pueden derivarse resultados y emociones positivas para la persona (Cohen et al., 2002; Vella y Pai, 2012). Se empieza a proponer un cambio de enfoque, “ofreciendo una visión de los cuidadores menos patologizante, y más centrada en el análisis de aquellas capacidades y fortalezas que actúan como factores de protección ante el estrés prolongado” (Crespo y Fernández-Lansac, 2015), y a su vez, este planteamiento se apoya en la idea de la OMS de que la salud y el bienestar van más allá de la mera ausencia de enfermedad.

En una serie de informes cualitativos, Kramer (1997) observó que la atención a los aspectos positivos del trabajo de los cuidadores es coherente con una perspectiva que reconoce la capacidad de crecimiento continuo de cada individuo, y señaló que los aspectos positivos del cuidado pueden ser determinantes importantes de la calidad de la atención prestada (Mötteli et al., 2019). Así, los siguientes conceptos han comenzado a ser ampliamente estudiados como características fundamentales de un cuidador

profesional de alta calidad: prosocialidad, empatía, resiliencia e inteligencia emocional.

Constructos que, además, han demostrado guardar una estrecha interrelación entre sí (Bunce et al., 2019; Garaigordobil y García de Galdeano, 2006; Kinman y Grant, 2011; Martí et al., 2014; Martí-Vilar et al., 2022; Spinrad y Gal, 2018).

**2.1.1. Prosocialidad.** Aunque actualmente los investigadores no están de acuerdo sobre cómo conceptualizar el comportamiento prosocial, todas las definiciones coinciden en el énfasis de la promoción del bienestar en personas distintas de aquella que desarrolla la acción (Pfattheicher et al., 2022), en ausencia de una recompensa extrínseca o material (Rodríguez et al., 2021).

Esta variable puede tener un papel fundamental a la hora de proporcionar una atención de calidad hacia los pacientes. Varias investigaciones han relacionado el comportamiento prosocial con otras como la empatía y la sensibilidad moral (Hoffman, 2008; Oliveira-Souza, 2019). Así, los profesionales de la salud que son más sensibles a los problemas morales son, a su vez, más propensos a tomar decisiones prosociales en favor de los pacientes (Suazo et al., 2020). Además, una revisión llevada a cabo por el equipo de Feather et al. (2018) señala que los comportamientos prosociales en el puesto de trabajo pueden aumentar la eficacia del funcionamiento social de los profesionales para promover la calidad de la atención, y que parece existir una correlación positiva entre los comportamientos prosociales en el trabajo y el desempeño de estos profesionales sanitarios, tanto individual como grupalmente.

**2.1.2. Empatía.** Los expertos en el tema tampoco han llegado a un consenso sobre la clara definición de empatía, sin embargo, una revisión sistemática llevada a cabo por Eklund y Meranius (2021) revela que la mayoría de las conceptualizaciones de este constructo coinciden en que implica acciones como comprender, sentir, compartir y diferenciarse uno mismo del otro. Es decir, puede definirse como la capacidad de

comprender la perspectiva o los sentimientos de otra persona y de ponerse en la posición de ésta. Jolliffe y Farrington (2006) operacionalizaron este constructo por medio de dos componentes: empatía cognitiva (saber lo que siente el otro) y empatía afectiva (“sentir” de una manera congruente lo que siente la otra persona).

En relación con el cuidado profesional, varios estudios coinciden en que esta variable mejora la práctica profesional en entornos de atención debido a que juega un papel importante a la hora de establecer una relación cuidador-paciente positiva (Wade y Kasper, 2006). Además, también se ha visto que la empatía puede proporcionar una atención de calidad para los pacientes y que debe verse como un indicador clínico importante en este sentido (Derksen et al., 2015; Neumann et al., 2009).

**2.1.3. Resiliencia.** La resiliencia es definida como un “proceso dinámico en el que factores psicológicos, sociales, ambientales y biológicos interactúan para permitir que un individuo, en cualquier etapa de la vida, desarrolle, mantenga o recupere su salud mental a pesar de la exposición a la adversidad” (Moeller-Saxone et al., 2015; citado por Munoz et al., 2016, p. 102).

La resiliencia se ha empleado como un enfoque preventivo basado en fortalezas para que las personas afronten las adversidades y factores estresantes importantes (Kingman et al., 2010; Martí-Vilar et al., 2022). Aunque no existe mucha literatura acerca de la resiliencia en el área de cuidado en salud mental (Foster et al., 2018), se ha visto que esta variable puede mejorar la calidad de la atención prestada en los entornos de atención y disminuir los niveles de estrés y el agotamiento (Craigie et al., 2016; Foureur et al., 2013; Jackson et al., 2007; Martí-Vilar et al., 2022).

**2.1.4. Inteligencia emocional.** Este constructo se desarrollará en mayor medida debido a que sirve de base para una de las investigaciones que contiene esta Tesis Doctoral. Se ha escogido esta variable puesto que, en las búsquedas iniciales en la

literatura, varias revisiones sistemáticas han demostrado la influencia positiva que ejerce esta variable en el desempeño profesional en entornos de atención (Dugué et al., 2021; Lewis, 2019; Prezerakos, 2018).

La inteligencia emocional fue conceptualizada inicialmente por Salovey y Mayer (1990) como un constructo basado en habilidades equivalente a la inteligencia general. En su estudio defendieron que las personas con un nivel elevado de inteligencia emocional poseían destrezas relacionadas con la identificación y regulación de las emociones y que, por ende, eran capaces de regularlas, tanto en sí mismos, como en los demás, para conseguir efectos adaptativos. Desde entonces, la atención por parte de la comunidad científica y del público en general hacia este constructo ha ido en aumento. Años más tarde, estos mismos autores definieron la inteligencia emocional como “la capacidad de llevar a cabo un razonamiento preciso sobre las emociones y la capacidad de utilizar las emociones y el conocimiento emocional para mejorar el pensamiento” (Mayer et al., 2008, p. 511).

Durante las últimas décadas se han desarrollado distintas maneras de conceptualizar la inteligencia emocional, que se suelen encuadrar en tres grandes modelos. El primero es el de habilidad, desarrollado por Mayer y Salovey (1990). En él, la inteligencia emocional es vista como una forma de inteligencia innata formada por una serie de capacidades que determinan la manera en que los sujetos entienden y regulan sus propias emociones y las de los demás. Más tarde se creó el modelo desarrollado por Petrides y Furnham (2001), el modelo de rasgo o atributo, que conceptualiza la inteligencia emocional como un rasgo, es decir, como un comportamiento constante a lo largo del tiempo (al contrario de la habilidad, que es susceptible de aumentar con el tiempo y el entrenamiento), y asociado con rasgos de personalidad. El tercero de los grandes modelos de conceptualización de la inteligencia

emocional es el mixto, compuesto por dos vertientes que conceptualizan dicho constructo como un conjunto de rasgos y habilidades. La primera rama, desarrollada por Bar-On (1997), concibe la inteligencia emocional como un grupo de capacidades y competencias no cognitivas que determinan la capacidad para enfrentar con éxito las demandas ambientales. La segunda rama, propuesta por Goleman (1995), también concibe la inteligencia emocional como un modelo mixto y presenta aspectos comunes al modelo de Bar-On.

Muchos académicos reconocen la importancia de estudiar la inteligencia emocional tanto para la vida cotidiana como para el mundo laboral (Extremera et al., 2018; George et al., 2021; Pérez-Fuentes, 2018; Puigbó et al., 2019). Como se ha visto, en muchas profesiones, en especial en aquellas en las que se trabaja con personas, es muy probable desarrollar el síndrome de *burnout*, un síndrome que cursa con sensación de agotamiento emocional, así como con desarrollo de actitudes y sentimientos negativos (Maslach y Jackson, 1981). Sin embargo, hasta la fecha, un número significativo de artículos han demostrado que la inteligencia emocional puede ayudar a variar las actitudes y los comportamientos de los trabajadores en puestos que conllevan demandas emocionales, porque aumenta la satisfacción laboral y reduce el estrés laboral (Miao et al., 2017a; 2017b; Sánchez-Gómez y Bresó, 2020; Wen et al., 2019). Además, también ayudaría a compensar las consecuencias negativas que pueden derivarse del cuidado (Gázquez et al., 2015). Por otra parte, se ha visto que determinadas variables psicológicas, entre las que se encuentran la inteligencia emocional y la competencia social, se relacionan con una menor angustia psicológica y, que el desarrollo de dichas competencias puede valer, a su vez, para fomentar la resiliencia, variable preventiva frente a la angustia psicológica (Bunce et al., 2019).

## **2.2. Modelos de atención**

En 1985, en España se produjeron los primeros cambios significativos en la atención a la salud mental mediante la integración de algunos aspectos como la asistencia psiquiátrica dentro del sistema sanitario general, la atención integral entorno al paciente y la atención a grupos diagnósticos específicos, entre otros, y que se recogieron en el *Informe de la Comisión Ministerial para la Reforma Psiquiátrica* (Salvador-Carulla et al., 2020). Desde entonces, se han desarrollado diferentes modelos de atención a la salud mental, entre ellos:

- Modelo de atención comunitaria tradicional. Este modelo ofrece una atención basada en la enfermedad y el déficit, y “centrada en la protocolización de las tareas y un criterio predominantemente clínico, ajeno a la participación, las preferencias y los deseos de las personas” (García-Soler et al., 2017, p. 66). En estos modelos, la provisión de cuidado se ofrece en entornos físicos funcionalmente hospitalarios, predominantemente asistenciales y con profesionales con responsabilidades limitadas a su labor y con formación profesional meramente asistencial (García-Soler et al., 2017).
- Modelo de atención centrada en la persona. Este modelo está constituido en torno a las necesidades del paciente. Está basado en una serie de áreas entre las que destacan la atención holística hacia la persona, la autodeterminación, la inclusión social y la continuidad de atención (Kogan et al., 2016) y se desvía del tradicional modelo de atención que se centra más en los procesos y en las necesidades del personal y de la organización (Fazio et al., 2018). Además, la formación asistencial incluye habilidades de comunicación, promoción de la autonomía y buen trato (García-Soler et al., 2017)

- Modelo de atención basada en el valor. The Economist Intelligence Unit define este modelo como “la creación y operación de un sistema de salud que prioriza explícitamente los resultados de salud que son importantes para los pacientes en relación con el costo de lograr este resultado” (2016, p. 5). Este concepto cuestiona la necesidad de intervenciones agresivas, preventivas o curativas que conllevan un elevado coste, pero que ofrecen pocos resultados (Putera, 2017). Centra la atención médica en la consecución de tres metas principales: mejorar la salud de las personas, mejorar la experiencia de éstas en los servicios sanitarios y reducir los costes en la atención en salud (Caicedo et al., 2017).
- Modelo de atención basado en el equilibrio de atención. Este sistema propone que un sistema integral de salud mental debe incluir tanto la atención comunitaria como la hospitalaria (Thornicrof y Tansella, 2013). Se trata de un método para ayudar a decidir de manera objetiva y eficaz la instalación y tratamiento de una persona en diferentes entornos de atención multidisciplinarios (clínicas ambulatorias, equipos comunitarios, hospitales o residencias comunitarias), según las necesidades y el plan de cuidados más adecuados para ésta (Risco et al., 2017).

El modelo de atención a la salud mental que se encuentra actualmente vigente en nuestro país es el modelo de atención comunitaria que se formuló en 1985 y, a pesar de que en determinados contextos se toman y se implementan aspectos de estos y de otros modelos, el sistema que predomina en España sigue presentando graves carencias (Salvador-Carulla et al., 2020).

**2.2.1. Modelo de atención centrado en la persona.** Este modelo se desarrollará en mayor medida debido a que sirve de base para uno de los estudios que contiene esta Tesis Doctoral. Se ha escogido este modelo puesto que pone el énfasis en el cuidador como elemento clave a la hora de asegurar la provisión de los principios vertebradores de este enfoque.

Así, actualmente en nuestro país se está desarrollando un modelo que otorga al paciente un papel pasivo y de mero receptor de servicios, y donde los profesionales son quienes determinan lo más adecuado a sus necesidades individuales (Miralles y Rey, 2015). Esto hace necesaria una serie de cambios y una reorientación hacia otro tipo de modelos. Así, el denominado modelo de atención centrada en la persona (ACP) busca producir las circunstancias oportunas para llegar a conseguir mejoras en todas las áreas de calidad de vida y bienestar del sujeto, “partiendo del respeto pleno a su dignidad y derechos, de sus intereses y preferencias y contando con su participación efectiva” (Rodríguez, 2013). Para ello, este modelo se basa en una serie de principios como el de autonomía, individualidad, independencia, integralidad, participación, inclusión social y continuidad de atención.

El modelo de ACP tiene su origen en la psicoterapia de Rogers (1961), cuya terapia centrada en el cliente se basó en actitudes por parte del psicoterapeuta de respeto y aceptación hacia el paciente y en las capacidades de éste para el cambio. Pero fue Tom Kitwood quien empleó por primera vez ese término en 1988 para distinguir los enfoques tradicionales, más médicos y conductuales, de otro tipo de atención más centrada en los factores psicosociales (Fazio et al., 2018). Posteriormente, Kitwood (1997) desarrolló un enfoque de atención que ofrecía a los cuidadores una forma de actuación que estuviera en consonancia y respetara la personalidad y el bienestar de las personas a su cargo, y que se centrara menos en lo que se hace y más en cómo se hace.

Estos dos autores asentaron las bases y sirvieron de precedentes para el actual modelo de ACP, cuyos principios fundamentales son el cambio del foco de atención de la enfermedad a la persona dentro de su contexto social, teniendo en cuenta sus experiencias, valores y preferencias; la atención individualizada determinada por las necesidades y preferencias de cada persona, en lugar de por los estándares de la organización, y la promoción del empoderamiento respetando los valores de libertad y elección (Smith y Williams, 2016). La ACP también proporciona una mayor sensación de elección y control de los cuidados y apoyos, una mayor calidad de vida, un mayor grado de bienestar subjetivo del estado de ánimo, autonomía, dependencia y satisfacción con los cuidados recibidos, una reducción del uso de servicios de urgencia y hospitalización y una mayor rentabilidad (Smith y Williams, 2016). A pesar de la importante extensión de este enfoque, la ausencia de un consenso y definición claros sobre su significado puede convertirse en una barrera tanto para su implementación como para su evaluación (Sharma et al., 2016).

Además, la ACP garantiza la formación de los profesionales en las habilidades y la metodología pertinentes, ya que, como se ha comentado anteriormente, los cuidadores son uno de los agentes que más impacto tienen en la calidad de vida de la persona cuidada (Abraha et al., 2017; Anderson y Blair, 2020; Bauer et al., 2018). Además, debido a la gran carga que supone el ejercicio de los cuidados para estos profesionales, es fundamental tener en cuenta su propio bienestar y los objetivos de intervención deben ir encaminados a proporcionarles diferentes tipos de apoyo para mejorar su calidad de vida. En este sentido, estudios actuales realizados en cuidadores profesionales que trabajan con poblaciones como personas con demencia o diversidad funcional, comienzan a plantear que la provisión de ACP puede producir múltiples beneficios no

sólo en el receptor de los cuidados, sino también para los propios trabajadores (Smythe et al., 2020).

**2.2.2. Person-Centered Care Assessment Tool.** Existen varios instrumentos diseñados para proporcionar mediciones de la ACP. Entre los más conocidos se encuentran el Person-Centered Care Assessment Tool (P-CAT; Edvardsson, Fetherstonhaugh et al., 2010), el Dementia Care Mapping (DCM; Brooker y Surr, 2005), el Person-Directed Care Measure (White et al., 2008), el Person-Centered Climate Questionnaire-patient version y staff version (Edvardsson et al., 2009; Edvarsson et al., 2010), el Person-Centered Inpatient Scale (Coyle y Williams, 2001) o el Client-Centered Care Questionnaire (de Witte et al., 2006), entre otros.

Entre las medidas existentes vinculadas con la ACP, el P-CAT (Edvardsson, Fetherstonhaugh et al., 2010) es un instrumento diseñado en Australia para medir este enfoque, y que ha ganado amplia aceptación en los últimos años (Martínez et al., 2015). Fue elaborado a partir de literatura de investigación y entrevistas con profesionales, expertos en el campo, personas con demencia y familiares. Estuvo orientado, originariamente, hacia entornos de residencias a largo plazo para personas mayores. Sin embargo, es de los únicos que también ha empezado a emplearse en otros ámbitos, como en unidades de oncología (Tamagawa et al., 2016) u hospitales psiquiátricos (degl'Innocenti et al., 2020).

Además, desde el punto de vista práctico, el P-CAT es más corto y sencillo que otras herramientas disponibles, lo que facilita su aplicación e interpretación y, al mismo tiempo, captura todos los elementos esenciales de la ACP como se describe en la literatura. Dada la potencial característica emic de esta medida, el P-CAT ha sido adaptado en varios países con distantes diferencias culturales e idiomáticas, como

Noruega (Rokstad et al., 2012), Suecia (Sjögren et al., 2012), China (Zhong y Lou, 2013), Corea del Sur (Tak et al., 2015) o España (Martínez et al., 2015).

La herramienta consta de 13 ítems agrupados en tres subescalas: atención personalizada (7 ítems), apoyo organizacional (4 ítems) y accesibilidad del entorno (2 ítems). Los ítems están escalados ordinalmente mediante 5 puntos (desde totalmente en desacuerdo hasta totalmente de acuerdo); su puntuación oscila entre 13 y 65, siendo los valores más altos aquellos que indican un mayor grado de atributo asociado a la atención hacia la persona. En el artículo original (Edvardsson et al., 2010), sus puntajes muestran una consistencia interna para la escala total ( $\alpha = .84$ ) y fiabilidad test-retest ( $r = .66$ ; intervalo de tiempo de una semana) satisfactorias. Sin embargo, este test contó con una serie de debilidades en el estudio de su desarrollo, como la imposibilidad de evaluar la validez criterio y una consistencia interna pobre para la tercera subescala ( $\alpha = .31$ ; Edvardsson et al., 2010). Además, en contraste a su amplia extensión de uso, no se ha realizado ninguna investigación en la que se establezca su fiabilidad media.

### **3. Objetivos del compendio**

El principal objetivo de esta Tesis Doctoral es contribuir al fomento del cuidado satisfactorio por parte de cuidadores profesionales de personas con enfermedad mental para promover una mejora en la calidad de vida de ambas partes. Con la finalidad de cumplir con este propósito, se han establecido una serie de objetivos específicos en relación con los estudios incluidos en el compendio de publicaciones que componen esta Tesis Doctoral. Los objetivos específicos planteados, así como los artículos a los que están asociados, son los siguientes:

#### **3.1. Primer objetivo específico**

Identificar las variables relacionadas con la atención profesional de las personas con enfermedad mental (es decir, las variables protectoras o estresantes), así como

identificar las principales intervenciones que se están implementando actualmente en relación con estas variables para profesionales cuidadores de personas con enfermedad mental mediante una revisión sistemática de la literatura. Este propósito se abordará en el estudio 1 (Anexo 1).

Bru-Luna, L.M., Martí-Vilar, M., Merino-Soto, C., Salinas-Escudero, G. y Toledano-Toledano, F. (2022). Variables impacting the quality of care provided by professional caregivers for people with mental illness: a systematic review. *Healthcare*, 10(7), 1225. <https://doi.org/10.3390/healthcare10071225>

### **3.2. Segundo objetivo específico**

Analizar las diferentes investigaciones empíricas o intervenciones proporcionadas por cuidadores profesionales que hagan uso del enfoque de ACP con el objetivo de determinar las principales características de este modelo, así como los resultados que produce en cuidadores y personas con enfermedad mental, mediante una revisión sistemática de la literatura. Este propósito se abordará en el estudio 2 (Anexo 2).

Bru-Luna, L.M., Martí-Vilar, M. y González-Sala, F. Use of the Person-Centred Care approach by professional caregivers in the population with mental illness: systematic review.

### **3.3. Tercer objetivo específico**

Analizar la consistencia interna de uno de los principales instrumentos para medir el grado de ACP, el P-CAT, y analizar posibles factores que afectan a los índices de consistencia interna mediante un metaanálisis de generalización de fiabilidad. Este propósito se abordará en el estudio 3 (Anexo 3).

Bru-Luna, L.M., Martí-Vilar, M., Merino-Soto, C. y Livia, J. (2021). Reliability Generalization Study of the Person-Centered Care Assessment Tool. *Frontiers in Psychology*, 12, 712582. <https://doi.org/10.3389/fpsyg.2021.712582>

### **3.4. Cuarto objetivo específico**

Analizar la descripción de las características y las propiedades psicométricas en términos de fiabilidad y validez de los instrumentos existentes que permiten la evaluación de una de las variables que más influyen en el cuidado satisfactorio en profesionales de la atención, la inteligencia emocional, mediante una revisión sistemática de la literatura. Este propósito se abordará en el estudio 4 (Anexo 4).

Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C. y Cervera-Santiago, J. L. (2021). Emotional Intelligence Measures: A Systematic Review. *Healthcare*, 9(12), 1696. <https://doi.org/10.3390/healthcare9121696>

### **3.5. Quinto objetivo específico**

Analizar las evidencias de validez de uno de los principales instrumentos para medir el grado de ACP, el P-CAT, teniendo como marco los “Standards” mediante una revisión sistemática de la literatura. Este objetivo se abordará en el estudio 5 (Anexo 5).

Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C., Salinas-Escudero, G. y Toledano-Toledano, F. Person-Centered Care Assessment Tool in mental health: a systematic review and validity study.

## **Método**

En este apartado, en primer lugar, se hará una descripción del cronograma seguido para la realización de esta Tesis Doctoral. A continuación, se presentará un apartado dedicado a los materiales con información sobre los artículos. Por último, se presentará una síntesis del procedimiento y el análisis de datos realizados en cada una de las investigaciones incluidas en la presente Tesis Doctoral.

### **1. Cronograma de la Tesis Doctoral**

En la Tabla 1 se muestra un resumen de todo el trabajo realizado a lo largo de la Tesis Doctoral.

**Tabla 1***Cronograma de la Tesis Doctoral*

<b>Año</b>	<b>Objetivo</b>	<b>Tarea</b>	<b>Fechas relacionadas</b>
2019-2020	Identificar las variables relacionadas con la atención profesional de las personas con enfermedad mental (es decir, las variables protectoras o estresantes), así como identificar las principales intervenciones que se están implementando actualmente en relación con estas variables para profesionales cuidadores de personas con enfermedad mental mediante una revisión sistemática de la literatura.	Estudio 1	Fecha de envío: 26/05/2022  Fecha de aceptación: 29/06/2022
2020	Aprender a diseñar y elaborar un CV, carta de presentación, habilidades para superar con éxito las fases de un proceso de selección, técnicas para la planificación y elaboración de estrategias de inserción, claves para la creación y consolidación de una <i>networking</i> profesional y conocimiento sobre la carrera investigadora, procesos y recursos.	Actividad transversal: estrategias de inserción laboral Universitat de València	Fecha de realización: 03/2020
2020	Aprender a elaborar correcta y adecuadamente textos orales, a presentar de forma oral proyectos de investigación y a defender y argumentar el proyecto de Tesis Doctoral.	Actividad transversal: habilidades en expresión y argumentación oral Universitat de València	Fecha de realización: 05/2020
2020	Conocer la situación de falta de rigor metodológico y estadístico que pueden presentar actualmente las investigaciones, así como la importancia de emplear métodos de prerregistro.	Seminario: “Retos de la ciencia ante la crisis de credibilidad: el ejemplo de la psicología y la neurociencia cognitiva” Universitat de València	Fecha de realización: 03/2020

Año	Objetivo	Tarea	Fechas relacionadas
2020	Analizar las diferentes investigaciones empíricas o intervenciones proporcionadas por cuidadores profesionales que hagan uso del enfoque de ACP con el objetivo de determinar las principales características de este enfoque, así como los resultados que produce en cuidadores y personas con enfermedad mental atendidas mediante una revisión sistemática de la literatura.	Estudio 2	Fecha de envío: 10/2020
2021	Analizar la consistencia interna de uno de los principales instrumentos para medir el grado de ACP, el P-CAT, y analizar posibles factores que afectan a los índices de consistencia interna mediante un metaanálisis de generalización de fiabilidad.	Estudio 3	Fecha de envío: 20/05/2021 Fecha de aceptación: 26/08/2021
2021	Analizar la descripción de las características y las propiedades psicométricas en términos de fiabilidad y validez de los instrumentos existentes que permiten la evaluación de una de las variables que más influyen en el cuidado satisfactorio en profesionales de la atención, la inteligencia emocional, mediante una revisión sistemática de la literatura.	Estudio 4	Fecha de envío: 20/09/2021 Fecha de aceptación: 03/11/2021
2021	Establecer un nexo entre las Universidades y la sociedad en la formación e investigación en el avance en calidad de vida de colectivos vulnerables.	Elaboración de los contenidos de la materia <i>Investigación en Educación Especial</i> Universidad Europea de Valencia	Fecha de realización: 10/2021

<b>Año</b>	<b>Objetivo</b>	<b>Tarea</b>	<b>Fechas relacionadas</b>
2021	Establecer un nexo entre las Universidades y la sociedad en la formación e investigación en el avance en calidad de vida de colectivos vulnerables, así como conocer el uso de herramientas de comunicación sincrónica óptimas en aprendizaje, como Canvas y Teams.	Docencia online de la materia <i>Investigación en Educación Especial</i> Universidad Europea de Valencia	Fecha de realización: 11/2021
2022	Aumentar el conocimiento sobre la prevención, intervención y postvención en el suicidio debido a la alta incidencia que se produce en las personas con enfermedad mental.	Curso: “Suicidio: prevención, intervención en conductas suicidas en curso, y postvención tras suicidio consumado” Mindic	Fecha de realización: 20 y 21/05/2022
2022	Aumentar el conocimiento sobre el diseño metodológico y el uso de técnicas de investigación social que permitan describir, explicar y analizar los hechos y los fenómenos que se desean conocer.	Webinario: “¿Cómo investigar en Ciencias Sociales?” Fundación iS+D	Fecha de realización: 10/2022
2022	Aumentar el conocimiento sobre cómo funciona el volcado de datos primarios a un programa estadístico para poder trabajar con ellos de forma informatizada, con todo el proceso correspondiente de etiquetado y codificación de las variables, y sobre las técnicas bivariadas más utilizadas en la investigación social.	Webinario: “Investigación social con SPSS” Fundación iS+D	Fecha de realización: 11/2022
2022	Analizar las evidencias de validez de uno de los principales instrumentos para medir el grado de ACP, el P-CAT, teniendo como marco los “Standards” mediante una revisión sistemática de la literatura.	Estudio 5	Fecha de envío: 11/2022

Año	Objetivo	Tarea	Fechas relacionadas
2022	Dar a conocer el procedimiento a seguir a la hora de realizar una revisión sistemática de la literatura, así como las implicaciones prácticas y de investigación que pueden derivarse de ésta, a través de la exposición del Estudio 4.	Mesa de investigación: revisión sistemática del XX Congreso Nacional y X Congreso Internacional “Una psicología para los nuevos escenarios” Colegio de Psicólogos de Perú	Fecha de realización: 18/11/2022
2022	Dar a conocer el procedimiento a seguir a la hora de realizar un metaanálisis, así como las implicaciones prácticas y de investigación que pueden derivarse de éste, a través de la exposición del Estudio 3.	Mesa de investigación: metaanálisis del XX Congreso Nacional y X Congreso Internacional “Una psicología para los nuevos escenarios” Colegio de Psicólogos de Perú	Fecha de realización: 18/11/2022
2022	Aumentar el conocimiento sobre el modo de actuar de los cuidadores profesionales que trabajan en residencias donde personas en situación de dependencia habitan, así como el enfoque de derechos.	Webinario: “Habitar recursos residenciales. Trabajar donde la otra persona está viviendo” Col·legi Oficial d'Educadores i Educadors Socials de la Comunitat Valenciana	Fecha de realización: 12/12/2022

Una vez definida la temática de la Tesis Doctoral, se realizó una primera revisión de la literatura en el mes de octubre de 2019 para obtener una visión general del estado del arte. A continuación, se llevó a cabo una revisión de la literatura de manera sistemática entre los meses de octubre y noviembre de 2019 para identificar aquellas variables que ejercían influencia a la hora de proporcionar una atención satisfactoria de los cuidadores profesionales en salud mental. Este trabajo se envió a una revista que, mucho tiempo después, lo rechazó. En mayo de 2022, tanto la búsqueda como, por consiguiente, los resultados, fueron actualizados y enviados a una nueva revista.

Gracias a esta revisión de la literatura, se identificó el modelo de ACP como un factor importante en el cuidado en entornos de salud, por lo que se analizaron diferentes investigaciones empíricas o intervenciones en cuidadores profesionales que emplearan dicho enfoque para conocer más a fondo sus características y los beneficios que aporta a cuidadores y personas con enfermedad mental. Para ello se realizó una revisión sistemática de la literatura entre los meses de mayo y junio de 2020. En este año se realizaron también dos actividades transversales del Doctorado: “Estrategias de inserción laboral” y “Habilidades en expresión y argumentación oral”. Además, se asistió al seminario “Retos de la ciencia ante la crisis de credibilidad: el ejemplo de la psicología y la neurociencia cognitiva”.

Profundizando en los instrumentos que se utilizan para medir la ACP se vio que el más extendido es el P-CAT (P-CAT; Edvardsson, Fetherstonhaugh et al., 2010), aunque presenta una serie de debilidades como la imposibilidad de evaluar el criterio de validez y una pobre consistencia interna para una de las subescalas. Además, a pesar de su amplio uso, tras una búsqueda de información inicial se vio que no se había realizado ningún estudio en el que se hubiera establecido una fiabilidad media mediante procedimientos profesionales. Por ello, entre los meses de febrero y marzo de 2021 se

decidió realizar un metaanálisis de generalización de fiabilidad para obtener una estimación de la fiabilidad de las puntuaciones y estudiar las variables que pueden predecir mejor las variaciones que se producen entre administraciones.

Siguiendo con la línea de estudio de herramientas de cuantificación de variables relacionadas con la atención profesional hacia las personas con enfermedad mental, se vio que había cierta dificultad para dar con instrumentos de medida para algunas de ellas, como por ejemplo, la inteligencia emocional. En este caso se vio que existía una falta de trabajos que recogieran los instrumentos desarrollados en los últimos años, y los pocos encontrados se limitaban a recopilar aquellas medidas más populares y que están validadas en inglés, produciendo el efecto “Torre de Babel” (la sobrerrepresentación de estudios en un idioma, y la subrepresentación en otros; Grégoire et al., 1995). Por ello, en junio de 2021 se finalizó una revisión sistemática descriptiva llevada a cabo para conseguir asentar una base de conocimiento destinada a orientar y desarrollar los esfuerzos de la investigación y que contribuyera en la práctica profesional al ayudar a elegir el instrumento más apropiado en los posibles escenarios prácticos.

Por otra parte, al estar cursando un Doctorado orientado a grupos sensibles, esto hizo posible participar en la elaboración de los contenidos de la materia *Investigación en Educación Especial* del Máster Universitario en Educación Especial de la Universidad Europea de Valencia, con lo que se pudo cubrir uno de los objetivos del programa de Doctorado al contribuir al fomento de la investigación en colectivos vulnerables como los menores con discapacidades o problemas de desarrollo. El certificado de la autoría figura en el Anexo 6. Además, la impartición de estos contenidos permitió desarrollar competencias específicas relacionadas con herramientas de comunicación síncrona óptimas en aprendizaje, como lo son Canvas y Teams. El certificado de docencia figura en el Anexo 7.

En el estudio dedicado a la generalización de fiabilidad del P-CAT se vio que hay algunos aspectos metodológicos que parecen no estar resueltos con respecto a este instrumento. Por ejemplo, en las diferentes adaptaciones del P-CAT, se utilizaba el puntaje total para la interpretación y la multidimensionalidad era desestimada. Además, la validez de la estructura interna del instrumento generalmente era infrarreportada. Asimismo, una adecuada valoración de la validez requiere un modelo de cómo conceptualizarla, así como una revisión de las investigaciones antecedentes de validez del P-CAT usando dicho modelo. Por ello, se consideró oportuno llevar a cabo una revisión sistemática de las evidencias de validez realizadas en los estudios de validación del P-CAT, teniendo como marco los “Standards” (American Educational Research Association [AREA], American Psychological Association [APA] y National Council on Measurement in Education [NCME], 2014), una guía creada con el objetivo de proporcionar directrices para evaluar la validez de las interpretaciones de las puntuaciones de un instrumento en función de su uso previsto.

El año 2022 ha estado dedicado también a la realización de distintos webinarios para profundizar en conocimientos teórico-prácticos sobre la investigación en Ciencias Sociales, ámbito en el que se enmarca este programa de Doctorado. Los certificados se encuentran en los Anexo 8 y 9. Asimismo, debido a la elevada incidencia de suicidio que se produce en las personas con enfermedad mental, se realizó un curso para aumentar el conocimiento sobre la prevención, intervención y postvención en este tipo de conductas (Anexo 10). También se ha participado en dos mesas redondas de un Congreso Internacional del Colegio de Psicólogos de Perú, dedicadas a exponer los procedimientos y metodologías propios de las revisiones sistemáticas y los metaanálisis, así como las implicaciones prácticas y de investigación que se pueden extraer de éstos. De esta forma, los artículos “Reliability Generalization Study of the Person-Centered

Care Assessment Tool” y “Emotional Intelligence Measures: A Systematic Review” fueron presentados, respectivamente, en estas mesas redondas del XX Congreso Nacional y X Congreso Internacional “Una psicología para los nuevos escenarios”, celebrado en Perú los días 18, 19 y 20 de noviembre de 2022. El certificado de la ponencia se expone en el Anexo 11. Por último, para profundizar más en las percepciones y el modo de actuar de los profesionales que trabajan en entornos residenciales —donde otras personas en situación de dependencia habitan— y en el enfoque de derechos —relacionado con la ACP—, se asistió al webinar “Habitar recursos residenciales. Trabajar donde la otra persona está viviendo”.

En cuanto a los estudios, el orden de publicación de éstos no guarda relación con su fecha de elaboración, de modo que el primero en ser publicado fue el estudio 3, que contenía el metaanálisis de generalización de fiabilidad, en septiembre de 2021. El segundo fue el estudio 4, la revisión sistemática de las medidas de inteligencia emocional, en diciembre de 2021. Por último, se publicó la primera de las investigaciones, la revisión sistemática de las variables que pueden impactar en la calidad del cuidado proporcionado por profesionales, en junio de 2022. Tanto el estudio 2, como el 5 están a la espera de respuesta por parte de dos revistas, sin embargo, se han incluido en el cuerpo de esta Tesis Doctoral para facilitar la comprensión del proceso seguido y de los resultados que se han ido obteniendo.

*Healthcare* es una revista internacional, revisada por pares, de acceso abierto, que publica trabajos teóricos y empíricos originales en el área interdisciplinaria de todos los aspectos de la medicina y la investigación en el cuidado de la salud, entre ellos el cuidado crónico y salud mental (Multidisciplinary Digital Publishing Institute [MDPI], 2022). En cuanto a *Frontiers in Psychology*, revista más citada en su campo, explora las ciencias psicológicas, desde la investigación clínica hasta la ciencia cognitiva.

Además, tiene una sección que explora el uso de las mejores prácticas en métodos cuantitativos y de medición aplicados a la investigación en ciencias sociales y del comportamiento (Frontiers, 2022). Por ello, debido a la temática y las implicaciones prácticas del primer, tercer y cuarto trabajo, se tomó la decisión de escoger dichas revistas para la publicación de estas investigaciones.

## **2. Materiales**

A continuación, se presenta información de los cinco artículos incluidos en este compendio sobre información relacionada con las publicaciones (Tabla 2).

**Tabla 2**

*Resumen de los artículos incluidos en el compendio*

<b>Revista e indexación</b>	<b>Autores y año</b>	<b>Título del trabajo y doi</b>	<b>Estado del artículo</b>
<i>Healthcare</i>			
Healthcare: JCR en Q2 en el área de Ciencias y servicios del cuidado de la salud y en Políticas y servicios de la salud Scopus: JCR en Q2 en el área de Política de la salud	Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C., Salinas-Escudero, G. y Toledano-Toledano, F. (2022)	Variables impacting the quality of care provided by professional caregivers for people with mental illness: a systematic review <a href="https://doi.org/10.3390/healthcare10071225">https://doi.org/10.3390/healthcare10071225</a>	Publicado
Clasificación en la categoría JCR: Q2	Bru-Luna, L. M., Martí-Vilar y González-Sala, F.	Use of the Person-Centred Care approach by professional caregivers in the population with mental illness: systematic review	En revisión

<b>Revista e indexación</b>	<b>Autores y año</b>	<b>Título del trabajo y doi</b>	<b>Estado del artículo</b>
<i>Frontiers in Psychology</i>			
Frontiers: JCR en Q1 en el área de Psicología multidisciplinar. Scopus: JCR en Q1 en Psicología general.	Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C. y Livia, J. (2021)	Reliability Generalization Study of the Person-Centered Care Assessment Tool <a href="https://doi.org/10.3389/fpsyg.2021.712582">https://doi.org/10.3389/fpsyg.2021.712582</a>	Publicado
<i>Healthcare</i>			
Healthcare: JCR en Q2 en el área de Ciencias y servicios del cuidado de la salud y en Políticas y servicios de la salud Scopus: JCR en Q2 en el área de Política de la salud	Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C. y Cervera-Santiago, J. L. (2021)	Emotional Intelligence Measures: A Systematic Review <a href="https://doi.org/10.3390/healthcare9121696">https://doi.org/10.3390/healthcare9121696</a>	Publicado
Clasificación en la categoría JCR: Q2	Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C., Salinas-Escudero, G. y Toledano-Toledano, F.	Person-Centered Care Assessment Tool in mental health: a systematic review and validity study	En revisión

### **3. Procedimiento y análisis de datos de los estudios**

A continuación, se describe el procedimiento y el análisis de datos realizados en cada uno de los estudios incluidos en la presente Tesis doctoral.

#### **3.1. Estudio 1**

En la primera de las investigaciones se siguieron las directrices para la realización de revisiones sistemáticas de la declaración PRISMA (Page et al., 2021). Además, se usó la herramienta SPIDER (Cooke et al., 2012) para estudios cualitativos y mixtos para establecer las preguntas de investigación y las estrategias de búsqueda.

La búsqueda de la literatura se realizó en tres fases: una búsqueda inicial para obtener una visión general de la situación actual, la aplicación de los criterios de inclusión y exclusión, y una búsqueda manual para evaluar los resultados obtenidos. Las combinaciones de términos utilizadas fueron las siguientes: *professional caregiver AND mental health*, *professional caregiver AND mental illness*, *professional care AND mental health* y *professional care AND mental illness*. Este proceso fue realizado por uno de los autores y corroborado por otro mediante la herramienta Covidence (Veritas Health Innovation, 2014).

La búsqueda sistemática se realizó entre octubre y noviembre de 2019, y se actualizó en junio de 2022, en las bases de datos Web of Science (WoS), PubMed, ScienceDirect y Dialnet, incluyendo todos los artículos publicados desde 1900 hasta 2021 (inclusive). Se recuperaron un total de 2.429 artículos: 135 artículos de PubMed, 221 de WoS, 1.637 de ScienceDirect y 436 de Dialnet.

Se registró un protocolo en PROSPERO (CRD42022340313) y se realizó la búsqueda según una serie de criterios de inclusión y de exclusión. Estos criterios, así

como el diagrama de flujo que refleja el proceso de cribado, no se presentarán en este apartado para no resultar redundantes, pero pueden consultarse en el Anexo 1.

Tras el cribado, los 20 artículos que cumplieron con todos los criterios de elegibilidad fueron seleccionados para su inclusión en la revisión sistemática. Los datos que se iban a extraer de cada uno de los instrumentos también se definieron previamente para garantizar que la información se recogiera de manera uniforme. Los documentos seleccionados se registraron en una hoja de cálculo de Microsoft Excel y en el software Covidence. La información registrada de cada artículo incluyó (1) el nombre de los autores y el año de publicación, (2) los objetivos, (3) la metodología utilizada y la presencia de un grupo de control, (4) el número de participantes en la muestra, (5) las variables o temas incluidos y los resultados obtenidos en cada estudio, y (6) las limitaciones de cada artículo.

### **3.2. Estudio 2**

En la segunda de las investigaciones se siguieron las pautas para la realización de revisiones sistemáticas propuestas en el artículo *Doing a Systematic Review in Health Sciences* (Cajal et al., 2020).

La búsqueda sistemática se realizó entre los meses de mayo y junio de 2020 en las bases de datos WoS, PubMed, ScienceDirect y Dialnet, incluyendo todos los artículos publicados desde 1900 hasta 2019 (inclusive). La combinación de términos utilizada fue la siguiente: "*person-centred*" *care* AND *mental health* y "*person-centred*" *care* AND *mental illness*. Se recuperaron un total de 798 artículos: 409 artículos en WoS, 264 en PubMed, 58 en ScienceDirect y 67 en Dialnet.

Antes de leer los resúmenes y seleccionar la muestra final de artículos se definieron los criterios de inclusión y exclusión. Los criterios de inclusión fueron: a)

artículos que incluyeran investigaciones o intervenciones empíricas, b) artículos que investigaran la aplicación de la ACP por parte de los cuidadores profesionales en personas con enfermedad mental, c) artículos en cualquier idioma y d) artículos a los que fuera posible acceder con el texto completo. Los criterios de exclusión fueron: a) artículos que no incluían investigaciones o intervenciones empíricas, b) artículos que no incluían a personas con enfermedad mental, c) artículos que incluían a cuidadores no profesionales como participantes y d) artículos que no incluían la ACP.

Dado que la definición e interpretación de la ACP varía ampliamente (Gondek et al., 2016; Sharma et al., 2016), se aceptaron los artículos que contenían elementos comunes a este enfoque. Se leyeron los resúmenes de todos los artículos, y solo 46 se consideraron adecuados tras pasar un proceso de cribado inicial. Tras el cribado, se realizó un análisis del texto completo de estos 46 artículos. Con ello, se eliminaron 27, de modo que los 19 artículos restantes que cumplían todos los criterios de elegibilidad fueron seleccionados para su análisis en la revisión sistemática.

### **3.3. Estudio 3**

Este trabajo incluye un metaanálisis de generalización de la fiabilidad del P-CAT. El procedimiento seguido se dividió en dos pasos. En primer lugar, se realizó una revisión sistemática siguiendo la metodología PRISMA (Urrútia y Bonfill, 2010). A continuación, se realizó un metaanálisis siguiendo las recomendaciones de la guía REGEMA (Sánchez-Meca et al., 2021) y guías específicas para realizar metaanálisis de generalización de la fiabilidad (Rubio-Aparicio et al., 2018; Sánchez-Meca et al., 2009).

Inicialmente se realizó una búsqueda en la base de datos Cochrane para encontrar metaanálisis o revisiones sistemáticas realizadas previamente sobre el P-CAT. Como no se encontró ninguna, se buscó entonces en las bases de datos WoS, PubMed y Scopus. Como fórmula de búsqueda, se localizó el artículo original del P-CAT

(Edvardsson et al., 2010) y se identificaron y analizaron todos aquellos artículos que lo citaban. También se realizó una búsqueda complementaria en Google Académico para poder incluir la literatura “gris”, reduciendo así los efectos del sesgo de publicación (Molina, 2018). Por último, se revisaron las referencias de los artículos incluidos. De nuevo, los criterios de elegibilidad y el diagrama de flujo que refleja el proceso de cribado no se presentarán en este apartado, pero pueden consultarse en el Anexo 3.

El índice de consistencia interna analizado fue el  $\alpha$  de Cronbach, ya que no se encontró ningún otro índice. Asimismo, se codificaron los valores descriptivos de determinadas variables para evaluar posteriormente su efecto sobre la homogeneidad de los coeficientes de fiabilidad. Las variables codificadas fueron: (a) continente en el que se aplicó el P-CAT; (b) año de publicación del artículo; (c) si el test se utilizó en su versión original, traducción libre o adaptación a otro idioma; (d) el método de aplicación del test (codificado como presencial u otro); (e) el entorno en el que se realizó la atención profesional (codificado como residencia geriátrica u otro); (f) el sexo de los participantes (codificado como número de mujeres y número de hombres); (g) la media y la desviación típica de la edad de los participantes, y (h) la media y la desviación típica de las puntuaciones del P-CAT en la muestra del estudio.

En relación con el análisis estadístico, en primer lugar, para evaluar el sesgo de publicación, se utilizó la prueba de Egger. En segundo lugar, se utilizó el estadístico Q de Cochrane para evaluar la homogeneidad de los coeficientes de fiabilidad, que se complementó con el índice  $I^2$  (Higgins y Thompson, 2002), medida que informa del grado de heterogeneidad de los coeficientes de fiabilidad. Uno de los requisitos esenciales para realizar un metaanálisis es que las puntuaciones (en este caso, el valor de  $\alpha$ ) sigan una distribución normal (Sánchez-Meca y López-Pina, 2008). Para ello, como tercer paso, se transformaron los valores a valores T mediante la fórmula  $T = (1 -$

Variables psicológicas influyentes en el cuidado satisfactorio por parte de los cuidadores formales de personas con enfermedad mental usuarias de centros de salud mental.

$\alpha)^{1/3}$  (donde  $\alpha$  es el coeficiente de la puntuación total de cada muestra). Las puntuaciones se ponderaron por la inversa de la varianza de cada uno de los estudios para calcular el tamaño medio de las puntuaciones  $T$ . Posteriormente, las puntuaciones se volvieron a transformar a valores  $\alpha$  para facilitar su comprensión e interpretación.

Para calcular el valor medio ponderado de  $\alpha$ , se asumió un modelo estadístico de efectos aleatorios mediante el método de máxima verosimilitud restringida (REML), y se calculó un intervalo de confianza del 95% para este valor mediante el método propuesto por Hartung y Knapp (2001). A continuación, para estimar la influencia de las variables moderadoras y la varianza entre los estudios, se asumió un modelo de efectos mixtos utilizando el REML. Asimismo, se utilizó el método mejorado por Knapp y Hartung (2003) para calcular el valor medio y la significación estadística de cada moderador, tal y como se recomienda en otros metaanálisis previos (Rubio-Aparicio et al., 2019).

Para determinar la influencia ejercida por las variables moderadoras, se analizó cada una de forma aislada. Para los moderadores continuos se realizaron metarregresiones lineales simples, mientras que para los moderadores categóricos se emplearon ANOVAS ponderados. Para todos los análisis realizados se utilizó la versión 2.1-0 del paquete *Metafor* del entorno estadístico R (Viechtbauer, 2010).

#### **3.4. Estudio 4**

El cuarto trabajo incluye una revisión sistemática de la literatura científica publicada hasta el momento que incluye mediciones de la inteligencia emocional. Para su elaboración, se siguieron las directrices propuestas en la declaración PRISMA (Page et al., 2021). Además, también se siguió la guía “Standards” y un protocolo de registro (Hawkins et al., 2020) para la realización de revisiones sistemáticas descriptivas.

La búsqueda bibliográfica en este caso también se realizó en tres fases: una búsqueda inicial para obtener una visión general de la situación actual, un sistema que aplica criterios de inclusión-exclusión y una búsqueda manual para evaluar los resultados obtenidos. Las combinaciones de términos utilizadas fueron las siguientes: *emotional intelligence AND test*, *emotional intelligence AND measure*, *emotional intelligence AND questionnaire*, *emotional intelligence AND scale* y *emotional intelligence AND instrument*. Se seleccionaron únicamente aquellos estudios de tipo artículo. La búsqueda se realizó entre los meses de febrero y junio de 2021 en la base de datos WoS, incluyendo todos los artículos publicados desde 1900 hasta 2020 (inclusive). Se establecieron unos criterios de elegibilidad y se elaboró un diagrama de flujo que refleja el proceso de búsqueda, presentes en el Anexo 4.

A continuación, los documentos seleccionados se registraron en una hoja de cálculo de Microsoft Excel, donde se recogían el nombre del instrumento y su acrónimo, el idioma y país en el que fue creado y sus características estructurales (tipo de medida, número de ítems, dimensiones e ítems por las que estaban compuestas y modelo teórico), junto con información relevante de tipo psicométrico (fiabilidad y validez). Se aceptaron artículos que emplearan versiones diferentes al instrumento de inteligencia emocional original, pero el análisis se realizó solo sobre sus originales.

### **3.5. Estudio 5**

La última investigación comprende dos procedimientos distintos pero interconectados. En primer lugar, se realizó una revisión sistemática de la literatura siguiendo el método PRISMA (Page et al., 2021) con el objetivo de recabar todas las validaciones del P-CAT desarrolladas. En segundo lugar, se llevó a cabo una revisión descriptiva de las pruebas de validez de los estudios de validación hallados siguiendo para ello el marco de los “Standards”. También se empleó como referencia el trabajo de

Hawkins et al. (2020), el primer artículo que revisó las fuentes de validez según las directrices propuestas por los “Standards”. Ambos proporcionaron una guía conceptual y pragmática para organizar y clasificar las evidencias de validez del P-CAT.

De forma inicial, se produjo una búsqueda en la base de datos Cochrane con el objetivo de dar con revisiones sistemáticas realizadas sobre el P-CAT. Puesto que no se encontró ninguna, se realizó una primera ruta de búsqueda en las bases de datos WoS, Scopus y PubMed. Como fórmula de búsqueda, se localizó el artículo original de P-CAT (Edvardsson et al., 2010) y, a continuación, se identificaron y analizaron todos aquellos artículos que lo citaban hasta 2021 (inclusive). De este modo, se aseguró la inclusión de todas las validaciones. No se excluyó ningún artículo por motivo de idioma para evitar el sesgo de lenguaje (Grégoire et al., 1995). Por otra parte, con el objetivo de reducir los efectos del sesgo de publicación, también se realizó una búsqueda complementaria en Google Académico que permitiera incluir literatura “gris” (Molina, 2018). En último lugar, se incluyó una búsqueda manual mediante una revisión de las referencias de los artículos incluidos con el propósito de recoger otros artículos.

Se registró un protocolo en PROSPERO (CRD42022340313) y se realizó la búsqueda según una serie de criterios de inclusión: (a) estudios con enfoque metodológico de validaciones del P-CAT, (b) estudios experimentales o cuasiexperimentales, (c) estudios con cualquier tipo de muestra y (d) estudios en cualquier idioma; y de exclusión: (a) revisiones sistemáticas, bibliométricas del instrumento o metaanálisis y (b) estudios que fueran publicados posteriormente a 2021. Este proceso fue realizado por uno de los autores y corroborado por otro a través de la herramienta Covidence. Tras hacer la selección de los artículos, se procedió a extraer la información más relevante de cada uno de ellos: introducción, metodología, resultados, discusión, limitaciones, implicaciones prácticas y futuras investigaciones.

Para llevar a cabo la descripción de la validez de los estudios, se registró información de los 7 artículos incluidos en la revisión sistemática. Los datos fueron extraídos directamente del texto de los artículos y contenían información acerca de los autores, el año de publicación, el país donde se produjo cada validación del P-CAT y de cada uno de los cinco estándares que se proponen en los “Standards” (contenido de la prueba, procesos de respuesta, estructura interna, relaciones con otras variables y consecuencias de la prueba).

A continuación, en la Tabla 3, se presenta una síntesis de la información presentada en este apartado.

**Tabla 3**

*Síntesis del procedimiento y del análisis de los datos*

<b>Estudio</b>	<b>Bases de datos consultadas y periodo temporal</b>	<b>Herramientas y protocolos empleados</b>	<b>Análisis efectuados</b>
1	WoS, PubMed, ScienceDirect y Dialnet 10/2019 – 11/2019 Actualización en 06/2022	Herramienta SPIDER Declaración PRISMA Protocolo PROSPERO Herramienta Covidence	Revisión sistemática de la literatura
2	WoS, PubMed, ScienceDirect y Dialnet 05/2020 – 06/2020	Artículo <i>Doing a Systematic Review in Health Sciences</i>	Revisión sistemática de la literatura

<b>Estudio</b>	<b>Bases de datos consultadas y periodo temporal</b>	<b>Herramientas y protocolos empleados</b>	<b>Análisis efectuados</b>
3	WoS, PubMed y Scopus 02/2021	Declaración PRISMA Guía REGEMA Guías específicas para realizar metaanálisis de generalización de la fiabilidad	Metaanálisis de generalización de la fiabilidad: evaluación del sesgo de publicación, del valor medio de $\alpha$ , de la homogeneidad del coeficiente de fiabilidad y de la influencia de las variables moderadoras
4	WoS 02/2021 – 06/2021	Declaración PRISMA Guía “Standards”	Revisión sistemática de la literatura Análisis de información psicométrica
5	WoS, Scopus y PubMed 02/2022	Declaración PRISMA Guía “Standards” Protocolo PROSPERO Herramienta Covidence	Revisión sistemática de la literatura Análisis de información psicométrica

## **Resultados**

En este apartado se exponen, de forma sintética, los resultados principales que se han obtenido en las distintas investigaciones que integran este compendio. Como en el punto anterior, se presentarán por separado los resultados de cada investigación.

A continuación, se presenta la Tabla 4, que contiene información sobre las características de los estudios.

**Tabla 4***Síntesis de las características de los estudios*

Autores y año	Objetivo	Artículos y muestras/ instrumentos incluidos	Tipo de artículo	Principales resultados	Limitaciones
Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C., Salinas-Escudero, G. y Toledano-Toledano, F. (2022)	Identificar las variables relacionadas con el cuidado profesional de las personas con enfermedad mental a través de una revisión sistemática. Identificar las principales intervenciones en relación con estas variables para los cuidadores profesionales de personas con enfermedad mental.	20 artículos	Revisión sistemática	La satisfacción laboral y la congruencia entre los valores personales y organizacionales es un fuerte predictor de la calidad de la atención. Trabajar en el mismo puesto durante años sucesivos y experimentar <i>burnout</i> actúan como factores estresantes y reducen la calidad de la atención proporcionada.	Posible pérdida de información debido a un posible sesgo de publicación y a la revisión únicamente de publicaciones revisadas por pares. Alto grado de heterogeneidad metodológica entre artículos en términos de características del estudio.

<b>Autores y año</b>	<b>Objetivo</b>	<b>Artículos y muestras/ instrumentos incluidos</b>	<b>Tipo de artículo</b>	<b>Principales resultados</b>	<b>Limitaciones</b>
Bru-Luna, L. M., Martí-Vilar y González-Sala, F.	Llevar a cabo una revisión sistemática de la bibliografía que aborde el estudio de la ACP, a través de investigaciones empíricas o intervenciones, proporcionadas por cuidadores profesionales en personas con enfermedad mental.	19 artículos	Revisión sistemática	Tanto los usuarios como los profesionales perciben que la ACP conlleva resultados positivos para las personas que la utilizan. Es necesaria una mayor provisión de información para los usuarios y cuidadores, de manera comprensible, un mayor énfasis en las relaciones entre servicios y usuarios, así como una mejor formación de los profesionales.	Posible pérdida de información debido a un posible sesgo de publicación y a la revisión únicamente de publicaciones revisadas por pares. Alto grado de heterogeneidad metodológica entre artículos en términos de características del estudio.
Bru-Luna, L. M., Martí-Vilar, M.,	Realizar un metaanálisis de generalización de confiabilidad para estimar	23 artículos 25 muestras	Metaanálisis	El valor medio de $\alpha$ para las 25 muestras de los 23 estudios fue de .81 (IC 95%: .79 - .84),	La búsqueda fue realizada por un único investigador, por lo que no se pudo

<b>Autores y año</b>	<b>Objetivo</b>	<b>Artículos y muestras/ instrumentos incluidos</b>	<b>Tipo de artículo</b>	<b>Principales resultados</b>	<b>Limitaciones</b>
Merino-Soto, C. y Livia, J. (2021)	la consistencia interna del P-CAT y analizar posibles factores que puedan afectarlo. Evaluar las características sustantivas o metodológicas de los estudios que se asocian estadísticamente con los coeficientes de fiabilidad.			con alta heterogeneidad ( $I^2 = 85.83\%$ ). La única variable que tuvo una relación estadísticamente significativa con el coeficiente de fiabilidad fue la edad media de la muestra.	hacer una estimación de la fiabilidad interjueces. Se encontraron pocos artículos que usaran el P-CAT y que reportaran $\alpha$ en su propia muestra. Sólo se analizó el coeficiente de fiabilidad.
Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C. y Cervera-Santiago, J.	Proporcionar una revisión sistemática actualizada de los instrumentos existentes que permiten la evaluación de la inteligencia emocional en	2.761 artículos 40 instrumentos	Revisión sistemática	Los instrumentos más utilizados son el Test de Inteligencia Emocional (EQ-i; Bar-On, 1997), el Schutte Self Report Inventory (SSRI; Schutte, 1998), el Test de	Posible sesgo de publicación. No inclusión de algunos instrumentos cuyos manuscritos originales no pudieron obtenerse. Utilización de

Autores y año	Objetivo	Artículos y muestras/ instrumentos incluidos	Tipo de artículo	Principales resultados	Limitaciones
L. (2021)	profesionales, centrándose en la descripción de sus características, así como en sus propiedades psicométricas (fiabilidad y validez).			Inteligencia Emocional 2.0 de Mayer-Salovey-Caruso (MSCEIT 2.0; Mayer et al., 2002), el Trait Meta-Mood Scale (TMMS; Salovey et al., 1995), la Escala de Inteligencia Emocional de Wong y Law (WLEIS; Wong y Law, 2002) y el Cuestionario de Inteligencia Emocional Rasgo (TEIQue; Petrides y Furnham, 2009). La principal medida de la fiabilidad estimada fue la consistencia interna. La construcción de las medidas	una única base de datos. La búsqueda fue realizada por un único investigador, por lo que no se pudo hacer una estimación de la fiabilidad interjueces. Incumplimiento de algunos puntos exigidos por PRISMA debido al tipo de estudio realizado.

Autores y año	Objetivo	Artículos y muestras/ instrumentos incluidos	Tipo de artículo	Principales resultados	Limitaciones
Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C., Salinas-Escudero, G. y Toledano-Toledano, F. (enviado a revista)	Hacer una revisión sistemática de las evidencias de validez realizadas en los estudios de validación del P-CAT, teniendo como marco los "Standards".	7 artículos	Revisión sistemática	de inteligencia emocional se basó predominantemente en la modelización lineal o en la teoría clásica de los test.  Las distintas validaciones del P-CAT ofrecen una alta tasa de presentación de fuentes de validez relacionadas con el contenido del test, la estructura interna para la dimensionalidad y la consistencia interna, una tasa media para la estructura interna en términos de fiabilidad test-retest y para la relación con otras variables, y	No se ha podido contar con todos los estudios de validación publicados del P-CAT. Muchas de las fuentes de validez no se han podido analizar debido a que las investigaciones incluidas en este trabajo ofrecen pocos o incluso ningún dato.

VARIABLES PSICOLÓGICAS INFLUYENTES EN EL CUIDADO SATISFACTORIO POR PARTE DE LOS CUIDADORES FORMALES DE PERSONAS CON ENFERMEDAD MENTAL USUARIAS DE CENTROS DE SALUD MENTAL.

<b>Autores y año</b>	<b>Objetivo</b>	<b>Artículos y muestras/ instrumentos incluidos</b>	<b>Tipo de artículo</b>	<b>Principales resultados</b>	<b>Limitaciones</b>
				muy baja para los procesos de respuesta, la estructura interna en términos de invarianza, y para las consecuencias del test.	

## 1. Estudio 1

En el primer trabajo, del total de artículos ( $n = 20$ ), la mayoría son de investigación ( $n = 13$ ), seguidos de artículos dedicados a intervenciones ( $n = 7$ ). En cuanto a los objetivos de los estudios incluidos, éstos incluyen las variables que pueden afectar a la dispensación de cuidados ( $n = 7$ ), la formación y los conocimientos de los cuidadores profesionales ( $n = 7$ ), el ambiente de trabajo y cómo éste puede afectar a la calidad de los cuidados ( $n = 3$ ) y la perspectiva del cuidador ( $n = 3$ ).

A través del análisis realizado, se desarrollan varios temas diferentes pero interrelacionados. Los cuidadores profesionales cuyos valores personales son coherentes con los valores comúnmente compartidos de la profesión de cuidador experimentan un menor agotamiento y un mayor bienestar personal. Además, la sensación de calma y una percepción saludable de uno mismo son componentes críticos de una práctica profesional eficaz. Por otro lado, los cuidadores con malestar psicológico informan de mayores puntuaciones de agotamiento y se ha visto que con cada año adicional que se pasa en el puesto de cuidador, la tensión emocional, el agotamiento y los problemas de salud mental aumentan significativamente.

También se ha visto que tanto los profesionales que trabajan en áreas de cuidado, como los sujetos que lo hacen en otras áreas, tienen niveles parecidos de inteligencia emocional y de resiliencia, por lo que los primeros no están más “protegidos” de los estresores que el resto de la población. Asimismo, otras variables que pueden afectar a la prestación de una atención adecuada son la atención orientada a la recuperación y la satisfacción en el trabajo. Por otro lado, se ha visto que los factores de motivación intrínseca, como la satisfacción con la cantidad de responsabilidad, con el reconocimiento del trabajo, con la cantidad de variedad en el trabajo y con la libertad del método de trabajo, conducen a un aumento de la satisfacción general. Además, el

apoyo social desempeña un papel fundamental en puestos de atención hacia las personas con enfermedad mental. Otro aspecto importante en este sentido es la proximidad que proporciona la atención domiciliaria, vista por los cuidadores profesionales como una oportunidad para conocer a la persona más allá de su papel de paciente, lo que aumenta su implicación en el trabajo y proporciona mayor satisfacción que la atención convencional en hospitales o centros.

Por otro lado, para reducir los efectos negativos que pueden surgir como consecuencia del papel de cuidador profesional en este ámbito, se han desarrollado en los últimos años una serie de intervenciones. El *mindfulness* se utiliza para enseñar a los participantes a desarrollar la capacidad de observación, aceptación y compasión hacia las emociones y pensamientos que se producen en el lugar de trabajo, y se ha comprobado que es útil para mejorar significativamente varias facetas de la atención plena (habilidades de observación, descripción, no juicio y no reacción). También se observa un aumento significativo de los niveles de compasión y una reducción significativa del estrés. Otro tipo de intervención son las “Rondas de Schwartz”, un tipo de reunión en la que el personal discute el impacto emocional de su actuación profesional. Las Rondas fueron calificadas como útiles y beneficiosas por los profesionales y su resultado fue una mayor aceptación de sus decisiones, estrategias de afrontamiento adaptativas y empatía hacia y por parte de sus compañeros de trabajo. También expresaron que podía ayudar a su relación con los pacientes. Seis años después, las Rondas se seguían percibiendo como algo positivo y como una oportunidad para humanizar la profesión.

Por otra parte, varias investigaciones han mostrado a lo largo del tiempo que muchos de los trabajadores de salud mental comunitaria carecen de experiencia y formación en este ámbito. Según un estudio actual, una variable fundamental en la

atención al colectivo de personas con enfermedad mental sería la formación continua y la capacitación, además de otros aspectos como la frecuencia de la atención. Se ha visto que la mayoría de las intervenciones analizadas en este sentido han generado beneficios para los participantes en forma de incrementos significativos en la competencia para la comprensión de la psicosis y la construcción de relaciones, en los conocimientos y actitudes de los profesionales de la salud mental hacia la recuperación de las personas con enfermedad mental grave y en las actitudes y la autoeficacia.

## **2. Estudio 2**

En el estudio 2, del total de artículos ( $n = 19$ ), la mayoría son de investigación ( $n = 13$ ), seguidos de artículos dedicados a intervenciones ( $n = 6$ ). En cuanto a los objetivos del trabajo, éstos incluyen la implementación y evaluación de programas de intervención ( $n = 6$ ), el estudio de la toma de decisiones compartida ( $n = 4$ ), la atención orientada a la recuperación ( $n = 4$ ), las habilidades utilizadas por los profesionales en el contexto de la ACP ( $n = 2$ ), las experiencias en las salas sensoriales ( $n = 2$ ) y la desconexión de los servicios hospitalarios ( $n = 1$ ).

Una vez analizados los resultados, se vio que la toma de decisiones compartida entre el profesional y el paciente desempeña un papel fundamental en la prestación de la ACP. La elaboración del plan de cuidados con la enfermera es vista por la persona con enfermedad mental como algo tan útil para su recuperación como los propios objetivos y estrategias, y permite que el personal comprenda mejor los objetivos de los participantes y pueda apoyarlos de forma más significativa. Además, es esencial para promover un estilo de vida saludable y debe estar presente en todos los niveles de la organización. Dos de los programas de intervención que contienen este enfoque de toma de decisiones compartida y, además, relaciones centradas en la persona y componentes autodirigidos, muestran que la aplicación de estos elementos permite una mayor

sensación de empoderamiento y una ampliación de las conexiones con la comunidad, así como un sentido enriquecido de uno mismo y una mejor calidad de vida.

La atención orientada a la recuperación es otro elemento clave de la ACP. Su uso puede llevar a la persona con enfermedad mental a un aumento de la resiliencia, a conexiones más fuertes con los servicios terapéuticos y a una mejor comprensión de la salud mental y de la importancia de buscar ayuda. Un estudio realizado en una muestra de profesionales formados en atención orientada a la recuperación y otra no formada, revela actitudes significativamente más positivas en el grupo experimental que en el control. Además, el uso de este enfoque es visto por las personas con enfermedad mental como necesario para evitar el reingreso y mejorar su calidad de vida.

En cuanto a la desconexión de los servicios hospitalarios, los usuarios manifiestan que las mayores fuentes de insatisfacción están relacionadas con no sentirse involucrados en el plan de cuidados, así como con no conocer la disponibilidad de los tratamientos. Sus principales preocupaciones están relacionadas con los servicios e instalaciones sanitarias y comunitarias disponibles al alta médica, y con la búsqueda de ayuda para superar la soledad, estructurar el día y encontrar alojamiento.

La posibilidad de ofrecer programas de ACP a domicilio es otro elemento estudiado. Una investigación mostró altos niveles de satisfacción con este servicio, aunque en mayor medida para pacientes que para familiares. Además, el 75% de los usuarios afirman que prefieren pasar las crisis en su domicilio y solo el 5% en el hospital. Asimismo, también se observaron resultados positivos al emplear la ACP en salas sensoriales de centros de atención psiquiátrica. Los cuidadores observaron consecuencias positivas en los pacientes cuando las utilizaban, y afirmaron que estas salas suelen utilizarse como herramienta de autorregulación y como estrategia

preventiva ante el aumento de la ansiedad. Los usuarios afirmaron haber experimentado un fuerte efecto calmante, así como un mayor bienestar, empoderamiento y autoestima.

En cuanto a las habilidades utilizadas por los profesionales para implementar la ACP, destaca la utilización de habilidades de participación “universales”, como la importancia de centrarse en la persona, una comunicación adecuada para el compromiso, el empoderamiento del paciente y una mayor conexión con él. Asimismo, la actitud del trabajador parece ser fundamental para el éxito de las intervenciones, y presentar actitudes positivas parece ser más eficaz. Sin embargo, el estigma de los problemas de salud mental y las actitudes negativas por parte de la sociedad son obstáculos frecuentes para establecer estas redes de contacto.

### **3. Estudio 3**

El número total de participantes recogidos en el metaanálisis de las 25 muestras seleccionadas fue de 15.149 sujetos. El primer análisis realizado fue la prueba de Egger para detectar la presencia de un posible sesgo de selección. Los resultados de la prueba no aportaron pruebas de la presencia de este sesgo [ $t(23) = -.0503$ ,  $p = .9599$ ].

Por otra parte, el valor medio de  $\alpha$  para las 25 muestras del metaanálisis fue de .81 (IC 95%: .79, .84). La Figura 2 del Anexo 3 muestra el valor ponderado de  $\alpha$  para cada una de las muestras analizadas, así como los intervalos de confianza del 95% y el tamaño de la muestra. Se observa que 12 investigaciones (48%) obtuvieron coeficientes con mayor distancia a la tendencia central. Por otro lado, los estudios con menor peso, y en consecuencia con una mayor variación debido al tamaño de sus muestras, tendieron a situarse por debajo del valor  $\alpha$  metaanalítico, sugiriendo una posible restricción de la varianza que se produce habitualmente.

Los resultados reflejaron heterogeneidad en la muestra,  $Q(25) = 204.64$ ,  $p < .0001$ . Asimismo, el índice  $I^2$  arrojó una proporción de variabilidad atribuible a la heterogeneidad del 85.83%, valor considerado alto. Por ello, el siguiente paso fue analizar las variables moderadoras para ver en qué medida afectaban a la homogeneidad de los coeficientes de fiabilidad. En este análisis, los valores (valores T transformados) tomaron el papel de variable dependiente (VD), mientras que el resto de las variables recogidas en los estudios se convirtieron en las variables independientes (VI).

Los resultados de la metarregresión lineal simple para analizar la asociación entre las diferentes VI continuas y la VD se muestran en la Tabla 1 del Anexo 3. Las variables que explicaron de forma independiente la mayor proporción de la varianza fueron la puntuación media del P-CAT con un 85.99%, seguida de la edad con un 38.98%, y la desviación en la edad con un 8.18%. Sin embargo, la única variable que presentó una relación estadísticamente significativa con el coeficiente fue la edad media. Para examinar la relación entre la edad media y el coeficiente de fiabilidad, se realizó una correlación de Pearson. Se observó un alto nivel de asociación lineal negativa ( $r = -.62$ ,  $p = .003$ ). A continuación, para analizar la relación entre las VI categóricas y la VD, se realizaron una serie de ANOVAS ponderados. La Tabla 2 del Anexo 3 muestra los resultados, indicando que ninguna de las variables categóricas presentó resultados estadísticamente significativos. Además, el porcentaje de la varianza explicada fue del 0% en todos los casos.

#### **4. Estudio 4**

En los resultados del estudio 4 se observa que el número de instrumentos de inteligencia emocional desarrollados ha aumentado en los últimos años. En la década de los 90 apenas se desarrollaban instrumentos y su producción se limitaba a aproximadamente uno por año y prácticamente a un solo país (Estados Unidos). Sin

embargo, a lo largo de los años, la producción de instrumentos para medir la inteligencia emocional ha ido aumentando y, además, se ha extendido a otras áreas geográficas. Se han localizado un total de 40 instrumentos producidos entre 1995 y 2020. Los instrumentos registrados en un mayor número de estudios y que han sido más utilizados a lo largo de los años son EQ-i, SSRI, MSCEIT 2.0, TMMS, WLEIS y TEIQue. Estos instrumentos son los que tienen un mayor número de versiones (por ejemplo, reducidas o para diferentes edades o contextos) y son los que han sido validados en más idiomas. Los instrumentos más recientes apenas tienen traducciones aparte de su versión original, y han sido probados en muy pocas ocasiones. La mayoría de ellos no han sido desarrollados para un contexto específico.

El EQ-i es una medida de autoinforme del comportamiento basado en el modelo mixto que proporciona una estimación de la inteligencia emocional y la inteligencia social. Sus ítems están compuestos de oraciones cortas que son respondidas usando una escala Likert de cinco puntos. Se tarda unos 30 minutos en completarse, por lo que se han desarrollado otras versiones más cortas, así como una versión de 360 grados (un autoinforme junto con informes de supervisores, colegas y subordinados). Se ha traducido a más de 30 idiomas. En su estudio original presentó una consistencia interna entre buena y muy buena y su validez de constructo ha sido probada mediante correlaciones con otras variables.

El SSRI se basa en el modelo de habilidad y se contesta mediante una escala Likert de cinco puntos. Se compone de un factor dividido en tres esferas: identificación y expresión de las emociones propia y de otros, manejo de las emociones propia y de otros y el uso de las emociones en la solución de problemas. En su estudio original presentó una consistencia interna excelente. Además, mantiene correlaciones negativas con herramientas que cuantifican la alexitimia, la depresión y la impulsividad entre

otros, lo que corrobora su validez convergente. Existe una versión modificada y otra abreviada, y ha sido traducido a multitud de idiomas.

El MSCEIT también está basado en el modelo de habilidad y se compone de una escala Likert de cinco puntos y de ítems de respuesta múltiple con opciones correctas e incorrectas que engloban ocho tareas. Presenta cuatro dimensiones que se miden a través de dos tareas cada una. En el artículo original presentó una consistencia interna adecuada. En el presente cuenta con otra versión de los mismos autores y otra validada para población joven. Además, se ha traducido a varios idiomas. Sin embargo, se ha cuestionado su validez convergente, ya que no se ha hallado correlación entre la escala de percepción emocional de esta prueba y otros instrumentos de percepción emocional. Por otra parte, el MSCEIT tiene dos enfoques diferentes para construir la puntuación (puntuación de consenso y puntuación de expertos).

La TMMS fue el primer instrumento creado bajo el modelo de habilidad. Se trata de una escala de autoinforme desarrollada para valorar las creencias de los sujetos sobre sus propias capacidades emocionales. Evalúa tres áreas clave de la inteligencia emocional percibida: la atención a los sentimientos, la claridad emocional y la reparación de las emociones. En su estudio original presentó una fiabilidad muy buena y mostró validez convergente con diversas pruebas, aunque los autores recomiendan la utilización de una versión posterior de 30 ítems. Además, cuenta con una versión de 24 ítems validada en numerosos países.

Otro instrumento basado en el modelo de habilidad es el WLEIS. Se desarrolló en China para medir la inteligencia emocional de forma breve en estudios de liderazgo y de gestión. En su investigación original presentó una consistencia interna adecuada y tiene correlaciones positivas con el TMMS y el EQ-i. Trabajos posteriores han demostrado su validez predictiva en relación con la satisfacción con la vida, la felicidad

o el bienestar psicológico, y la validez de sus criterios con respecto al bienestar personal. También se ha comprobado la equivalencia de las puntuaciones en diferentes grupos étnicos y de género. Ha sido traducido a multitud de idiomas y actualmente es uno de los instrumentos más utilizados.

Por último, el TEIQue es el principal instrumento del modelo de rasgo. Es una herramienta ampliamente utilizada en muchos países. En el artículo original presentó una excelente consistencia interna y muestra correlaciones significativas con instrumentos como el Big Five Personality. Tiene una versión corta, una de 360 grados, una para niños y otra para adolescentes. Se ha traducido a numerosos idiomas.

Como se puede observar, la mayoría de los instrumentos se agrupan bajo los tres principales modelos conceptuales descritos en la introducción (habilidad, rasgo y mixto). Estos modelos están vertebrados en torno al constructo de inteligencia emocional. Sin embargo, presentan diferencias en la forma de conceptualizarla y, por tanto, también de medirla. Por ejemplo, el concepto de inteligencia emocional basado en la capacidad se mide mediante pruebas de rendimiento máximo, mientras que la inteligencia emocional basada en el rasgo se mide mediante cuestionarios de autoinforme. Esto puede, en sí mismo, conducir a resultados diferentes, aunque el modelo subyacente utilizado sea el mismo.

Un aspecto observado en esta revisión sistemática es que la principal medida de la fiabilidad estimada en los estudios analizados ha sido la consistencia interna y se ha comprobado que el uso de medidas de estabilidad como parámetro de fiabilidad no es frecuente. Por otro lado, el coeficiente estándar de consistencia interna ha sido el coeficiente  $\alpha$ . Otro aspecto metodológico que merece ser destacado es que, predominantemente, la construcción de las medidas de inteligencia emocional se basó en la modelización lineal o en la teoría clásica de los test. Por el contrario, el enfoque

menos utilizado fue la teoría de respuesta al ítem (IRT), que proporciona otros parámetros descriptivos y evaluativos de la calidad de la medición de la puntuación, como la función de información o las curvas características de las opciones, entre otros.

En cuanto al marco de los “Standards”, se han encontrado diferencias entre ellos, dando lugar a una distribución desigual en los artículos. El coeficiente de fiabilidad es la única fuente de validez que se presenta en todos los artículos. Alrededor de la mitad de los estudios reporta datos de análisis factoriales, de relaciones con otras variables y de invarianza, y sólo unos pocos lo hacen acerca de la validez de contenido, de los procesos de respuesta, de la fiabilidad test-retest y de las consecuencias del test. Los porcentajes de cada tipo de validez pueden verse en la Tabla 2 del Anexo 4.

## **5. Estudio 5**

Los resultados del estudio 5 analizan siete versiones del P-CAT. De ellas, seis son artículos de validaciones originales a otros idiomas, entre los que se encuentran el noruego (Rokstad et al., 2012), el sueco (Sjögren et al., 2012), el chino (que cuenta con dos validaciones; Le et al., 2020; Zhong and Lou, 2013), el español (Martínez et al., 2015) y el coreano (Tak et al., 2015). El estudio de Selan et al. (2016) incluye una modificación de la versión sueca del P-CAT y explora las propiedades psicométricas de ambas versiones (la versión original sueca y la modificada).

A través del análisis realizado en las diferentes validaciones del instrumento P-CAT, se ha visto que ninguna de ellas hace uso de un marco teórico estructurado para la realización de pruebas de validez. Los análisis de validez realizados en este estudio muestran una alta tasa de fuentes de validez relacionadas con el contenido del test (100%) y de la estructura interna en relación con la dimensionalidad (100%) y con la consistencia interna (100%), seguidas de una tasa media para el test-retest (57%) y la

relación con otras variables (57%). Se observa una tasa de 0% en las fuentes de validez relacionadas con los procesos de respuesta, la invarianza y las consecuencias del test.

En cuanto al primero de ellos, la mayoría de las validaciones informaron de que el procedimiento de traducción se llevó a cabo por parte de expertos ( $n = 6$ ) e incluso varios de los estudios emplearon directrices de comisiones internacionales. La evaluación por jueces se dividió en dos: evaluación por expertos y evaluación experiencial. La primera se cumplió en tres de los artículos, mientras que la segunda se cumplió en dos. Únicamente uno de los artículos informó de que la escala contenía elementos que reflejan la dimensión descrita en la literatura.

La tercera fuente de validez, la estructura interna, fue la siguiente en ser reportada en un mayor número de artículos, aunque de forma desigual entre los tres apartados en los que esta evidencia fue dividida: dimensionalidad, fiabilidad e invarianza. En primer lugar, la dimensionalidad de cada estudio se dividió en análisis factorial, diseño, estimador, método de extracción de factores, factores e ítems, R interfactorial, réplica interna, efecto del método y cargas factoriales. La mayoría de los artículos emplearon únicamente un análisis factorial (EFA o CFA;  $n = 5$ ). Tres de los artículos informaron del método de extracción de factores utilizados (Kaisers eigenvalue, prueba del diagrama de dispersión, análisis paralelo y prueba MAP de Velicer). Las validaciones de los instrumentos han arrojado un total de dos factores en cinco de los siete artículos, mientras que en uno de ellos se obtuvo una única dimensión y, en otro, tres dimensiones. La R inter-factorial es reportada únicamente en un trabajo, aunque en otro de ellos se puede obtener fácilmente puesto que únicamente consta de una dimensión. La replicación interna se calculó en uno de los estudios mediante una división aleatoria de la muestra en dos para testar las correlaciones entre factores. El efecto del método no fue reportado en ninguno de los artículos.

Todos los estudios presentaron medidas de consistencia interna, realizadas en su totalidad con el coeficiente  $\alpha$  de Cronbach, tanto de la escala total como de las subescalas. En ningún caso se empleó el  $\omega$  de McDonald. En referencia al test-retest, se observa que cuatro de los siete artículos lo realizaron: uno lo realizó tras un período de 7 días, dos de ellos lo realizaron entre 1 y 2 semanas después, y otro dejó pasar 2 semanas tras la prueba inicial. El tercer apartado analiza el cálculo de la invarianza, que no fue reportado en ninguna de las investigaciones.

La evidencia relacionada con otras variables fue la siguiente fuente de validez más reportada en los estudios incluidos en esta revisión. No se observó ningún artículo (0%) que mida la evidencia discriminante, mientras que cuatro de ellos (57%) miden la evidencia convergente citando varios instrumentos. La validez concurrente y la validez predictiva no han sido reportadas en ninguno de los trabajos. Por otra parte, los análisis realizados a la validez relacionada con las consecuencias del test muestran que ninguno de los artículos cumple con esta evidencia.

Por último, el quinto estándar está relacionado con los procesos de respuesta. De nuevo, ninguno de los artículos presenta datos explícitos ni implícitos de esta evidencia.



## Conclusiones

El objetivo principal de este compendio de publicaciones es contribuir al fomento del cuidado satisfactorio por parte de cuidadores profesionales de personas con enfermedad mental para promover una mejora en la calidad de vida de ambas partes. Los objetivos específicos de cada una de las investigaciones incluidas en el compendio se presentan en la introducción de esta Tesis Doctoral. A continuación, se presenta una síntesis de las principales conclusiones extraídas tras la integración de los resultados de cada una de las investigaciones que se recogen en este compendio.

### 1. Estudio 1

Tras la integración y el análisis de los resultados del estudio 1, se puede concluir que existen múltiples factores de diversa índole que pueden influir en la calidad de la atención prestada por los cuidadores profesionales a las personas con enfermedad mental. Entre los predictores de la calidad de la atención prestada se encuentran la satisfacción en el trabajo, la congruencia entre los valores personales y los defendidos por la organización en la que trabajan y el hecho de trabajar con un objetivo común en un entorno que facilite el empoderamiento de los empleados (Saito et al., 2018; Wang et al., 2019). Por otro lado, también se ha visto que los cuidadores profesionales se enfrentan a varios estresores en su entorno laboral (Mijakoski et al., 2018; O'Connor et al. 2018): trabajar en el mismo puesto de trabajo durante años consecutivos, trabajar en equipos de salud mental comunitarios y el *burnout*. Estos estresores se relacionan con un mayor estrés emocional, problemas de salud mental, mayor vulnerabilidad al *burnout* y peor rendimiento y calidad asistencial.

Asimismo, varios trabajos informan de que existe una clara falta de formación y experiencia por parte de los cuidadores sobre las enfermedades mentales y sobre cómo proporcionar una atención adecuada (Mukesh et al., 2017; Muralidharan et al., 2019;

Yang et al., 2017). En este sentido, promover el conocimiento de los síntomas y de la enfermedad, facilitar la comunicación y las interacciones con el paciente y reducir el estigma de la enfermedad mental entre los trabajadores puede jugar un papel fundamental (Muralidharan et al., 2019).

Este estudio identifica diferentes variables relacionadas con la atención profesional hacia las personas con enfermedades mentales. Sin embargo, no se centra exclusivamente en aquellas focalizadas en una visión patologizadora del cuidado, sino también en variables que promueven el bienestar del cuidador y, en consecuencia, de la persona cuidada, y que pueden actuar como factores de protección. De este modo, se pretende concienciar a los investigadores de la importancia de cambiar el punto de vista y el enfoque de la investigación hacia uno más positivo y basado en las fortalezas de la profesión de cuidador.

## **2. Estudio 2**

Los hallazgos de la segunda investigación muestran que es necesario, en primer lugar, crear una definición común de la ACP y una conceptualización de las políticas que apoyan los resultados de calidad en la prestación de servicios (Gondek et al., 2016). La aplicación de una ACP efectiva y de calidad requiere también de una capacitación y formación previa para los cuidadores y profesionales que la ponen en práctica (Eiroa-Orosa y García-Mieres, 2019; Gondek et al., 2016).

Asimismo, en consonancia con otras investigaciones, los estudios analizados en esta revisión sugieren la urgente necesidad de establecer un nivel óptimo de comunicación entre profesionales de la salud mental y usuarios, así como la importancia de la promoción de relaciones positivas y la provisión de información de calidad para corregir el desequilibrio percibido por los usuarios, principal barrera a la hora de aplicar la ACP (Bee et al., 2015). Otro aspecto clave es la atención profesional prestada en el

domicilio, ya que, al parecer, si se evita la institucionalización se reduce el estigma, y también se ha observado que el tratamiento en el domicilio proporciona a los pacientes en crisis una mayor sensación de control (Lawrence et al., 2016).

La toma de decisiones compartida entre la persona con enfermedad mental y los profesionales es otro aspecto esencial en la ACP. La investigación ha demostrado que este enfoque mejora la calidad de vida y la autonomía de los pacientes con enfermedad mental, al proporcionarles una mayor participación, adherencia y calidad del tratamiento, y ofrecerles la oportunidad de manejar mejor sus síntomas y su enfermedad (Slade, 2017). Sin embargo, todavía existen numerosas barreras que provienen principalmente de los profesionales, como la ambivalencia sobre la planificación de los cuidados, la percepción de que ya están empleando la ACP y la escasa disponibilidad de opciones para los usuarios (Farrelly et al., 2016). Por este motivo, la formación directa de los profesionales de la salud mental se hace imprescindible.

Otro aspecto que hay que tener en cuenta en la ACP es la atención orientada a la recuperación, puesto que se ha visto que conlleva mejoras significativas en los síntomas y en los niveles de discapacidad (Thomas et al., 2017). Además, también ha demostrado promover el empoderamiento y el autocuidado. Sin embargo, la utilización de este enfoque suele limitarse a estabilizar al paciente y aliviar sus síntomas, lo que demuestra que aún dista mucho de emplearse de forma adecuada (Waldemar et al., 2016).

### **3. Estudio 3**

Se ha visto que la fiabilidad no es una propiedad inherente al test, sino que depende de las puntuaciones de éste para una población concreta y su variabilidad entre muestras es una presunción realista (Wilkinson y APA Task Force on Statistical Inference, 1999). En esta investigación se buscó realizar un metaanálisis de la consistencia interna del P-CAT, con lo que se obtuvo un valor medio de  $\alpha$  igual a .81, a

partir de un total de 23 artículos que incluían 25 muestras y un total de 15.149 participantes. Esta magnitud del coeficiente se considera buena en base a algunas clasificaciones y para la investigación básica (Nunnally y Bernstein, 1994; Ponterotto y Ruckdeschel, 2007; Vaske et al., 2018). Asimismo, se ha visto que el P-CAT da puntuaciones aceptablemente consistentes cuando su uso se orienta a la descripción e investigación de grupos; en cambio, para la toma de decisiones individualizadas para los pacientes, la cantidad de error en torno a la puntuación no garantiza una alta sensibilidad para detectar un cambio en las actitudes hacia este tipo de atención.

Por otra parte, la heterogeneidad de la fiabilidad en este artículo es cercana al 85%. Esta magnitud implica que existen condiciones de estudio que aumentan la variabilidad, con un índice tan elevado que ha sido necesario realizar un análisis exhaustivo de las variables moderadoras que pueden afectar a la misma. En los análisis, se observó que sólo la edad media de los participantes estaba relacionada con la fiabilidad del instrumento, con una proporción considerable de varianza explicada. En concreto, la edad media mostró una correlación negativa y estadísticamente significativa con el coeficiente de fiabilidad, lo que significa que las muestras con participantes más jóvenes presentaron una mejor fiabilidad media que las muestras con participantes de mayor edad. Este resultado sugiere que el P-CAT puede ser adecuado como medida general de los niveles de ACP, y que la comparación entre grupos de participantes de diferentes edades requiere considerar la diferente varianza de error en los grupos.

En cuanto a la variable de contexto de atención, ésta no arrojó resultados estadísticamente significativos, con un porcentaje de varianza explicada nulo. Esto puede implicar que, aunque el P-CAT se desarrolló originalmente para entornos de residencias de ancianos, el uso del instrumento en entornos distintos no parece producir problemas en la varianza de la fiabilidad, y la inclusión de investigaciones en otro tipo

de contextos asistenciales (por ejemplo, centros de oncología, unidades psiquiátricas u hospitales) no afecta a la fiabilidad del instrumento. Sin embargo, esto no es evidencia de la validez de su estructura interna; los estudios sustantivos no psicométricos requieren proporcionar evidencia de la dimensionalidad de las puntuaciones para validar el uso del coeficiente en particular (Savalei y Reise, 2019). Esto asegura que la estimación de la fiabilidad es válida y adecuada para los datos (Cho, 2016), y evita la inducción de la validez de la medida a partir de investigaciones realizadas en contextos diferentes, en muestras cualitativamente distintas y con objetivos de estudio distintos (Merino-Soto y Calderón-de la Cruz, 2018; Merino-Soto y Angulo-Ramos, 2020, 2021).

Por último, y estrechamente relacionado con lo anterior, el P-CAT fue creado como una medida multidimensional, pero el uso predominante de la puntuación total implica que los autores trabajaron con el supuesto de unidimensionalidad. Asimismo, Martínez et al. (2015) encontraron que el modelo multidimensional y el unidimensional eran indistinguibles en sus índices de ajuste SEM, además con correlaciones interfactoriales  $>.90$ . Por lo tanto, el estudio 3 se orientó hacia la fiabilidad de la puntuación total.

En general, los resultados obtenidos indican que el P-CAT da puntuaciones aceptablemente consistentes cuando su uso se orienta a la descripción e investigación de grupos.

#### **4. Estudio 4**

A partir de los resultados obtenidos en el estudio 4, se han encontrado numerosos instrumentos que pueden utilizarse para medir la inteligencia emocional en los profesionales. A lo largo de los años, la producción de instrumentos para medir la inteligencia emocional ha ido aumentando y, además, se ha extendido a otras zonas geográficas. Los instrumentos más recientes apenas han sido traducidos más allá de su

versión original y han sido probados en muy pocas ocasiones. Para que la investigación futura se beneficie de estos nuevos instrumentos, sería deseable un mayor número de usos en muestras más amplias y en otros contextos.

La mayoría de los instrumentos se agrupan bajo los tres grandes modelos conceptuales descritos en la introducción (capacidad, rasgo y mixto). Cada modelo tiene una serie de ventajas e inconvenientes. En el modelo de habilidad no es posible adulterar los resultados mediante respuestas estratégicas y suelen ser pruebas más atractivas; sin embargo, los análisis factoriales no apoyan un modelo jerárquico con un factor global de inteligencia emocional subyacente (O'Connor et al., 2019). El modelo basado en rasgos, por otro lado, emplea medidas que no tienen respuestas correctas o incorrectas, por lo que dan lugar a perfiles emocionales que son más ventajosos en algunos contextos que en otros, y suelen tener muy buenas propiedades psicométricas (Fiori y Vesely-Maillefer, 2018; O'Connor et al., 2019; Petrides, 2011). Sin embargo, son susceptibles de falsificación y deseabilidad social.

En resumen, la relación entre la inteligencia emocional y el desarrollo personal ha sido de gran interés en la investigación psicológica a lo largo del tiempo. Un buen estudio de los instrumentos que miden constructos como la inteligencia emocional puede ser de gran ayuda tanto en el ámbito de la prevención como de la intervención psicológica en entornos sociales. La revisión de los instrumentos de inteligencia emocional pretende contribuir a facilitar el trabajo en la población general de forma que se promueva el desarrollo de conductas adaptativas. Además, al correlacionarse con variables que sirven como protectoras del malestar psicológico, este trabajo también contribuye a mejorar, en algunos casos, el nivel general de salud.

A través de esta revisión sistemática, se puede comprobar el gran esfuerzo que han realizado los investigadores no sólo para mejorar los instrumentos de medición de

la inteligencia emocional existentes, sino también en la construcción de nuevas herramientas que ayuden a los profesionales de distintos ámbitos, como el educativo, el empresarial o el sanitario, así como a la población general. Sin embargo, dados los rápidos cambios que está experimentando la sociedad, existe la demanda de ir más allá de la medición. Por ejemplo, desde instituciones educativas, sanitarias o empresariales, entre otras, o desde organizaciones familiares y comunitarias, se hace necesaria la promoción de actividades, de apoyo y de compromiso orientadas a la mejora de la inteligencia emocional, bajo la consideración de que este constructo es susceptible de mejorarse a cualquier edad y de aumentar con la experiencia.

## **5. Estudio 5**

Tras la integración y el análisis de los resultados del estudio 5, se ha podido observar que el contenido del test ha sido la fuente de validez mayormente citada en los artículos incluidos en esta revisión. Esto se debe a que la mayoría son validaciones del P-CAT a otros idiomas, de modo que los autores informaron en todos los casos del procedimiento de traducción. En cuanto a la dimensionalidad de la estructura interna, el análisis factorial se examinó en todos los artículos mediante la utilización de EFA y/o CFA. Aunque tradicionalmente en investigación se han empleado ambos, se ha visto que los dos presentan varios inconvenientes, especialmente el EFA (Asparouhov y Muthén, 2008; Marsh et al., 2014). Por ello, recientemente se ha propuesto un modelo de ecuaciones estructurales exploratorio (ESEM) que supera las limitaciones de ambos en la estimación de sus parámetros (Marsh et al., 2014; Asparouhov and Muthén, 2008).

Por otra parte, la fiabilidad de la estructura interna es reportada por el total de los artículos mediante el coeficiente de fiabilidad  $\alpha$  de Cronbach (Cronbach, 1951). Actualmente, éste es el coeficiente de fiabilidad más empleado en la mayoría de los estudios que contienen escalas de medición de varios elementos (Hayes y Coutts, 2020).

Sin embargo,  $\alpha$  está basado en una serie de estrictos supuestos, difíciles de cumplir en situaciones reales y cuya violación puede producir estimaciones de confiabilidad demasiado pequeñas. Por ello, una de las medidas alternativas que se recomienda cada vez más por parte de la literatura científica es el  $\omega$  de McDonald (1999), una medida de fiabilidad compuesta que presenta estimaciones más sólidas (Flora, 2020). Asimismo, y a pesar de que en los estudios incluidos en esta revisión es uno de los apartados más reportados, resulta llamativo que el test-retest no cuente con una prevalencia similar en la literatura a la de la consistencia interna, puesto que juega un papel fundamental en el cálculo de los parámetros de medición para las medidas de salud (Polit, 2014). En cuanto a la invarianza de la medida, el apartado de la estructura interna menos reportado en los trabajos de esta revisión, debe tomarse como un requisito indispensable en la comparación entre grupos, puesto que, si no se examina, es posible no contemplar plenamente el sesgo de los ítems y producir una interpretación distorsionada de éste en una medida psicológica concreta (Ceylan et al., 2020).

La evidencia relacionada con otras variables fue la siguiente fuente de validez más reportada en los artículos incluidos en esta revisión, aunque llama la atención que ninguno de los estudios incluye pruebas de validez discriminante, hecho que puede deberse a que actualmente existen varios obstáculos relacionados con la medición de este tipo de validez (Rönkkö y Cho, 2022): cuenta con diferentes definiciones, lo que dificulta su evaluación, y se suele requerir del uso de múltiples métodos de medición, que muchas veces se aplican al azar. La validez relacionada con los procesos de respuesta no fue reportada por ninguno de los trabajos, quizá debido a que existe una práctica menos clara y aceptada sobre cómo diseñar dichos estudios o informar sobre ellos (Huble y Zumbo, 2017). Por último, en cuanto a las consecuencias de la prueba, no han sido reportadas en ninguno de las investigaciones. Los riesgos potenciales que

puedan derivarse de la aplicación de una prueba deben intentar reducirse en cualquier situación, especialmente cuando se trata de evaluaciones de salud. Para ello es fundamental que se evalúe este aspecto por parte de los desarrolladores de instrumentos y que las experiencias de los encuestados sean protegidas mediante el desarrollo de prácticas exhaustivas y fundamentadas (Hawkins et al., 2020).

La validez juega un papel fundamental a la hora de asegurar una base científica sólida en las interpretaciones de un test, puesto que proporciona evidencias de hasta qué punto los datos ofrecidos por éste son válidos para el objetivo previsto. De ello puede depender una adecuada provisión de salud. En este sentido, los “Standards” son considerados un marco teórico apropiado para estudiar la validez de los test.

Con todo ello, puesto que la presente Tesis Doctoral pretende, entre otras cosas, el fomento de variables protectoras frente al estrés, como la inteligencia emocional, así como la mejora de la calidad de vida de las personas en situación de dependencia fruto de una enfermedad, contribuye a la consecución de los Objetivos para el Desarrollo Sostenible (ODS) establecidos en 2015 por la Asamblea General de las Naciones Unidas. En concreto al objetivo número 3, destinado a garantizar una vida sana y promover el bienestar de todos a todas las edades.

## **6. Limitaciones principales y futuras líneas de investigación**

Esta Tesis Doctoral cuenta con una serie de limitaciones que también han sido recogidas en cada una de las investigaciones realizadas. A continuación, se detallan las principales.

Puesto que la mayoría de los trabajos están constituidos por revisiones sistemáticas, comparten muchas de las limitaciones, la mayoría inherentes a este tipo de investigaciones. En primer lugar, las revisiones sistemáticas se limitaban sobre todo a

publicaciones revisadas por pares, lo que ha podido dar lugar a un posible sesgo de publicación (es decir, la no publicación de estudios con resultados que no muestran diferencias significativas) que ha podido producir cierta pérdida de información. Sin embargo, en muchos casos se incluyó Google Académico como una de las bases de datos de literatura “gris” y se empleó la búsqueda manual, tratando así de evitar la exclusión de investigaciones no publicadas en la búsqueda y de minimizar dicho sesgo. Asimismo, se ha evitado el sesgo lingüístico al no limitar la búsqueda a artículos publicados en uno o dos idiomas, de manera que se evita la sobrerrepresentación de estudios en una lengua y la infrarrepresentación en otras (Grégoire et al., 1995).

Otra limitación es que en algunos casos sólo se ha empleado una base de datos (WoS) a la hora de realizar la búsqueda, lo que también puede contribuir a cierta pérdida de literatura que presente información distinta u otras líneas argumentales opuestas. Sin embargo, cabe destacar que la WoS es la base de datos de publicaciones y citas de investigación más antigua y utilizada en el mundo, pasa por procesos de revisión de contenidos y editoriales de alta calidad, permite una mayor eficiencia a la hora de obtener una mayor cobertura de los artículos y cuenta con un equipo humano que evita la automatización total del proceso (Birkle et al., 2020; Bramer et al., 2017; Falagas et al., 2008; Web of Science Group, s.f.).

Por otra parte, a pesar de que los criterios de inclusión y exclusión para los artículos fueron previamente definidos, en algunos no se registró ningún protocolo antes de la investigación. Además, en muchos casos todo el proceso de búsqueda de referencias y de extracción de datos fue realizado por un solo investigador, por lo que no se ha podido realizar una estimación de la fiabilidad interjueces. Esta limitación se intentó paliar mediante la corroboración por parte de otro investigador a través de la herramienta Covidence.

Por último, una limitación importante con la que cuenta este compendio es que cuenta únicamente con estudios de síntesis. Esto no se refleja en el título de la presente Tesis Doctoral puesto que en un inicio se había planteado la inclusión de investigaciones de tipo empírico. Sin embargo, ésta se ha visto condicionada con la llegada de la COVID-19. Dada la crisis sanitaria, se optó por hacer publicaciones basadas en altos niveles de evidencia científica (revisiones sistemáticas y metaanálisis; Martí-Vilar, 2022) y las investigaciones de tipo empírico se tuvieron que aplazar debido a la vulnerabilidad que pueden llegar a presentar las personas con enfermedad mental y a la situación tan altamente estresante sufrida por los cuidadores, así como al alto riesgo de sesgos que alterarían los resultados que se podrían obtener en condiciones normales, teniendo en cuenta los efectos de sobrecarga de trabajo producidos por la pandemia en los entornos sanitarios y de cuidado.

En futuras investigaciones se tratarán de llevar a cabo investigaciones empíricas, como un estudio longitudinal que muestre cómo cambian las variables estresoras y protectoras con cada año de trabajo en el área de cuidado de personas con enfermedad mental, así como un estudio transversal que muestre el panorama actual en términos de variables protectoras a escala comunitaria en la Comunitat Valenciana, entre otros.

## **7. Conclusión final e implicaciones prácticas**

Esta Tesis Doctoral ha aportado conocimientos acerca de la atención de calidad hacia las personas con enfermedad mental. Tratar a las personas con enfermedad mental debe ir más allá de intentar minimizar sus síntomas, debe, además, ayudar a su integración en la comunidad y prestar atención a incrementar su bienestar. Asimismo, también aporta información que contribuye a aumentar la salud psicológica de los cuidadores profesionales a través del fomento de los factores protectores. Por ello, esta investigación tiene relevancia dentro de la Psicología, puesto que, con cada uno de sus

estudios, trata de favorecer en el ámbito teórico y práctico, la labor tanto de investigadores, como de profesionales de la salud y del cuidado.

Entre las implicaciones de los resultados, cabe destacar la importancia de llevar a cabo programas de formación y capacitación específica de los cuidadores hacia la enfermedad mental, ya que varias investigaciones han puesto de manifiesto el desconocimiento y el estigma que aún prevalece entre estos profesionales hacia esta condición. La investigación y las prácticas clínicas relacionadas con los cuidadores, tanto profesionales como no profesionales, son de vital importancia en todas las sociedades actuales, ya que se prevé que las enfermedades mentales pueden convertirse en la primera causa de discapacidad en todo el mundo para el año 2030 (Confederación Salud Mental España, 2018). Sin embargo, también son necesarias debido al aumento de otros factores, como el envejecimiento de la población, que se espera que se duplique en los próximos 30 años, hasta alcanzar los 1.500 millones de personas en 2050 (Naciones Unidas, 2019). Por lo tanto, es imprescindible cuidar a los que cuidan, porque sólo así será posible proporcionar una atención de calidad a todas y cada una de las personas que la requieran. Asimismo, se sugieren una serie de recomendaciones que se perciben como claves para facilitar la ACP y asegurar, bajo este enfoque, una atención de calidad a las personas con enfermedad mental: provisión de información para los usuarios y cuidadores, proporcionada de forma comprensible; un cambio de una cultura paternalista a una holística, incorporando el conocimiento, la experiencia y las expectativas del paciente; una mejor formación de los profesionales, y un mayor énfasis en las relaciones entre los servicios y los usuarios.

Por otra parte, la fiabilidad de las puntuaciones del P-CAT puede servir como importante información de referencia para futuras investigaciones, donde el diseño del tamaño de la muestra y las condiciones contextuales en las que se recogen los datos

afectan a la calidad del estudio, y uno de los indicadores fundamentales es el grado de error aleatorio en la medición. Una aproximación metaanalítica a la fiabilidad del P-CAT no sólo tiene como objetivo la estimación de la fiabilidad global, sino también la investigación de su variabilidad; por esta razón, la elección de las variables moderadoras es importante en la medida en que pueden explicar parte de la variabilidad de los coeficientes de fiabilidad.

Asimismo, en este último siglo se ha producido una evolución de la teoría de la validez que ha dado lugar a una nueva concepción: ésta debe estar basada en interpretaciones específicas para un propósito previsto y no debe limitarse a las propiedades psicométricas obtenidas empíricamente, sino que, además, debe apoyarse en la teoría subyacente al constructo medido. Así, aun cuando la validez juega un papel fundamental para proporcionar una base científica sólida de las interpretaciones de las puntuaciones de un test, en el campo de la salud los estudios de validación se han centrado tradicionalmente en la validez de contenido, la validez de criterio y la validez de constructo, dejando de lado la interpretación y el uso de las puntuaciones. Los hallazgos de este trabajo muestran que los estudios de validación siguen centrándose en los tipos de validez estudiados tradicionalmente y dejando de lado la interpretación de las puntuaciones en función de su uso previsto, algo que puede afectar a la práctica clínica en términos de salud.

En general, si bien es cierto que cada vez se reconoce más la importancia de la salud mental, la relevancia de esta Tesis Doctoral está en que todavía existen muchos aspectos por resolver, como la calidad de la atención proporcionada, el respeto a los derechos de las personas, una inclusión plena que les asegure la participación en todo aquello que les atañe y la desaparición de la discriminación y el estigma que sufren. Para ello, esta Tesis Doctoral opta por seguir un modelo que no sigue la tradicional

trayectoria de la literatura, en la que se tiende a patologizar tanto a la persona que sufre enfermedad mental como, en muchos casos, a sus cuidadores y las experiencias derivadas de esta profesión. No obstante, tampoco pasa por alto la importancia de estudiar y analizar el impacto que las variables estresoras indudablemente ejercen. Sin embargo, tiende más a centrarse en las capacidades y fortalezas que actúan como factores de protección ante el estrés prolongado, con el fin de conseguir una mejora en la calidad de vida tanto del profesional, como del paciente a su cargo.

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## **Anexos**

### **Anexo 1. Estudio 1**

Bru-Luna, L.M., Martí-Vilar, M., Merino-Soto, C., Salinas-Escudero, G. y

Toledano-Toledano, F. (2022). Variables impacting the quality of care provided by professional caregivers for people with mental illness: a systematic review. *Healthcare, 10*(7), 1225.

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Systematic Review

# Variables Impacting the Quality of Care Provided by Professional Caregivers for People with Mental Illness: A Systematic Review

Lluna M. Bru-Luna <sup>1</sup>, Manuel Martí-Vilar <sup>1</sup>, César Merino-Soto <sup>2</sup>, Guillermo Salinas-Escudero <sup>3</sup>  
and Filiberto Toledano-Toledano <sup>4,5,\*</sup>

<sup>1</sup> Departamento de Psicología Básica, Universitat de València, Avda, Blasco Ibañez, 21, 4610 Valencia, Spain; llunamaria.bl@gmail.com (L.M.B.-L.); manuel.marti-vilar@uv.es (M.M.-V.)

<sup>2</sup> Instituto de Investigación de Psicología, Universidad de San Martín de Porres, Avenue Tomás Marsano 232, Lima 34, Peru; sikayax@yahoo.com.ar

<sup>3</sup> Centro de Estudios Económicos y Sociales en Salud, Hospital Infantil de México Federico Gómez National Institute of Health, Márquez 162, Doctores, Cuauhtémoc, Mexico City 06720, Mexico; guillemosalinas@yahoo.com

<sup>4</sup> Unidad de Investigación en Medicina Basada en Evidencias, Hospital Infantil de México Federico Gómez National Institute of Health, Márquez 162, Doctores, Cuauhtémoc, Mexico City 06720, Mexico

<sup>5</sup> Unidad de Investigación Sociomédica, Instituto Nacional de Rehabilitación Luis Guillermo Ibarra Ibarra, Calzada México-Xochimilco 289, Arenal de Guadalupe, Tlalpan, Mexico City 14389, Mexico

\* Correspondence: filiberto.toledano.phd@gmail.com; Tel.: +52-5580094677



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**Abstract:** People with mental illness may need the support of caregivers in certain areas of their lives, and there is an increasing need for quality care for people with mental health problems by qualified health professionals. Often, these professionals may develop so-called burnout syndrome, although some authors point out that positive emotions may also arise. In addition, several variables can act as both protectors and stressors. Therefore, the main aim of the current study is to identify variables related to the professional care of people with mental illness (i.e., protective or stressor variables) through a systematic review. The review was conducted according to the PRISMA guidelines with a final selection of 20 articles found in the Web of Science, PubMed, ScienceDirect and Dialnet databases between the months of October and November 2019, and updated in June 2022. The results show that job satisfaction is a strong predictor of the quality of care, and that congruence between personal and organizational values is a very important factor. Meanwhile, working in the same job for successive years, working in community mental health teams and experiencing burnout act as stressors and reduce the quality of care provided.

**Keywords:** systematic review; mental illness; professional caregiver; psychological variables

## 1. Introduction

With the arrival of the 21st century and changes to family structures, there is a growing need to invest resources to meet the demands of people in situations of dependency. According to the International Classification of Functioning, Disability and Health (ICF), dependency is defined as the result of a deficit in bodily function (i.e., physiological functions of the body systems, including psychological functions), bringing with it a limitation in activity. When environmental adaptation is unable to compensate for this limitation, there is a restriction in participation that causes the individual to depend on the help of others to carry out the activities of daily life [1]. There are several causes that can be the origin of a person's dependence, the most common being aging, accidents or chronic illnesses, and they can give rise to different types of dependence, such as physical, mental or psychic, sensory or mixed dependence.

The American Psychiatric Association [2] defines mental illness as a significant alteration of emotional, cognitive and/or behavioral type. Basic psychological processes such as emotion, motivation, cognition, awareness, behavior, perception, learning and language are often affected. Such changes may affect personal care, the performance of domestic tasks, interpersonal relationships, professional functioning, and participation in leisure activities or community life. In addition, mental illness can have profound implications for subjective distress, psychological well-being, and a person's quality of life [3]. All these factors can lead to a decompensation with the environment and cause situations of dependency in people with mental illness, especially in those with severe mental illness.

In the epidemiological domain, the Confederation of Mental Health in Spain [4] presented WHO data on the global prevalence and incidence of mental illness: 12.5% of all health problems are represented by mental disorders; in addition, this incidence increased by 18% between 2005 and 2015, and mental illness may become the leading cause of disabilities worldwide by 2030. Therefore, quality care for people with mental health problems that is provided by qualified health professionals is becoming increasingly necessary.

A professional caregiver is the person who, from different fields, is in charge of carrying out functions that exceed another person's own abilities to take care of him/herself and to promote a better quality of life [5]. Their functions are usually related to the promotion of autonomy, mobility, hygiene, feeding, elimination (i.e., deposition) or safety, among others. In addition, they provide a point of support through functional social interaction [6]. He or she is generally trained in social health and, through a formal agreement, complies with a working schedule and receives remuneration in return [7]. Work in these types of professions, which is focused on direct contact with people with mental issues, can induce so-called burnout syndrome [8]. This concept was coined by Freudenger [9] to describe the physical and emotional exhaustion that can occur in workers in certain health institutions that tends to be associated with work characteristics such as long and variable working hours, as well as with a poor salary and high social demands, which could affect the care provided.

Some authors have begun to propose a change of focus, "offering a less pathologizing vision of caregivers, that is more focused on the analysis of those capacities and strengths that act as protective factors against prolonged stress" [10]. In a series of qualitative reports, Kramer [11] observed that attention to the positive aspects of caregivers' work is consistent with a perspective on strengths that recognizes the capacity for continuous growth in each individual, and noted that the positive aspects of care can be important determinants of the quality of care provided. In this way, the following concepts have begun to be widely studied as fundamental characteristics of a high-quality professional caregiver: prosocial behavior, empathy, resilience and emotional intelligence.

Prosocial behavior includes specific actions of providing help or benefits to third parties in the absence of extrinsic material reward; it is the result of multiple individual and situational factors, including parenting variables and empathic traits [12]. Prosocial behavior can be postulated as a key factor in providing satisfactory care for dependent people since it shows that behaviors such as helping, sharing, consoling, caring and empathizing benefit not only the other, but also the person who performs such behaviors [13]. Another variable that might play a fundamental role in caring for people with mental illness is empathy, "which includes both a cognitive component (understanding the other person) and an emotional component (worrying about the other person)", and which has been shown to be one of the most important predictors of prosocial behavior [12].

Resilience is defined as "a dynamic process in which psychological, social, environmental and biological factors interact to allow an individual, at any stage of life, to develop, maintain or recover their mental health despite exposure to adversity" [14] (p. 125). Factors that promote resilience include social support, the way that stressors are evaluated, and the coping style used by the caregiver. Relevant to the latter is the transactional theory of stress of Lazarus and Folkman [15], which states that the person and the environment maintain a dynamic, bidirectional, mutually reciprocal relationship, and that stress is there-

fore considered a process that includes the relationships between the individual and his or her environment, in which the perception of threat and/or damage causes physical and psychological reactions.

With regard to emotional intelligence, Mayer and Salovey [16] defined this concept as the ability of human beings to sense and identify emotions, understand and modify mental states. Emotional intelligence includes the mechanisms that allow the individual to manage the emotional adaptation necessary to face stressful situations. Thus, a positive attitude toward helping third parties can determine positive emotional functioning among caregivers and, in this way, help to offset the negative consequences that may arise from care [17].

Despite the recognized value of mental health and the need for care and support of people with mental illness, our understanding of the aspects that affect the quality of care to these patients is lacking. It is vitally important to study and analyze the impact that negative variables, such as burnout or perceived stress, can have on professional caregivers, and to focus on the abilities and strengths that act as protective factors to achieve improvement in the quality of life of both professionals and the patients in their charge.

Therefore, the main aim of the current study is to identify variables related to the professional care of people with mental illness (i.e., protective or stressor variables) through a systematic review.

The secondary objective is to identify the main interventions that are currently being implemented in relation to these variables for professional caregivers of people with mental illness.

## 2. Materials and Methods

This study is a systematic review of the published scientific literature regarding variables impacting the professional care of people with mental illness. The guidelines for carrying out systematic reviews proposed in the PRISMA statement were followed [18] (Appendix A). In addition, the SPIDER tool for qualitative and mixed studies was used to establish the research questions and search strategies [19]. Regarding the ethical standards, no ethical approval or participant consent is required for this type of research (i.e., systematic review).

### 2.1. Information Sources

The systematic search was performed between October and November 2019, and updated in June 2022, in the Web of Science (WoS), PubMed, ScienceDirect and Dialnet databases, including all articles published from 1900 to 2021 (inclusive). A total of 2429 articles were recovered: 135 articles from PubMed, 221 from WoS, 1637 from ScienceDirect and 436 from Dialnet.

### 2.2. Eligibility Criteria

A protocol was registered in PROSPERO and the search was conducted according to the following criteria. The identification code is CRD42022340313.

#### 2.2.1. Inclusion Criteria

The inclusion criteria were as follows: (a) articles that reported empirical research or interventions; (b) articles that referred to variables related to the professional practice of professional caregivers in the field of mental health; (c) articles in any language (to collect as many articles as possible, as well as to reduce the “Tower of Babel” effect; i.e., the prevalence of studies in a certain language over others written in lesser-represented languages [20]), and (d) articles to which full-text access was possible.

#### 2.2.2. Exclusion Criteria

The exclusion criteria were as follows: (a) articles that did not include narrative articles; (b) articles that included non-professional caregivers as participants; (c) articles that

included professional caregivers who work in a field other than mental illness; (d) articles that include systematic reviews or metaanalysis, and (e) articles that did not include variables related to the professional practice of care.

### 2.3. Search Strategy

The bibliographic search was carried out in three phases: an initial search to obtain an overview of the current situation, the application of inclusion and exclusion criteria, and a manual search to evaluate the results obtained. The combinations of terms used were as follows.

In PubMed, the following terms were used: “professional caregiver” AND “mental health”; “professional caregiver” AND “mental illness”; “professional care” AND “mental health”; “professional care” AND “mental illness” in the title and abstract fields. In WoS: “professional caregiver” AND “mental health”; “professional caregiver” AND “mental illness”; “professional care” AND “mental health”; “professional care” AND “mental illness” in the topic field. In ScienceDirect: “professional caregiver” AND “mental health”; “professional caregiver” AND “mental illness”; “professional care” AND “mental health” NOT “family” NOT “relative”; “professional care” AND “mental illness”, narrowing the search to research articles and in title, abstract and keywords fields. In Dialnet: “professional caregiver” AND “mental health”; “professional caregiver” AND “mental illness”; “professional care” AND “mental health”; “professional care” AND “mental illness”.

This process was carried out by one of the authors and corroborated by another through the Covidence tool [21].

### 2.4. Data Collection

The data to be extracted from each of the instruments were also defined in advance to ensure that the information was extracted in a uniform manner. The selected documents were then recorded in a Microsoft Excel spreadsheet and in Covidence software.

Thus, the recorded information included (1) the name of the authors and the year of publication, (2) the aims, (3) the methodology used and the presence of a control group, (4) the number of participants in the sample, (5) the variables or themes included and the results obtained in each study, and (6) the limitations of each article.

### 2.5. Selection Process

The summaries of all the articles were read, and only 67 articles were considered adequate after passing an initial screening process (after eliminating 635 duplicate articles in different combinations of the various databases). After screening, an analysis of the full text of these 67 articles was carried out. As a result, 47 articles were eliminated because they included narrative articles ( $n = 5$ ), they did not include professional caregivers in the mental health field ( $n = 13$ ), they did not include variables related to the professional practice of care ( $n = 22$ ), they include systematic reviews ( $n = 2$ ) or the full text was not accessible ( $n = 5$ ). The remaining 20 articles that met all the inclusion criteria were selected for inclusion in the systematic review. The various phases of execution of the procedure are detailed in Figure 1.

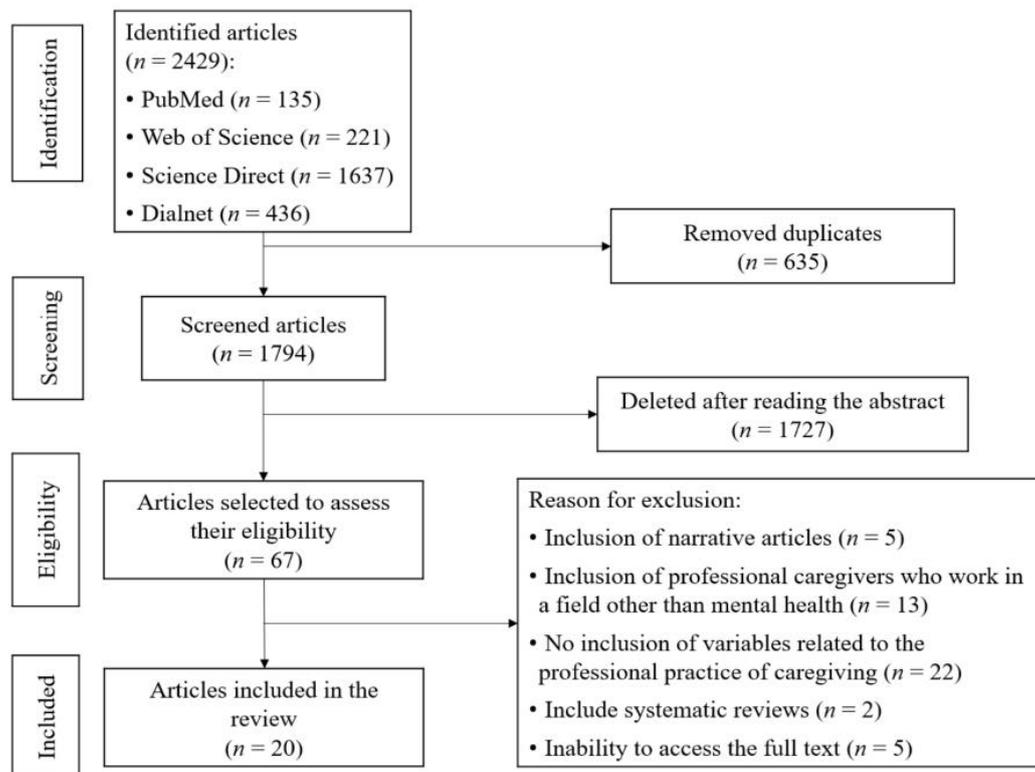


Figure 1. PRISMA flowchart.

### 3. Results

The synthesis of the results of the selected studies is shown chronologically and alphabetically in Table 1. The order of analysis of the articles presented below differs from that shown in the table to facilitate the understanding of the results.

As shown in Table 1, most of the articles are research articles ( $n = 13$ ), followed by articles dedicated to interventions ( $n = 7$ ). In terms of the objectives of the studies included, seven investigate the variables that may affect the dispensing of care ( $n = 7$ ) [25,28,30,33,35,38,39], seven are focused on researching or increasing the training and knowledge of professional caregivers ( $n = 7$ ) [24,29,31,32,36,41], three are dedicated to researching the working atmosphere and how it can affect care quality ( $n = 3$ ) [26,27,40], and three investigate the caregiver perspective ( $n = 3$ ) [22,23,37]. The studies can be divided into quantitative ( $n = 14$ ), qualitative ( $n = 4$ ) and mixed methods ( $n = 2$ ) studies, as well as into cross-sectional ( $n = 7$ ), longitudinal ( $n = 7$ ), inductive ( $n = 3$ ), exploratory ( $n = 1$ ), study case ( $n = 1$ ) and other ( $n = 1$ ) studies. In addition, four of these works do not discuss the limitations of their studies [23,30,39,41]. Through the analysis carried out, several different but interrelated topics are developed below.

Professional caregivers whose personal values are consistent with the commonly shared values of a caring profession experience less exhaustion and greater personal well-being [33]. In addition, this well-being is also implicitly and explicitly linked to personal experiences and professional practices [33], and relates to factors such as honesty, clearly defined work, competence and fulfillment of obligations [39]. In addition, the feeling of calm and a healthy perception of oneself are critical components of effective professional practice [41]. On the other hand, caregivers with psychological distress report higher burnout and compassion fatigue scores, and lower levels of compassion satisfaction [35]. Furthermore, it has been seen that with each additional year that is spent in the caregiver position, emotional tension, burnout and mental health problems increase significantly [35].

**Table 1.** Synthesis of the included articles.

Authors and Year	Aims	Methodology and Presence of Control Group	Participants and Country	Variables or Themes and Results	Limitations
Giménez-Díez et al., (2021) [22]	Explore nurses' perceptions and constructions about care in crisis resolution home treatment teams (CRHTT) services	Case study Qualitative (semi-structured interviews) No control group	10 nurses who had worked or were working in CRHTT, Spain	Nurses' perspectives of the care provided, nursing setting of care at home and nursing care plan at home; nurses believed that providing home care facilitates an intimate perspective, which creates a special bond with patients and instills personal satisfaction with their work; nurses felt more involved and responsible when they were close to patients and applied care adapted to real needs, often establishing a close relationship with the patient.	The study explored mental health nursing experiences in a specific setting; it may have been appropriate to conduct a focus group to gain feedback on the participants' initial analysis; qualitative studies have limited data extrapolation; the sample size can be considered insufficient or biased; this study is difficult to replicate in other contexts.
Allen et al., (2020) [23]	Evaluate mental health professionals experience of the rounds using a mixed-methods approach comprising data collection through standardized evaluation forms, focus groups, and facilitator notes taken during the rounds	Long-term study Quantitative (standardized evaluation) and qualitative (focus groups and round facilitators notes) No control group	150 mental health professionals, United Kingdom	Relevance of the rounds to the participants' work, expression of emotions, sharing similar emotions and experiences, feelings of guilt; the rounds were rated as helpful, insightful and relevant. Participants commented that the rounds had helped them feel able to express both negative and positive feelings they had towards users, and this was considered beneficial for themselves and for their relationships with their patients	None described
Avery et al., (2020) [24]	Explore characteristics of variables (personal, educational and professional) more frequently associated with and more predictive of nursing preparedness	Descriptive correlational design Quantitative (scales and surveys) No control group	260 nurses from a tertiary health system, United States	Characteristics of variables (personal, educational and professional) associated with preparedness; the three characteristics of professional experiences that best prepare a nurse to care for this population are mentorship, frequency of care and continuing education.	Findings were dependent on perceptions of participants as opposed to observed or measured data; participant responses were aggregated, therefore, determination of response variation from nurses employed at small versus large or urban versus rural hospitals was not possible.
Fleury et al., (2018) [25]	Identify variables associated with perceived recovery-oriented care among mental health professionals	Cross-sectional study Quantitative (scales and questionnaires) No control group	315 mental health professionals and 41 managers of service networks, Canada	Recovery-oriented care, team support, team autonomy, involvement in decisions, team reflexivity, team conflict, team collaboration, job satisfaction, trust, team climate; work in primary care or outpatient mental health services, team support, knowledge-sharing, team reflexivity, trust, belief in multidisciplinary collaboration and frequency of interaction with other organizations are significantly and positively related to recovery-oriented care.	Impossibility of making causal inferences due to cross-sectional design; no links established between recovery-oriented care and patient outcomes in terms of personal recovery; results based on only four regions of Quebec.
Pileño et al., (2018) [26]	Analyze the organizational culture of the team of professionals working in the mental health network	Descriptive, inductive study Qualitative (in-depth interview and focused interview) No control group	55 mental health professionals, Spain	Main theme: the team. Five subthemes: (1) getting along on the unit; (2) getting along with patients; (3) personal resources for dealing with patients; (4) adaptive resources of team members; (5) team resources.	Inability to obtain access to a hospital and lack of cooperation from certain staff members when participating in in-depth interviews.

Table 1. Cont.

Authors and Year	Aims	Methodology and Presence of Control Group	Participants and Country	Variables or Themes and Results	Limitations
Goetz et al., (2017) [27]	Evaluate aspects of job satisfaction and the work atmosphere of mental health professionals who work in the comprehensive care model and explore associations between satisfaction with different aspects of their work, individual characteristics, work atmosphere, and general job satisfaction	Exploratory study Quantitative (scales) No control group	321 community mental health professionals, Germany	Job satisfaction and working atmosphere; intrinsic motivational elements such as satisfaction with the amount of responsibility, with job recognition, with the amount of variety at work, and with freedom of working method increased overall job satisfaction.	Possible selection bias
Suyi et al., (2017) [28]	Examine the effectiveness of a mindfulness program in increasing mindfulness and compassion and reducing stress and exhaustion, among mental health professionals	Non-experimental design, pre- and post-testing with follow-up Quantitative (scales and questionnaires) No control group	37 professionals working at a mental health institute, Singapore	Mindfulness, compassion, stress and burnout; significant improvement in four of the five mindfulness facets and in compassion levels, and a significant reduction in stress following intervention, but no change was observed for burnout.	Small sample size; participants from the same institution; lack of control group; experimental and social desirability bias (the researcher was the instructor for the program); study not generalizable to other health professionals.
Yang et al., (2017) [29]	Provide an interdisciplinary community mental health training program and assess the effect of training on staff knowledge of mental health and confidence in their roles	Group design with pre- and post-testing Quantitative (scales and questionnaires) No control group	48 mental health professionals, China	Community mental health knowledge and confidence in managing people with mental health issues; the score on every item, except the item on empathy and the total/average score, was significantly increased.	Non-objective measure of knowledge improvement; transfer of learning to the workplace was not measured.
Frajo-Apor et al., (2015) [30]	Investigate emotional intelligence and resilience in mental health professionals compared to a control group who did not work in healthcare	Cross-sectional design Quantitative (test and scales) With control group	61 mental health professionals and 61 participants working in unrelated areas, Austria	Emotional intelligence and resilience; the two groups did not differ significantly from each other, neither in terms of emotional intelligence nor resilience; positive correlation between emotional intelligence and resilience; mental health professionals were not more resilient than the general population.	None described
Sørli et al., (2015) [31]	Increase skills, joint understanding, and collaboration in working with people with severe mental illness	Prospective study of longitudinal cohort Quantitative (scales and questionnaires) No control group	1258 professionals working in different services related to mental health, Norway	Understanding psychosis, building relationships, using own reactions, multidisciplinary collaboration, teamwork and collaboration and supporting relatives; significant increase in participants' experienced competence in all variables, especially for the understanding of psychosis and relationship building; no significant variance at the program level.	The study focused solely on the changes in competence experienced by the participants, and not on whether patients experienced an improvement in services; data used was collected between 1999 and 2005.

Table 1. Cont.

Authors and Year	Aims	Methodology and Presence of Control Group	Participants and Country	Variables or Themes and Results	Limitations
Utrera et al., (2014) [32]	Evaluate the effectiveness of a training program in emotional intelligence for levels of satisfaction, emotional intelligence and stress in nurses treating patients diagnosed with borderline personality disorder	Quasi-experimental, prospective longitudinal design Quantitative (scales and inventories) No control group	77 nurses in a mental health unit, Spain	-	Possible social desirability bias (participants' responses aimed at giving a good image of themselves); possible learning bias (repeated use of same measurement instrument); limited ability to generalize results.
Veage et al., (2014) [33]	Explore the life values of mental health professionals, their personal values relating to work, and the links between these values and well-being and exhaustion	Correlational study Quantitative (scales and inventories) No control group	106 mental health professionals working for nongovernmental organizations, Australia	Burnout, psychological well-being, personal life values and personal values related to work; congruence between life values and personal work-related values was related to greater well-being and less burnout; honesty, clearly defined work, competence, and fulfilment of obligations were associated with less exhaustion and greater well-being.	Results not generalizable to other professions; inability to determine the causal direction
Irvine et al., (2012) [34]	Evaluate an internet-based training program on mental illness for nursing assistants, and explore its effects and acceptance in health professionals	Randomized treatment/control pre-post design for nursing assistants; quasi-experimental pre-post design for health professionals Quantitative (scales and interviews) With control group	70 nursing assistants and 16 health professionals, USA	Knowledge, self-efficacy, knowledge of myths versus facts, attitudes, self-efficacy and behavioral intentions; significant and medium-to-large effects were obtained on five of the six outcome measures (except self-efficacy) for nurse aides; significant effects on five of six outcome measures (except myths), with medium-large effect sizes.	Need for follow-up evaluations, preferably with in vivo evaluation; impossibility of verifying selection criteria; small sample size.
Rossi et al., (2012) [35]	Evaluate exhaustion, compassion fatigue, and satisfaction with compassion among community mental health services staff	Cross-sectional design Quantitative (scales and questionnaires) No control group	260 community mental health service professionals, Italy	Burnout, compassion fatigue and compassion satisfaction; distressed workers had a mean value of compassion satisfaction significantly lower than the nondistressed workers; workers with psychological distress reported both higher burnout and compassion fatigue scores; significant increase in the burnout and compassion fatigue scores was also detected for each additional year spent.	Impossibility of determining causality; potentially significant variables not included; possible type II errors due to small sample size.

Table 1. Cont.

Authors and Year	Aims	Methodology and Presence of Control Group	Participants and Country	Variables or Themes and Results	Limitations
Wilrycx et al., (2012) [36]	To investigate the effectiveness of a recovery-oriented training program on the knowledge and attitudes of mental health professionals about the recovery of people with severe mental illness	Two-group multiple intervention interrupted time series design (a variant of the staggered wedge test design) Quantitative (questionnaires and inventories) No control group	210 mental health professionals, Netherlands	Recovery knowledge and knowledge attitudes; significant increase in both variables.	No reference data to compare; absence of data from psychosocial studies; too many measurement points made it difficult to maintain cooperation and motivation of the mental health professionals.
Piat et al., (2007) [37]	Examine caregivers' and residents' perspectives on the support relationship in adult care homes	Inductively focused design within a naturalistic paradigm Qualitative (semi-structured interviews) No control group	20 caregivers in care homes, Canada	Ten themes: (1) the qualities and skills of caregivers; (2) how caregivers learned their job; (3) perceived difficulties, needs and expectations of residents; (4) goals in caring for residents; (5) approaches to helping; (6) caregiver-resident relationships; (7) caregiver-professional relationships; (8) differences between caregiving and professional helping; (9) caregivers' time allocation between work, family and social life; and (10) the advantages and disadvantages of caregiving.	The sample was not representative of all caregivers in care homes; small sample; possible social desirability bias; need for comparative studies between formal and informal caregivers.
Angermeyer et al., (2006) [38]	Examine the similarities and differences between levels of exhaustion in family members and nurses caring for patients with mental illness	Cross-sectional design Quantitative (inventories and scales) No control group	94 partners of people with depression, 39 partners of people with schizophrenia, and 128 health professionals in a psychiatric hospital, Germany	Burnout; about one fourth of the respondents in both groups showed a high degree of burnout, but no significant differences were found in the three dimensions of burnout (emotional exhaustion, depersonalization, and personal accomplishment) for the two groups of caregivers.	Low response rate; only partners of people with schizophrenia and depression were interviewed; the results might not be generalizable beyond Germany.
Rose and Glass (2006) [39]	Examine the degree of emotional well-being in community mental health nurses and identify factors that impact their professional practice	Descriptive, inductive design Qualitative (interviews) No control group	5 nurses in community mental health centers, Australia	Three themes: (1) being able to speak out (or not); (2) being autonomous (or not); (3) being satisfied (or not).	None described

Table 1. Cont.

Authors and Year	Aims	Methodology and Presence of Control Group	Participants and Country	Variables or Themes and Results	Limitations
Acker (2004) [40]	Examine the relationship between the organizational conditions of mental health agency workers and their job satisfaction	Cross-sectional design Quantitative (scales) No control group	259 professionals working for mental health agencies, USA	Role conflict, role ambiguity, social support, extent of opportunities for professional development, type of work activities, job satisfaction and intention to leave; both role conflict and role ambiguity had statistically significant negative correlations with job satisfaction and positive correlations with intention to leave; social support had statistically significant positive correlations with job satisfaction and negative correlations with intention to leave; opportunities for professional development were positively correlated with job satisfaction and negatively correlated with intention to leave; role conflict also had statistically significant negative correlations with social support.	Possible influence situational state of mind when responding about job satisfaction.
Barnes and Toews (1985) [41]	Examine the knowledge of mental health workers about the principles of care for chronic mental illness	Cross-sectional design Quantitative (test) No control group	246 professionals working for mental health associations, Canada	Knowledge in the field of caring for chronic mental disorders; mental health professionals were moderately knowledgeable on this topic (mean score 66%); errors made were more commonly in the direction of overenthusiastic support for the community approach; there were no differences in knowledge scores by a demographic or professional status variables included in this study.	None described

When comparing various dimensions of burnout (emotional exhaustion, depersonalization and personal fulfillment) between dyads of people with schizophrenia and depression and nurses who work as caregivers in psychiatric hospitals, there are no significant differences, and approximately a quarter of both have a high degree of exhaustion [38]. For other positive variables, such as emotional intelligence and resilience, it has been seen that both workers in this sector and subjects not working in this sector have an average level of both, so mental health professionals are no more “protected” from stressors than the rest of the population [30].

Other variables that may affect adequate care dispensing include recovery-oriented care, which is related to other variables, such as team support and interdependence, knowledge sharing, confidence, and belief in multidisciplinary collaboration, and which could be enhanced through the promotion of appropriate resources, training on best recovery practices and standardized assessment tools [25]. Job satisfaction is also an important variable in the provision of adequate care. Significant correlates of the reduction in job satisfaction include higher levels of education, increased work experience, a large number of cases, low income and few opportunities for professional development [40]. On the other hand, it has been seen that intrinsic motivational factors, such as satisfaction with the amount of responsibility, with the recognition of work, with the amount of variety in work and with the freedom of working method, lead to an increase in overall satisfaction [27]. In addition, social support plays a fundamental role in mental health-related jobs [40].

It has also been found that caregivers have a system of clearly articulated values, and twenty-one qualities can be identified that are classified into values about humans, values about disease/disability and values about the work of care, which are of critical importance for job effectiveness and satisfaction [37]. Another factor that may affect the provision of adequate care may be job satisfaction. It has been seen that it is essential that all caregivers work with a common goal, so a leader who manages the group and increases the individual skill of each worker has been proposed as a necessary figure [26]. Another aspect that plays a key role in this regard is the proximity provided by home care. This type of care is seen by professional caregivers as an opportunity to get to know the person beyond their role as a patient, which increased their involvement in the job and provided greater satisfaction than conventional care in hospitals or centers [22].

On the other hand, to reduce the negative effects that can arise as a result of the role of a professional caregiver in this area, a number of interventions have been developed in recent years. Mindfulness is used to teach participants to develop the capacity for observation, acceptance and compassion towards the emotions and thoughts that occur in the workplace. Mindfulness has been found to be useful for significant improvement in various facets of mindfulness (i.e., observational, descriptive, non-judgmental and non-reactive skills). There is also a significant increase in levels of compassion and a significant reduction in stress. Moreover, these changes have been maintained for up to 3 months after the training [28]. Another type of intervention is the Schwartz Rounds, a type of meeting in which staff discuss the emotional impact of their professional performance. In the study by Allen et al. [23], this intervention was rated as useful and beneficial by 10 professionals who perceived the rounds as an opportunity to express their feelings. This resulted in increased acceptance of their decisions, adaptive coping strategies and empathy towards and from their co-workers. They also expressed that it could help their relationship with patients. Six years later, rounds are still perceived as positive and as an opportunity to make the profession more humane.

On the other hand, the study of Barnes and Toews [41] showed that, years ago, mental health professionals had only a moderate knowledge of the principles of care, which has been seen to have important implications on the quality of care provided to patients. Another more current study yielded similar results [29]. It reported that community mental health workers caring for people with such diseases lack experience and training in this area, as only 8.7% of the participants had received community mental health training,

although the post-training assessment they employed led to improvements in knowledge, especially related to home visits, case management and follow-up. According to a current study, a fundamental variable in caring for the group of people with mental illness would be continuous education and training, in addition to other aspects such as mentorship and the frequency of care [24].

In addition, individuals with certain mental illnesses, such as borderline personality disorder, often engage in countertransference toward their caregivers, who often react with avoidance and experience considerable stress [32]; as a result, many training programs are employed. Most of the work analyzed in this regard have generated benefits for participants in the form of significant increases in the competence for understanding of psychosis and relationship building [31], in the knowledge and attitudes of mental health professionals toward the recovery of people with serious mental illnesses [36], and in attitudes, self-efficacy and behavioral intent [34].

#### 4. Discussion

The aim of the study is to carry out a qualitative analysis of a set of studies with different methodologies that include empirical research or interventions to identify variables affecting the professional care exercise of people with mental illness (i.e., protective or stressor variables). The secondary objective is to identify the main interventions that are currently being implemented in relation to these variables for professional caregivers of people with mental illness.

Regarding the main objective, the results of this study show that an important protective variable against caregiver burnout is the existence of coherence between the caregivers' personal values and those values required by the profession. In this way, the actions and behaviors carried out in the workplace become meaningful for the person. There are several recent studies that confirm that congruence between the individual values of the person, and those defended by an organization are related to less emotional exhaustion and greater work commitment [42], as well as greater emotional well-being [43].

In addition, as Rose and Glass [39] state in their work, this emotional well-being would have a bilateral character since, at the same time, it is implicitly and explicitly related to personal events, as well as professional ones. This generalized interconnection was found again in a later study by the same authors in a sample of palliative care nurses [44]. Later studies, such as that of Boamah et al. [45], conducted with a sample of 3743 nurses, confirmed the importance of the relationship between these values and, in addition, it also highlighted the special relevance of the figure of a leader who unifies the group, establishes tasks with a common goal for the whole team and ensures an empowering work environment. This can help to reduce burnout, increase employee job satisfaction and improve the quality of patient care [45].

Job satisfaction also has a significant influence on the care provided to the patient, as it has been shown to have a moderating effect on the effort and eagerness dispensed. Related to this, it has also been shown that caregivers with higher satisfaction in their work environment are more likely to engage in a greater number of caregiving behaviors [46]. Other factors related to this occupational well-being are, positively, resilience developed by caregivers [47], and patients' perception of the quality of care provided by their caregiver [48]; negatively, related factors include patients' relapses [49]. In addition, being able to establish a closer relationship with the patient results in an increase in this job satisfaction, and at the same times prevents burnout and reduces stress. This closeness between patient and caregiver is fundamental in the patient's recovery, as it results in more personalized care, a factor also related to the satisfaction of caregivers of people with mental illness [50,51]. Closely related to this is the concept of recovery-centered care, which, likewise, provides a more personalized and closer treatment, and would provide the same benefits for the caregiver. This term refers to a process that supports the patient's long-term recovery efforts and that includes processes of fostering relationships, conveying

hope, focusing on strengths (rather than deficits), supporting the person in engaging in purposeful activities, and educating and empowering people for self-care [52].

However, the findings of Acker's study [40] are striking. The author states that aspects such as higher educational level and more work experience have a negative relationship with job satisfaction. A recent meta-analysis of more than 70 studies revealed that this association is established because people with a higher educational level, although they tend to benefit from aspects such as higher income, autonomy and role variety, also tend to suffer greater demands on their job in terms of working hours, task pressure, work intensity and time urgency [53]. These negative aspects would unbalance the benefits derived, a priori, from a higher educational level, and lead to higher job stress and lower job satisfaction. As for experience, it may be negatively correlated with job satisfaction due to the self-development of professionals related to caring fields, such as nursing [54]. Those who are new to their careers often experience this step as an opportunity for growth and development, something that would continue until six years of experience. After this point, professionals may begin to experience a sense of stagnation, leading to a period of disenchantment and reduced job satisfaction [54]. However, the opposite effect may occur, since job satisfaction may start to increase after 15 years of experience due to a reconciliation between the personal and professional development of professionals, and because those who continue to maintain a lower level of satisfaction tend to change careers [54].

Regarding the training of professionals about mental illness, comparing studies such as the Barnes and Toews study from almost 20 years ago [41], it can be seen that the picture is still similar. Several articles reveal a lack of knowledge and experience in this regard [29,55,56]. Apparently, this lack of staff training would be perceived as a key challenge in providing good quality care to patients with mental illness [55]. There are several elements that would play a key role in providing higher quality care to people with mental illness by professional caregivers [55]: increased knowledge about symptoms and diagnoses, increased communication and interactions with the patient, and a reduction in the stigma of mental illness.

Another aspect related to the main objective is the identification of the variables that act as stressors in the professional care practice of people with mental illness. Results show that with each additional year spent as a professional caregiver, emotional stress, burnout and mental health problems increase significantly. A systematic review by the team of O'Connor et al. [57] shows that mental health professionals have high levels of emotional exhaustion and moderate depersonalization. In addition, staff working in community mental health teams may be more vulnerable to burnout than those working in specialized teams [57]. On the other hand, a study conducted with a sample of 420 healthcare professionals analyzed the different dimensions of burnout in different time periods [58]. The results show a significant increase in emotional exhaustion and depersonalization over time. This shows that the demands and conditions of work environments can become stressors that can also increase the emotional exhaustion of workers chronically if they persist over time.

In addition, this emotional exhaustion can have a negative impact on patient care, as it has been shown to affect performance. In recent years, numerous mindfulness programs have been developed to alleviate this exhaustion in workers; however, the results do not show a high level of effectiveness. A systematic review [59] of thirty-four studies using this type of program also showed a low level of evidence. Only four of the interventions showed a significant improvement in burnout; however, this may be due to the fact that most of the studies had numerous methodological limitations. Other types of interventions that have been found to improve the quality of life of workers in this type of environment are those that promote open discussion, as they allow for the provision of mutual support among peers and result in decreased feelings of isolation and greater comfort in sharing social and emotional experiences [60]. These results are consistent with those found in a systematic review conducted in 2019 [61], which reveals that the most commonly used interventions

in these types of professions that tend to have a positive effect on reducing burnout are those that promote communication skills, teamwork, and participatory programs.

This work has some limitations. These include a possible publication bias (i.e., the tendency to publish research with significant results and not those without significant differences), which is characteristic of review-type studies. This, added to the fact that the review was performed only on peer-reviewed publications, may have contributed to a possible loss of information or another line of argument. On the other hand, there is a high degree of methodological heterogeneity among the articles included in terms of the characteristics of the study.

On the other hand, the article has several strengths. First, four different databases have been used, which has allowed greater coverage of the results. In addition, one of them is WoS, the oldest, most widely used and authoritative database of research publications and citations in the world [62], which allows greater efficiency in obtaining greater coverage of articles [63], and which has a human team that avoids total automation of the process [64]. In addition, the study tried to minimize linguistic bias or the “Tower of Babel” effect [20], by searching for articles presented in any language, to avoid including only those studies published in English. In the future, this article could be enriched by a manual search for additional articles, for example, in the references of other articles or in the gray literature. Moreover, both the search process and the data extraction process should be performed and corroborated by more than one researcher. It is also necessary to develop a protocol for recording inclusion and exclusion criteria for primary studies.

## 5. Conclusions

After integrating and analyzing the results, it can be concluded that there are multiple factors of various kinds that can influence the quality of care provided by professional caregivers to persons with mental illness. Predictors of the quality of care provided include job satisfaction, congruence between personal values and those advocated by the organization where they work, and working with a common goal in an environment that facilitates employee empowerment.

On the other hand, it has also been seen that professional caregivers face several stressors in their work environment: working in the same job for consecutive years, working in community mental health teams and burnout. These stressors are related to increased emotional stress, mental health problems, greater vulnerability to burnout and poorer performance and quality of care.

Likewise, several studies report that there is a clear lack of training and experience on the part of caregivers about mental illness and how to provide adequate care. In this regard, promoting knowledge of the symptoms and the disease, facilitating communication and interactions with the patient and reducing the stigma of mental illness among workers can play a key role.

This study identifies different variables related to professional care for people with mental illness. However, it is not focused exclusively on those centered on a pathologizing view of caregiving, but also on variables that promote the well-being of the caregiver and, as a consequence, of the person being cared for, and that can act as protective factors. In this way, the aim is to raise awareness among researchers of the importance of changing the point of view and the focus of research towards a more positive and strengths-based approach of the caregiving profession. On a practical level, it is worth stressing the importance of carrying out training programs and specific training of caregivers towards mental illness, since several studies have highlighted the lack of knowledge and stigma that still prevails among these professionals towards this condition.

Research and clinical practices related to caregivers, both formal and informal, are of vital importance in all societies today, since it is predicted that mental illness may become the leading cause of disability worldwide by 2030 [4]. However, they are also necessary because of the rise of other factors such as the aging of the population, which is expected to double in the next 30 years to 1.5 billion people by 2050 [65]. It is therefore vitally important

to care for those who care, because only in this way will it be possible to provide quality care for each and every person who requires it.

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

**Data Availability Statement:** The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

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## Appendix A

**Table A1.** PRISMA 2020 checklist.

Section and Topic	Item	Checklist Item	Location Where Item Is Reported
		<b>Title</b>	
Title	1	Identify the report as a systematic review.	1
		<b>Abstract</b>	
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	1
		<b>Introduction</b>	
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	1–3
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	3
		<b>Methods</b>	
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	3–4
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.	3
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	4
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.	4
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.	4

Table A1. Cont.

Section and Topic	Item	Checklist Item	Location Where Item Is Reported
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.	4
	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.	4
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.	3–4
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
	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)).	4
Synthesis methods	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	4
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	4
	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
Reporting bias assessment	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).	-
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	-
<b>Results</b>			
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.	5
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	5
Study characteristics	17	Cite each included study and present its characteristics.	6–14
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	-
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
	20a	For each synthesis, briefly summarize the characteristics and risk of bias among contributing studies.	6–13
Results of syntheses	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
	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	-
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	-
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	-
<b>Discussion</b>			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	15–17
	23b	Discuss any limitations of the evidence included in the review.	16
	23c	Discuss any limitations of the review processes used.	17
	23d	Discuss implications of the results for practice, policy, and future research.	17
<b>Other Information</b>			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	3
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	3

Table A1. Cont.

Section and Topic	Item	Checklist Item	Location Where Item Is Reported
Registration and protocol Support	24c	Describe and explain any amendments to information provided at registration or in the protocol.	-
	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	18
Competing interests	26	Declare any competing interests of review authors.	18
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 = Not applicable.

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Variables psicológicas influyentes en el cuidado satisfactorio por parte de los cuidadores formales de personas con enfermedad mental usuarias de centros de salud mental.

## **Anexo 2. Estudio 2**

Bru-Luna, L.M., Martí-Vilar, M. y González-Sala, F. Use of the Person-Centred Care approach by professional caregivers in the population with mental illness: systematic review.

## **Resumen**

El modelo de Atención Centrada en la Persona tiene como principios fundamentales el énfasis en la persona dentro de su contexto, la atención individualizada y el empoderamiento. Sin embargo, los estudios sobre este enfoque en enfermedad mental son escasos. El objetivo de este trabajo es realizar una revisión sistemática de artículos que estudien el abordaje de la Atención Centrada en la Persona proporcionada por cuidadores profesionales en personas con enfermedad mental. Tras el análisis de los 19 artículos, los resultados muestran que tanto usuarios como profesionales perciben que la Atención Centrada en la Persona conlleva resultados positivos para las personas que la utilizan. Es necesaria una mayor provisión de información a usuarios y cuidadores, de forma comprensible, un mayor énfasis en las relaciones entre servicios y usuarios, así como una mejor formación de los profesionales.

### **Anexo 3. Estudio 3**

Bru-Luna, L.M., Martí-Vilar, M., Merino-Soto, C. y Livia, J. (2021).

Reliability Generalization Study of the Person-Centered Care Assessment

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# Reliability Generalization Study of the Person-Centered Care Assessment Tool

Lluna María Bru-Luna<sup>1†</sup>, Manuel Martí-Vilar<sup>1†</sup>, César Merino-Soto<sup>2\*†</sup> and José Livia<sup>3†</sup>

<sup>1</sup> Departamento de Psicología Básica, Universitat de València, Valencia, Spain, <sup>2</sup> Instituto de Investigación de Psicología, Universidad de San Martín de Porres, Chiclayo, Peru, <sup>3</sup> Universidad Nacional Federico Villareal, Lima, Peru

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### \*Correspondence:

César Merino-Soto  
sikayax@yahoo.com.ar

### † ORCID:

Lluna María Bru-Luna  
orcid.org/0000-0001-5093-7203  
Manuel Martí-Vilar  
orcid.org/0000-0002-3305-2996  
César Merino-Soto  
orcid.org/0000-0002-1407-8306  
José Livia  
orcid.org/0000-0003-4101-6124

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The so-called Person-Centered Care (PCC) model identifies three fundamental principles: changing the focus of attention from the disease to the person, individualizing care, and promoting empowerment. The Person-Centered Care Assessment Tool (P-CAT) has gained wide acceptance as a measure of PCC in recent years due to its brevity and simplicity, as well as its ease of application and interpretation. The objective of this study is to carry out a reliability generalization meta-analysis to estimate the internal consistency of the P-CAT and analyze possible factors that may affect it, such as the year of publication, the care context, the application method, and certain sociodemographic properties of the study sample. The mean value of  $\alpha$  for the 25 samples of the 23 studies in the meta-analysis was 0.81 (95% CI: 0.79–0.84), with high heterogeneity (squared- $I = 85.83\%$ ). The only variable that had a statistically significant relationship with the reliability coefficient was the mean age of the sample. The results show that the P-CAT gives acceptably consistent scores when its use is oriented toward the description and investigation of groups, although it may be affected by variables such as the age of participants.

**Keywords:** reliability generalization meta-analysis, assessment, person-centered care assessment tool, person-centered care (PCC), measurement

## RELIABILITY GENERALIZATION META-ANALYSIS OF THE PERSON-CENTERED CARE ASSESSMENT TOOL

More and more people require care and support of different types and intensity. The traditional model of care that currently prevails makes it impossible for these people to develop life plans and maintain control of their lives both in long-term decisions, such as where and with whom to live or what type of treatment to receive, and in everyday aspects through the imposition of schedules for getting up, eating and leisure activities (Rodríguez, 2013). There is a growing demand for care plans to include objectives that go beyond treating illnesses and/or reducing the situation of dependency. In most European countries, these formal long-term care systems combine economic benefits, residential care, and home services; but other types of services are much less common, such as those that promote personal autonomy, counseling, guidance, and case management (Zalakain, 2017). In the traditional model of care, the user has to adjust to a system focused on attention and problem-solving, where professionals and organizations set the guidelines, and in which the subject has a passive role as a mere recipient of services. It is thus important to highlight the efforts being made in various countries to move toward a new paradigm of care, characterized by aspects such as deinstitutionalization, quality of life, and person-centered care, among others (Zalakain, 2017).

The so-called Person-Centered Care (PCC) model was first described within the psychotherapy of Rogers (1961), whose Client-Centered Therapy was based on the psychotherapist's deep attitudes of respect and acceptance toward the client and the latter's capacities for change. Rogers's proposals have been transferred to different fields of intervention such as education, medicine, geriatrics, and functional diversity (Martínez, 2013). The PCC identifies three aspects of care as fundamental principles (Smith and Williams, 2016): the change of the focus of attention of the disease to the person (i.e., taking into account the experiences and values of each individual), individualized care (determined by the needs and preferences of each person rather than by the standards of the organization) and the promotion of empowerment (i.e., respecting the patient's values and freedom of choice).

Although the use of the term PCC has become increasingly common in health and social care services around the world (McCormack et al., 2015), there is a lack of consensus and clear definition regarding its meaning and the processes involved in its application, which can become a barrier for both implementation and evaluation of PCC (Rathert et al., 2013; Sharma et al., 2016). For example, other components identified for the practice of PCC include autonomy, individuality, intimacy, independence, comprehensiveness, participation, social inclusion, and continuity of care (Rodríguez, 2013). These components, even if they are not fully agreed in the different PCC conceptual models, may be considered central elements alongside the three principles previously identified (Smith and Williams, 2016).

A necessarily related issue is the measurement of PCC, which can vary according to whether multi-item or single-item measures are used (e.g., Rosenzweig et al., 2014). Measures also vary according to whether they include unresolved issues or are in a state of development. These unresolved issues stem from several problems that occur consistently in the measurement of PCC, such as the lack of clarity in the necessary quality indicators of these instruments, the absence of an empirically agreed conceptual structure, and the variety of instruments with differing psychometric qualities. For example, the most recent synthesis of research on PCC measurement in hospital centers reported a tendency for the instruments used to not fully include the proposed theoretical dimensions, as well as a frequent under-reporting of their psychometric properties (Handley et al., 2021).

On the other hand, in a study that examined the views of clinicians, quality evaluators and academics in the context of measuring PCC, the issues that emerged were, among others: the difficulty of measuring the subjectivity involved in the identification of the dimensions of the PCC; how to differentiate between the dimensions in practice; and the infrequent use of standardized measures (Ahmed et al., 2019). Another synthesis study identified the partial coverage regarding the dimensions that are considered key in the evaluation of PCC (Hudon et al., 2011), and the partial evidence obtained from single studies that investigate a narrow range of evidence for validity (Rosenzweig et al., 2014), as other characteristics of the current state of development of measures on PCC. Finally, the latent processes involved in the effectiveness of PCC, defined as moderating

or mediating processes, are still a dark area of knowledge that interacts with the quality of the measurements (Rathert et al., 2013).

This may not come as a surprise regarding attributes that besides their conceptual complexity, such as the concordance of shared values between patients and the doctor (Winn et al., 2015), also exhibit high instrumental and methodological heterogeneity in their psychometric properties. Overall, there is a resulting difficulty in synthesizing research on a specific theoretical dimension of the PCC (Winn et al., 2015), which also seems to apply to the rest of the proposed theoretical dimensions of this approach.

Among the existing measures related to PCC, the *Person-Centered Care Assessment Tool* (P-CAT; Edvardsson et al., 2010) is an instrument designed in Australia to measure the PCC approach, and has gained wide acceptance in recent years (Martínez et al., 2015). It was developed based on research literature and interviews with professionals, experts in the field, people with dementia, and family members. It was mainly oriented toward long-term residential settings for the elderly. However, it has begun to be used in other settings, such as oncology units (Tamagawa et al., 2016) and psychiatric hospitals (degl'Innocenti et al., 2020). The tool consists of 13 items grouped into 3 subscales: personalized attention (7 items), organizational support (4 items), and accessibility of the environment (2 items). The items are ordinally scaled over 5 points (from "totally disagree" to "totally agree"); so that the possible total score ranges between 13 and 65, with the highest values being those that indicate a greater degree of attributes associated with caring for the person. In their original study (Edvardsson et al., 2010), the instrument showed satisfactory internal consistency for the total scale ( $\alpha = 0.84$ ), as well as good test-retest reliability ( $r = 0.66$ ) over a time interval of 1 week.

From a practical point of view, the P-CAT is shorter and easier than other available tools, which makes it easy to apply and interpret, while at the same time capturing all the essential elements of PCC as described in the literature. Given the potential emic characteristics of this measure, the P-CAT has been adapted in several countries with wide cultural and linguistic differences, such as Norway (Rokstad et al., 2012), Sweden (Sjögren et al., 2012), China (Zhong and Lou, 2013), South Korea (Tak et al., 2015), and Spain (Martínez et al., 2015). However, the P-CAT test has been shown to have several weaknesses in its development, such as the impossibility of evaluating the validity criterion, and a poor internal consistency for the third subscale ( $\alpha = 0.31$ ; Edvardsson et al., 2010). Furthermore, in contrast to its wide range of use, no study has been conducted in which its mean reliability was established through formal procedures.

Estimating the mean reliability stems from the tradition of integrating research on a specific parameter, which is central to meta-analytic studies. Also called *reliability generalization*, this methodology facilitates the obtaining of a meta-analytic estimation of the reliability of the scores, whose integrity varies between the administrations, and studies the characteristics of the study that can better predict these variations (Vacha-Haase, 1998). Obtaining a meta-analytic parameter such as mean reliability is of key importance beyond its theoretical

implications, since a practical implication is that allows to correctly estimate the size of the effect and the results of the statistical significance tests Wilkinson and APA Task Force on Statistical Inference (1999). On the other hand, a key theoretical implication is that mean reliability imposes limits on the interpretation of the measurement validity results (Feldt, 1997; Frary, 2000), a matter of general application that is deduced from the classical theory of tests (Feldt, 1997).

Applied to the P-CAT, the reliability of this test's scores can serve as important reference information for future studies, where the design of the sample size and the contextual conditions in which data are collected affect the quality of the study, and one of the fundamental indicators is the degree of random error in measurement (Berchtold, 2016). A meta-analytical approach to the reliability of the P-CAT not only aims at the estimation of overall reliability, but also at the investigation of its variability; for this reason, the choice of moderator variables is important insofar as they can explain part of the variability in the reliability coefficients. There are three groups of variables that can affect these coefficients (Sánchez-Meca et al., 2009): methodological factors (e.g., answer collection format, test version, group size, number of items), group origin and composition factors (e.g., clinical vs. normal nature, age and variability of the subjects, distribution by sex, ethnicity or educational level), and contextual factors (e.g., purpose of study, nationality of participants, year of study completion).

The objective of this study is to perform a reliability generalization meta-analysis to estimate the internal consistency of the P-CAT and analyze possible factors that may affect it. Additionally, a secondary objective is to evaluate the substantive or methodological characteristics of the studies that are statistically associated with the reliability coefficients, such as the year of publication, the continent of application, the version of the test (original, translation free, or adaptation), the form of application of the test (face-to-face or other, such as by telephone or internet), the context of care (geriatric residence or other), the sex of the participants, the mean age of the sample (and its standard deviation), and the mean score obtained in the test (and its standard deviation). This information is useful in order to understand, through quantitative data, which variables can affect the reliability of the instrument; and consequently, to offer guidelines to researchers and healthcare professionals to determine in what type of sample and contexts the P-CAT tends to produce more reliable scores.

## METHODS

### Procedure

This study includes a reliability generalization meta-analysis of the P-CAT. The procedure followed is divided into two steps. First, a systematic review was carried out following the PRISMA methodology (Urrútia and Bonfill, 2010). A meta-analysis was then carried out following the recommendations of the REGEMA guidelines (Sánchez-Meca et al., 2021). We also followed specific guidelines for performing reliability generalization meta-analyses (Sánchez-Meca et al., 2009; Rubio-Aparicio et al., 2018).

### Search

Initially, a search was carried out in the Cochrane database to find meta-analyses or systematic reviews carried out on the P-CAT. Since none were found, we then searched the Web of Science, PubMed, and Scopus databases. These databases are the main sources of published articles that have passed through high-quality editorial processes and content review (Falagas et al., 2008). As a search formula, the original P-CAT article (Edvardsson et al., 2010) was located, and all those articles that cited it were identified and analyzed. A complementary search was also carried out in Google Scholar so as to include "gray" literature, thus reducing the effects of publication bias (Molina, 2018). Finally, the references of the included articles were reviewed in order to collect other articles that met the search criteria but were not present in any of the aforementioned databases.

### Eligibility Criteria

Inclusion and exclusion criteria were used.

#### Inclusion Criteria

Articles had to meet a series of inclusion criteria to be incorporated into the meta-analysis: (a) be experimental or quasi-experimental studies; (b) apply the P-CAT; (c) present a sample composed of professional caregivers; (d) provide information on the reliability of the instrument in their sample(s) through the coefficient of  $\alpha$ ; (e) inform about the sample size ( $N$ ); and (f) allow access to the full text of the article. No range of years was imposed since all articles citing the P-CAT were searched and analyzed.

#### Exclusion Criteria

On the other hand, those investigations that presented at least one of the following exclusion criteria were discarded: (a) not being experimental or quasi-experimental studies; (b) not applying the P-CAT; (c) not reporting the reliability of the instrument, or reporting reliability only through values cited from previous research; (d) not indicating the sample size ( $N$ ); or (e) presenting a duplicate sample with other articles. In case (e), only the oldest article was selected, or the oldest one that provided the  $\alpha$  coefficient of the total score and not of each subscale (if the oldest article did not do that), and the rest were discarded.

### Study Selection

The search was conducted in February 2021 by a single researcher. The same researcher then screened the 106 selected articles by reading the abstracts (after eliminating 122 duplicate articles in the various databases). Only 27 articles were considered adequate after undergoing the initial screening process. After that, the same researcher performed a full analysis of the body text of the articles to identify whether they met the exclusion criteria, and as a result 5 of these 27 articles were eliminated. Finally, he checked the references of the included articles. An article found in the references of one of the selected studies was included, resulting in a final total 23 articles that met the inclusion criteria being selected to carry out the systematic review.

In longitudinal studies, or others that included more than one measurement performed on the same participants, the first study was selected. The cases in which the  $\alpha$  coefficient was reported for each of the subscales, and not for the total scale, were regarded as two different articles with their corresponding samples. In **Figure 1** the selection and screening process of the articles are illustrated in detail.

## Data Extraction

The  $\alpha$  coefficient (or coefficients in those articles that presented the  $\alpha$  of the subscales) was extracted from all the selected studies. Two types of studies were found in which the own  $\alpha$  was not reported:  $\alpha$  not reported by omission (i.e., nothing was indicated about reliability in the study) and  $\alpha$  by induction (i.e., reported by reference to another study). The number of studies found that did not report the own alpha was 20 (8 by omission and 12 by induction). No other internal consistency coefficients (e.g., omega) were found. Given the predominant use of the P-CAT total score in psychometric and non-psychometric studies, the  $\alpha$  coefficient of the P-CAT will be extracted and meta-analyzed.

Likewise, the descriptive values of variables from all the selected articles were coded, so as to subsequently evaluate their effect on the homogeneity of the reliability coefficients. The coded variables were: (a) continent in which the P-CAT was applied; (b) year of publication of the article; (c) whether the test was used in its original version, free translation or adaptation to another language; (d) the method of application of the test (coded as face-to-face or other); (e) the environment in which professional care was carried out (coded as geriatric residence or other); (f) the sex of participants (coded as number of women and number of men); (g) the mean and standard deviation of the age of the participants; and (h) the mean and standard deviation of the P-CAT scores in the study sample.

The relevance of these variables comes from their typical use as reported in the literature; that is, for their selection, indications proposed in guidelines for the performance of reliability generalization meta-analysis were followed (Henson and Thompson, 2002), and previous reliability generalization studies were also followed as examples (Sánchez-Meca et al., 2016). Sociodemographic variables such as gender and age of the participants were selected since they have been typically used in the literature to predict the variance of reliability in generalization studies. Likewise, due to the wide range of use of the P-CAT instrument and the potential emic characteristics of the measure, variables such as the continent of application and the adaptation or translation to another language were coded in order to quantify possible variations in reliability due to cultural differences. Variables such as the mean and deviation of the scores were also taken into account to verify their effect because, as psychometric theory points out, there is a positive correlation between the variability of the scores and the reliability exhibited by the sample in question (Sánchez-Meca et al., 2016). In addition, since the P-CAT has begun to be applied in care contexts other than the one proposed by the authors in the study in which it was developed, this variable has been selected to check if this change in the care environment affects the reliability of the care quality instrument. Lastly, it was verified whether the

method of application of the instrument in a way other than the traditional one (face-to-face), such as over the internet, can affect reliability.

## Statistical Analysis

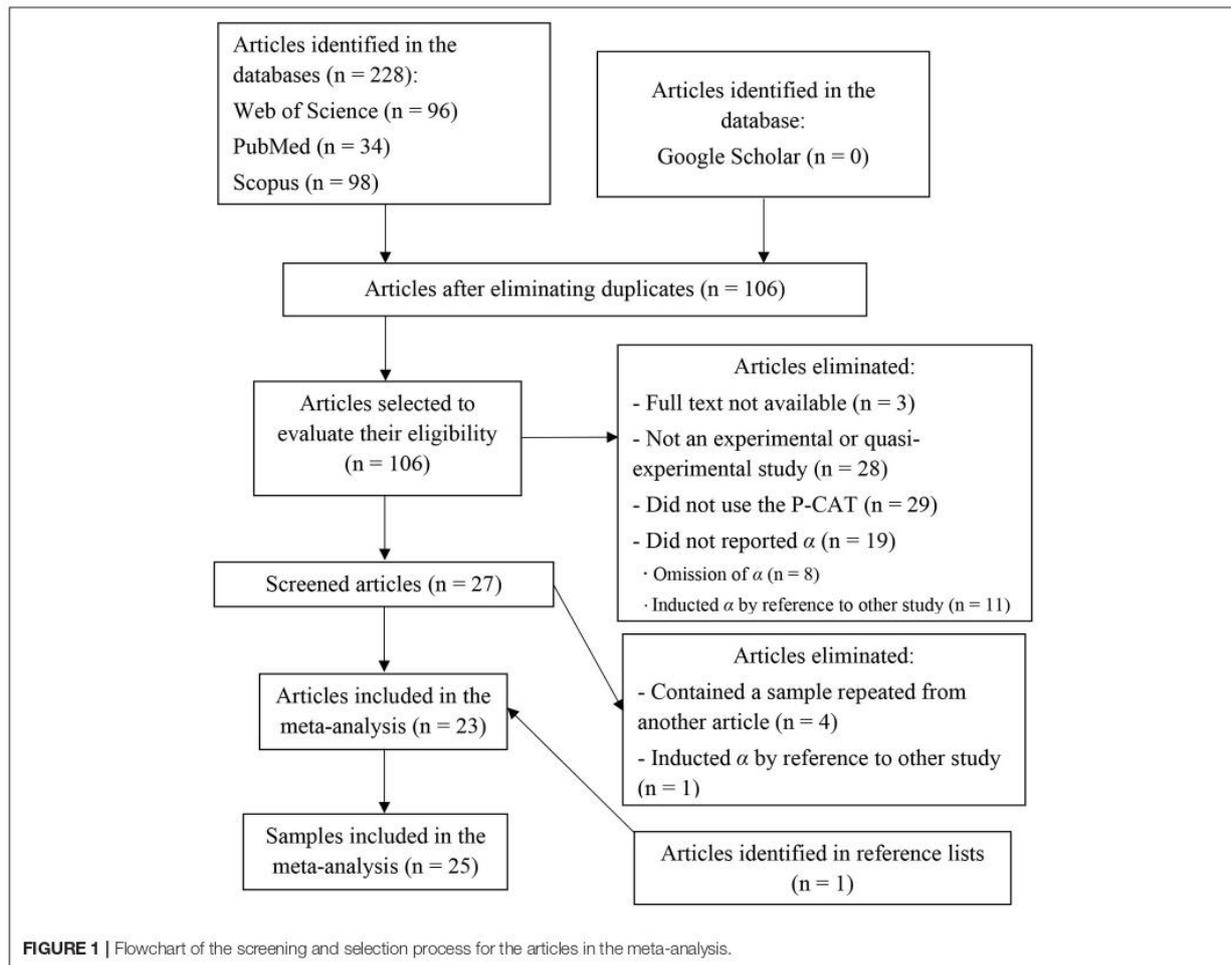
First, to assess publication bias, the Egger test was used, the null hypothesis of which was that there was no publication bias in the sample of selected articles. Second, Cochrane's  $Q$  statistic was used to evaluate the homogeneity of the reliability coefficients, the null hypothesis of this test being that there was no homogeneity in the reliability coefficients of the sample of selected studies. This was complemented with the  $I^2$  index (Higgins and Thompson, 2002), which is a measure of the degree of heterogeneity of the reliability coefficients.

Regarding the index used, this was the  $\alpha$  coefficient. One of the essential requirements to carry out a meta-analysis is that the scores (in this case, the  $\alpha$  value) follow a normal distribution (Sánchez-Meca and López-Pina, 2008). To achieve this, as a third step, the  $\alpha$  values were transformed to  $T$ -values using the formula  $T = (1-\alpha)^{1/3}$  (where  $\alpha$  is the coefficient of the total score for each sample), and each transformed  $\alpha$  was weighted with the inverse of the variance using the formula  $T_+ = \Sigma_i w_i T_i / \Sigma_i w_i$ . This weighting was done because the weighting factor that obtains the lowest error variance is the one obtained by calculating the inverse of the variance of the sampling distribution of the statistic in question (in this case, the  $T$  scores; Sánchez-Meca and López-Pina, 2008). Fourth, to calculate the weighted mean value of  $\alpha$  (i.e., expressed as a weighted  $T$ -value), and conditional on the evaluation of heterogeneity, a random effects statistical model was assumed using the restricted maximum probability method (REML), and a 95% confidence interval was calculated for this value using the method proposed by Hartung and Knapp (2001).

Fifth, to estimate the influence of the moderating variables and the variance between studies, a mixed effects model was assumed using the REML. Likewise, the method improved by Knapp and Hartung (2003) was used to calculate the mean value of  $\alpha$  and the statistical significance of each moderator, as recommended in other meta-analyses (e.g., Rubio-Aparicio et al., 2019). To determine the influence exerted by the moderating variables, each of them was analyzed in isolation. The continuous moderating variables were year of publication, number of women, number of men, mean age and standard deviation of the age of the participants, and the mean and standard deviation of the scores in the study sample. The categorical moderating variables were continent of application, test version, administration method, and care context. For the continuous moderators, a series of simple linear meta-regressions were performed using  $\alpha$  as the dependent variable, while for the categorical moderators, a series of weighted ANOVAS were performed. For all the analyses performed, version 2.1.0 of the R *Metafor* package (Viechtbauer, 2010) was used.

## Corroboration of the Meta-Analytical Report

To verify that the present work has been carried out according to the indications of REGEMA, a self-analysis was carried out in which the checklist proposed by this same



**FIGURE 1** | Flowchart of the screening and selection process for the articles in the meta-analysis.

guide was completed, visible in **Appendix 2**. It consists of 30 items that evaluate the most relevant points of each section (i.e., title, abstract, introduction, method, results, discussion, funding, and protocol), by means of categorical answers “yes” or “no” according to whether it meets the proposed item or not, respectively. The possibility “not applicable” is offered, in case the item is not relevant for this study. In order to facilitate the search for the answers offered, the page in which each item was located was pointed out.

## RESULTS

### Evaluation of Selection Bias

The total number of participants collected in the meta-analysis of the 25 selected samples was 15,149. The first analysis performed was the Egger test to detect the presence of a possible selection bias. The results of the test provided no evidence for the presence of this bias [ $t_{(23)} = -0.0503$ ,  $p = 0.9599$ ]. The mean value of  $\alpha$  for the 25 meta-analysis samples was 0.81 (95% CI: 0.79, 0.84).

**Figure 2** shows the weighted value of  $\alpha$  for each of the samples analyzed, as well as the 95% confidence intervals and sample size.

It was observed that 12 studies (48%) obtained  $\alpha$  coefficients with greater distance from the central tendency (e.g., Zhong and Lou, 2013; Bökberg et al., 2019; Le et al., 2020). On the other hand, the studies with less weight, and consequently with a greater variation due to the size of their samples, tended to be located below the meta-analytic alpha value, suggesting a possible restriction of the variance that commonly occurs.

### Evaluation of Homogeneity

The results reflected heterogeneity in the sample,  $Q_{(25)} = 204.64$ ,  $p < 0.0001$ . The  $I^2$  index yielded a proportion of variability attributable to heterogeneity of 85.83%, a value considered high. Given the heterogeneity of the studies, the next step was to analyze the moderating variables to see to what extent they affected the homogeneity of the reliability coefficients. In this analysis, the  $\alpha$  values (or more precisely, their transformed  $T$ -values) took the role of the dependent variable (DV), while the rest of the variables collected in the studies become the independent variables (IVs).

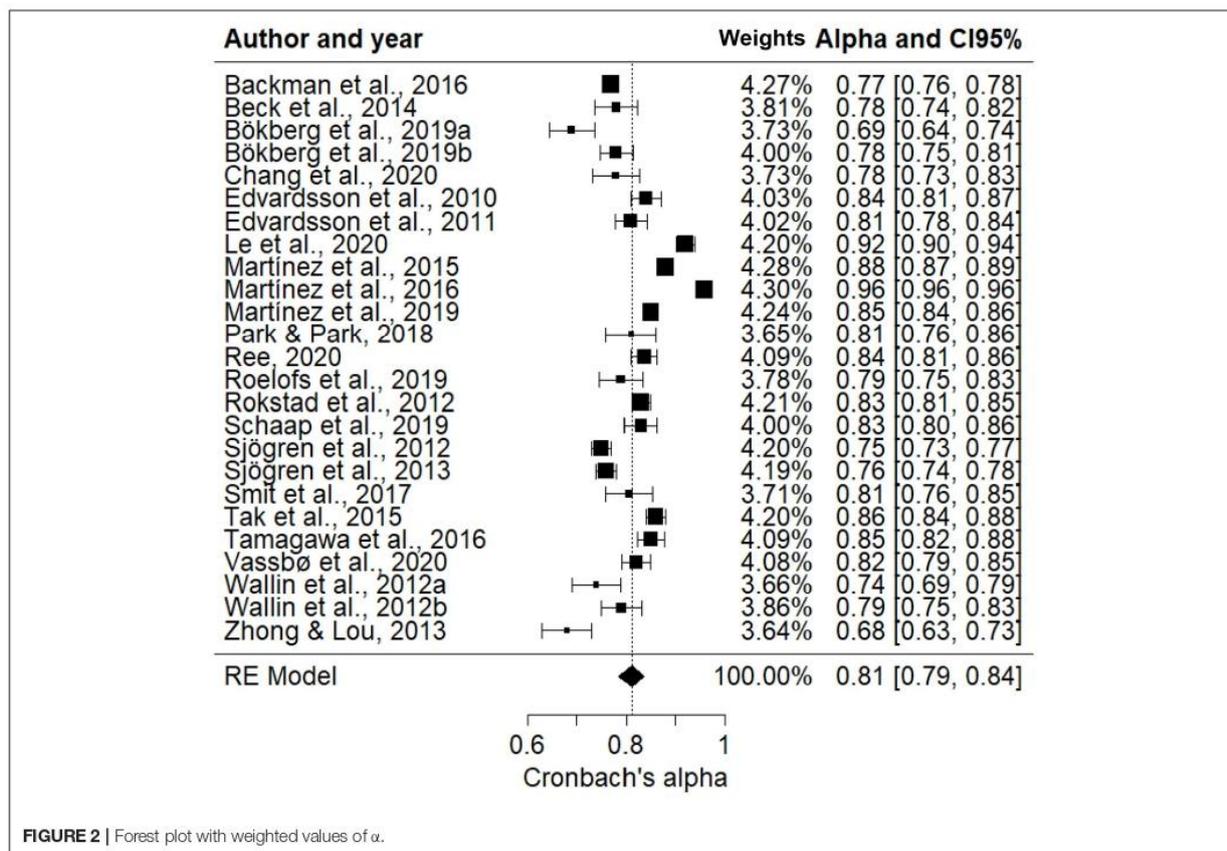


FIGURE 2 | Forest plot with weighted values of  $\alpha$ .

### Evaluation of the Moderators

The results of the simple linear meta-regression to analyze the association between the different continuous IVs and the DV are shown in **Table 1**. The variables that independently explained most proportion of the variance were the mean P-CAT score with 85.99%, followed by age with 38.98%, and deviation in age with 8.18%. However, the only variable that presented a statistically significant relationship with the  $\alpha$  coefficient was mean age. To examine the relationship between mean age and the reliability coefficient, a Pearson correlation was performed. A high level of negative linear association was observed ( $r = -0.62, p = 0.003$ ).

Next, to analyze the relationship between the categorical IVs and the DV, a series of weighted ANOVAS were performed. **Table 2** shows the results, showing which of the IVs were significantly related to the  $\alpha$  coefficient. None of the categorical variables presented statistically significant results. Furthermore, the percentage of the variance explained was 0% in all cases.

### DISCUSSION

Traditionally in the literature, reliability has been used to refer to the reliability coefficients of classical test theory (i.e., the correlation between scores in two equivalent forms of tests; American Educational Research Association, 2014). It has also

been used to refer to the consistency of scores in replicates of a test procedure, regardless of how this consistency is estimated or reported (Bökberg et al., 2019). In this sense, reliability is not an inherent property of the test, but depends on scores in a test for a particular population (Wilkinson and APA Task Force on Statistical Inference, 1999), and their variability between samples is a realist presumption. In the current study we look for meta-analysis of internal consistency (i.e.,  $\alpha$  coefficient) of P-CAT, and a mean  $\alpha$  value equal to 0.81 was observed, meta-analyzed from a total of 23 articles that included 25 samples ( $N_{total} = 15,149$ ). This magnitude of the  $\alpha$  coefficient is considered good based on some arbitrary classifications (Ponterotto and Ruckdeschel, 2007; Vaske et al., 2018) and, accordingly, the scores suggested for basic research (Nunnally and Bernstein, 1994).

However, qualification of the reliability of the P-CAT scores must be framed in terms of their intended use, and the decisions that influence their users. The P-CAT is used for research, and its use has been extended toward the characterization of psychosocial factors in the caregiving role, and within a practical, brief and efficient use orientation. Therefore, considering a rationally constructed three-way matrix (Ponterotto and Ruckdeschel, 2007), based on the magnitude of the coefficient, the sample size, and the number of total

**TABLE 1 |** Analysis of the continuous moderator variables.

IV ( <i>k</i> )	<i>b</i>	CI 95% <i>b</i>	<i>p</i>	<i>F</i>	<i>Q<sub>E</sub></i>	% <i>R</i> <sup>2</sup>
Year of publication (25)	-0.002	-0.008-0.003	0.41	0.69	196.93***	0
Women (22)	0	-0.0-0.0	0.86	0.03	192.28***	0
Men (22)	-0.0001	-0.0006-0.0003	0.60	0.30	199.01***	0
Age (mean) (21)	0.007	0.003-0.011	0.003**	11.79**	89.03***	38.98
Age (SD) (17)	0.014	-0.005-0.032	0.14	3.94	139.85***	8.18
Score (mean) (5)	0.006	0.001-0.013	0.08	6.77	3.94	85.99
Score (SD) (4)	0.010	-0.057-0.077	0.59	0.41	9.86**	0

*k*, number of samples; *b*, regression coefficient of the moderator variable; *F*, statistic of the significance test for the moderator variable; *Q<sub>E</sub>*, statistic of the test whether the model is well-specified; *R*<sup>2</sup>, proportion of the variance explained by the moderator variable.

\*\**p* < 0.001, \*\*\**p* < 0.0001.

**TABLE 2 |** Analysis of the categorical moderator variables.

IV levels ( <i>k</i> )	<i>b</i>	CI 95% <i>b</i>	<i>p</i>	<i>F</i>	<i>Q<sub>E</sub></i>	% <i>R</i> <sup>2</sup>
Continent (25)				0.11	202.83***	0%
Asia (5)	0.008	-0.07-0.09	0.83			
Europe (17)	0.009	-0.06-0.08	0.80			
Americas (1)	-0.016	-0.13-0.10	0.78			
Oceania (2)	0.016	-0.10-0.13	0.78			
Version (25)				0.13	203.40***	0%
Original version (3)	-0.014	-0.09-0.06	0.70			
Free translation (3)	0.015	-0.06-0.09	0.70			
Validated version (19)	0.014	-0.04-0.07	0.61			
Method of administration (25)				0.02	204.45***	0%
Face-to-face (7)	0.003	-0.04-0.04	0.89			
Other (18)	-0.003	-0.04-0.04	0.89			
Context of care (25)				0.97	201.62***	0%
Geriatric residence (19)	0.020	-0.02-0.06	0.34			
Other (6)	-0.020	-0.06-0.02	0.34			

*k*, number of samples; *b*, regression coefficient of the moderator variable; *F*, statistic of the significance test for the moderator variable; *Q<sub>E</sub>*, statistic of the test whether the model is well-specified; *R*<sup>2</sup>, proportion of the variance explained by the moderator variable; IV, independent variable.

\*\*\**p* < 0.0001.

score items, the level can be considered minimally acceptable, a level that is similar to 9 arbitrary rating sources cited by Ponterotto and Ruckdeschel (2007; Table 1) for measures used in psychology research. Similarly, in a review of test reviews, journal articles, and manuals (Charter, 2003), the meta-analytic reliability of the P-CAT can be placed at a level at the median of instruments (Table 2, “others” test; Charter, 2003), 0.81.

These results indicate that the P-CAT gives acceptably consistent scores when its use is oriented to the description and investigation of groups; in contrast, for making individualized decisions for patients, the amount of error around the score does not guarantee high sensitivity to detect a change in attitudes to care on an individualized basis. With 95% confidence, the mean  $\alpha$ , however, can be as low as 0.79 in the population, indicating increasing error variance. We should note that general interpretation based on arbitrary classifications is not without controversies: for example, Taber (2018) found 18 variations in

the labels used to classify the size of the  $\alpha$  coefficient, as well as a clear discrepancy in delimiting one classification from another. These levels of acceptability can be understood as connected to several misconceptions about the use and interpretation of  $\alpha$  (Ponterotto and Ruckdeschel, 2007; Cho and Kim, 2015). Some updated proposals based on modeling (e.g., Cho, 2016) or those derived from solid theoretical principles (e.g., Ponterotto and Charter, 2009) may be options that each individual study should take into account.

The heterogeneity of the reliability in this study is close to 85%, with values over 75% generally considered high (Molina, 2018). This magnitude implies that there are study conditions that increase variability, with an index so high that it was necessary to carry out an exhaustive analysis of the moderator variables that may affect it. Indeed, in the first place, after the analysis of the continuous moderators, it was observed that the reliability of the P-CAT is not affected by the year of publication. Nor does participant sex seem to influence reliability, since the

instrument was developed to assess PCC by caregivers without taking patient sex into account, meaning it is important that it has a good consistency regardless of this characteristic. This suggests that the P-CAT can yield comparable scores precision in the perception of male and female patients, and one implication is that the client-centered clinical intervention environment could be equally expressed in patients, regardless of their sex. However, this statement is conditioned by the assumption of equivalence of measurement between the two groups.

In the analyses, it was observed that only the mean age of the participants was related to the reliability of the instrument, with a considerable proportion of explained variance. Specifically, the mean age showed a negative and statistically significant correlation with the reliability coefficient, which means that the samples with younger participants exhibited better average reliability than the samples with older participants. This result suggests that the P-CAT may be adequate as a general measure of PCC levels, and that the comparison between groups of participants of different ages requires considering the different error variance in the groups. Because the comparison of groups requires the invariance of the measurement parameters (for example, configuration, factor loadings, etc.), it cannot be stated whether the heterogeneous reliability reflects the lack of invariance between groups of different ages. This aspect must be resolved in specific validation studies, through SEM modeling, or via item response theory, by examining the possible differential functioning of the items in the test.

Second, when analyzing the categorical moderators, it was found that none of the categorical variables presented statistically significant results, with the proportion of the explained variance having a value of 0% in all cases. In relation to the cultural origin of the sample (i.e., continent of application), Asia, the Americas and Oceania had validated versions in some of their countries and languages with good psychometric properties, so neither of these two versions should influence the coefficient  $\alpha$ . Only three studies in Europe used free translations, something that is currently discouraged (Sousa and Rojjanasirirat, 2011). However, in this case they had an  $\alpha$  coefficient of around 0.8, considered good (Ponterotto and Ruckdeschel, 2007; Vaske et al., 2018), so this does not seem to have affected the reliability of the instrument.

Regarding the variables of method of administration and context of care, these did not yield statistically significant results, with the percentage of variance explained being effectively zero in both. This absence of differences is aligned with the trend toward the equivalence of measurement between evaluations applied online and in a traditional pencil-and-paper form (de Beuckelaer and Lievens, 2009). The implications of this are, firstly, that the P-CAT has proven to be reliable when applied in different ways, so that it can be used in research regardless of how the data is collected. Secondly, although the P-CAT was originally developed for nursing home settings, the use of the instrument in other types of settings does not seem to produce problems in the reliability variance, and the inclusion of studies in other types of care contexts (e.g., oncology centers or hospitals) does not affect the reliability of the instrument. This potential generalization of the use of the P-CAT to produce adequately reliable scores, however, is not evidence of the validity of its internal structure, and an argument in this regard is presented in the next paragraph.

Some complementary observations of the individual studies can serve as information aligned to the reliability reporting practices of the P-CAT. Specifically, it was rare to find corroboration of the dimensionality of the P-CAT scores, possibly influenced by the presumption of established dimensionality from the original study or subsequent validation studies. Given that the synthesis studies on the measurement of PCC have characterized it as a space where there is underreporting of psychometric properties and insufficient evidence of validity, substantive non-psychometric studies require providing evidence of the dimensionality of the scores, to validate the use of the  $\alpha$  coefficient in particular (Savalei and Reise, 2019). This ensures that the reliability estimate is valid and adequate for the data (Cho, 2016), and avoids measurement validity induction from research carried out in different contexts, on qualitatively different samples, and with different study objectives (Merino-Soto and Calderón-de la Cruz, 2018; Merino-Soto and Angulo-Ramos, 2020, 2021). Part of this specific underreporting occurred in the interfactor correlations of the P-CAT, given that the psychometric studies that obtained a multidimensional factorial solution did not report this important psychometric parameter, which helps to diagnose the degree of dependence between factors and, consequently, the multidimensionality of the P-CAT.

Finally, and closely linked to the above, the P-CAT was created as a multidimensional measure, but the predominant use of the total score implies that users worked with the assumption of unidimensionality. Indeed, in about 13 substantive studies reviewed here, the total score was preferred over the individual dimension scores identified (e.g., Rokstad et al., 2012; Tak et al., 2015; Le et al., 2020). Also, Martínez et al. (2015) found that the multidimensional and unidimensional model were indistinguishable in their SEM fit indices, additionally with interfactor correlations  $>0.90$ . Therefore, the present study was oriented toward the reliability of the total score.

Regarding the limitations of the present study, firstly, the search was carried out only by one person, so an estimate of inter-rater reliability could not be made. Secondly, there were few articles found that used the P-CAT, partly due to its recent development; and even fewer that reported  $\alpha$  for their own sample. In future research it would be interesting to analyze other psychometric properties of the P-CAT, such as validity, specificity or sensitivity.

In contrast to the above, one of the strengths of this study was to minimize the presence of biases that could alter the results. Indeed, to minimize publication bias, Google Scholar was included as one of the databases, thus trying to avoid excluding unpublished research from the search. Likewise, language bias was also reduced, by avoiding overrepresentation of studies in one language, and underrepresentation in others (Grégoire et al., 1995).

## CONCLUSION

Based on the results obtained in this study, the internal consistency of the P-CAT is not affected by continuous variables such as the year of publication, the number of participants of each sex, the age deviation, or the mean and standard

deviation of the test scores. It also showed that neither the continent where the P-CAT was applied, nor the version of the test, nor the method of administration, nor the context of care seemed to affect the reliability of the instrument. In this study, only the variable of mean age was related to the reliability coefficient, obtaining a high level of negative linear association. It is suggested that the comparison between groups of participants of different ages requires considering the different error variance in the groups. Finally, the door is left open to research on the application of the P-CAT in settings other than geriatric residences, since the inclusion of studies with other types of care contexts did not affect the reliability of the instrument. In general, the results obtained in this study indicate that the P-CAT gives acceptably consistent scores when its use is oriented to the description and investigation of groups.

## DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/**Supplementary Material**, further inquiries can be directed to the corresponding author/s.

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## AUTHOR CONTRIBUTIONS

LB-L and MM-V: conception and design of the study. LB-L: data collection, management, and analysis. LB-L, MM-V, CM-S, and JL: manuscript critical review, editing, and approval. All authors contributed to the article and approved the submitted version.

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## SUPPLEMENTARY MATERIAL

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#### **Anexo 4. Estudio 4**

Bru-Luna, L. M., Martí-Vilar, M., Merino-Soto, C. y Cervera-Santiago, J. L.

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Systematic Review

# Emotional Intelligence Measures: A Systematic Review

 Lluna María Bru-Luna <sup>1</sup>, Manuel Martí-Vilar <sup>1,\*</sup>, César Merino-Soto <sup>2,\*</sup> and José L. Cervera-Santiago <sup>3</sup>

<sup>1</sup> Department of Basic Psychology, Faculty of Psychology and Speech Therapy, Universitat de València, 46010 Valencia, Spain; llunamaria.bl@gmail.com

<sup>2</sup> Psychology Research Institute, Universidad de San Martín de Porres, Lima 15102, Peru

<sup>3</sup> Department of Psychology, Faculty of Psychology, Universidad Nacional Federico Villarreal, San Miguel 15088, Peru; jcervera@unfv.edu.pe

\* Correspondence: Manuel.Marti-Vilar@uv.es (M.M.-V.); sikayax@yahoo.com.ar (C.M.-S.); Tel.: +34-696040439 (M.M.-V.); +52-7774259409 (C.M.-S.)

**Abstract:** Emotional intelligence (EI) refers to the ability to perceive, express, understand, and manage emotions. Current research indicates that it may protect against the emotional burden experienced in certain professions. This article aims to provide an updated systematic review of existing instruments to assess EI in professionals, focusing on the description of their characteristics as well as their psychometric properties (reliability and validity). A literature search was conducted in Web of Science (WoS). A total of 2761 items met the eligibility criteria, from which a total of 40 different instruments were extracted and analysed. Most were based on three main models (i.e., skill-based, trait-based, and mixed), which differ in the way they conceptualize and measure EI. All have been shown to have advantages and disadvantages inherent to the type of tool. The instruments reported in the largest number of studies are Emotional Quotient Inventory (EQ-i), Schutte Self Report-Inventory (SSRI), Mayer-Salovey-Caruso Emotional Intelligence Test 2.0 (MSCEIT 2.0), Trait Meta-Mood Scale (TMMS), Wong and Law's Emotional Intelligence Scale (WLEIS), and Trait Emotional Intelligence Questionnaire (TEIQue). The main measure of the estimated reliability has been internal consistency, and the construction of EI measures was predominantly based on linear modelling or classical test theory. The study has limitations: we only searched a single database, the impossibility of estimating inter-rater reliability, and non-compliance with some items required by PRISMA.

**Keywords:** emotional intelligence; systematic review; test; measure; questionnaire; scale



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## 1. Introduction

### 1.1. Emotional Intelligence

Emotional intelligence (EI) was first described and conceptualized by Salovey and Mayer [1] as an ability-based construct analogous to general intelligence. They argued that individuals with a high level of EI had certain skills related to the evaluation and regulation of emotions and that consequently they were able to regulate emotions in themselves and in others in order to achieve a variety of adaptive outcomes. This construct has received increasing attention from both the scientific community and the general public due to its theoretical and practical implications for daily life. The same authors defined EI as “the ability to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought” [2] (p. 511). This definition suggests that EI is far from being conceptualized as a one-dimensional attribute and that a multidimensional operationalization would be theoretically coherent.

### 1.2. Conceptualizations of Emotional Intelligence

However, over the past three decades, different ways of conceptualizing EI have emerged, which are mainly summarized in three models: ability, trait, and mixed. These models have influenced the construction of measuring instruments. In the ability model,

developed by Mayer and Salovey, EI is seen as a form of innate intelligence made up of several capacities that influence how people understand and manage their own emotions and those of others. These emotion processing skills are: (1) perception, evaluation and expression of emotions, (2) emotional facilitation of thought, (3) understanding and analysis of emotions, and (4) reflective regulation of emotions [3,4]. Consistent with this conceptualization, the measures were designed as performance tests. Subsequently, the model proposed by Petrides and Furnham [5], the trait model, was developed. This model defines EI as a trait; that is, as a persistent behaviour pattern over time (as opposed to skill, which increases with time and training), and it is associated with dispositional tendencies, personality traits or self-efficacy beliefs. It is composed of fifteen personality dimensions, grouped under four factors: well-being, self-control, emotionality and sociability [6]. The last of the three main models of conceptualization of EI is the mixed one. It is made up of two large branches that consider this construct a mixture of traits, competencies and abilities. According to the first one, developed by Bar-On [7], EI is a set of non-cognitive abilities and competences that influence the ability to be successful in coping with environmental demands and pressures, and it is composed of five key components: intrapersonal skills, interpersonal skills, adaptation skills, stress management skills and general mood. The second one, proposed by Goleman [8], also conceptualizes EI as a mixed model that shares certain aspects with the Bar-On model. It is made up of the following elements: recognition of one's own emotions, management of emotions, self-motivation, recognition of emotions in others, and management of relationships. These emotional and social competencies would contribute to managerial performance and leadership.

### *1.3. Importance of Emotional Intelligence*

To date, the importance that academics attach to the study of EI has been recognized by the literature in many areas, such as the workplace. For example, in professions where working with people is needed, burnout syndrome is common. It is a syndrome that is expressed by an increase in emotional exhaustion and indifference, as well as by a decrease in professional effectiveness [9]. To date, numerous studies have shown that EI can help change employee attitudes and behaviours in jobs involving emotional demands by increasing job satisfaction and reducing job stress [10–13]. Likewise, on the one hand, it has been found that certain psychological variables, including EI and social competence, are related to less psychological distress. On the other hand, the acquisition of emotional and social skills can serve to develop resilience, which is a protective variable against psychological distress [14].

### *1.4. Types of Measures*

With the challenge of choosing the conceptual model of EI also appears the challenge of choosing the appropriate measures to estimate it. For this reason, part of the work developed in the field of EI has focused on the creation of objective instruments to evaluate aspects associated with this construct. Most of them have been created around the main conceptualization models described in the previous paragraphs. Ability-based tools indicate people's ability to understand emotions and how they work. These types of tests require participants to solve problems that are related to emotions and that contain answers deemed correct or incorrect (e.g., participants see several faces and respond by indicating the degree to which a specific emotion is present in the face). These instruments are maximal capacity tests and, unlike trait tests, they are not designed to predict typical behaviour. Ability EI instruments are usually employed in situations where a good theoretical understanding of emotions is required [15].

Trait-based instruments are generally composed of self-reported measures and are often developed as scales where there are no correct or incorrect answers, but the individual responds by choosing the item which relates more or less to their behaviour (e.g., "Understanding the needs and desires of others is not a problem for me"). They tend to measure typical behaviour, so they tend to provide a good prediction of actual

behaviours in various situations [5]. Trait EI is a good predictor of effective coping styles when facing everyday stressors, both in adults and children, so these instruments are often used in situations characterized by stressors such as educational and employment contexts [15].

Questionnaires based on the EI mixed conceptualization often measure a combination of traits, social skills, competencies, and personality measures through self-reported modality (e.g., “When I am angry with others, I can tell them”). Some measures typically take 360-degree forms of assessment too (i.e., a self-report along with reports from supervisors, colleagues and subordinates). They are generally used in work environments, since they are often designed to predict and improve workplace performance and are often focused on emotional competencies that correlate with professional success. Despite the different ways of conceptualizing EI, there are some conceptual similarities between most instruments: they are hierarchical (i.e., they produce a total EI score along with scores on the different dimensions) and they have several conceptual overlaps that often include emotional perception, emotional regulation, and adaptive use of emotions [15].

### 1.5. Relevance of the Study

The proliferation of EI measures has received a lot of attention. However, this has not been the case in studies that synthesize their psychometric qualities, as well as those that describe their strengths and limitations. Therefore, there is a lack of studies that collect, with a wide review coverage, the instruments developed in recent years. The few reviews that can be found [16–19] are limited to describing both the most popular measures (e.g., Mayer–Salovey–Caruso Emotional Intelligence Test [MSCEIT], Emotional Quotient Inventory [EQ-i], Trait Meta-Mood Scale [TMMS], Trait Emotional Intelligence Questionnaire [TEIQue], or Schutte Self-Report Inventory [SSRI]) and those validated only in English, producing an apparent “Tower of Babel” effect (i.e., the over-representation of studies in one language and the under-representation in others) [20]. This is a problem that is not only more common than is believed, but it is also persistent [21]. This effect produces a barrier for the complete knowledge of current EI measures, the breadth of their uses in different contexts, and their incorporation into substantive studies relevant to multicultural understanding. In summary, it reduces the commonality of efforts made in different contexts to identify common and communicable objectives [22], specifically around the study of EI.

Therefore, a systematic review allows us to establish a knowledge base that contributes by (a) guiding and developing research efforts, (b) assisting in professional practice when choosing the most appropriate model in possible practical scenarios, and (c) facilitating the design of subsequent systematic evaluative reviews and meta-analysis of relevant psychometric parameters (e.g., factorial loads, reliability coefficients, correlations, etc.). For this reason, the aim of this article is to provide an updated systematic review of the existing instruments that allow the evaluation of EI in professionals, focusing on the description of its characteristics, as well as on its psychometric properties (reliability and validity). This systematic review is characterized by having a wide coverage (i.e., studies published in languages other than English) and having as a framework a consensus of description and taxonomy of valid evidence (i.e., “Standards”) [23].

## 2. Materials and Methods

This work contains a systematic review of the scientific literature published to date that includes measurements of EI. For its preparation, the guidelines proposed in the PRISMA statement [24] (Table A1) carrying out systematic reviews have been followed. Regarding the evaluation of the quality of the articles, since our study does not analyse the studies that employ the EI instruments but the instruments themselves, the assessment of the internal or external validity of the studies is not applicable to this research. However, an internationally proposed guide to the study of the validity of instruments, called “Standards”, has also been used [23]. It presents guidelines for the study of the composition, use,

and interpretation of what a test aims to measure and proposes five sources of validity of evidence: content, response processes, internal structure, relationship with other variables and the consequences of testing. Likewise, a recently proposed registration protocol [25] for carrying out systematic reviews has also been followed based on the five validity sources of the “Standards”.

### 2.1. Information Sources

The bibliographic search was carried out in three phases: an initial search to obtain an overview of the current situation, a system that applies inclusion–exclusion criteria, and a manual search to evaluate the results obtained. The search was conducted in February 2021 in the Web of Science (WoS) database, including all articles published from 1900 to 2020 (inclusive). This database was selected to perform the search because (a) it is among the databases that allows for a more efficient and adequate search coverage [26]; (b) it provides a better quality of indexing and of bibliographic records in terms of accuracy, control and granularity of information compared to other databases [27]; (c) the results are highly correlated with those of other search engines (e.g., Embase, MEDLINE and Google Scholar) [26]; (d) it is controlled by a human team specialising in the selection of its content (i.e., it is not fully automated) [28]; and (e) it has experienced a constant increase in scientific publications [29].

### 2.2. Eligibility Criteria

Although no protocol was written or registered prior to the research, the inclusion and exclusion criteria for articles and instruments were previously defined. The search was conducted according to these criteria.

#### 2.2.1. Inclusion Criteria

The inclusion criteria for the studies are made up of the following points: (a) published in peer-reviewed journals, (b) presented as full articles or short communications, (c) containing empirical and quantifiable results on psychometric properties (i.e., not only narrative descriptions), (d) containing cross-sectional or longitudinal designs, (e) written in any language (in order to collect as many instruments as possible, as well as to reduce the “Tower of Babel” effect) [20], and (f) published from 1900 to 2020 (to maximize the identification of EI measures).

As for the inclusion criteria of the instruments, they are made up of the following points: (a) instruments that measure EI, (b) articles that are the first creation study of the instrument, (c) instruments aimed at people over 18 years, (d) instruments that can be applied in the workplace.

#### 2.2.2. Exclusion Criteria

On the other hand, research that presented at least one of the following exclusion criteria was discarded: (a) contains synthesis studies (i.e., systematic reviews or meta-analyses), instrument manuals or narrative articles of instrument characteristics, (b) contains only qualitative research designs, (c) published after 2020.

Instruments that presented at least one of the following exclusion criteria were discarded: (a) instruments that were validations of the original one, (b) instruments aimed at people under 18, (c) instruments to be used in areas specifically different from the workplace.

### 2.3. Search Strategy

All available methods to obtain empirical answers have been included so as to maximize the coverage of the results. The following terms were included: test, measure, questionnaire, scale and instrument. The combinations of terms used were: “emotional intelligence AND test”, “emotional intelligence AND measure”, “emotional intelligence

AND questionnaire”, “emotional intelligence AND scale”, and “emotional intelligence AND instrument”. Only those article-type studies were selected.

In the selection process, the title, abstract and keywords of the studies identified in the search were reviewed with the aforementioned criteria. This was carried out by only one of the authors.

#### 2.4. Data Collection

The data to be extracted from each of the instruments were also defined in advance, ensuring that the information was extracted in a uniform manner. The selected documents were then recorded in a Microsoft Excel spreadsheet to check for duplicate records.

Thus, the name of the instrument and its acronym, the language and country in which it was created, and its structural characteristics (i.e., type of measurement, number of items, dimensions and items of which they were composed, and theoretical model) were extracted together with relevant psychometric information (i.e., reliability and validity). This procedure was also carried out by the same author. Articles that used different versions of the original EI instrument were accepted, but the analysis was made only on their originals. Instruments whose original manuscript were inaccessible were discarded ( $n = 10$ ), but they are presented at the end of the results. All those articles that were duplicated or that had used measures aimed at people under 18 or for contexts specifically different from the professional area (e.g., school contexts, sports contexts, etc.) were eliminated. The search process and the number of selected and excluded results can be seen in Figure 1. Regarding the ethical standards, no ethical approval or participant consent is required for this type of research (i.e., systematic review).

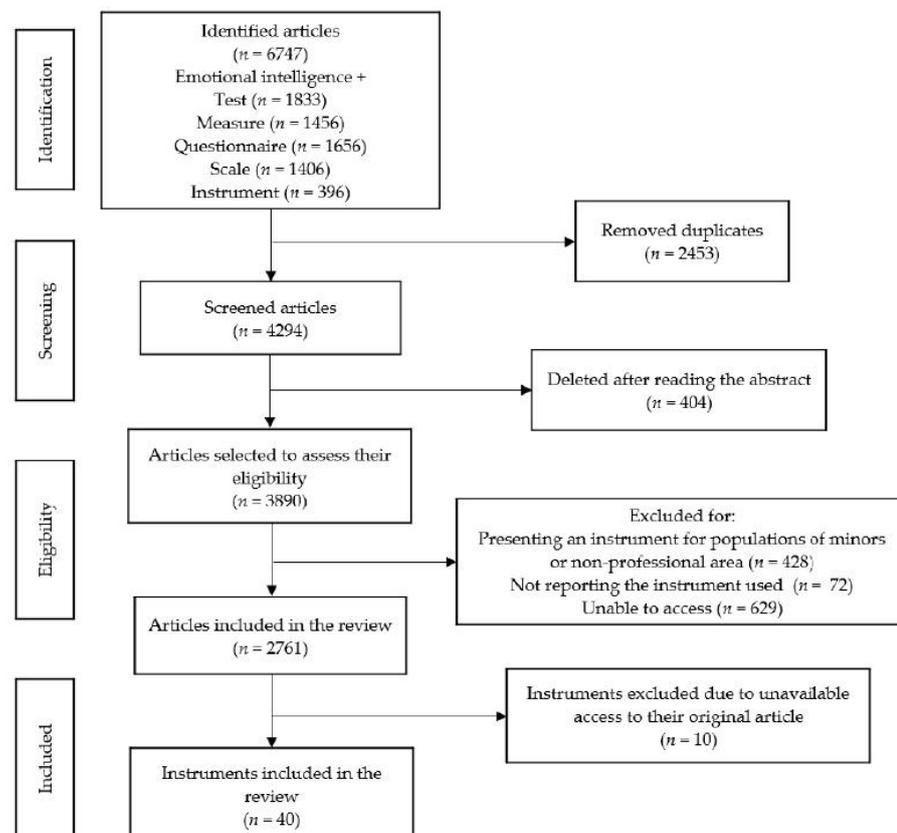


Figure 1. Flowchart according to PRISMA.

### 3. Results

A total of 40 instruments were found (Table 1 shows a synthesis of all of them). Below, a brief description of each one is presented, following which a division according to the theoretical model they use (i.e., ability-based model, trait-based model, mixed approach model, and others that do not correspond to any of them), and the psychometric properties of each one are explained.

Table 1. Main characteristics of the included instruments.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Ability-Based Model</b>						
Trait Meta-Mood Scale (TMMS) [30]	Format: scale (five-point Likert) Num. items: 48 Dimensions and items: ·Attention to feelings (21) ·Emotional clarity (15) ·Repair of the emotions (12)	English (USA)	Internal consistency: $\alpha = 0.82-0.88$ Test-retest: None	Convergent: (+): Self-Consciousness Scale, optimism (LOT) and beliefs about the changeability of negative moods (CES-D), and the Expectancies for Negative Mood Regulation (-): ambivalence over emotional expression, depression	TMMS-30 version (recommended by the authors) TMMS-24 version (widely and internationally adapted and used) [31] Translated into several languages	Team-Trait Meta Mood Scale (T-TMMS) [32]
Schutte Self-Report Inventory (SSRI) [33]	Format: questionnaire (five-point Likert) Num. items: 33 Dimensions and items: ·Appraisal and expression of emotion (13) ·Regulation of emotion (10) ·Utilization of emotion (10)	English (USA)	Internal consistency: $\alpha = 0.90$ Test-retest: $r = 0.78$ (after 2 weeks)	Internal structure: Principal-components analysis Convergent: (+): attention to feelings and mood repair (TMMS), optimism (LOT), and openness to experience (BFP) (-): pessimism (LOT), TAS, ZDS, and BIS Predictive: Therapist scored significantly higher than prisoners, and scores significantly predicted grade point average at the end of the year of college students	Modified version by Austin et al. [34] Brief version-10 items by Davies et al. [35] Translated into several languages	Validation for pre-service physical education teachers [36]

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Ability-Based Model</b>						
Multifactor Emotional Intelligence Scale (MEIS) [37]	Format: scale Num. items: 402 Dimensions and items: ·Perceiving emotion (186) ·Assimilating emotion (88) ·Understanding emotion (80) ·Managing emotion (48)	English (USA)	Internal consistency: $\alpha = 0.49\text{--}0.94$ Test–retest: None	Internal structure: Exploratory factor analysis Content: Scoring evaluated by consensus, experts, and target	Translated into several languages	–
Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT) [38]	Format: test (five-point Likert and multiple-choice items with correct or incorrect answers) Num. items: 141 Dimensions and items: ·Perceiving and identifying emotions ·Facilitation of thought ·Understanding emotions ·Managing emotions	English (USA)	Internal consistency: $\alpha = 0.76\text{--}0.91$ for the four branch scores for both methods Split-half = 0.93 and 0.91 for consensus and expert scoring, respectively Test–retest: $r = 0.55\text{--}0.88$ (after 3 weeks)	Content: The scoring is evaluated by consensus, and experts	MSCEIT Revised Version (MSCEIT 2.0) MSCEIT Youth Version (MSCEIT-YV) Translated into several languages	Traditional Chinese version (MSCEIT-TC) for people with schizophrenia [39]
Profile of Emotional Intelligence (PIEMO) [40]	Format: inventory (true and false answer options) Num. items: 161 Dimensions and items: ·Impulse inhibition (25) ·Empathy (17) ·Optimism (28) ·Social skills (16) ·Emotional expression (14) ·Achievement's acknowledgement (23) ·Self-esteem (27) ·Kindness (11)	Spanish (Mexico)	Internal consistency: $\alpha = 0.96$ Test–retest: None	Internal structure: Confirmatory factor analysis Content: Experts asked about the items	–	–

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Ability-Based Model</b>						
Wong and Law's Emotional Intelligence Scale (WLEIS) [41]	Format: scale (7-point Likert) Num. items: 16 Dimensions and items: ·Self-emotional appraisal (4) ·Others' emotional appraisal (4) ·Regulation of emotion (4) ·Use of emotion (4)	English (China)	Internal consistency: $\alpha = 0.76-0.89$ Test-retest: None	Internal structure: Exploratory factor analysis Convergent: (+): EQ-1 Discriminant: Not correlated with BFP	Translated into several languages	Korean version for Nurses [42]
Workgroup Emotional Intelligence Profile-3 (WEIP-3) [43]	Format: scale (7-point Likert) Num. items: 27 Dimensions and items: ·Awareness of own emotions ·Ability to discuss own emotions ·Ability to use own emotions to facilitate thinking ·Ability to recognise others' emotions ·Ability to detect false displays of emotion in others ·Empathetic concern ·Ability to manage others' emotions	English (Australia)	Internal consistency: $\alpha = 0.86$ Test-retest: None	Internal structure: Exploratory factor analysis Convergent: (+): Revised Self-Monitoring Scale, TMMS, IRI, and JABRI	Workgroup Emotional Intelligence Profile-Short version (WEIP-S) Later versions Translated into few languages	Spanish version of the short version (WEIP-S) in the sports context [44]
Multidimensional Emotional Intelligence Assessment (MEIA) [45]	Format: scale (6-point Likert) Num. items: 150 Dimensions and items: ·Recognition of emotion in the self ·Nonverbal emotional expression ·Recognition of emotion in others ·Empathy ·Regulation of emotion in the self ·Regulation of emotion in others ·Intuition versus reason ·Creative thinking ·Mood redirected attention ·Motivating emotions	English (USA)	Internal consistency: $\alpha = 0.81$ Test-retest: $r = 0.67-0.88$ (after 4-6 weeks)	Internal structure: Principal component analysis Convergent: (+/-): JPI-R Content: Retained only items judged a priori as representing a particular construct Criterion: (+): three satisfaction measures are consistent with the corresponding reported results for other self-report EI scales	Multidimensional Emotional Intelligence Assessment—Workplace (MEIA-W)	Multidimensional Emotional Intelligence Assessment—Workplace—Revised (MEIA-W-R; 2006, unpublished)

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Ability-Based Model</b>						
Emotional Intelligence Questionnaire (EmIn) [46]	Format: scale (4-point Likert) Num. items: 40 Dimensions and items: ·Interpersonal EI ·Intrapersonal EI	Russian (Russia)	Internal consistency: $\alpha = 0.76\text{--}0.78$ Test-retest: None	Internal structure: Factor analysis	–	–
Sojo and Steinkopf Emotional Intelligence Inventory—Revised version (IIESS-R) [47]	Format: inventory Num. items: 34 Dimensions and items: ·Perception of emotions in other people (11) ·Perception of own emotions (11) ·Emotion management (12)	Spanish (Venezuela)	Internal consistency: $\alpha = 0.90$ Test-retest: None	Internal structure: Exploratory factor analysis Principal component analysis Convergent: (+/–): IRI, and Scale of Emotional Sensitivity Content: Content of items reviewed by expert judges	–	–
Self-Rated Emotional Intelligence Scale (SREIS) [48]	Format: scale (five-point Likert) Num. items: 19 Dimensions and items: ·Perceiving emotions (4) ·Using emotions (3) ·Understanding emotions (4) ·Managing emotions (8)	English (USA)	Internal consistency: $\alpha = 0.84$ Test-retest: None	Internal structure: Confirmatory factor analysis Content: Before the administration, graduate students familiar with Mayer and Salovey's (1997) model of EI rated the validity of each item	–	–
Emotional Intelligence Self-Description Inventory (EISDI) [49]	Format: inventory (7-point Likert) Num. items: 24 Dimensions and items: ·Perception and appraisal of emotions (6) ·Facilitating thinking with emotions (6) ·Understanding emotion (6) ·Regulation and management of emotion (6)	English (USA)	Internal consistency: $\alpha = 0.91$ Test-retest: $r = 0.75\text{--}0.83$ (after 2 weeks)	Internal structure: Confirmatory factor analysis Convergent: (+): WLEIS and SREIS (+/–): BFP Discriminant: Acceptable discriminant validity vis-à-vis the Big Five Personality variables because of the criticism from scholars that EI is “little more than a repackaging of personality characteristics”	–	–

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Ability-Based Model</b>						
Greek Emotional Intelligence Scale (GEIS) [50]	Format: scale Num. items: 52 Dimensions and items: ·Expression and recognition of emotions (15) ·Control of emotions (15) ·Use of emotions for facilitating thinking (12) ·Caring and empathy (10)	Greek (Greece)	Internal consistency: $\alpha = 0.89$ Test–retest: $r = 0.90$ (after 2 weeks)	Internal structure: Principal component analysis Convergent: (+/–): BFP, SSRI, TAS, TMMS, SSI, EES, SWLS, PANAS, Locus of Control, and ASSET	–	–
Situational Test of Emotion Management (STEM) [51]	Format: test (multiple-choice/rate the extent) Num. items: 44 items Dimensions and items: ·Anger (18) ·Sadness (14) ·Fear (12)	English (Australia)	Internal consistency: $\alpha = 0.68$ (multiple choice) $\alpha = 0.92$ (rate the extent) Test–retest: None	Convergent: (+): multiple-choice STEM with Vocabulary test, agreeableness (OCEANIC-20), and retrospective (SWLS) (–): externally oriented thinking (TAS-20) Criterion: (+): multiple-choice STEM with psychology grade, and weighted average mark	Situational Test of Emotional Management-brief version Translated into few languages	STEM-B in Chinese context [52]
Situational Test of Emotional Understanding (STEU) [51]	Format: test (multiple-choice items) Num. items: 42 Dimensions and items: ·Context-reduced (14) ·Personal-life context (14) ·Workplace context (14)	English (Australia)	Internal consistency: $\alpha = 0.71$ Test–retest: None	Convergent: (+): STEM (multiple choice and rate the extent; Stories (MEIS), Vocabulary test, and agreeableness (OCEANIC-20) (–): externally oriented thinking (TAS-20) Criterion: (+): psychology grade, and weighted average mark	Situational Test of Emotional Understanding-brief version Translated into few languages	STEU-B in Chinese context [52]

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Ability-Based Model</b>						
Emotional Skills and Competence Questionnaire (ESCQ) [53]	Format: questionnaire (five-point Likert) Num. items: 45 Dimensions and items: ·Perceive and understand emotions (15) ·Express and label emotions (14) ·Manage and regulate emotions (16)	Croatian (Croatia)	Internal consistency: $\alpha = 0.67\text{--}0.90$ Test–retest: None	Internal Structure: Confirmatory factor analysis Convergent: (+): SSRI, SSI, and BFP (–): TAS	Translated into several languages	Portuguese academic context [54]
Audiovisual Test of Emotional Intelligence (AVEI) [55]	Format: test (multiple-choice items with correct or incorrect answers) Num. items: 27 Dimensions and items: ·Love ·Pride ·Shame ·Anger ·Frustration ·Happiness ·Care ·Fear ·Satisfaction ·Anger ·Sadness ·Envy	English (Israel)	Intraclass correlation: ICC = 0.65 Test–retest: None	Content: Experts asked about the items Criterion: (+): academic achievement, psychometric exam score, clinical practice grade, and interpersonal skill workshop grade (measures that are traditionally considered to be proxies of cognitive mental abilities)	–	–
Geneva Emotion Recognition Test (GERT) [56]	Format: test (forced-choice format) Num. items: 83 Dimensions and items: ·Amusement (6) ·Irritation (6) ·Anger (6) ·Joy (6) ·Disgust (6) ·Fear (6) ·Despair (5) ·Pleasure (6) ·Pride (6) ·Relief (6) ·Anxiety (6) ·Surprise (6) ·Interest (6) ·Sadness (6)	German (Germany)	IRT parameters ( $\rho = 0.92$ ) Test–retest: None	Internal structure: Comparative factor analysis Ecological: Multimodal stimuli; videos portrayed by 10 actors, men and women, and of different ages Construct: Women scored significantly higher than men	Geneva Emotion Recognition Test short version (GERT-S) Translated into few languages	Geneva Emotional Competence Test (GECe) workplace context [57]

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
Ability-Based Model						
Test of Emotional Intelligence (TIE) [58]	Format: test (five-point Likert) Num. items: 24 Dimensions and items: · Perception (6) · Understanding (6) · Facilitation (6) · Management (6)	Polish (Poland)	Internal consistency: $\alpha = 0.88$ Test-retest: None	Convergent: (+): SSRI and SIE-T Discriminant: Not correlated with NEO-FFI Construct: Women scored significantly higher than men	–	–
Videotest of Emotion Recognition [59]	Format: test (6-point Likert) Num. items: 15 Dimensions and items: · Anger (1) · Displeasure (1) · Relaxation (1) · Arousal (1) · Surprise (1) · Suffering (1) · Contempt (1) · Happiness (1) · Shame (1) · Fear (1) · Anxiety (1) · Calmness (1) · Disgust (1) · Guilt (1) · Interest (1)	Russian (Russia)	Internal consistency: $\alpha = 0.74$ Test-retest: $r = 0.55$	Convergent: (+): MSCEIT and EmIn	–	–
Self-Perception of Emotional Intelligence Questionnaire (EIQ-SP) [60]	Format: questionnaire (five-point Likert) Num. items: 18 Dimensions and items: · Perception, evaluation and emotional expression (4) · Emotional facilitation of thought (5) · Emotional understanding and analysis (6) · Emotion regulation (3)	Portuguese (Portugal)	Internal consistency: $\alpha = 0.70-0.77$ Test-retest: None	Internal structure: Exploratory factor analysis Confirmatory factor analysis	–	–
Three-Branch Emotional Intelligence Forced-Choice Assessment (TEIFA) [61]	Format: forced-choice assessment Num. items: 18 Dimensions and items: · Emotion perception (6) · Emotion understanding (6) · Emotion management (6)	English (USA)	Reliability of TEIFA is not reported as reliability for forced-choice tests is artificially high	Internal structure: Confirmatory factor analysis Convergent: (+/-): SSRI	–	–

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Ability-Based Model</b>						
Three-Branch Emotional Intelligence Rating Scale Assessment (TEIRA) [61]	Format: scale (6-point Likert) Num. items: 18 Dimensions and items: ·Emotion perception (6) ·Emotion understanding (6) ·Emotion management (6)	English (USA)	Internal consistency: $\alpha = 0.79\text{--}0.90$ Test-retest: None	Internal structure: Confirmatory factor analysis Convergent: (+): STEU-B, STEM-B and SREIS	–	–
North Dakota Emotional Abilities Test (NEAT) [62]	Format: test (rate-the-extent) Num. items: 30 Dimensions and items: ·Perception (10) ·Understanding (10) ·Management (10)	English (USA)	Internal consistency: $\alpha = 0.74\text{--}0.90$ Test-retest: None	Internal structure: Confirmatory factor analysis Predictive: NEAT scores predicted the ability to decode facial expressions of emotion, the ability to assign accurate evaluations to word stimuli, and the ability to make judgments consistent with appraisal theories of emotion Convergent: (+): DANVA 2-AF, STEU and STEM	–	–
Perceived Emotional Intelligence Inventory (IIEP) [63]	Format: inventory (five-point Likert) Num. items: 101 Dimensions and items: ·Emotional attention (interpersonal) (21) ·Emotional understanding (intrapersonal) (20) ·Emotional regulation (intrapersonal) (22) ·Emotional attention (intrapersonal) (13) ·Emotional understanding and regulation (interpersonal) (13) ·Emotional expression (12)	Spanish (Argentina)	Internal consistency: $\alpha = 0.81\text{--}0.93$ Test-retest: None	Internal structure: Exploratory factor analysis Content: Judges asked to classify each item according to the dimensions evaluated, judge each item considering its relevance and formal quality, and make all necessary observations and suggestions in order to improve them	–	–

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Ability-Based Model</b>						
Mobile Emotional Intelligence Test (MEIT) [64]	Format: test (different tasks) Num. items: 42 Dimensions and items: ·Perceiving emotions ·Understanding emotions ·Managing emotions	Spanish (Spain)	Internal consistency: $\alpha = 0.91$ Test-retest: None	Internal structure: Confirmatory factor analysis Convergent: (+): TMMS-24, RAVEN and SWLS	–	–
Emotional Intelligence Test (EIT) [65]	Format: test Num. items: Dimensions and items: ·Perceiving emotions ·Facilitation of thought using emotions ·Understating and analyzing emotions ·Conscious managing of emotions	Russian (Russia)	Internal consistency: $\alpha = 0.93$ Test-retest: None	Internal structure: Factor analysis Convergent: (+): MSCEIT 2.0	–	–
<b>Mixed model</b>						
Emotional Quotient Inventory (EQ-i) [7]	Format: inventory (five-point Likert) Num. items: 133 Dimensions and items: ·Intrapersonal ·Interpersonal ·Adaptability ·Stress management ·General mood	English (USA)	Internal consistency: $\alpha = 0.75-0.84$ Test-retest: None	Internal structure: Principal component analysis Construct: (+): measures of emotional stability (–): measures of neuroticism and psychopathology	EQ-i: Short Version (EQ-i: S) EQ-i 2.0 EQ-i: 360° Version (EQ-i: 360°) EQ-i: Youth Version (EQ-i: YV) and EQ-i: Youth Short Version (EQ-i: YVS) Translated into more than 30 languages	EQ-i: YV in Spanish adolescents with Down syndrome [66]
Emotional Competence Inventory 2.0, (ECI 2.0, previously ECI) [67]	Format: inventory (6-point Likert) Num. items: 72 Dimensions and items: ·Self-awareness (18) ·Self-management (18) ·Social awareness (18) ·Relationship management (18)	English (USA)	Internal consistency for “others” ratings: $\alpha = 0.78$ Internal consistency for “self” ratings: $\alpha = 0.63$ Test-retest: None	Internal structure: Confirmatory factor analysis	ECI (older version) ECI-University Version (ECI-U)	–

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Mixed model</b>						
Emotional Intelligence Questionnaire (EIQ) [68]	Format: questionnaire Num. items: 69 Dimensions and items: ·Self-awareness (12) ·Emotional resilience (11) ·Motivation (10) ·Interpersonal sensitivity (12) ·Influence (10) ·Decisiveness (7) ·Conscientiousness and integrity (7)	English (UK)	Internal consistency: $\alpha = 0.70\text{--}0.59$ Split-half = 0.52–0.71 Test–retest: None	Face: Adverse comments not received and many subjects said that the questionnaire was measuring EI Content: Extensive literature revised about aspects of EI Construct: (+/–): 16PF, OPQ, and BTR Predictive: EQ competences scale predicted organisational level advancement over a seven-year period	–	–
Emotional Intelligence Inventory [69]	Format: inventory (7-point Likert) Num. items: 61 Dimensions and items: ·Emotionality and impulsiveness (15) ·Self-acceptance (5) ·Problem-solving orientation (6) ·Self-awareness (6) ·Self-confidence (4) ·Decisiveness and independence (7) ·Personal fulfilment (4) ·Empathy (4) ·Anxiety and stress (7) ·Assertiveness (3)	English (India)	Internal consistency: $\alpha = 0.76\text{--}0.78$ Test–retest: None	Predictive: (+): several scales and number of promotions attained and rated job success	–	–
Emotional Intelligence Appraisal (EIA) [70]	Format: test (6-point Likert) Num. items: 28 Dimensions and items: ·Self-awareness (6) ·Social awareness (5) ·Self-management (9) ·Relationship management (8)	English (USA)	Internal consistency: $\alpha = 0.85\text{--}0.91$ Test–retest: None	Internal structure: Principal component analysis Content: Experts asked about the items	Me Edition (online self-report version) MR Edition (online multi-rater method with combination of responses from co-workers) Team EQ Edition (anonymous ratings from multiple individuals to yield an EQ score for the entire team)	–

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Mixed model</b>						
Emotional Intelligence Scale (EIS) [71]	Format: scale (4-point Likert) Num. items: 23 Dimensions and items: ·Self-management and creativity ·Social capacity ·Emotional self-awareness	English (Norway)	Internal consistency: $\alpha = 0.93$ Test-retest: None	Internal structure: Exploratory factor analysis Content: Tested by means of expert evaluation	–	–
USM Emotional Quotient Inventory (USMEQ-i) [72]	Format: inventory (five-point Likert) Num. items: 46 Dimensions and items: ·Emotional control ·Emotional maturity ·Emotional conscientiousness ·Emotional awareness ·Emotional commitment ·Emotional fortitude ·Emotional expression	Malaysian (Malaysia)	Internal consistency: $\alpha = 0.96$ Test-retest: None	Internal structure: Factor analysis	–	–
Indigenous Scale of Emotional Intelligence [73]	Format: scale (4-point Likert) Num. items: 56 Dimensions and items: ·Interpersonal skill (8) ·Self-regard (6) ·Assertiveness (7) ·Emotional self-awareness (5) ·Empathy (5) ·Impulse control (5) ·Flexibility (5) ·Problem solving (5) ·Stress tolerance (5) ·Optimism (5)	Urdu (Pakistan)	Internal consistency: $\alpha = 0.95$ Test-retest: None	Internal structure: Principal component analysis Construct: Women scored significantly higher than men Convergent: (+): EQ-i	–	–
<b>Trait-Based model</b>						
Trait Emotional Intelligence Questionnaire (TEIQue) [6]	Format: questionnaire (five-point Likert) Num. items: 153 Dimensions and items: ·Emotionality ·Self-control ·Sociality ·Well-being	English (UK)	Internal consistency: $\alpha = 0.89–0.92$ Test-retest: None	Internal structure: Principal component analysis Convergent: (+): BFP	TEIQue Short Form (TEIQue-SF) TEIQue-360° and 360°-SF TEIQue Adolescent Form (TEIQue-AF) and TEIQue-ASF TEIQue Child Form (TEIQue-CF) Translated into several languages	Spanish-Chilean short form [74]

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
<b>Trait-Based model</b>						
Rotterdam Emotional Intelligence Scale (REIS) [75]	Format: scale (five-point Likert) Num. items: 28 Dimensions and items: ·Self-focused emotion appraisal (7) ·Other-focused emotion appraisal (7) ·Self-focused emotion regulation (7) ·Other-focused emotion regulation (7)	Dutch (Netherlands)	Internal consistency: $\alpha = 0.80\text{--}0.85$ Test-retest: None	Internal structure: Confirmatory factor analysis Convergent: (+): WEIS, TEIQue, and PEC Criterion: (–): self-focused emotion regulation with tutors' perceived stress (+): other-focused emotion regulation with tutors' work engagement, jobseekers' other-rated interview performance and leaders' transformational leadership style	–	–
<b>Others</b>						
Genos Emotional Intelligence Inventory (previously SUIET) [76]	Format: inventory (five-point Likert) Num. items: 70 Dimensions and items: ·Emotional self-awareness (10) ·Emotional expression (10) ·Emotional awareness of others (10) ·Emotional reasoning (10) ·Emotional self-management (10) ·Emotional management of others (10) ·Emotional self-control (10)	English (Australia)	Internal consistency: $\alpha = 0.96$ Test-retest: $r = 0.83$ (after 2 month) $r = 0.72$ (after 6 month)	Internal Structure: Confirmatory factor analysis Convergent: (+): SUEIT and TMMS Predictive: (+): performance (i.e., sales revenue) in a sample of pharmaceutical sales representatives	31-item Concise Version 14-item Short Version	–

Table 1. Cont.

Measure	Structural Characteristics	Languages (Origin Country)	Psychometric Data		Other Versions	Last Validation
			Reliability	Validity		
Others						
Profile of Emotional Competence (PEC) [77]	Format: scale (five-point Likert) Num. items: 50 Dimensions and items: · Intrapersonal emotional competence (25) · Interpersonal emotional competence (25)	French (France)	Internal consistency: $\alpha = 0.93$ Test-retest: None	Convergent: (+): TEIQue-SF Criterion: (+): happiness, subjective health, social relationships, and positive affectivity (−): negative affectivity Divergent: Not correlated with general cognitive ability	Translated into few languages	French short version for cancer patients [78]
Group-level Emotional Intelligence Questionnaire [79]	Format: questionnaire (five-point Likert) Num. items: 36 Dimensions and items: · Group learning ability (11) · Emotional capability (9) · Performance (5) · Relationship capability (9) · New member conformity (2)	English (USA)	Internal consistency: $\alpha = 0.80$ Test-retest: None	Internal structure: Exploratory factor analysis Confirmatory factor analysis	–	–

TMMS: Trait Meta-Mood Scale, LOT: Life Orientation Test, CES-D: Center for Epidemiologic Studies Depression Scale; SSRI: Schutte Self-Report Inventory, BFP: Big Five Personality, TAS: Toronto Alexithymia Scale, ZDS: Zung Self-Rating Depression Scale, BIS: Barratt Impulsiveness Scale; MEIS: Multifactor Emotional Intelligence Scale; MSCEIT: Mayer-Salovey-Caruso Emotional Intelligence Test, MSCEIT 2.0: Mayer-Salovey-Caruso Emotional Intelligence Revised Version, MSCEIT-YV: Mayer-Salovey-Caruso Emotional Intelligence Youth Version, MSCEIT-TC: Mayer-Salovey-Caruso Emotional Intelligence Chinese Version; PIEMO: Profile of Emotional Intelligence; WLEIS: Wong and Law’s Emotional Intelligence Scale, EQ-i: Emotional Quotient Inventory; WEIP-3: Workgroup Emotional Intelligence Profile-3, WEIP-S: Workgroup Emotional Intelligence Profile-Short Version, IRI: Interpersonal Reactivity Index, JABRI: Job Associate-Bisociate Review Index; MEIA: Multidimensional Emotional Intelligence Assessment, JPI-R: Jackson Personality Inventory-Revised, MEIA-W: Multidimensional Emotional Intelligence Assessment-Workplace, MEIA-W-R: Multidimensional Emotional Intelligence Assessment-Workplace-Revised; EmIn: Emotional Intelligence Questionnaire; IIESS-R: Sojo and Steinkopf Emotional Intelligence Inventory-Revised Version; SREIS: Self-Rated Emotional Intelligence Scale; EISDI: Emotional Intelligence Self-Description Inventory; GEIS: Greek Emotional Intelligence Scale, SSI: Social Skills Inventory, EES: Emotion Empathy Scale, SWLS: Satisfaction with Life Scale, PANAS: Positive and Negative Affect Schedule, ASSET: An Organisational Stress Screening Tool; STEM: Situational Test of Emotion Management; OCEANIC-20: Openness Conscientiousness Extraversion Agreeableness Neuroticism Index Condensed 20-item version, STEM-B: Situational Test of Emotion Management-Brief Version; STEU: Situational Test of Emotional Understanding, STEU-B: Situational Test of Emotional Understanding-Brief Version; ESCQ: Emotional Skills and Competence Questionnaire; AVEI: Audiovisual Test of Emotional Intelligence; GERT: Geneva Emotion Recognition Test, GERT-S: Geneva Emotion Recognition Test-Short Version, GECO: Geneva Emotional Competence Test; TIE: Test of Emotional Intelligence, SIE-T: Emotional Intelligence Scale-Faces, NEO-FFI: NEO Five-Factor Inventory; EIQ-SP: Self-Perception of Emotional Intelligence Questionnaire; TEIFA: Three-Branch Emotional Intelligence Forced-Choice Assessment; TEIRA: Three-Branch Emotional Intelligence Rating Scale Assessment; NEAT: North Dakota Emotional Abilities Test, DANVA 2-AF: Diagnostic Analysis of Nonverbal Accuracy-Adult Faces; IIEP: Perceived Emotional Intelligence Inventory; MEIT: Mobile Emotional Intelligence Test; RAVEN: Raven’s Progressive Matrices; EIT: Emotional Intelligence Test; EQ-i: S: Emotional Quotient Inventory Short Version, EQ-i: 2.0: Emotional Quotient Inventory Revised Version, EQ-i: 360°: Emotional Quotient Inventory-360-degree version; EQ-i: YV: Emotional Quotient Inventory-Youth Version, EQ-i: YVS: Emotional Quotient Inventory Youth Short Version; ECI 2.0: Emotional Competence Inventory 2.0, ECI-U: Emotional Competence Inventory University Version; EIQ: Emotional Intelligence Questionnaire; 16PF: Sixteen Personality Factor Questionnaire, OPQ: Occupational Personality Questionnaire, BTR: Belbin Team Roles; EIA: Emotional Intelligence Appraisal; EIS: Emotional Intelligence Scale; USMEQ-I: USM Emotional Quotient Inventory; TEIQue: Trait Emotional Intelligence Questionnaire, TEIQue-SF: Trait Emotional Intelligence Questionnaire-Short Form, TEIQue-360°: Trait Emotional Intelligence Questionnaire-360-degree version, TEIQue-AF: Trait Emotional Intelligence Questionnaire Adolescent Form, TEIQue-CF: Trait Emotional Intelligence Questionnaire-Child Form; REIS: Rotterdam Emotional Intelligence Scale, PEC: Profile of Emotional Competence.

### 3.1. Ability-Based Measures

The first category includes those instruments based on the ability-based model, mainly on that of Mayer and Salovey [4]. The first instrument created under this conceptualization is the Trait Meta-Mood Scale (TMMS) [30], a self-report scale designed to assess people's beliefs about their own emotional abilities. It measures three key aspects of perceived EI: attention to feelings, emotional clarity and repair of emotions. It presents a very good reliability [80] and convergent validity with various instruments, although the authors recommend the use of a later version of 30 items. It also presents a widely used 24-item version [31] that has been validated in many countries.

Three years later, the Schutte Self-Report Emotional Intelligence (SSRI) test was developed [33]. This questionnaire is answered through a five-point Likert scale and is composed of one factor that is divided into three categories: appraisal and expression of emotion in the self and others, regulation of emotion in the self and others and utilization of emotions in solving problems. It shows excellent internal consistency. It presents negative correlations with instruments that measure alexithymia, depression and impulsivity among others, which confirms its convergent validity. There is a modified version [34] and an abbreviated version [35], and it has been translated into many languages.

The Multifactor Emotional Intelligence Scale (MEIS) [37] is another tool developed by the authors that originally defined and conceptualized EI. The MEIS is a scale made up of 12 different tasks that contains 402 items and it has been translated into several languages. However, it has strong limitations such as its length and the low internal consistency offered by some of the tasks (e.g., "blends" and "progressions";  $\alpha = 0.49$  and  $0.51$ , respectively). These authors developed, years later, the Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT) [38]. The items developed for the MEIS served as the starting point for the MSCEIT. This measure is composed of a five-point Likert scale and multiple response items with correct and incorrect options, which comprise eight tasks. Each of the four dimensions is assessed through two tasks. It presents an adequate internal consistency. It currently has a revised version by the same authors, and another validated in a young population. In addition, it has been translated into many languages. This instrument has detractors. Its convergent validity has been questioned since no correlation has been found between the emotional perception scale of MSCEIT and other emotional perception tests [81]. As can be seen in Table 1, the MSCEIT has two different approaches to construct the score (consensus score and expert score). In the case of EI, it is difficult to classify an answer as correct or incorrect, so if a person responds in a different way to the experts or the average, it might mean that they have low emotional capacity or present a different way of thinking [81].

In the same year, three more instruments based on this conceptualization were developed in different countries. The first one, the Profile of Emotional Intelligence (PIEMO) [40] is an inventory developed in Mexico. Their items consist of a statement that represents a paradigmatic behaviour trait of EI with true and false answers. It is composed of eight independent dimensions that together constitute a profile. Its internal consistency is excellent and its validity has been tested by a confirmatory factor analysis and expert consultations on the items.

The second instrument is Wong and Law's Emotional Intelligence Scale (WLEIS) [41]. It was developed in China to measure EI in a brief way in leadership and management studies. It has an adequate internal consistency and has positive correlations with the TMMS and the EQ-i. Subsequent studies have shown its predictive validity in relation to life satisfaction, happiness or psychological well-being, and its criteria's validity with respect to personal well-being. Measurement equivalence of scores in different ethnic and gender groups has also been tested [82]. It has been translated into a multitude of languages and it is currently one of the most widely used instruments.

The third instrument is the Workgroup Emotional Intelligence Profile-3 (WEIP-3) [43]. It is a scale designed in Australia as a self-report to measure the EI of people in work teams. It has very good internal consistency and presents correlations with several instruments that prove its convergent validity. The authors made a particularly interesting finding in

their study. Teams that scored lower in the WEIP-3 performed at lower levels in their work than those with high EI. This instrument has a short version and has been translated into different languages.

The Multidimensional Emotional Intelligence Assessment (MEIA) [45] was developed in the USA. The authors state that the test takes only 20 min. It has very good internal consistency. Its validity has been tested in different ways. Content validity was tested by independent experts who considered each element as representative of its target scale. Convergent validity was tested by significant correlations between the scores and personality tests. Finally, the lack of correlation between the MEIA and theoretically unrelated personality tests proved the divergent validity. It has a version for the work context.

The Sojo and Steinkopf Emotional Intelligence Inventory—Revised version (IIESS-R) [47] was developed in Venezuela to measure the three dimensions that compose it. It presents 34 phrases that describe the reactions of people with high EI, as well as contrary behaviours. It has excellent internal consistency and its content has been validated through expert judgment. It shows correlations with some scales of similar instruments and its internal structure has been tested by exploratory analysis and PCA.

In the original article of the Emotional Intelligence Questionnaire (EmIn), created for the Russian population [46], its author proposes his own model of ability-based EI that differs in some aspects from that proposed by Mayer and Salovey. Accordingly, he designed a questionnaire to measure the participants' beliefs about their emotional abilities under this model. It is composed of two dimensions answered using a 4-point Likert scale. Their scales have a good internal consistency, but their validity has not been tested beyond the factor analysis of its internal structure. Years later, this same author developed the Videotest of Emotion Recognition [59], an instrument that uses videos as stimuli. It was also designed in Russia to obtain precision indexes in the recognition of the types of emotions, as well as the sensitivity and intensity of the observed emotions. It has 15 scales that measure through a single item each of the emotions recorded by the instrument. Its internal consistency is good. It is correlated with MSCEIT and EmIn, which proves its convergent validity.

Another instrument based on the Mayer and Salovey model is the Self-Rated Emotional Intelligence Scale (SREIS) [49]. It was developed throughout three studies that used the MSCEIT as a comparison. The first one did not show a very high correlation between the scores of both tools. In the second one, only men's MSCEIT scores correlated with perceived social competence after personality measures remained constant. Finally, in the third only MSCEIT predicted social competence, but only for males again. Internal consistency was also not consistent throughout the three studies, as the  $\alpha$  yielded values were 0.84, 0.77, and 0.66, respectively. Its internal structure was tested by a confirmatory factor analysis and the content of each item was validated by the judgment of students familiar with the Mayer and Salovey model. It has been translated into several languages.

The Emotional Intelligence Self-Description Inventory (EISDI) [49] is also a short instrument, consisting of four dimensions designed to assess EI in the workplace. It has an excellent internal consistency. It presents correlations with instruments such as the WLEIS and the SREIS and a discriminant validity with the Big Five Personality. The same year, the Greek Emotional Intelligence Scale (GEIS) [51] was developed in Greek to assess four basic dimensions of EI. Its internal consistency is very good, as well as its test–retest value. Its internal structure was verified by a PCA, and its convergent and divergent validity were tested by a series of studies with 12 different instruments.

MacCann and Roberts [51] developed two instruments to assess EI according to the ability-based model: the Situational Test of Emotion Management (STEM) and the Situational Test of Emotional Understanding (STEU). Both are made up of three dimensions and a similar number of items. The first one measures the management of emotions such as anger, sadness and fear, and it can be administered in two formats: multiple choice response and rate-the-extent (i.e., test takers rate the appropriateness, strength, or extent of each alternative, rather than selecting the correct alternative). The STEU presents a series

of situations about context-reduced, personal-life context, and workplace-context, which provoke a main emotion that is the correct answer to be chosen by the participant among other incorrect ones. Both instruments have similar internal consistency for the multiple response format, while for the rate-the-extent format it is much higher. Both present criteria and convergent validity and have an abbreviated version.

The Emotional Skills and Competence Questionnaire (ESCQ) [53] is an instrument developed in Croatia that measures EI through three basic dimensions using a five-point Likert scale. The subscales have a reliability that varies between good and excellent, and they correlate with other EI and personality instruments. The ESCQ has been translated into several languages.

The Audiovisual Test of Emotional Intelligence (AVEI) [55] is an Israeli instrument aimed at educational settings related to care-centred professions. Their items are developed from primary and secondary emotions, both positive and negative. Each one consists of short videos generated by researchers with training in psychology and visual arts. People should choose the correct answer among 10 alternatives and it takes between 12 and 18 min to be completed. It requires computers equipped with audio. The internal consistency was calculated using ICC coefficients. It has content validations through expert consultations on the items and criteria since it correlates with measures traditionally related to EI.

The Geneva Emotion Recognition Test (GERT) [57] is a German test composed of 14 scales. The stimuli are, as in the AVEI, short image and audio videos recorded by five men and five women of different ages. Thus, people must choose which of the 14 emotions is being expressed by the actors, with the responses labelled as correct or incorrect. The reliability of the test is considered excellent, and the ecological and construct validity of the instrument has been tested.

The Test of Emotional Intelligence (TIE) [58] is developed in Poland. It consists of the same four dimensions as the MSCEIT. After providing participants with different emotional problems, they should indicate which emotion is most likely to occur or choose the most appropriate action. The score is based on expert judgment. It has a very good internal consistency. It has convergent validity since it correlates with the SSEIT and has construct validity since women scored higher than men.

The Self-Perception of Emotional Intelligence Questionnaire (EIQ-SP) [60] is an instrument designed in Portugal and composed of the four dimensions belonging to the Mayer and Salovey's ability-based model. Their scales have good internal consistency and are correlated with each other.

The Three-Branch Emotional Intelligence Rating Scale Assessment (TEIRA) [61] and the Three-Branch Emotional Intelligence Forced-Choice Assessment (TEIFA) [61] were developed in 2015. The first is made up of three scales and is answered by a six-point Likert scale. It presents internal consistency between good and excellent and convergent validity with STEU-B and STEM-B. On the other hand, TEIFA presents a format of forced choice in order to avoid the problem of social desirability in the rating scales. In this format, participants must choose among several positive statements and therefore they cannot simply rate themselves highly on everything (e.g., "Which one is more like you: I know why my emotions change or I manage my emotions well"). It consists of the same items and dimensions as the TEIRA. The study does not report the reliability of TEIFA, as the reliability of the forced-choice tests is artificially high. It presents convergent validity with the SSRI.

A year later, the North Dakota Emotional Abilities Test (NEAT) [62] was developed in the USA to assess the ability to perceive, understand and control emotions in the workplace. It contains items that describe scenarios of work environments, in which the person must rate the extent of certain emotions that the protagonist would experience in a certain situation. The internal consistency of its scales varies between good and excellent and its internal structure has been tested by a confirmatory factor analysis. In addition, the predictive validity of the instrument has also been tested.

The Inventory of Perceived Emotional Intelligence (IIEP) [63] was developed in Argentina. It measures different components of intrapersonal and interpersonal EI. This inventory is answered using a five-point Likert scale and it has reliable dimensions. Its content validity has been tested through consultations with judges to evaluate the items.

The last of the instruments in this category is the Emotional Intelligence Test (EIT) [65]. It was developed in Russia and has four dimensions that assess EI in the workplace. It has excellent internal consistency and convergent validity tested by correlations with the MSCEIT 2.0. No information regarding the items that compose it has been found.

### 3.2. Measures Based on the Mixed Model

The second category includes those instruments based on the mixed EI model, mainly the Bar-On model [7] and the Goleman model [8]. The first instrument of this model is the Emotional Quotient Inventory (EQ-i) [7]. Its author was the first to define EI as a mixed concept between ability and personality trait. It is a self-report measure of behaviour that provides an estimate of EI and social intelligence. Their items are composed of short sentences that are answered using a five-point Likert scale. It takes about 30 min to complete, so other shorter versions have been developed, as well as a 360-degree version and a version for young people. It has been translated into more than 30 languages. It has an internal consistency between good and very good and its construct validity has been tested by correlations with other variables.

Emotional Competence Inventory 2.0 (ECI 2.0) [67], also called ESCI, is a widely used instrument. It was developed in the USA by another of the authors who conceptualized the mixed model of EI. It was designed in a 360-degree version to assess the emotional competencies of individuals and organizations. The internal consistency of others' ratings is good, while that of oneself is questionable, and it shows positive correlations with constructs related to the work environment. It has a version for university students and has been translated into several languages.

The Emotional Intelligence Questionnaire (EIQ) [68] is another tool designed to measure EI in the workplace. It has face, content, construct, and predictive validity, although the internal consistency of its scales varies between good and not very acceptable. Years later, the Emotional Intelligence Inventory [69] was developed in India. It was also designed to measure EI using a mixed concept in the workplace. It is made up of 10 dimensions, which have an internal consistency between acceptable and excellent. It has correlations with several related scales and with the number of promotions achieved and success in employment, which is proof of its predictive validity.

The Emotional Intelligence Appraisal (EIA) [70] is a set of surveys that measures EI in the workplace using the four main components of the Goleman model. Their items have been evaluated by experts. It has an internal consistency between very good and excellent. It has three versions: an online self-report, an online multi-rater report (which is combined with responses from co-workers), and another one that has anonymous ratings from several people to get an EI score for the whole team. The Emotional Intelligence Scale (EIS) [71] is another tool based on the Goleman model. It is composed of three dimensions and it has excellent internal consistency. The content of the items has been validated by expert evaluations.

The USM Emotional Quotient Inventory (USMEQ-i) [72] is a tool developed in Malaysia. It consists of a total of seven dimensions composed of 46 items. Seven of these items make up the "faking index items", that measure the tendency of respondents to manifest social desirability and have a very good internal consistency ( $\alpha = 0.83$ ). The reliability of the total instrument yields excellent values.

The Indigenous Scale of Emotional Intelligence [73] is a Pakistani instrument developed in the Urdu language. The final items were selected from an initial set after passing through the judgment of four experts based on the fidelity to the construct: clarity, redundancy, reliability, and compression. It has excellent internal consistency. Additionally, it

presents construct validity (as women obtain higher scores than men) and correlations with the EQ-i.

Years later, the Mobile Emotional Intelligence Test (MEIT) was developed [64]. It is a Spanish instrument used to measure EI online in work contexts. It is made up of seven tasks (perceptive tasks and identification tasks) to assess the emotional perception of both others and oneself, respectively, face task, in which the most appropriate photograph related to the demanded emotion must be chosen, three comprehension tasks (composition, deduction and retrospective), and story task, in which participants must choose the best action to manage feelings in a given story. It presents excellent internal consistency and convergent validity.

### 3.3. Trait-Based Measures

This category is composed of trait-based instruments. The Trait Emotional Intelligence Questionnaire (TEIQue) [6] is the main instrument of this model. It is a tool widely used in many countries. It has excellent internal consistency and it shows significant correlations with the Big Five Personality. It has a short version, a 360-degree version, a version for children and another one for teenagers. It has been translated into many languages.

Years later, the Rotterdam Emotional Intelligence Scale (REIS) [75] was developed, the other instrument belonging to this category. It is a self-report instrument designed in Dutch. It has a very good internal consistency and it presents correlations with WEIS, TEIQue and PEC and its validity criterion has also been tested.

### 3.4. Measures Based on Other Models

Some instruments cannot be included within these categories since they have been conceptualized under different models. The first one is the Genos Emotional Intelligence Inventory [76], previously known as SUEIT. It is based on an original model. It was specifically designed for use in the workplace, but it does not measure EI per se, but rather the frequency with which people display a variety of emotionally intelligent behaviours in the workplace. It presents very good reliability and convergent and predictive validity. In addition, it has two reduced versions.

The Profile of Emotional Competence (PEC) [77] is based on the model of Mikolajczak [83], which replicates the four dimensions proposed by Mayer and Salovey but separates the identification from the expression of the emotions and distinguishes the intrapersonal aspect from the interpersonal aspect of each dimension. It contains two main scales, and has excellent internal consistency and convergent, divergent and criterion validity. The original one was developed in French, but it has been translated into several languages.

The last of the instruments identified is the Group-level Emotional Intelligence Questionnaire [79]. It was designed in the USA to assess EI in work groups under Ghuman's theoretical model [79]. This model conceives EI as a two-component construct: group relationship capability (GRC) and group emotional capability (GEC). All of them have very good internal consistency.

Regarding the framework of the Standards, differences were found among them, resulting in an unequal distribution throughout the articles. The percentages of each type of validity can be seen in Table 2.

**Table 2.** Number of studies and percentages for each validity test.

Study	Content	Response Processes	Internal Structure			Relationship with Other Variables	Consequences of Testing	
			Factorial Analysis	Reliability	Test-Retest			Invariance
Yes	11 (27.5%)	1 (2.5%)	23 (57.5%)	40 (100%)	7 (17.5%)	17 (42.5%)	22 (55%)	5 (12.5%)
No	29 (72.5%)	39 (97.5%)	17 (42.5%)	0	33 (82.5%)	23 (57.5%)	18 (45%)	35 (87.5%)

The instruments whose original sources could not be retrieved are cited in Table 3. The main reasons were that they were articles from books to which the authors did not have access, unpublished documents or documents with restricted access.

**Table 3.** Information of the non-accessible instruments.

Measure	Type of Source	Information Source	Model	Dimensions and Items
Emotional Intelligence Questionnaire (UEK-45) [84]	Book	Mitić, P., Nedeljković, J., Takšić, V., Sporiš, G., Stojiljković, N., & Milčić, L. (2020). Sports performance as a moderator of the relationship between coping strategy and emotional intelligence. <i>Kinesiology</i> , 52(2), 281–289. <a href="https://doi.org/10.26582/k.52.2.15">https://doi.org/10.26582/k.52.2.15</a> (accessed on 7 July 2021)	Unknown	Dimensions: 3 Items: 45
Emotional Intelligence Questionnaire [85]	Book	Daryani, S., Aali, S., Amini, A., & Shareghi, B. (2017). A comparative study of the impact of emotional, cultural, and ethical intelligence of managers on improving bank performance. <i>International Journal of Organizational Leadership</i> , 6, 197–210. <a href="https://ijol.cikd.ca/article_60318_131fe99b0de8ccb1e59ec16f60d760f9.pdf">https://ijol.cikd.ca/article_60318_131fe99b0de8ccb1e59ec16f60d760f9.pdf</a> (accessed on 7 July 2021)	Mixed	Dimensions: 6 Items: unknown
EQ Self-Assessment Checklist [86]	Book	Kumar, A., Puranik, M., & Sowmya, K. (2016). Association between dental students' emotional intelligence and academic performance: a study at six dental colleges in India. <i>Journal of Dental Education</i> , 80(5), 526–532. <a href="https://onlinelibrary.wiley.com/doi/pdf/10.1002/j.0022-0337.2016.80.5.tb06112.x?casa_token=aOMTSUUCJjoAAAAA:mfvATJkkTpdQjoGxY2hGU7eUjs3yxzK0rST_ldjQXj_6S0cT6oeQojYJDtcm30dzUx3n8wEOKtBFDJFu">https://onlinelibrary.wiley.com/doi/pdf/10.1002/j.0022-0337.2016.80.5.tb06112.x?casa_token=aOMTSUUCJjoAAAAA:mfvATJkkTpdQjoGxY2hGU7eUjs3yxzK0rST_ldjQXj_6S0cT6oeQojYJDtcm30dzUx3n8wEOKtBFDJFu</a> (accessed on 8 July 2021)	Unknown	Dimensions: 6 Items: 30
Emotional Intelligence Scale (EIS) [87]	Book	Singh, S., Mohan, M., & Kumar, R. (2011). Enhancing physical health, psychological health and emotional intelligence through Sahaj Marg Raj yoga meditation practice. <i>Indian Journal of Psychological Science</i> , 2, 89–98. <a href="http://www.napsindia.org/wp-content/uploads/2017/05/89-98.pdf">http://www.napsindia.org/wp-content/uploads/2017/05/89-98.pdf</a> (accessed on 8 July 2021)	Unknown	Dimensions: 10 Items: 34
Test of Emotional Intelligence (TEMINT) [88]	Paper presented at a congress	Janke, K., Driessen, M., Behnia, B., Wingenfeld, K., & Roepke, S. (2018). Emotional intelligence in patients with posttraumatic stress disorder, borderline personality disorder and healthy controls. <i>Psychiatry Research</i> , 264, 290–296. <a href="https://doi.org/10.1016/j.psychres.2018.03.078">https://doi.org/10.1016/j.psychres.2018.03.078</a> (accessed on 8 July 2021)	Ability	Dimensions: unknown Items: 12
Emotional Intelligence Scale—Faces (SIE-T) [89]	Paper of a psychological test laboratory	Piekarska, J. (2020). Determinants of perceived stress in adolescence: the role of personality traits, emotional abilities, trait emotional intelligence, self-efficacy, and self-esteem. <i>Advances in Cognitive Psychology</i> , 16(4), 309. <a href="https://doi.org/10.5709/acp-0305-z">https://doi.org/10.5709/acp-0305-z</a> (accessed on 8 July 2021)	Ability	Dimensions: unknown Items: 18

Table 3. Cont.

Measure	Type of Source	Information Source	Model	Dimensions and Items
Test Rozumienia Emocji (TRE) [90]	Peer review article	Piekarska, J. (2020). Determinants of perceived stress in adolescence: the role of personality traits, emotional abilities, trait emotional intelligence, self-efficacy, and self-esteem. <i>Advances in Cognitive Psychology</i> , 16(4), 309. <a href="https://doi.org/10.5709/acp-0305-z">https://doi.org/10.5709/acp-0305-z</a> (accessed on 9 July 2021)	Ability	Dimensions: 5 Items: 30
Emotional Intelligence Index [91]	Peer review article	Veltro, F., Latte, G., Ialenti, V., Bonanni, E., di Padua, P., & Gigantesco, A. (2020). Effectiveness of psycho-educational intervention to promote mental health focused on emotional intelligence in middle-school. <i>Annali dell'Istituto Superiore di Sanità</i> , 56(1), 66–71. <a href="https://doi.org/10.4415/ANN_20_01_10">https://doi.org/10.4415/ANN_20_01_10</a> (accessed on 9 July 2021)	Ability	Dimensions: unknown Items: 15
Quick Emotional Intelligence Self-Assessment [92]	Peer review article	<a href="https://neotecouncil.org/wp-content/uploads/2012/04/EmotionalIntelligence-Self-Assessment.pdf">https://neotecouncil.org/wp-content/uploads/2012/04/EmotionalIntelligence-Self-Assessment.pdf</a> (accessed on 9 July 2021)	Unknown	Dimensions: 4 Items: 10
Emotional Maturity Scale [93]	Book	Ishfaq, N. & Kamal, A. (2018). Translation and validation of Emotional Maturity Scale on juvenile delinquents of Pakistan. <i>Psycho-Lingua</i> , 48(2), 140–148. <a href="https://www.researchgate.net/profile/Nimrah-Ishfaq/publication/334706863_TRANSLATION_AND_VALIDATION_OF_EMOTIONAL_MATURITY_SCALE_ON_JUVENILE_DELINQUENTS_OF_PAKISTAN/links/5d3b01cf4585153e5923c009/TRANSLATION-AND-VALIDATION-OF-EMOTIONAL-MATURITY-SCALE-ON-JUVENILE-DELINQUENTS-OF-PAKISTAN.pdf">https://www.researchgate.net/profile/Nimrah-Ishfaq/publication/334706863_TRANSLATION_AND_VALIDATION_OF_EMOTIONAL_MATURITY_SCALE_ON_JUVENILE_DELINQUENTS_OF_PAKISTAN/links/5d3b01cf4585153e5923c009/TRANSLATION-AND-VALIDATION-OF-EMOTIONAL-MATURITY-SCALE-ON-JUVENILE-DELINQUENTS-OF-PAKISTAN.pdf</a> (accessed on 9 July 2021)	Unknown	Dimensions: 5 Items: 48

#### 4. Discussion

The main aim of this study is to offer an updated systematic review of EI instruments in order to provide researchers and professionals with a list of tools that can be applied in the professional field with their characteristics, psychometric properties and versions, as well as a brief description of the instrument. For this purpose, a systematic review of the scientific literature on EI has been carried out using the WoS database through a search of all articles published between 1900 and the present.

The number of instruments developed has been increasing in recent years. In the 1990s barely any instruments were developed and their production was limited to approximately one per year and to practically one country (i.e., the USA). This may be due to the recent conceptualisation of EI, as well as to the difficulty that researchers found in constructing emotion-centred questions with objective criteria [15]. However, over the years, the production of instruments to measure EI has been increasing and, in addition, it has been extended to other geographical areas. This may be due to the importance that EI has reached over the years in multiple areas (e.g., health, organizational, educational, etc.). With the passage of time, and the introduction of new technologies, multimedia

platforms have begun to be used to present stimuli to participants. Recent research in EI has determined that emotions are expressed and perceived through visual and auditory signals (i.e., the tone of voice and the dynamic movements of the face and body) [94]. Thus, a meta-analysis revealed that video-based tests tend to have a higher criterion-related validity than text-based stimuli [95].

Regarding the results, a total of 40 instruments produced from 1995 to 2020 have been located. The instruments registered in a greater number of studies, and that have been most used over the years are EQ-i, SSRI, MSCEIT 2.0, TMMS, WLEIS, and TEIQue. These tools have the largest number of versions (e.g., reduced or for different ages or contexts) and are the ones that have been validated in more languages. The most recent instruments hardly have translations apart from their original version, and they have been tested on very few occasions. Most of the articles have not been developed for a specific context.

On the other hand, as can be seen in the results, most of the instruments are grouped under the three main conceptual models described in the introduction (ability, trait and mixed). These models are vertebrated around the construct of EI. However, they present differences in the way of conceptualizing it and, therefore, also of measuring it. For example, the ability-based concept of EI is measured by maximum performance tests while trait-based EI is measured by self-report questionnaires. This may, in itself, lead to different outcomes, even if the underlying model used is the same [96,97].

The ability model, introduced by Mayer and Salovey, is composed of other hierarchically ordered abilities, in which the understanding and management dimensions involve higher-order cognitive processes (strategic), and are based on perception and facilitation, which involve instantaneous processing of emotional information (experiential) [4]. This model has received wide recognition and has served as a basis for the development of other models. However, it has been questioned through factor analysis that does not support a hierarchical model with an underlying global EI factor. Furthermore, emotional thought facilitation (second dimension) did not arise as a separate factor and was found to be empirically redundant with the other branches [96].

Intelligence and personality researchers have questioned the very existence of ability EI, and they suggest that it is nothing more than intelligence. This fact is supported by the high correlations found between ability-based EI and the intellectual quotient [15,96]. On the other hand, there is the possibility of falsifying the results by responding strategically for the purpose of social desirability. However, one of the advantages of the ability model is that, through the maximum performance tests, it is not possible to adulterate them. This is because participants must choose the answer they think is correct to get the highest possible score. Another advantage is that these types of instruments tend to be more attractive because they are made up of tests in which it is required to resolve problems, solve puzzles, perform comprehension tasks or choose images [15].

The Petrides and Furnham model [5] emerged as an alternative to the ability-based model and is related to dispositional tendencies, personality traits, or self-efficacy beliefs that are measured by self-report tests. The tools based on this model are not exempt from criticism. These instruments present a number of disadvantages, the most frequently cited are being vulnerability to counterfeiting and social desirability [96]. The participant can obtain a high EI profile by responding in a strategically and socially desirable way, especially when they are examined in work contexts by supervisors or in job interviews. People are not always good judges of their emotional abilities [98], and may tend to unintentionally underestimate or overestimate their EI. Another criticism of self-report tools is their ecological validity (i.e., external validity that analyses the test environment and determines how much it influences the results) [96].

On the contrary, the fact that such tools do not present correct or incorrect answers can be advantageous in certain cases. High EI trait scores are not necessarily adaptive or low maladaptive. That is, self-report tools give rise to emotional profiles that simply fit better and are more advantageous in some contexts than in others [97]. On the other hand, trait-based tools have demonstrated good incremental validity over cognitive intelligence and

personality compared to ability-based EI tests [99]. Furthermore, they tend to have very good psychometric properties, have no questionable theoretical basis, and are moderately and significantly correlate with a large set of outcome variables [15].

One aspect observed in this systematic review is that the main measure of the estimated reliability in the analysed studies has been internal consistency. However, this estimate is not interchangeable with other measurement error estimates. This coefficient gives a photographic picture of the measurement error and does not include variability over time. There are other reliability indicators (e.g., stability or test–retest) that are more relevant for social intervention purposes [100], and that according to the estimation design, can differentiate into trait variability or state variability, that is, respectively stability and dependability [101]. It has been found that the use of stability measures as a reliability parameter is not frequent. In methodological and substantive contexts, reproducibility is essential for the advancement of knowledge. For this reason, it is necessary to identify measures that can be used as parameters to compare the results of different studies [102]. On the other hand, the standard coefficient of internal consistency has been coefficient  $\alpha$  [103]. This measure has been questioned in relation to its apparent misinformed use of its restrictions [104–106], of which Cronbach himself highlighted its limited applications [104]. Other reliability measures have been recommended (e.g.,  $\omega$ ) [107], and the reliability estimation practice in the creation of EI measurements needs to be updated. Usually,  $\omega$  estimation is integrated into the modelling-based estimation, where SEM or IRT methodology is required to corroborate the internal structure of the score [108–110] and extract the parameters used to calculate reliability (i.e., factorial loads).

Another methodological aspect to highlight is that predominantly, the construction of EI measures was based on linear modelling or classical test theory. In contrast, the least used approach was item response theory (IRT), which provides other descriptive and evaluative parameters of the quality of the score measurement, such as the information function or the characteristic curves of the options, among others.

On the other hand, it is striking that some of the articles found prove the construct validity of their instruments by obtaining higher EI scores by women than men [56,58,73]. This has also been seen in the scientific literature and in research such as that of Fischer et al. [111], in which it was found that women tend to score higher in EI tests or empathy tests than men, especially, but not only, if it is measured through self-report. Additionally, striking is the study by Molero et al. [112], in which significant differences were observed among the various EI components between men and women. However, this is not the case in all the articles analysed in this study, nor in all the most current scientific literature. This fact has led to the development of different hypotheses about how far, why, and under what circumstances women could outperform men. There are several theories that have emerged around it. There is one that claims that these differences could be related to different modes of emotional processing in the brain [113,114]. Another theory points to possible differences in emotional perception that suggest that women are more accurate than men in this process when facial manifestations of emotion are subtle, but not when stimuli are highly expressive [115]. Additionally, another one points out that the expression of emotions is consistent with sex, which may be influenced by contextual factors, including the immediate social context and broader cultural contexts [116]. However, other variables such as age or years of experience in the position should also be taken into account. For example, the study by Miguel-Torres et al. [117] showed a better ability to feel, express, and understand emotional states in younger nurses, while the ability to regulate emotions was greater in those who had worked for more years. For this reason, nowadays firm conclusions cannot be drawn and it must be taken into account that the differences found are generally small. Thus, more research is needed on the differences that may exist between men and women in the processes of perception, expression and emotional management before establishing possible social implications of these findings.

#### 4.1. Limitations

This study is not without limitations. Some are inherent in this type of studies, such as publication bias (i.e., the non-publication of studies with results that do not show significant differences) that could have resulted in a loss of articles that have not been published and that used instruments other than those found. In addition, instruments that could not be accessed from their original manuscript could not be included in the systematic review. On the other hand, despite the advantages of WoS, the fact that the search was conducted in a single database may lead to some loss of literature. Furthermore, the systematic review was restricted to peer-reviewed publications and thus different studies may be presented in other information sources, such as books or grey literature. Articles that were in the press and those that may have been published in the course of the compilation of this study have not been collected either. Additionally, the entire process of searching for references was carried out by only one investigator, so an estimate of inter-judge reliability cannot be made, as well as data extraction. There are many aspects of the PRISMA statement that, due to the purpose of our research, our study does not include (visible as NA in Table A1). However, it is necessary to develop a protocol for recording the inclusion and exclusion criteria of the primary studies to prevent bias (e.g., bias in the selection process). There are also some methodological aspects to be improved, such as the lack of methods used to assess the risk of bias in the included studies, the preparation or synthesis of the data, or the certainty in the body of evidence of a result. In future research it is necessary to take into account and develop these aspects in order to improve the replicability and methodological validity of the study, and to facilitate the transparency of the research process. In contrast to the above, one of the strengths of this study was to minimize the presence of biases that could alter the results. To minimize language bias, articles submitted in any language were searched for and accepted to avoid over-presentation of studies in one language, and under-presentation in others [20]. In addition, this study takes into account and exposes five sources of evidence of validity of the instruments through the Standards: content, response processes, internal structure, relationship with other variables and the consequences of testing. Other aspects to be improved in the future include performing the same search in other databases such as EBSCO and Scopus to obtain possible articles not covered in WoS. A manual search for additional articles would also be useful, for example, in the references of other articles or in the grey literature.

#### 4.2. Practical Implication

The relationship between EI and personal development has been of great interest in psychological research over time [8]. A good study of the instruments that measure constructs such as EI can be of great help both in the field of prevention and psychological intervention in social settings. The revision of EI instruments is intended to contribute to facilitating work in the general population in a way that the development of EI is promoted and antisocial behaviours are reduced. In addition, since it correlates with variables that serve as protectors against psychological distress, this work also contributes to improving, in some cases, the general level of health.

Through this systematic review, we can see the great effort that has been made by researchers not only to improve existing EI measurement instruments, but also in the construction of new instruments that help professionals in the educational, business and health fields, as well as the general population. However, given the rapid changes that society is experiencing, partly due to the effects of modernization and technology, there is a demand to go beyond measurement. For example, from educational and business institutions and from family and community organizations it is necessary to promote activities, support and commitment towards actions oriented to EI under the consideration that this construct can be improved at any age and that it increases with experience.

## 5. Conclusions

From the results obtained in this study, numerous instruments have been found that can be used to measure EI in professionals. Over the years, the production of instruments to measure EI has been increasing and, moreover, has spread to other geographical areas. The most recent instruments have hardly been translated beyond their original version and have been tested very rarely. In order for future research to benefit from these new instruments, a greater number of uses in larger samples and in other contexts would be desirable.

In addition, most of the instruments are grouped under the three main conceptual models described in the introduction (ability, trait and mixed). Each model has a number of advantages and disadvantages. In the ability model it is not possible to adulterate the results by strategic responses and they tend to be more attractive tests; however, factor analyses do not support a hierarchical model with an underlying global EI factor. The trait-based model, on the other hand, employs measures that have no right or wrong answers, so they result in emotional profiles that are more advantageous in some contexts than others, and they tend to have very good psychometric properties. However, they are susceptible to falsification and social desirability.

On the other hand, it is necessary to identify measures that can be used as parameters to compare the results of different studies. In addition, the standard coefficient of internal consistency has been the  $\alpha$  coefficient, which has been questioned in relation to its apparent misinformed use of its restrictions. It would be advisable to use other reliability measures and to update the reliability estimation practice in the creation of EI measures.

Finally, some of the articles found test the construct validity of their instruments by obtaining higher EI scores from women than from men. Different hypotheses have been developed about to what extent, why and under what circumstances women would outperform men; differences may be related to different modes of emotional processing in the brain or possible differences in emotional perception or to the influence of contextual factors. However, it would be interesting to further investigate the differences that may exist between men and women or to take into account other factors such as age or number of years of experience before establishing possible practical implications.

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## Appendix A

Table 1. PRISMA 2020 checklist.

Section and Topic	Item #	Checklist Item	Location Where Item Is Reported
<b>TITLE</b>			
Title	1	Identify the report as a systematic review.	Page 1
<b>ABSTRACT</b>			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Page 1
<b>INTRODUCTION</b>			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Pages 1–3
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Page 3
<b>METHODS</b>			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Page 4
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.	Page 4
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Page 4
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.	Page 4
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.	Page 4
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.	Page 4
	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.	Page 4
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.	Page 4
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)).	Page 5
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	-
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Page 5

Table 1. Cont.

Section and Topic	Item #	Checklist Item	Location Where Item Is Reported
	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.	Page 3
	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.	Page 3
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	-
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	-
<b>RESULTS</b>			
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.	Page 5
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Pages 29–31
Study characteristics	17	Cite each included study and present its characteristics.	Pages 6–23
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	NA
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.	Pages 24–29
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Pages 6–23
	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.	Page 29
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	NA
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	-
<b>DISCUSSION</b>			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Pages 31–33
	23b	Discuss any limitations of the evidence included in the review.	Page 33
	23c	Discuss any limitations of the review processes used.	Page 33
	23d	Discuss implications of the results for practice, policy, and future research.	Page 34

Table 1. Cont.

Section and Topic	Item #	Checklist Item	Location Where Item Is Reported
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.	Page 4
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Page 4
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	-
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Page 34
Competing interests	26	Declare any competing interests of review authors.	Page 34
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.	Page 34

NA = Not applicable.

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**Anexo 5. Estudio 5**

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## **Resumen**

El enfoque de la Atención Centrada en la Persona (ACP) juega un papel fundamental a la hora de asegurar una atención de calidad en áreas de salud y cuidado. Integra los valores, necesidades y preferencias que la persona presenta, al mismo tiempo que también proporciona beneficios a las personas que dispensan dicha atención. El Person-Centered Care Assessment Tool (P-CAT) es una de las herramientas más cortas y sencillas de las que se dispone hoy en día para medir el enfoque de la ACP, al mismo tiempo que recoge los elementos esenciales descritos en la literatura. Los *Standards for Educational and Psychological Testing* (“Standards”) son una guía creada con el objetivo de proporcionar directrices para evaluar la validez de las interpretaciones las puntuaciones de un instrumento, en función de su uso previsto. El principal propósito de este estudio es hacer una revisión sistemática de las evidencias de validez realizadas en los estudios de validación del P-CAT, teniendo como marco los “Standards”. Desde este punto de vista, las distintas validaciones del P-CAT no están encuadradas en un marco teórico estructurado y tras la integración y el análisis de los resultados, se ha podido observar que estas validaciones ofrecen una alta tasa de presentación de fuentes de validez relacionadas con el contenido del test, de la estructura interna para la dimensionalidad y la consistencia interna, media para la estructura interna en términos de fiabilidad test-retest y para la relación con otras variables, y muy baja para los procesos de respuesta, la estructura interna en términos de invarianza, y para las consecuencias del test.

## Anexo 6. Certificado de autoría



La Secretaria General de la Universidad Europea, Dña. Elena de la Fuente García,

### CERTIFICA

Que D<sup>ña</sup>. Lluna María Bru Luna con DNI 74386653-F,

Ha colaborado en la elaboración de los contenidos de la materia *Investigación en Educación Especial* del Máster Universitario en Educación Especial de la Facultad de Ciencias Sociales y de la Comunicación del proyecto Educación Digital, en los términos establecidos en el contrato que las partes tienen firmado al efecto.

Y para que conste a los efectos oportunos, firmo el presente documento en el Campus Universitario de Villaviciosa de Odón (Madrid) a 28 de abril de 2022.

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Europea de Valencia

VARIABLES PSICOLÓGICAS INFLUYENTES EN EL CUIDADO SATISFACTORIO POR PARTE DE LOS CUIDADORES FORMALES DE PERSONAS CON ENFERMEDAD MENTAL USUARIAS DE CENTROS DE SALUD MENTAL.

### Anexo 7. Certificado de docencia



Dra. D<sup>a</sup>. M<sup>a</sup> Rosa Sanchidrián Pardo, Rectora de la Universidad Europea de Valencia, certifica que D<sup>a</sup> Lluna María Bru Luna, con D.N.I. 74386653-F, de acuerdo con la documentación existente en este centro, ha desempeñado la actividad docente que se especifica a continuación,

Curso académico/ semestre	Puesto Ocupado	Asignatura	Titulación	Curso de titulación	Teoría/ Práctica	Nº horas Totales (impartidas por el interesado)	Total horas impartidas por curso académico/ semestre
2021-2022	Profesor Mercantil	Investigación en Educación Especial	Máster Universitario en Educación Especial 100 % Online	1º	T/P	72	126
		Trabajo Fin de Máster	Máster Universitario psicología general sanitaria	2º	T/P	20	
		Proceso de Enseñanza- Aprendizaje	Máster Universitario en Docencia Universitaria 100% Online	1º	T/P	34	

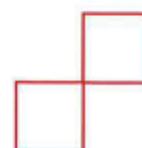
Y para que así conste y a los efectos oportunos, expido y firmo el presente certificado en Valencia, a 7 de septiembre del 2022.

LA RECTORA



D<sup>a</sup>. M<sup>a</sup> Rosa Sanchidrián Pardo

Campus de Valencia  
Pasaje de la Alameda, 7  
46010 Valencia  
universidadeuropea.com



## Anexo 8. Certificado asistencia a webinar



Las Rozas de Madrid, 13 de octubre de 2022

### CERTIFICADO DE ASISTENCIA

D. Antonio Rodríguez Rosado, en calidad de Director de la Fundación iS+D para la Investigación Social Avanzada, hace constar a través del presente documento que **Dña. Lluna María Bru Luna** asistió a la **Webinar: ¿Cómo investigar en Ciencias Sociales? - Tips y recomendaciones**, organizado por la Fundación iS+D y celebrado el pasado 12 de octubre de 2022, en modalidad online, con una duración de 1,5 horas (17h-18.30h, hora en España).

Y para que así conste a los efectos oportunos, acredita y firma este documento,

**Fdo.: Antonio Rodríguez Rosado**  
**Director de la Fundación iS+D**



Variables psicológicas influyentes en el cuidado satisfactorio por parte de los cuidadores formales de personas con enfermedad mental usuarias de centros de salud mental.

## Anexo 9. Certificado asistencia a webinar



Las Rozas de Madrid, 15 de noviembre de 2022

### CERTIFICADO DE ASISTENCIA

D. Antonio Rodríguez Rosado, en calidad de Director de la Fundación iS+D para la Investigación Social Avanzada, hace constar a través del presente documento que **Dña. Lluna María Bru Luna** asistió al **Webinar: Investigación social con SPSS - Introducción al análisis estadístico de datos**, organizado por la Fundación iS+D y celebrado el pasado 11 de noviembre de 2022, en modalidad online, con una duración de 1,5 horas (18.30-20h, hora en España).

Y para que así conste a los efectos oportunos, acredita y firma este documento,

**Fdo.: Antonio Rodríguez Rosado**  
**Director de la Fundación iS+D**



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**Anexo 10. Certificado asistencia a curso**



### Anexo 11. Certificado ponencia en congreso

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Colegio de Psicólogos del Perú  
CONSEJO DIRECTIVO NACIONAL



Universidad  
Norbert Wiener  
Posgrado

Se otorga el presente certificado a:

**LLUNA BRU LUNA**

Por su participación como **Ponente** en el XX Congreso Nacional y X Congreso Internacional de Psicología “Una Psicología para los nuevos escenarios”, organizado por el Colegio de Psicólogos del Perú - CDN del 18 al 20 de noviembre del 2022 con una duración de 36 horas académicas.

Jesús María, 20 de noviembre del 2022.



**Dr. Miguel Angel Vallejos Flores**  
DECANO NACIONAL  
COLEGIO DE PSICÓLOGOS DEL PERÚ

**Dr. Guillermo Raffo Ibarra**  
DIRECTOR DE LA ESCUELA DE POSGRADO  
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