



**FACULTAT DE PSICOLOGIA**

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Programa de intervenció temprana en la relació  
parental en nens con TEA

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Sobre el lenguaje de esta tesis.

Existe un cierto debate sobre como describir el autismo. En este texto, basándonos en trabajos anteriores seguiremos la filosofía de utilizar indistintamente el término “autismo” o “Trastornos del Espectro del Autismo” para referirnos al trastorno en sí mismo. Mientras que utilizaremos los términos de “persona autista” en lugar de “persona con autismo o TEA” para referirnos a la identidad personal siguiendo las preferencias manifestadas por la mayoría de las personas autistas (Gernsbache, 2017; Kenny et al., 2016).



## Agradecimientos

Cualquier trabajo de investigación hoy en día es consecuencia de la tarea de un equipo de investigación. En este sentido, la tesis doctoral que aquí se presenta no es un caso aparte, en este sentido quisiera agradecer a todas las personas que han participado en su desarrollo. En especial, quisiera reconocer el trabajo de la Dra. Dña Maria Fernanda López-Ramón por el impulso y asesoramiento durante el primer ensayo clínico con Mindfulness que me permitió acceder al conocimiento de la técnica y su aplicación posterior. A la Asociación de Padres ASPAU de Valencia por las facilidades para poder entrar en contacto con los padres y madres de niños y niñas autistas afiliadas. Gracias a ellos, a su junta directiva y en particular a Dña. M<sup>a</sup> José Oltra secretaria de la entidad que nos facilitó las tareas administrativas hasta cedernos espacio para desarrollar las entrevistas iniciales. A la asociación AVAPACE por cedernos los espacios del centro de atención temprana Xicotecs en el que se desarrollaron las sesiones del segundo ensayo clínico.

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## Prologo

Esta tesis se inició en el año en el inicio del año 2018 y después de diversas vicisitudes entre otras le confinamiento consecuencia de la pandemia por COVID-19 fue terminada a finales del año 2022.

El interés de esta investigación y el trabajo en los trastornos del neurodesarrollo viene de hace muchos años, una vez terminada mi carrera de psicóloga tuve la oportunidad de trabajar en un centro de atención de trastornos del neurodesarrollo, en donde me enamoré profundamente de la temática, espacio que me permitió aprender y formarme en algo que en Colombia no es muy común.

Esta motivación me llevo a tomar la decisión de mudarme de país para ampliar mi formación, sin tener la menor idea que pasaría. Llegar a España no solo fue un experiencia inolvidable a nivel personal, sino también una oportunidad para ver los trastornos de neurodesarrollo y en especial el autismo desde una nueva perspectiva.

La decisión de realizar este proceso de investigación fue gracias a encontrarme con una persona sumamente motivada y apasionado por el tema, el Dr. D. Francisco Alcantud Marín, quien no solo fue mi director de doctorado si no también el director de mi TFM y la razón por la que hoy en día me encuentro escribiendo estas palabras, mil gracias.

Este proceso de investigación fue mucho más extenso de lo que nos esperábamos, se realizaron muchos cambios durante el desarrollo y eso debemos sumarle que fue durante la pandemia de COVID-19, lo cual complico mucho más el proceso empírico de este trabajo.

Inicialmente teníamos la idea de realizar este trabajo enfocado en la atención temprana

en niños y niñas autistas, razón por la cual se realizó y publico el primer artículo, el cual no hace parte de esta tesis, este artículo fue titulado “Revisión de evidencias de las Técnicas de DIR/Floortime para la Intervención de niños y niñas con Trastornos del Espectro Autista”. Y fue un primer acercamiento a las metodologías que utilizaban a los padres como agentes activos en el tratamiento del TEA, esta primera publicación cambio el rumbo de la investigación ya que me permitió conocer una cantidad de metodologías de intervención que hablaban de la importancia de la participación de los padres y como la intervención de ellos afecta positivamente en el desarrollo típico de los niños, incluso teniendo mejores resultados que las intervenciones tradicionales. Con este nuevo insight, queríamos enfocarnos en realizar una investigación empírica que determinara el impacto de una intervención mixta donde los padres fueran los encargados de implementar técnicas dentro del hogar para incrementar valores del desarrollo típico de los niños, sin embargo esta idea fue siendo cada vez complicada debido a que nos encontrábamos en medio de la pandemia y contar con participación de varios padres y niños para que el trabajo tuviera un impacto significativo fue casi imposible. Razón por la cual paramos a pensar en cual sería la solución para llevar a cabo una investigación interesante y que tuviera un impacto no solo en la comunidad científica sino también en los padres y madres de niños y niñas autista.

Esto nos llevó a encaminar la investigación en las necesidades y problemáticas que los principales cuidadores podían presentar durante el diagnóstico y tratamiento del trastorno del espectro autista. Una vez determinada aquellas problemáticas y la importancia del bienestar psicológico en los cuidadores para lograr no solo mejores resultados en los niños, sino también crear una sincronía en el hogar, nos topamos con las investigaciones y el trabajo de la Dra. Dña Maria Fernanda López-Ramón, quien nos presentó la importancia y trascendencia de los programas mindfulness para el tratamiento de



ansiedad y depresión en los cuidadores de niños y niñas autistas. Gracias a su experiencia y conocimiento realizamos de manera conjunta la primera investigación en Mindfulness y posteriormente la segunda en mindfulness parenting.



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## Presentación y estructura de la tesis

Esta tesis doctoral es la compilación de cuatro publicaciones en revistas científicas internacionales (3 artículos científicos y 1 capítulo de libro). Todas las publicaciones están orientadas hacia el avance en el conocimiento de los programas de intervención dirigido a niños autistas y sus padres.

En el **Capítulo 1** se desarrolla una breve introducción o marco general teórico de la situación en la que la investigación sobre autismo se encuentra en la actualidad y nuestro posicionamiento al respecto.

En el **Capítulo 2** de esta tesis se presenta el primer artículo en el que se realizó una revisión sistemática de las publicaciones científicas de los últimos diez años que han enfocado su investigación en la participación de los padres y madres dentro de metodologías de intervención temprana en niños y niñas autistas. Este artículo, titulado “*Early Intervention with Parents of Children with Autism Spectrum Disorders: A Review of Programs*”, se publicó en la revista “Children” de la editorial MDPI (JCR Q2). Como consecuencia de este mismo estudio, se publicó un capítulo titulado “**Parents of Children with Autism Spectrum Disorders Intervention with and for them**” en el libro “*Neural Engineering Techniques for Autism Spectrum Disorder*”, *Volume 2*. El libro es editado por Ayman El-Baz y S. El-Baz y Jasjit S. Suri en la editorial Elsevier (SPI Q1)

El **Capítulo 3** está constituido por dos ensayos clínicos de utilizando Mindfulness como herramienta de reducción del estrés en los padres de niños y niñas autistas. Este artículo titulado “*Mindfulness-Based Stress Reduction (MBSR) and Self Compassion (SC) Training for Parents with Autism Spectrum Disorders: A Pilot Trial in Community Services in Spain*” ha sido publicado en la revista Children de la editorial MDPI (JCR Q2). El segundo ensayo clínico sobre el programa de Mindfulness Parenting, bajo el título

***“Mindfulness Parenting and Children's Play: A Clinical Trials for Parents of Children with Autism Spectrum Disorders”*** y aceptado para su publicación en *Psicothema*, revista del Colegio de Psicólogos de Cantabria (JCR Q1).

Por último, en el capítulo 4, se hace una recopilación de los resultados y conclusión de la tesis. En forma de Anexos se presenta también el programa de intervención en atención plena en la crianza (Mindfulness Parenting) utilizado para el desarrollo del segundo ensayo clínico.

## Capítulo I: Marco general teórico

Los Trastornos del Espectro del Autismo (TEA) son trastornos del neurodesarrollo que se caracterizan por déficits persistentes en la comunicación e interacción social y patrones repetitivos y restringidos de conductas, actividades e intereses que causan alteraciones significativas en el desarrollo del niño o niña a nivel social, laboral o en otras áreas del funcionamiento (APA, 2013). Dado que se trata de un trastorno del neurodesarrollo producido durante el periodo de gestación, los síntomas deben estar presentes en el periodo de desarrollo temprano (antes de los 36 meses de vida). En la actualidad, se estima una prevalencia entre el 1 y el 2% (Baio, y otros, 2018; Autism Europe, 2019), por lo que se considera el trastorno del neurodesarrollo más común (Alcantud-Marin y Alonso-Esteban, 2022).

Aunque se está haciendo un gran esfuerzo investigador, aún existen muchas lagunas sobre la causa que produce el trastorno. Existen evidencias de que se trata de un trastorno de carácter biológico con base genética (Filipek et al., 2006), en covarianza con aspectos medioambientales (Alcantud-Marin y Alonso-Esteban, 2022). Por ello, se ha llegado a definir los TEA como de etiología multicausal, apuntando hacia la interacción de varias causas posibles que pudieran estar en la base de la alteración del neurodesarrollo desencadenante de los TEA.

En los años noventa del siglo pasado, el autismo era considerado un trastorno severo, crónico, sin cura y cuyos síntomas se manifestaban de formas diversas a lo largo del ciclo vital. Sin embargo, ya desde hace años (Rutter, 1970) se viene informando que un número de casos diagnosticados como TEA alcanzan en la edad adulta niveles de funcionamiento próximos a las personas neurotípicas (1,5%). El porcentaje de personas autistas que alcanzan un nivel de recuperación o normalización se ha incrementado conforme se han

realizado nuevos estudios. Sigman et al., (1999), elevan el porcentaje de recuperación hasta el 17% y Helt et al., (2008) y Fein et al., (2013) llegan a hablar de hasta el 25%. Todo hace pensar que, en algunos casos, y como consecuencia de la intervención, por la evolución del trastorno o por cualquier otro motivo, se atenúan o camuflan los síntomas de los TEA llegando en algunas ocasiones a dejar de cumplir el criterio diagnóstico. Resulta obvio el interés que suscita el estudio de las personas que después de un diagnóstico de autismo, llegan a presentar un perfil normativo.

El desarrollo de las personas es consecuencia de la interacción de múltiples circunstancias como las características personales, las familiares, económicas y sociales. En el caso de las personas autistas, su desarrollo está influido por el contexto social. Desde el momento de detectar las primeras señales de alerta y, por tanto, la detección y confirmación diagnóstica del trastorno, hasta los métodos de intervención, la intensificación de los mismos, recursos familiares, el perfil neuropsicológico y cognitivo de los niños y niñas afectados, los recursos escolares en los diferentes niveles educativos, hasta los contextos sociales y laborales tendrán su influencia en el hecho de que un adulto autista pueda llevar una vida de calidad.

En la actualidad existe un numeroso arsenal de técnicas y métodos de intervención de corte psicoeducativo con diferentes niveles de evidencia científica. En general, los programas más evolucionados incluyen escenarios de aprendizaje estructurados, control de estímulo, desarrollo de rutinas e intervención en ambientes naturales. Es en este último punto, junto con la necesidad de una intervención temprana para aprovechar la plasticidad cerebral y trabajar áreas sociocognitivas y comunicativas, donde hace necesaria (indispensable) la participación de los padres (Alcantud-Marin y Alonso-Esteban, 2022).



Los padres viven el proceso de diagnóstico y las sesiones de intervención con gran angustia y tensión (Blacher y McIntyre, 2006). Es conocido que los padres que se enfrentan a la crianza de un hijo con algún tipo de trastorno del desarrollo sufren un mayor número de fuentes de tensión y a su vez, esta se manifiesta con mucha más intensidad (Newacheck et al., 2004; Sen y Yurtserver, 2007), estando esta tensión presente desde las primeras señales de alerta (Hartley et al., 2010). Los padres de niños y niñas autistas con frecuencia informan alteraciones en el bienestar psicológico (Falk et al., 2014; Firth y Dryer, 2013; Merkaj et al., 2013) y altos niveles de estrés (Almansour M et al., 2013; Hayes y Watson, 2013).

El objetivo de la participación de los padres en la intervención, se basa en el principio de que el desarrollo neuropsicológico se determina por la interacción con el medio (Koizumi, 2004) y el niño o niña autista se caracteriza por tener, entre otros, déficits en las habilidades básicas de comunicación e interacción social y con sus progenitores puede generar patrones de interacción inadecuados (Perpiñán, 2009; Pons-Salvador et al., 2005; Osborne, et al., 2008) y sumar efectos negativos en el desarrollo neuropsicológico, produciendo un efecto de cascada (Palomo, 2017; Rogers et al., 1991; Thomas et al., 2009). Estas interacciones inadecuadas generan un doble bucle, por una parte, continuarían alimentando el desarrollo del niño apartándolo cada vez más del desarrollo normativo y, por otra, generan en los padres un alto nivel de tensión y malestar que, a su vez, incrementara las interacciones inadecuadas (Baker e al., 2010). La necesidad de formación y atención a los padres se hace necesaria entre otros motivos por las evidencias encontradas sobre el estrés parental relacionado con la participación en los tratamientos (Osborne y Reed, 2010).

Una intervención temprana con el adecuado andamiaje a padres y al niño, permitiría aminorar los efectos de cascada, haciendo que el desarrollo del niño afectado siga una

evolución más próxima al desarrollo neurotípico (Mundy y Crowson, 1997; Osborne et al 2008), dado que se beneficiara de la mayor la plasticidad cerebral de la edad (Pierce et al., 2016). Las evidencias en la relación de las conductas de los padres y el desarrollo de los niños autistas son evidentes (Crowell et al., 2019). Así, cuando se interviene sobre los niños y niñas que manifiestan señales de alerta por autismo y sus familias, se mejora la sintomatología. Esta mejora se manifiesta incluso años después (Green et al., 2017). Kim et al. (2017) identifican que la participación de los padres en la intervención temprana son buenos predictores del rendimiento académico posterior.

La participación de los padres en la implementación de estrategias de intervención diseñadas con la finalidad de ayudar a sus hijos e hijas autistas tiene ya una larga trayectoria (McConachie y Diggle, 2007; Oono et al., 2013), habiendo recibido diferentes nombres (Parental Training o Parental Education). Estos términos son más o menos vagos e incluyen desde la coordinación entre padres y terapeutas, sesiones de psico-educación sobre el trastorno, entrenamiento en técnicas concretas para el desarrollo del lenguaje o mejorar las habilidades sociales, así como programas concretos para abordar conductas desadaptativas (Bearss et al., 2015), hasta los Tratamientos Mediados por padres (Siller y Morgan, 2018).

El objetivo de esta tesis es intentar encontrar una técnica que de forma complementaria a la intervención temprana comunitaria que se lleva a término en los Centros de Atención Temprana (CAT) o Centros de Desarrollo Infantil y Atención Temprana (CDIAT) permitan mejorar las condiciones de bienestar psicológico de los padres para poder afrontar la interacción con su hijo o hija autista de la forma más eficiente y normalizada posible.

## Capítulo II Intervención temprana en niños y niñas autistas dirigidas a padres

En este capítulo presentaremos dos publicaciones relacionadas, por una parte, el artículo *“Early Intervention with Parents of Children with Autism Spectrum Disorders: A Review of Programs”* y el capítulo titulado **“Parents of Children with Autism Spectrum Disorders Intervention with and for them”** del libro *“Neural Engineering Techniques for Autism Spectrum Disorder”*, Volume 2, editado por Ayman El-Baz y Jasjit S. Suri en la editorial Elsevier.

Ambas publicaciones hacen referencia a una revisión sistemática de las publicaciones científicas realizada con el objetivo de analizar la evidencia científica de los programas de intervención en la que los padres fueron parte activa del proceso terapéutico de sus hijos o hijas autistas.

Para llevar a cabo esta revisión se utilizó la plataforma online de la Universitat de València TROBES y se realizó una búsqueda sistemática en cuatro bases de datos: PsycARTICLES, ERIC, PubMed y Scopus. Para la selección de los documentos fueron utilizados los términos “autism” OR “pervasive developmental disorders” AND “early intervention” AND “parent training” OR “parental Teaching.”. Durante el proceso de búsqueda y teniendo en cuenta los criterios de investigación y de inclusión, fueron encontrados 1010 artículos, los cuales fueron leídos y analizados siguiendo los lineamientos de los criterios de exclusión (fuera de las edades 0 a 6, estudios no empíricos, estudios en los que los padres no participaban, otros diagnósticos), así mismo fueron excluidos aquellos documentos que se encontraban repetidos y que correspondían a guías o documentos no científicos. Al terminar el proceso de cribado fueron elegidos 51 artículos, los cuales se caracterizaban por ser estudios empíricos que presentaban modelos de intervención en donde los padres formaban parte activa del proceso de intervención.

Para determinar la evidencia científica de los programas, fue utilizada la propuesta de “The Journal of Clinical Child and Adolescent Psychology (JCCAP)” en particular la adaptación propuesta para evaluar la evidencia de los programas en niños autistas . En esta investigación en particular quisimos distinguir entre los estudios que se encontraban “bien establecidos y con una evidencia adecuada” (nivel 1), “estudios con resultados posiblemente efectivos” (Nivel 2), “estudios cuasi experimentales que aún no han alcanzados niveles de evidencia” (nivel 3) y “estudios que demuestran una evidencia cuestionable” (Nivel 4).

Con el fin de facilitar el proceso de análisis de las investigaciones encontradas, se realizó una clasificación de las metodologías teniendo en cuenta las características de los programas. Empezando por la clasificación de los documentos según su metodología de intervención y finalizando con la creación de cuatro macro grupos que abarcaban las metodologías y contaran con características similares en la implementación de los padres dentro de la intervención. Estas fueron: Intervenciones integrales, intervenciones centradas en los síntomas nucleares, promoción de la paternidad positiva y bienestar familiar e interacciones basadas en el juego.

Una vez concluido el análisis de las investigaciones teniendo en cuenta la evidencia científica, el criterio metodológico y las características propias de cada una de ellas, logramos observar que existen grandes diferencias ente los programas encontrados, siendo especialmente relevante la ausencia de una metodología común para la evaluación de los resultados. Hemos determinado a partir de esta revisión sistemáticas que los programas que cuentan con mayor evidencia son aquellos que utilizan técnicas y metodologías basadas en el desarrollo infantil, principalmente los que basan sus principios en el análisis conductual. Los resultados de esta investigación también sugieren

que no todos los niños responden de la misma manera a todos los tratamientos o técnicas de intervención y que existes otras variables que afectan la eficacia de estos.

Uno de los hallazgos de nuestra investigación fue determinar la importancia de la participación de los padres y cuidadores dentro del proceso terapéutico, estas investigaciones han demostrado que su figura es relevante y puede condicionar el éxito en las intervenciones tempranas de niños y niñas autistas. Las metodologías de intervención, principalmente aquellas enfocadas en la intervención integral (ABA, ESDM, TEACCH, etc.) llevan años estableciendo la importancia de la participación de los padres, la gran mayoría de estas intervenciones cuentan con sesiones de formación acerca del trastorno, lo cual aumenta la concienciación y con ello mayor empoderamiento y disminución en los sentimientos de estrés y ansiedad. Así mismo, se ha logrado determinar que los programas que contaban con mayor evidencia científica fueron aquellos asociados a ABA “Parental Training” y Early Start Denver Model. Incluso se han desarrollado modelos específicos como P-ESDM (Minguela & Alcantud-Marín, 2022). Sin embargo, metodologías basadas en la intervención en los síntomas centrales del TEA, como Jasper e Impact han sobresalido debido a la cantidad de estudios realizados y a la eficacia de su intervención. En cuanto a los estudios centrados en el juego y los dirigidos a promover la crianza positiva se encontró una evidencia de la eficacia baja lo que siguiere aumentar el número de ensayos clínicos con el fin de lograr un mayor nivel de evidencia.

En términos generales, es posible afirmar que la implementación de los padres en el proceso terapéutico puede ser de gran ayuda para aumentar las habilidades sociales y comunicativas de los niños y niñas autistas. De igual manera dichas investigaciones ha demostrado que los padres aumentan sus conocimientos ante el diagnóstico, mejoran sus habilidades parentales y generan relaciones positivas con sus hijos.

Este artículo se complementa con el capítulo publicado en el libro “*Neural Engineering Techniques for Autism Spectrum Disorder*”, *Volume 2*. Editado por Ayman El-Baz y Jasjit S. Suri en la editorial Elsevier, titulado “**Parents of Children with Autism Spectrum Disorders Intervention with and for them**”. En este capítulo se realiza una descripción más pormenorizada de los diferentes modelos encontrados en la búsqueda sistemática, haciendo hincapié en el uso de tecnologías para su desarrollo e incorporando también los modelos de intervención para el tratamiento de la ansiedad parental derivada de la crianza de niños y niñas autistas. El estrés está a gran nivel asociado a la adherencia y participación en los tratamientos, por lo cual resulta sumamente importante no solo brindarle a los padres información de calidad y herramientas para el uso dentro de los habientes naturales de niño, sino también apoyo y acompañamiento constante para que logren tener un adecuado bienestar psicológico.

En cuanto a las investigaciones relacionadas a “Parental Training” encontramos que son programas que se han venido desarrollando a medida que las investigación y conocimiento acerca del TEA ha avanzado, estas intervenciones se basan en el desarrollo de habilidades en los entornos naturales del niño y la participación de los padres está cada vez más justificada. Sin embargo, han confirmado que los padres adquieren altos niveles de estrés, ansiedad y depresión ante el diagnóstico y las posteriores intervenciones, por lo cual estas intervenciones resultan ser de gran ayuda para la sintomatología del niño, pero deja a un lado las necesidades de los principales cuidadores.

Con lo anterior y teniendo en cuenta las necesidades de los padres, se han desarrollado programas para mejorar las habilidades parentales ajustando los objetivos personales a la nueva realidad. Actualmente, las intervenciones cognitivo-conductual e intervenciones basadas en mindfulness están demostrando ser fructíferas, permitiendo a los padres

trabajar a nivel personal y mejorar los sentimientos negativos que pueden haber aparecido posterior al diagnóstico y de esta manera lograr mayores resultados en los procesos de intervención de sus hijos.



Review

## *Early Intervention with Parents of Children with Autism Spectrum Disorders: A Review of Programs*

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**Abstract:** The aim of this article was to analyze the evidence regarding the effectiveness of intervention programs for children with autism based on the participation of their parents. To obtain the data, a systematic search was carried out in four databases (PsycARTICLES (ProQuest), ERIC (ProQuest), PubMed (ProQuest), and Scopus). The retrieved documents were refined under the inclusion/exclusion criteria, and a total of 51 empirical studies were selected. These studies were first classified according to the function of the intervention objective and, later, by the methodology applied (19 studies were based on comprehensive interventions, 11 focused on the nuclear symptoms of autism spectrum disorder (ASD), 12 focused on the promotion of positive parenting, and nine interactions focused on child play). Once all of the documents had been analyzed, the evidence indicated scientific efficacy in most studies, mainly in those based on child development and the application of behavioral analysis principles. Moreover, the positive influence of parent participation in such programs was demonstrated.

**Keywords:** autism spectrum disorders; early intervention; parent-mediated intervention; parental training

### 1. Introduction

Parents of children with an autism spectrum disorder (ASD) often report alterations in their psychological well-being [1–3] and high levels of stress [4,5]. For this reason, in the early attention community centers in Spain, attention has been given to families, in addition to the children, for some time now [6–8]. In such settings, family care is understood as guidance, coordination, and accompaniment [8], and providing quality, scientifically proven information is one of the best possible types of support [9,10]. Collaboration with the family and coordination between the professionals that work with ASD have a common objective: an improvement in the quality of life for each family member and for the family system as a whole [11].

The involvement or mediation of parents in the intervention of their children is another step for which many parents are not prepared. The goal of parental involvement in interventions is based on the principle that neuropsychological development is determined by interaction with the environment [12]. Additionally, a child with ASD is characterized by a deficit in basic communication and social interaction skills, and, therefore, may generate inappropriate interaction patterns with his or her parents [13–15], thus, resulting in negative effects on their neuropsychological development, thereby producing a cascade effect [16–18]. These inappropriate interactions generate a double loop that, on the one hand, continues to fuel the child's development by increasingly moving him/her away from normative development, and on the other hand, generates a high level of tension and discomfort in the parents that, in turn, increases inappropriate interactions [19]. The need for training of and



attention on parents is made necessary, among other reasons, by the evidence found pertaining to parental stress related to their participation in their child's treatment process [20].

An early intervention that is properly structured for both the parents and the children, would allow to diminish the cascade effects, resulting in the development of an affected child following an evolution closer to neurotypical development [15,21], since development benefits from greater brain plasticity at this age [22]. Evidence of the relationship between parental behaviors and the development of children with ASD is clear [23]; thus, when interventions are implemented with children who show warning signs of autism and their families, the symptoms are improved. This improvement manifests itself even years later [24]; for example, Kim, Bal, and Lord [25] showed that parental involvement in an early intervention is a good predictor of later academic performance.

The involvement of parents in the implementation of intervention strategies designed to help their children with ASD has a long history [26,27], having been given different names (e.g., parental training or parental education). These terms are more or less vague and include everything from parent-therapist coordination, psycho-education sessions about the disorder, and training on specific techniques for language development or for improving social skills, through to specific programs to address maladaptive behaviors [28] and parent-mediated treatment [29].

Due to the large volume of publications around early interventions in children with ASD and their families, it is necessary to carry out periodic systematic reviews to organize the different results. Among the precursors to this study are those of Diggie and McConachie [26,30,31].

In the present work, we conducted a systematic analysis of the scientific documentation about parents' participation in early care programs. This study was carried out based on the principles of a systematic review, where the criteria of the search, selection, and evaluation of the documents of PRISMA were considered [32].

## 2. Method

Four databases were searched (PsycARTICLES (ProQuestProQuest, LLC, 789 E. Eisenhower Parkway, Ann Arbor, Michigan 48106-1346 USA), ERIC (ProQuest), PubMed (ProQuest), and Scopus). Only those published in scientific journals subjected to double-blind peer review were selected. The search was performed by accessing all of the databases using the online search interface TROBES of the Documentation and Library Service of the University of Valencia (Spain).

### 2.1. Search Strategy

The search terms used were "autism" OR "pervasive developmental disorders" AND "early intervention" AND "parent training" OR "parental Teaching." These terms could appear anywhere in the indexed document. The search ended in December 2019.

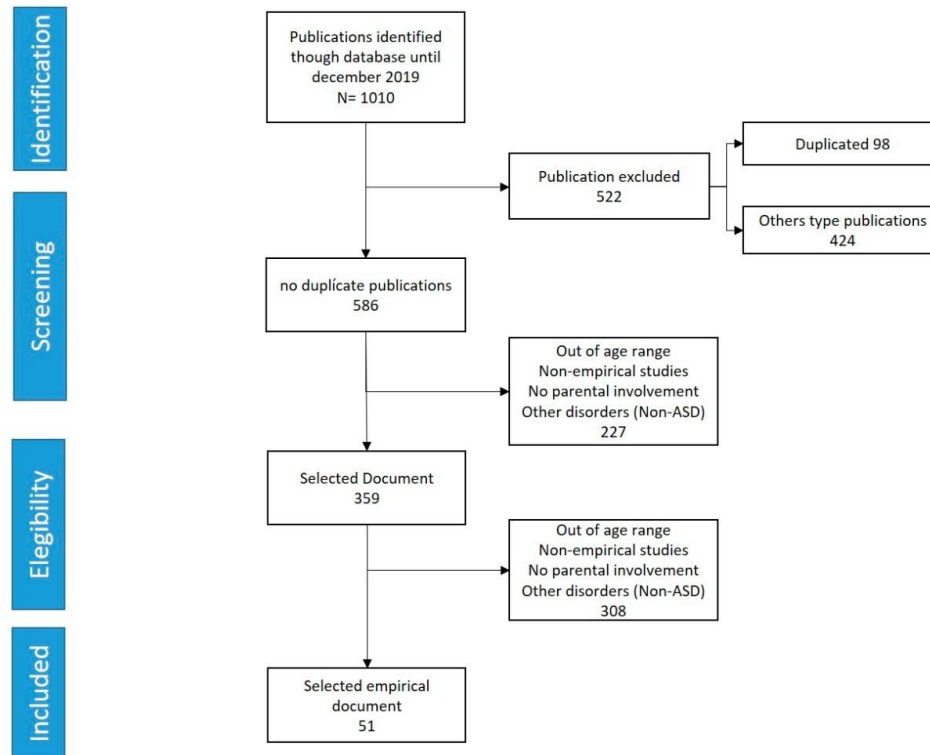
### 2.2. Inclusion Criteria

The selection was delimited to the period between the years 2010 and 2019. Only those articles that offered empirical data on the results of an intervention were included. Of the selected articles, the bibliography was analyzed using the so-called snowball technique in order to detect any other non-indexed study that could provide some relevant information. In order to keep the information as updated as possible, a search alert in Google Scholar was activated during the time of document review and writing of the paper. The inclusion of documents was completed in September 2020.

### 2.3. Exclusion Criteria

A total of 1010 articles were found following the search criteria, of which, 98 duplicate articles were found and a further 424 articles were excluded because they corresponded to guides and other documents. During the screening process, the abstracts of the articles were read and those that met the exclusion criteria (out-of-age zero to six years, non-empirical studies, studies in which parents did not participate, directed at other disorders), were excluded another 227 documents that dealt with studies

on parenting in other areas. Later, during the eligibility process, the entire text of the papers selected in the previous step was reviewed, applying the same exclusion criteria. Finally, 51 articles remained, in which empirical studies were presented with intervention models involving parental participation. Figure 1 shows the flow of the search process.



**Figure 1.** Flow of the document selection process following the inclusion–exclusion criteria. ASD, autism spectrum disorder.

#### 2.4. Quality Assessment

For the evaluation of the evidence, we chose to follow the initiative of the *Journal of Clinical Child and Adolescent Psychology* (JCCAP), in particular, the proposed adaptation [33] to evaluate the evidence of treatment in children with ASD.

The criteria we propose for this work (see Tables 1 and 2) distinguish between studies with well-established or adequate evidence (Level 1) and studies with probable or possibly effective results (Level 2). Among the former, at the same time, the criteria differentiate between methods that, due to the number of published clinical trials (randomized controlled trials (RCT)), can be analyzed as joint statistical results or as meta-analyses and those methods that only have an RCT, albeit a very robust trial because it has a wide stratified sample. Meanwhile, among Level 2 studies, the criteria also distinguish between RCT studies with small samples and meta-analyses of series of single case studies.

**Table 1.** Modified levels of evidence from the original *Journal of Clinical Child and Adolescent Psychology* (JCCAP) criteria.

LEVEL 1	1.	Well-established evidence	1.	Meta-analysis of randomized clinical trials	Individual data analysis; homogeneous studies; different analysis techniques; meta-regression; meta-analysis; quality of studies
	2.	Adequate	2.	Randomized clinical trials developed by independent teams	Evaluation of statistical power; multilevel; quality of the studies
LEVEL 2	1.	Probably effective	1.	Randomized clinical trials with small samples	Evaluation of statistical power; matching controls in time; quality of the studies
	2.	Possibly efficient	2.	Meta-analysis of single-subject studies with satisfactory results	Individual data analysis; homogeneous studies; different analysis techniques; quality of the studies
LEVEL 3	1.	Quasi-experimental	1.	Studies of two non-randomized groups with statistically significant results	Quality of the studies
			2.	Studies of a single non-randomized group with pre- and post-tests	
			3.	Single case studies	
LEVEL 4	1.	Questionable effectiveness	1.	Qualitative descriptive case studies; uncontrolled clinical series; expert committees	

**Table 2.** Assessment of the study quality criteria from a methodological point of view.

Study Quality Criteria		Evaluation	
1	Design and assignment of participants to groups: the study includes two group designs with random assignment of participants to the control and treatment groups. The randomization procedure should be specified.	0.	No contribution
		1.	Inadequate
		2.	Doubtful
		3.	Adequate
2	Independent variable is well defined: it is properly defined, and manuals or treatment scripts are used.	0.	No contribution
		1.	Inadequate
		2.	Doubtful
		3.	Adequate
3	Well-defined reference population: the study is conducted on a well-defined population, and addresses a specific problem for which the inclusion criteria have been clearly defined.	0.	No contribution
		1.	Inadequate
		2.	Doubtful
		3.	Adequate
4	Outcome evaluation: evaluation is done using reliable standardized tests designed to measure the specific problems targeted by the intervention.	0.	No contribution
		1.	Inadequate
		2.	Doubtful
		3.	Adequate
5	Adequacy of the statistical analysis: appropriate analysis methods are used, and the sample size is sufficient to detect the studied effects.	0.	No contribution
		1.	Inadequate
		2.	Doubtful
		3.	Adequate

Evidence from quasi-experimental studies (Level 3) are those that have not yet reached adequate levels of evidence, but the results can point to new studies in the future in a positive direction. These are generally quasi-experimental studies in which one or two groups are measured. Their fundamental characteristics are simplicity and economy in development. They can be grouped into two types, namely, single groups with pre- and post-tests and several groups; the latter differ from the experimental groups in that the subjects are part of natural non-random groups. These types of studies are not

conclusive, but they can be a powerful tool, especially when randomized experiments are not yet possible. They allow an overview and follow-up to determine or confirm the reasons for the results found [34]. Case studies can also be included at this level. Single case study (SCS) research is experimental and aims to document the relationships between the independent variable (experimental treatment) and the dependent variables. Since it is a single case, the individual differences that affect the internal validity of the experience are controlled. The accumulation of the results of different SCSs on the same problem and with the same method can increase the evidence [35], thereby increasing the external validity. Finally, there are studies (Level 4) that could be described as providing questionable evidence due to the characteristics of the method used.

### 3. Results

In total, 51 studies offering empirical results about the role of parents in 15 intervention programs with different approaches were included, which we classified into four large groups: (a) participation in comprehensive programs, (b) participation in programs targeting the core symptoms of ASD, (c) participation in programs aimed at improving parent–child interaction, and (d) participation in parent–child play-based programs (see Table 3).

**Table 3.** Search results from 2010 to 2020.

	Subjects		Level of Evidence	Quality of the Study					
	Country **	Sample		Age	1	2	3	4	5
Parent-Mediated Intervention in Comprehensive Intervention Programs									
Search Results for “Parent Training”									
Bearss et al. (2015) [28]	US	180	36 to 84	2.1	2	3	3	2	3
Oosterling et al. (2010) [36]	NL	67	12 to 42	2.1	3	2	3	3	3
Bearss et al. (2013) [37]	US	16	36 to 72	3.2	0	3	3	3	2
Bagaiolo et al. (2017) [38]	BR	67	48	2.1	2	1	2	1	2
Wacker et al. (2013) [39]	US	17	24 to 84	4.2	0	2	3	3	2
Blackman et al. (2020) [40]	US	80	36 to 60	2.1	2	3	3	2	3
Iadarola et al. (2018) [41]	US	108	36 to 84	2.1	3	3	3	3	3
Search Results for “Pivotal Response Training”									
Minjarez et al. (2011) [42]	US	28	24 to 84	2.1	1	2	3	2	2
Gengoux et al. (2015) [43]	US	23	24 to 72	2.1	2	2	2	2	3
Hardan et al. (2015) [44]	US	53	24 to 72	2.1	2	2	3	2	3
Bradshaw et al. (2017) [45]	US	3	15 to 21	3.3	0	3	2	2	2
Search Results Classified as TEACCH *									
Welterlin et al. (2012) [46]	US	20	24 to 36	2.1	3	2	2	2	3
D’Elia et al. (2014) [47]	IT	30	24 to 72	2.1	2	2	3	2	3
Search Results Classified as ESDM * Methodology									
Rogers et al. (2012) [48]	US	98	12 to 24	2.1	2	3	2	3	3
Rogers et al. (2014) [49]	US	7	7 to 15	2.1	2	3	3	3	3
Vivanti et al. (2014) [50]	AU	7	24 to 72	2.1	2	2	3	3	3
Rogers et al. (2018) [51]	US	45	12 to 30	2.1	3	2	3	3	3
Waddington et al. (2019) [52]	NZ	5	23 to 59	3.2	0	2	2	3	2

Table 3. Cont.

	Subjects			Level of Evidence	Quality of the Study				
	Country **	Sample	Age		1	2	3	4	5
Parent-Mediated Programs Focused on ASD Symptoms									
Search results classified as Hanen program									
Carter et al. (2011) [53]	US	62	20	2.1	2	2	2	3	2
Search Results Classified as the “PACT” Method									
Green et al. (2010) [54]	UK	152	24 to 48	2.1	3	3	3	3	3
Search Results for the JASPER * Model									
Goods et al. (2013) [55]	US	15	36 to 60	2.1	3	3	3	3	3
Kasari et al. (2015) [56]	US	86	22 to 36	2.1	3	3	3	2	3
Gulsrud et al. (2016) [57]	US	86	36	2.1	2	3	3	3	3
Shiere et al. (2016) [58]	US	85	36	2.1	2	3	3	3	3
Search Results for the ImPact * Model									
Ingersoll and Wainer (2013) [59]	US	27	36	2.1	2	3	2	2	3
Ingersoll and Wainer (2013) [60]	US	8	36 to 72	3.3	0	0	2	2	3
Stadnick et al. (2015) [61]	US	16	47	2.1	2	3	3	3	3
Ingersoll et al. (2016) [62]	US	28	19 to 73	2.1	2	3	3	3	3
Ingersoll et al. (2017) [63]	US	9	32 to 65	2.2	0	3	3	3	3
Programs for the Promotion of Positive Parenthood and Family well-being									
Search results for the PCIT * model									
Lesack et al. (2014) [64]	US	1	60	3.3	0	2	2	2	2
Hansen and Shillingsburg (2016) [65]	US	2	45 and 32	3.3	0	2	3	2	2
Masse et al. (2016) [66]	US	3	24 to 84	3.3	0	2	3	3	3
Zlomke et al. (2017) [67]	US	17	24 to 96	3.3	0	3	3	2	2
Parladé et al. (2020) [68]	US	36	36 to 84	2.1	3	3	3	3	3
Search Results for the PRT-F * Model									
Sears et al. (2013) [69]	US	2	36 to 60	3.3	0	1	2	3	3
Bailey et al. (2015) [70]	US	3	60 to 84	3.3	0	2	3	2	3
Search Results for the COMPASS * Method									
Ruble et al. (2011) [71]	US	35	72	3.1	1	3	3	3	2
Kuravackel et al. (2018) [72]	US	33	96	2.1	2	3	3	3	3
Search Results for the SSTP * Method									
Roux et al. (2013) [73]	AU	52	24 to 108	2.1	3	3	2	3	3
Tellegen et al. (2014) [74]	AU	64	24 to 108	2.1	2	3	2	3	3
Schortt et al. (2018) [75]	DE	24	36 to 144	3.1	0	2	3	2	3
Play-Focused Intervention Programs									
Search Results for the Theraplay Method									
Howard et al. (2018) [76]	US	8	36 to 108	3.3	0	2	2	2	2
Search Results for the Floor Time Play Method									

Table 3. Cont.

	Subjects			Level of Evidence	Quality of the Study					
	Country **	Sample	Age		1	2	3	4	5	
Dionne et al. (2011) [77]	CA	1	42	3.3	0	1	0	1	0	
Pajareya and Nopmaneejumruslers (2011) [78]	TH	32	24 to 72	2.1	3	2	2	2	2	
Pajareya and Nopmaneejumruslers (2012) [79]										
Lil and Chhanbria (2013) [80]	TW	11	42 to 69	3.1	0	3	2	2	3	
Solomon et al. (2014) [81]	US	128	32 to 72	2.1	3	2	2	2	3	
Aali et al. (2015) [82]	IR	12	36 to 96	3.1	0	0	0	1	1	
Sealy and Glovinsky (2016) [83]	US	40	24 to 72	2.1	3	2	3	2	3	
Search Results for the FPI *										
Siller et al. (2013) [84]	US	70	36 to 72	2.1	3	2	3	3	2	
Siller et al. (2014) [85]										

\* TEACCH, Treatment and Education of Autistic and Related Communication-Handicapped Children; ESDM, Early Start Denver Model; PACT, Preschool Autism Communication Trial; JASPER, Joint Attention Symbolic Play, Engagement, and Regulation; ImPact, Improving Parents as Communication Teachers; PCIT, Parent-Child Interaction Therapy; PRT-F, Prevent-Teach-Reinforce for Families; COMPASS, Collaborative Model for Promoting Competence and Success (COMPASS); FPI, Focus Playtime Intervention. \*\* The international acronyms have been used in the names of the countries.

### 3.1. Parent-Mediated Intervention in Comprehensive Intervention Programs

Comprehensive intervention programs are those that address all of the core symptoms of ASD; therefore, they aim to develop social skills and interests, address communication difficulties, and reduce repetitive, ritualistic, or stereotypical behaviors. They are distinguished from other intervention programs that specifically address communication deficits (e.g., Picture Exchange Communication System (PECS) [86], aberrant behaviors [87], self-injurious behaviors [88], or eating disorders [89]). In our study, we found documents related to parental involvement in four of these programs.

#### 3.1.1. Parental Training (PT)

Training programs in Applied Behavior Analysis (ABA) principles are called parent-training programs (PTs) [90]. The initial objective was directed at the extinction of disruptive behavior [91], but soon after, programs were also developed for the development of social, communication, initiation, and language skills [92], with the aim of reducing behavioral problems.

A total of eight studies were found that provided medium or medium-high evidence of the efficacy of this intervention (see Table 3). Oosterling et al. [36] developed a clinical trial to compare the results after 12 months of training with parents in two groups, one complementary to the usual intervention and the other without intervention. The training focused on joint attention and language development. In total, the group consisted of 75 children (28–42 months old). No significant differences were found, so it was concluded in this study that parent training does not add value to the overall intervention.

Bearss et al. [37] proposed another trial with 16 children (three to six years old) presenting with ASD with disruptive behaviors. The intervention was prolonged for six months and was very well accepted by the parents (84% of them finished the program). Among the results, a decrease in the scores of aberrant behaviors and irritability stands out. In a later replication [28], a randomized test was conducted to measure the effectiveness of a program mediated by the parents of children with ASD with behavioral problems. The study lasted 24 weeks and involved 180 children (aged between three and seven years) and their families. The results showed that a parenting program, such as PTs, can help reduce disruptive behaviors.

Video modeling has been shown to be a cost-effective and efficient tool in many cases. Bagaioleto et al. [38] presented a clinical trial with a control group consisting of 67 parents of children with an ASD diagnosis aged three to six years who attended PTs to improve their social behavior (i.e., disruptive behaviors) as part of an ABA intervention. Twenty-two working sessions were designed, in which video modeling was used in one group but not in the control group. They concluded that the video modeling method did not introduce negative effects, but rather resulted in positive ones, showing that it is a possible and low-cost form of intervention, particularly in populations with scarce economic resources. In contrast, the impact from the use of information and communication technology (ICT) in recent years is currently being studied, particularly the replacement of live consultation sessions with synchronous video calls to avoid geographical problems arising from the dissemination of the rural population [39]. Blackman et al. [40] presented a clinical trial formed by three groups of parents who received PTs (i.e., online, in vivo, and a waiting list control group) in ABA. The results showed that both training methods were effective and suggested that online asynchronous training can serve as a cost-effective alternative in ABA PTs. The content included video recordings, readings, and training modules for parents created by the professionals. Iadarola et al. [41] presented a comparative study between the results of a PT program and a psychoeducation program. In total, the results of 180 children and their families were compared, and different measures of parental stress, effort, and caregiver competence were evaluated. This is possibly the largest PT program trial to date, and it showed that PTs reduce children's disruptive behaviors, improve their competencies, and decrease parental stress and tension.

### 3.1.2. Pivotal Response Training (PRT)

PRT is a program derived from and developed under the paradigms of ABA methodology, and, to some extent, is an evolution of it, aiming to help solve the problems of generalization [93]. It focuses on fundamental areas or skills (pivotal areas) under the hypothesis that an improvement in these areas will produce improvements not only in the areas worked on, but also in other functioning areas [94]. Parents or caregivers play an active role in the treatment by helping to carry out the intervention [94]. In PRT programs, parents should attend training programs in which they learn techniques and ways to improve their child's motivation and self-initiation through communication and academic skills [94]. In the period analyzed herein, four studies were found.

Minjarez et al. [42] developed a trial with the aim of evidencing the possibility of applying parent-mediated PRT. They selected 26 families with children diagnosed with autism aged between two and six years. The treatment consisted of a 10-week training package (90 min group sessions, plus 50 min of personal attention). The program was developed over 18 months and the groups comprised 8–10 parents. As a result, it was noted first that PRT training for parents in groups is beneficial, as it was possible to increase communication between parents and children by improving their language. Consequently, it was considered that group parent training can be incorporated into PRT programs not only efficiently and cost-effectively, but also to improve the generalization of the behaviors learned during the clinical sessions.

Gengoux et al. [43] attempted to answer the question of maintaining parental behaviors beyond the end of the program. They developed a trial with 23 families, with follow-ups over 12 weeks. The empirical results supported the benefits of parental involvement in the implementation of PRT, leading to improvements in their children's language and cognitive function, and these benefits were maintained for at least 12 weeks after treatment.

In the same year, Hardan et al. [44] developed a new clinical trial with 53 families with children with ASD aged two to six years. A 12-week group-training program in PRT (GTP-PRT) and a psychoeducation program were developed. The results suggested that both parents and children who attended the GTP-PRT training developed more communication skills and adaptive behaviors. Bradshaw [45] presented a single case study looking at the outcomes of three children (17–21 months). A one-hour parent intervention was developed over 12 consecutive weeks in the family home. The intervention

focused on the development of expressive verbal communication. The results showed an important increase in the number of words used by the children in their communication and an increase in the communicative initiations, while parents reported high levels of satisfaction with the program.

### 3.1.3. Treatment and Education of Autistic and Related Communication-Handicapped Children (TEACCH)

TEACCH [95,96] is a philosophy developed in the state of North Carolina (USA), approved by state parliament as a guide for the lifelong care of people with ASD. Schopler et al. [97,98] defined the role of parents as necessary partners, creating a relationship between parents and professionals that is essential and central to treatment. Specific training actions were developed based on the characteristics of the disorder, instructed on measures to reduce children's difficulties (i.e., continuous and structured intervention, an adaptation of environments, and use of alternative and augmentative communication systems). The technique that has transcended the most and for which TEACCH is recognized is structured learning [96]. The premise behind this intervention is to modify the context to meet the needs of the individual with ASD. To do this, it adapts the environment, collaborating with parents, evaluating treatment outcomes, and providing generalist training. The results of TEACCH intervention programs developed by parents in the family home have been positively evaluated [99]. However, randomized clinical studies on TEACCH are not very abundant [100,101], as seen in Table 3.

Welterlin et al. [102] developed a study to evaluate the effectiveness of a TEACCH-based intervention program conducted in the family home. A total of 20 families were assigned to the intervention groups or to the waiting list. The results showed an improvement in both the children's behavior and the parents' skills. However, due to the small sample size, the study was not conclusive.

D'Elia et al. [46] conducted a follow-up study for the application of TEACCH in schools and educational centers, evaluating the level of severity of the disorder, adaptive functioning, language, aberrant behaviors, and parental stress. The results suggested that a combined home and school intervention provides benefits to children with ASD by reducing the intensity of their symptoms and aberrant or maladaptive behaviors. In addition, reducing parental stress becomes a crucial factor in the success and effectiveness of the program.

### 3.1.4. Early Start Denver Model (ESDM)

ESDM (<https://autismcenter.duke.edu/> and <https://www.esdm.co/>) [47] is a methodology based on behavioral principles that takes into account the typical development of a child and was created due to the need for early and intensive interventions. This program was designed for children between 12 and 60 months of age. In it, parents receive training from professionals to replicate what they have learned in consultation with other contexts. The main objective is to achieve progress in functional development, social skills, and language development, as well as to increase attention and motivation and to improve family dynamics. The results of the search (see Table 3) showed a low number of studies pertaining to this type of intervention, almost all of which were carried out by the same research team.

Rogers et al. [103] developed a study to examine the effectiveness of the application of a parent-oriented ESDM program (P-ESDM). In this program, the emphasis was placed on promoting receptive, child-centered interaction styles and incorporating more play opportunities than conventional treatments. This research involved 98 children at risk of ASD between the ages of 12 and 24 months and their caregivers. For the application, participants were divided into two groups at random, namely, an experimental group and a control group. The results showed no significant differences in the children who participated in the experimental group; meanwhile, the parents of the two groups showed improvements in their interaction skills, although the parents who received the ESDM intervention achieved greater adherence to treatment. It should be noted that the control group (conventional treatment) received more hours of treatment with a therapist than the experimental group, so we can conclude that the program with parents was effective.



Rogers et al. [48] followed this line of research by developing a study during the first year of life of seven children. The main objective of this study was to develop and test the reliability of a parent-guided intervention. The intervention targeted the reduction or modification of six symptoms and developmental patterns of autism in the early stages. For this study, the participants were divided into two groups, namely, an experimental group and a control group; four of the children were assigned to the experimental group (diagnosed ASD) and the remaining three (control group) were at risk of autism only. The results showed that during the first nine months of the intervention, the two groups had the same changes, but when they were in the 18–36-month period, the experimental group achieved greater changes in symptomatology, language, and visual response. Likewise, it was observed that the parents were able to acquire skills for the management of their children, thereby improving the parent–child relationships.

Vivanti et al. [49] analyzed the effectiveness of the ESDM program applied to children diagnosed with ASD between the ages of 18 and 60 months. Participants were divided into two groups: 27 formed the experimental group that received the ESDM program, while the other 30 formed the control group. The trial lasted 12 weeks with 15–25 h/week of intervention. The parents, however, received training in six two-hour sessions on the ESDM strategies with the aim of being implemented at home in daily tasks. The results obtained were positive and demonstrated not only that ESDM is suitable for the treatment of ASD, but also that this study achieved more reliable and stronger data than previous research. Unfortunately, no action was taken, and no record was made of the parents' intervention at home.

Based on the development, two lines of work were created: The conventional ESDM model and the P-ESDM model. Rogers et al. [50] carried out a randomized comparative study to see if the P-ESDM version could generate greater changes in participants. For this research, 45 children diagnosed with ASD who were between the ages of 12 and 30 months were selected. All of the children were assigned to one of two groups in a randomized fashion receiving the same intervention (12 sessions of 1.5 h/week). The P-ESDM group had the same hourly intensity, adding one and a half hours per week of work at home. From the results of this study, it was demonstrated that ESDM is effective, since significant improvements in the functional development of children were observed in both groups. In addition, the P-ESDM group had better results in terms of parent–child interaction skills. This improvement was associated with greater individual progress of the children regarding qualitative measures, although not on standardized assessments.

The last study found [51] was on five mothers of children with ASD under the age of five, and the intervention was based on a 12-week ESDM parent-training program. The goal of the intervention was to conduct parent training within the home where the children were to be present. Direct instruction, modeling, skill practice, and feedback were used to achieve this training. Although there was great variability in the results of each mother/child dyad, the results showed that the mothers learned to use the techniques of the model, generating positive changes in their children; among these changes were the management of unwanted behaviors, greater commitment in the children, and improvements in expressive language.

### *3.2. Parent-Mediated Programs Focused on ASD Symptoms*

The influence of the family environment on the development of socialization processes and communication and language development has long been known [52]. This influence is reflected in the relationship between the styles and quality of parent–child interactions and cognitive development, language, and social skills in both typically developing children [104] and those at risk of ASD [105]. There are several programs for improving the relationship, dynamics, and communication between parents and children with therapeutic goals. In our search, we detected a total of four such programs.

### 3.2.1. Hanen More Than Words

The Hanen program (<http://www.hanen.org/Home.aspx>) [106] with more than 35 years of experience is perhaps one of the oldest. Hanen's "More Than Words" and "It Takes Two to Talk" are two programs designed to improve family dynamics and parent-child communication. These are general purpose programs not specific to children with ASD, and they can be used to improve the family dynamics in families with children with language delays [107,108], intellectual disabilities, motor disorders [109], or ASD, or in families with internal or dysfunctional relationship problems. The number of studies found (see Table 3) shows that even though it is a very experienced program, it lacked evidence during the studied period.

Carter et al. [110] developed a randomized trial comparing the Hanen program with conventional treatment. A total of 62 children diagnosed with ASD participated, and their language and communication levels and the parental responsibility of the parents were assessed. The effects of the program for parents showed differential effects according to the initial profiles of the children.

### 3.2.2. Preschool Autism Communication Trial (PACT)

PACT [53] is an intervention program that aims to improve communication between parents and children with autism, directly affecting the social and language development of said children, which was developed at the University of Manchester, United Kingdom. The first trial was conducted between 2006 and 2009. The aim is to train parents to adapt their communication style to their child's abilities and to respond to their child with greater sensitivity and responsiveness. The emphasis in the program is on increasing joint attention through looking or sharing, showing, and giving, adapting the language to the child's level. Different strategies are also presented to facilitate communication and child participation (routines, verbal scripts, use of elaborations, pauses, etc.). Through this training and with different adaptations, parental sensitivity, and positive interactions within the family context are increased. In the period analyzed, only one clinical trial related to PACT was found (see Table 3).

Green et al. [53] conducted a RCT with 152 children between two and five years old. The children and their families received the usual treatment in three specialized centers in the United Kingdom. Parents of the PACT group received more training consisting of an initial meeting and two-hour clinical sessions over six months. At 13 months, the severity of the symptoms of the children in the PACT group was reduced by three to nine points assessed by the ADOS-G (Autism Diagnostic Observation Schedule Generic) algorithm, while in the group assigned to conventional treatment the improvement was less. In conclusion, although the application of PACT is not systematically recommended to conventional treatment, the help provided by such an intervention is recognized, especially in social and communication areas. Given these results, Pickles et al. [54] reanalyzed the results of Green et al. [53], proposing a mediation model to understand the relationships between parent and child behaviors. In a subsequent follow-up study on the same sample [111], they observed that there was an improvement in the dyadic social communication between parents and children, although no relationship with the aims of conventional intervention on the nuclear symptoms of the disorder was observed. Nevertheless, the improvement in communication attenuated behavioral problems in the family that were retained in the long-term.

### 3.2.3. Joint Attention Symbolic Play, Engagement, and Regulation (JASPER)

JASPER [112,113], developed at the "Center for Autism Research and Treatment, University of California Los Angeles" (<https://www.semel.ucla.edu/autism>), builds on previous research team studies where deficits in joint attention and symbolic play were found to be two of the most important developmental issues for children with ASD [112,114]. Kasari et al. [113] developed clinical trials with parents and caregivers as mediating agents and follow-up studies [115], in which the relationship between joint attention, symbolic play, and later language development was evidenced by developing the JASPER program. This is an intervention program that focuses on the fundamentals of social

communication and uses naturalistic strategies to increase the pace and complexity of the social relationship. Its objective is to increase social commitment, verbal and non-verbal communication, and skills during play based on parental education, which generates commitment from parents to strengthen these areas through motivating and enjoyable activities. As shown in Table 3, the number of studies on this subject is limited and, in most cases, they were developed by the same research team.

Goods et al. [116] developed a clinical trial on minimally verbal children where they evaluated the incorporation of JASPER sessions over a conventional ABA program. The intervention was developed across 12 weeks, in which the control group only received conventional sessions of the ABA program, while in the experimental group, 30 min were substituted with JASPER sessions, demonstrating that those attending the experimental group experienced greater increases in play and initiation of communicative gestures.

Providing continuity to their research, Kasari et al. [55] carried out a comparative study between the JASPER model and a psychoeducational intervention for parents. The participants were 86 children in an age range of 22 to 36 months and their primary caregiver. For this study, the dyads were divided into two groups randomly. The aim of this research was to determine if the JASPER methodology has greater results in stress management and behavior control in children. The results showed that the JASPER group obtained significant and greater effects than the children in the control group. Among the gains that were observed were high-level relationships during play, joint attention, engagement, and social initiation.

Following the study by Kasari et al. [55], Gurlrud et al. [56] carried out a second clinical trial to determine the influence of JASPER's components on increasing behavior management skills and strategies and whether this influences social engagement. To test their hypothesis, they applied the intervention to 86 children under 36 months old, who were divided into two groups, namely, an experimental group and a control group. The results obtained were positive, since it was possible to determine the four central strategies of the intervention and the role of the parents, demonstrating that this type of intervention positively influences parent-child relationships and that there is a significant increase in joint commitment.

In the last study found, Shiere, Gulsrud, and Kasari [57] compared the application of JASPER and parent education intervention programs in order to determine which of the two intervention models generates greater changes in behavior, social communication, and commitment of both parents and children. To carry out this research, 85 children (under 36 months old) and their caregivers participated. The results showed no clinically significant differences between the two groups, as all children showed gains in language use and social engagement. However, it was evident that the group of parents belonging to the JASPER intervention had changes in behavior that directly influenced the relationships with their children.

#### 3.2.4. Improving Parents as Communication Teachers (ImPact)

ImPact [58,117] is a program designed to integrate parents and teachers in the early intervention of children with ASD, developed in the "Autism Research Lab" at Michigan State University (<http://psychology.psy.msu.edu/autismlab/projectimpact.html>), USA. It is based on numerous previous studies of the research group in which social communication [118], imitation [119–122] in the social development of children with ASD, and parental involvement in the intervention [117,123] were important. Combining these elements through parent training in communication skills with their children promotes the generalization of children's skills, increases parent optimism, and decreases stress [123]. Based on naturalistic and developmental behavioral intervention strategies [124], a program manual for parents and educators was developed to promote child social engagement, language, imitation, and play during daily routines and activities. In Table 3, it is shown how the studies found on this topic were mostly conducted by the same research team.

In our review, we found four empirical studies, the first of which was by Ingersoll and Wainer [125], who created a trial to evaluate the effectiveness of the ImPact program on children attending public

special education centers. In total, the intervention was initiated with 30 teachers who invited the family to take part in the program. Ultimately, only 24 families completed the program. Among the results, we highlighted a decrease in parental stress and an increase in social communicative response with an increase in the use of language.

Following on in the search for evidence, Ingersoll and Wainer [59] published a new study based on a single case design in which they accumulated a total of eight preschool children with ASD. As parents increased their use of intervention techniques, an increase in spontaneous language use was observed in six of the eight children. This suggests that there is a relationship between the use of intervention strategies and language use in children.

Another team [60] developed an ImPact trial under a community program, conducted over 12 weeks and applied to 30 children (two and a half to six and a half years old) and their parents (two groups: 16 in the intervention group and 14 in the control group). The study showed improvements in the children's social communication styles, as well as an increase in the same direction of parental adherence to treatment and a decrease in stress. These results suggest that ImPact adds positive effects to conventional community interventions, and is therefore recommended.

In order to test if tele-assistance could be a suitable tool to overcome the obstacles of geographical location and distance to treatment center, Ingersoll et al. [61] conducted a trial comparing the results in two ImPact parent-mediated treatment groups. In the first, web-assisted self-implementation strategies were applied for six months. The password-protected URL contained 12 self-administration lessons (approximately 75 min each). The second therapist-assisted group had the same structure and duration of web access, but received two additional 30 min sessions per week of support from an expert therapist via video conference. Both groups improved their results (parents and children), although these results were better in the group that received support via video conferences. In addition, 100% of that group completed treatment, while only 65% of the self-administered group did.

The last of the studies [62] attempted to determine the value of low-intensity intervention (1.2 h/week) without including parent training. A single case study was presented with a cumulative total of nine children with ASD (three to eight years old). Although wide variations were observed among the children, all of them showed improvements in two or more intervention areas (expressive vocabulary, social engagement, etc.).

### 3.3. Programs for the Promotion of Positive Parenthood and Family Well-Being

Related to the previous section, if neuropsychological development is determined by interaction with the environment [12] and a child with ASD has a deficit in basic communication and social interaction skills with his or her parents, it may generate inadequate parental interaction patterns, among other reasons due to the stress generated by the new situation [13]. Families (parents) who are faced with raising a child with a developmental disorder suffer a greater number of sources of stress and, in turn, this manifests itself with much more intensity [63,126]. Parents of children with ASD often report changes in psychological well-being [1–3] and high levels of stress [4,5] by altering patterns of parent–child interaction [14,15]. In our search, we found four programs that aim to improve parenting and overall psychological well-being, as well as children's symptoms.

#### 3.3.1. Parent–Child Interaction Therapy (PCIT)

PCIT [127] is defined as a brief therapy program based on behavioral principles, and is directed at solving behavioral problems of parent–child interaction. It is perhaps one of the most recognized behavioral training programs for parents. Originally, PCIT was used to solve the problems of disruptive behavior and disobedience in children, but it has also shown good results in language development and emotional recognition [128]. It has also been applied in families with children with ASD [129,130]. Within the study period, we found five PCIT-related studies developed by different teams (see Table 3).

To demonstrate the effectiveness of this model in children with ASD, Lesack, Bearss, and Celano [131] implemented a PCIT-based intervention (with adaptations) with a five-year-old boy

diagnosed with autism who presented difficulties in expressive and receptive communication and behavioral problems. The results showed clinically significant reductions in disruptive behaviors, gains in the child's functional development, and increases in parenting skills. The mother reported increased use of commands and communication by her child, greater engagement, and a better quality mother-child relationship.

The influence of PCIT on the development of vocalizations has also been studied. Hansen and Shillingsburg [64] proposed a study under the PCIT model to determine its influence on increasing vocalizations. For this purpose, a single case study was carried out with two children diagnosed with ASD aged 45 and 32 months. The results in both cases showed that the children increased their total number of vocalizations and the parents reported high levels of satisfaction and acceptability of the program, as well as improvements in their children's language and functional behavior.

Another single case study [65] was conducted to examine the effectiveness of this program. The authors found that children had reductions in disruptive behaviors, increased parent-child communication, and, in two of the three cases, increased compliance with parental demands. Parents also expressed high satisfaction with the program, suggesting that this methodology may be a treatment option for children with ASD who present behavioral difficulties.

A new study of 17 children with behavioral and diagnostic problems has since been published [66]. The goal was to apply the PCIT model in order to determine the effectiveness and reliability of the program and to examine changes in behavior. The results showed significant reductions in disruptive behaviors and the strengthening of parenting skills. In addition, parents reported that their children had increased levels of functional development, communication, and pro-social behavior.

Finally, Parladé et al. [67] performed a study to examine the influence of a PCIT-based intervention on children with behavioral problems and ASD. The goal was to observe changes that may occur in parenting skills, parental stress, and child behaviors. For this purpose, 36 families with children aged three to seven years were recruited, who were divided into two groups: The experimental group included children with a confirmed diagnosis of ASD, while the control group included 20 children with behavioral problems. The results showed that this program helps to reduce the occurrence of behavioral problems in typically developing children with ASD. It was also shown that children with autism were able to decrease autistic symptoms and obtain improvements in social response, social skills, adaptability, and repetitive and restrictive behaviors.

### 3.3.2. Prevent-Teach-Reinforce (PTR)

PTR [68] is a model of positive behavior support (PBS) designed to be applied in school environments with the support of family members [132,133], which has also been successfully tested in families (PRT-F) [134], with children with developmental disorders [69], and particularly with families with children diagnosed with ASD [134].

In the study conducted by Sears et al. [134], the PRT program was administered to two children with ASD aged four and six years and their caregivers; the main goal was to examine the effectiveness of the implementation of the PRT program on children diagnosed with ASD. The program was implemented in each child's home and the intervention was led by the parents who had received training on the skills to use. The results showed that the PTR program can be adapted and implemented at home and conducted by caregivers, and there was evidence that both families successfully created and implemented behavioral plans. Moreover, there was a reduction in disruptive behaviors and the appearance of proper behaviors in the children during the intervention.

Meanwhile, Bailey and Blair [69] analyzed the limitations of the PRT model at the time of collecting data to prove its validity. They make a replica of Sears et al.'s [134] study, ensuring the collection of data using the Individualized Behavior Rating Scale Tool (IBRST). Three families of children with ASD and language delay with sensory problems (five to seven years) were invited to participate. The results showed that both families and children achieved high levels of adherence to the program and learned

to apply the intervention successfully within the home. During the intervention, a dramatic decrease in negative behaviors was observed, and with it the emergence of appropriate behaviors.

### 3.3.3. Collaborative Model for Promoting Competence and Success (COMPASS)

COMPASS [70,135] is a program designed as a conceptual framework for planning responses to individual needs identified by teachers for students with ASD. Trials have also been developed comparing face-to-face with web-based forms of the intervention [136]. To increase the effectiveness of the program, parents have also been included [137]. The goal of parent training and family support programs is to increase family competence and to establish positive parent-child interactions, thereby achieving a decrease in the occurrence of parental stress [71].

In the study by Ruble et al. [137], the COMPASS program was implemented in collaboration with the teachers and parents of children with autism spectrum disorder. The sample used comprised 35 parents, teachers, and children, which were divided into an experimental group (including teachers trained in COMPASS) and a control group. The results were not very strong because no clinically significant differences were found between the two groups. However, it could be concluded that collaboration with teachers can help children with autism be part of educational environments more adapted to their needs.

Joining the experience of telematics assistance for teachers [136] and parents [137], this same team developed another version COMPASS for Hope (C-HOPE), whose objective was the reduction of parental stress [71]. To demonstrate the changes, they conducted a randomized clinical trial on 33 families. A significant reduction in parental stress and an increase in parental competence were detected. Parents also reported a significant reduction in their children's behavioral problems, both when comparing the rates with previous levels and when comparing them with the waiting list control group. The treatment modality (online or face-to-face) did not produce significant differences.

### 3.3.4. Stepping Stones Triple P (SSTP)

SSTP [72] is a parenting program designed for families of children with a disability based on the standard Triple P (TP; Positive Parenting Program) [138,139], which was developed by the Parenting and Family Support Centre, The University of Queensland (<https://pfsc.psychology.uq.edu.au/>), Australia. Stepping Stones, a variation of the parenting training program, shares strategies focused on the processes of acquiring concrete skills such as communication using ABA principles, as well as affective development for parents. It is designed specifically for parents of children with disabilities, including ASD.

Roux, Sofronoff, and Sanders [140] performed a trial based on the group-developed SSTP (GSSTP) methodology with 52 parents and children with ASD, Down's syndrome, cerebral palsy, and intellectual disability. Participants were divided into two groups (intervention and waiting list). The objective of the study was to demonstrate if such an intervention has positive effects on children's behavioral problems and if the program achieves improvements in parenting styles. Additionally, the authors wanted to evaluate parents' perceptions of the program. The results indicated that it is a promising intervention for a mixed disability group, since significant improvements in the children's behavior and parenting styles and high parental satisfaction with the program were demonstrated.

SSTP is a five-level intervention system with different programs that vary in intensity. Tellegen and Sanders [73] developed a randomized controlled trial to evaluate the efficacy of a short SSTP program (four sessions), applicable in primary care (i.e., Primary Care Stepping Stones Triple P (PCSSTP)). They selected 74 families with children diagnosed with ASD who were between the ages of two and nine years. The families were divided into two groups (intervention and control). To determine the effectiveness of the intervention, they were evaluated at three stages (pre-intervention, post-intervention, and six-month follow-up). The results showed improvements in the behavior of the children in the intervention group, improvements in the level of parental stress, a decrease in marital conflict, and an increase in general well-being. However, no significant changes were found in the

level of depression, anxiety, or parental rejection of the children. The effects were maintained at the six-month follow-up, reporting high levels of satisfaction with the program.

Lastly, Schortt et al. [74] explored the effectiveness of SSTP as complementary to direct intervention for children with ASD. Twenty-two families and children aged 3–12 were recruited to conduct this study. After the intervention, there was a significant reduction in negative parental behaviors, increased parental self-efficacy, and reduced caregiver stress. It was concluded that this type of methodology can be used as a complementary intervention and can be highly effective in the treatment of children with autism.

### 3.4. Play-Focused Intervention Programs

This section refers to methodologies in which games are used as an essential part of the intervention. The value of play in children's psychological development has been known for a long time [75]. Its application at a therapeutic level has also been recognized for some time [141,142]. Play is a universal activity in all children, through which they rehearse problem situations, so we can consider it key to developing social behaviors [143]. Intervention techniques focused on play with children with ASD, have been used for a long time, and its effectiveness has been demonstrated in meta-analyses [144–146], with results that demonstrate changes produced in social–emotional and communication development. Most of the techniques that focus on play are part of interventions based on pragmatic social development (e.g., Developmental Social–Pragmatic (DSP)) model [147]. In our search, we found three programs in which play is the basic tool of the intervention.

#### 3.4.1. Theraplay

Theraplay [148,149] is a play therapy approach designed to improve parents' attachment, attunement, and sensitivity, as well as children's regulation and reflection. It focuses on the non-verbal aspects of children's communication, using playful interactions as a means of intervention. The intervention is carried out in a family context with a duration of 30 min in weekly sessions across a four to six-month period.

A study was found that determined the effectiveness of this methodology [150]. This study was conducted on eight children diagnosed with autism between the ages of three and nine. The intervention was intensive, targeted at the children and their primary caregiver, and consisted of one-hour interventions each day for two weeks. The objectives of the study were organized in three sections, the first of which corresponded to the observation of parent–child interactions; the second determined the changes in the quality of the interactions, and finally, the influence of the intervention on the families' behaviors was evaluated. The results showed that both parents and their children achieved significant improvements in their interactions and acquired new tools to achieve positive interactions.

#### 3.4.2. Floortime Play

Floortime Play [76] is the practical form of intervention based on the Developmental, Individual Difference, Relationship (DIR©)-based model [76,151,152]. It consists of the development or encouragement of spontaneous and structured or unstructured play sessions, in which relationships are built and self-regulation, two-way communication, social engagement, complex thinking, and problem solving are developed.

Dionne and Mastini [153] presented a unique case study: A three-year-old child and a six-month-old child diagnosed with autism at two years and five months, respectively. Four sessions were conducted across a 7-week period (45 min per session), and all interventions were conducted jointly by the therapists and the mother of the child. Specific observational measures were used to evaluate the intervention. A total of 28 sessions were conducted over the seven weeks of the intervention. The results showed improvements in this variable, as well as in spontaneous communication, family relationships, and exchanges during communication.

For their part, Pajareya and Nopmaneejumrulers [77] conducted a randomized controlled pilot trial to determine the possible additional benefits that this method could bring to routine interventions. Two groups were organized, the first of which only received conventional treatment, while the second group received supplementary DIR<sup>©</sup>-based Floortime Play sessions. Thirty-two participants were assigned to each group using stratified random assignment according to age and severity of symptoms. The results reflected an overall improvement in ASD symptom severity for all children in both groups, with the improvement being most significant in the DIR<sup>©</sup>-based Floortime Play intervention group. Similarly, changes were observed in the emotional development of the children participating in the experimental group.

Continuing their research and based on the results of the participants in the intervention group of the previous study, Pajareya and Nopmaneejumrulers [78] conducted a follow-up study to demonstrate the effect of maintenance and adherence to treatment by parents for one year under the home-based care model (i.e., Home-Based DIR<sup>©</sup>-based Floortime Play). The results pointed in the same direction as the original study; in addition to having achieved improvements in the scores of each of the scales in the pre- and post-test contrast, parents continued to relate positively to their children, which led to improvements in family relationships.

Liao et al. [79] developed a home intervention program based on the DIR<sup>©</sup>-based Floortime Play principles with the intention of enhancing social interaction and adaptive functioning. The participants comprised 11 children diagnosed with ASD, and the intervention lasted 10 weeks. The program included three weeks of training for the mothers in individual sessions in which individual goals were developed for each child. At the end of the intervention conducted by the mothers, significant gains in communication, life skills, and social skills were achieved.

Solomon et al. [80] developed Play Project Home based on the DIR<sup>©</sup>-based Floortime Play principles and conducted a controlled trial on a total of 128 families with a child diagnosed with autism. They were randomly assigned to two groups of 64 families, stratifying by age and severity level. The control group continued to receive standard treatment in community services, while the experimental group received Play Project Home training. From the data obtained, the two groups demonstrated improvements in diagnosis, but the group that received the intervention showed greater improvements, and these were statistically significant. The results also determined changes in parent-child interactions, functional development, stress, and depression in parents. Regarding the parent-child interactions, the results indicated that the parents of the experimental program showed a significantly greater change in the quality of their interactions. Moreover, in terms of functional development, the experimental group showed greater changes than the control group, while the results of the parents did not show differences in terms of the levels of stress between the two groups.

Aali et al. [81] presented an experience in Mashhad (Iran) in which they designed a family-centered intervention in combination with DIR<sup>©</sup>-based Floortime Play. A total of 12 children from two to eight years old and their families participated during the five-month intervention. Although the study referred to the three groups included as independent groups (Family-Centered Therapy group, DIR<sup>©</sup>-based Floortime Play group, and control group), no detailed information could be found about the composition of these groups or the mechanism of assignment to each of them. The results mentioned gains in the areas of intimacy, commitment, emotional development, and self-regulation; however, the data were inconclusive, and although scales such as the FEAS (Functional-Emotional Assessment Scale) were used, they were limited to making qualitative assessments.

Finally, Sealy and Glovinsky [82] performed a controlled clinical trial in Barbados with parent-child dyads. All of the children presented neurodevelopmental disorders related to communication and relationships, and were between two and seven years of age. A total of 40 dyads participated in the 12-week trial. The objective was to evaluate the developmental changes in reflective parental functioning as assessed by the Parent Development Interview (PDI) [83]. Parent training in DIR<sup>©</sup>-based Floortime Play improved their reflective functioning skills, suggesting that they learned to better read their children's social demands and respond accordingly.



### 3.4.3. Focus Playtime Intervention (FPI)

Siller and Sigman [154,155] published studies that showed that parents’ responsible behavior during their play with their children with ASD in the early years predicts later language development. Based on these studies, they developed an experimental program that they called Focus Playtime Intervention (FPI) [156], which is composed of 12 training sessions in the family home (one per week) of 90 min. Each session is divided into two parts; during the first part, the therapist provides a standard toy pack. The parents and children are invited to take out the toys, and the professional guide is then incorporated into the interaction. The parents and the professional guide alternate in their interactions with the child, demonstrating different strategies. During the second part of the intervention, parents receive instruction on what happened in the session and plan tasks for the week ahead. The results showed that children who start the program at the 12-month language level benefit the most.

In a later reanalysis, Siller et al. [84] determined that parental involvement is relevant because parents must replicate the strategies within the home. Additionally, modeling positive parenting styles allows for improved dynamics within the home, so they understand that PIF intervention should be part of a broader parent-mediated intervention program. The results indicated that not only are parent-child relationships improved, but children’s cognitive development, language use, and independence are also increased.

## 4. Discussion

A total of 51 documents offering empirical data on a total of 15 intervention programs were studied herein. The programs differ in their objectives although all of them have as a common factor the formation of the parents. Four major groups of programs have been described according to their objectives (see Figure 2).

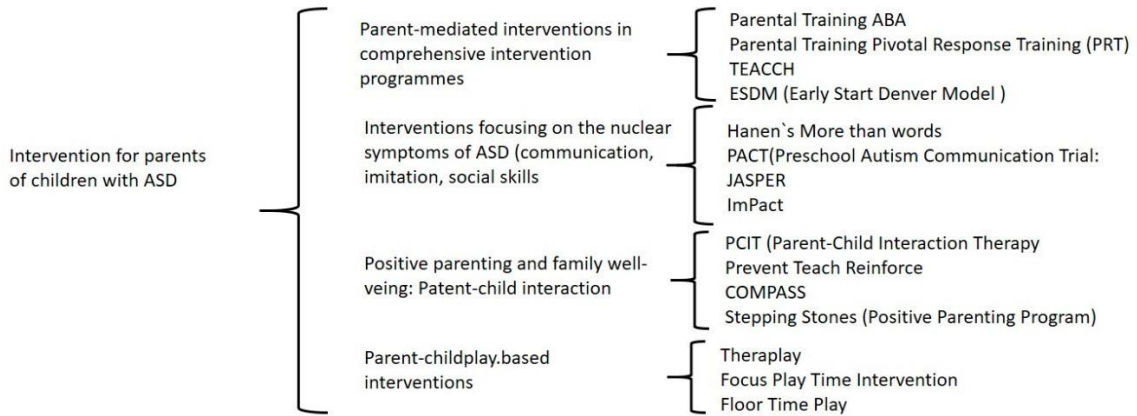


Figure 2. Classification of the 15 programs found in the search.

There are also great differences in the level of evidence among the fifteen programs, being especially relevant the absence of a common methodology to evaluate the results. Most programs use different evaluation tools [85]. Evidence supports the effectiveness of techniques and methods based on child development, as well as the application of principles of behavioral analysis [157], including programs that emphasize the use of structured learning environments, stimulus control, development of routines, natural environments, etc. [158]. Evidence also suggests that not all children respond in the same way to all treatments or techniques [159], and that there may be other variables that affect the effectiveness of programs, regardless of the age at the beginning of the treatment [160–162], or the intensity [163–165]. The role of parents and caregivers as a success agent in early interventions has also been highlighted [79,166].

Comprehensive programs have long established parents on their agendas. Most of these programs incorporate training sessions on the characteristics of ASDs, and as a result of increased awareness, parents' skills in advocating for their children's rights are increased, generating a sense of empowerment that, in turn, decreases stress and feelings of isolation [167–169]. As for the concept of “parental training,” we believe that it is poorly defined or sometimes misused. We associate it with the more behavioral comprehensive programs.

The Parental Training Program derived from ABA stands out for the number of works and amount of evidence. Moreover, the studies on the P-ESDM parent-mediated model are also very relevant. Among the programs centered on the central symptoms of ASD, the JASPER, and ImPact models stand out for the number of studies. In case of the programs aimed at promoting positive parenting and family welfare, the PCIT model was found in five publications, although evidence of its efficacy is low. Finally, in the group of programs centered on play with children, the FTP model stands out for the number of publications, although the level of evidence of its effectiveness is also low. Based on this, we conclude that there is a need to continue increasing the number of controlled clinical trials with the purpose of reaching the highest level of evidence possible. In any case, the evidence points toward the inclusion of parents in order to gain generalization, thereby increasing the effectiveness of the intervention programs. In a complementary way, programs for the improvement of parent-child interaction are also efficient.

In general terms, our research allowed us to build on previous results, where it is considered that parental involvement in the therapeutic process can be of great help in increasing social and communication skills in children diagnosed with ASD. As evidenced by the results of the search, there are many different methods and approaches, from training in comprehensive programs to specific programs that impact on parental training from intervention models for the improvement of general parenting. Special attention should be given to programs aimed at improving interaction between parents and children using play as a mediation.

Some of the research analyzed showed that parents increase their knowledge in the face of a diagnosis, improve their parental skills, and generate positive relationships with their children. However, many methods leave aside the support that parents should receive, since they are programs that focus on psychoeducation and direct intervention with children, without taking into account that the vast majority of caregivers present feelings of anxiety and depression, which can hinder the relationship with their children and, as a consequence, the adherence to an intervention program and the achievement of good therapeutic results. In view of this, we consider that to achieve adequate effects, there must be an approach of diverse methodologies that allows the intervention to be implemented with family in an integral manner.

Among the programs we analyzed, there were great differences. Many of them were university clinical trials that must yet be developed a long way before they can be considered evidence. Among other deficiencies, we found little generalization of their use, as many of these clinical trials were developed by the same research team. Additionally, many research centers and universities developed services for the public by developing interventions under one of the described intervention models. These interventions had a double effect, the first of which was improvements in the deficits of children or family relationships, but they also aimed to collect data for future review and analysis. To generalize their use, they provided training for other professionals to use them. Although great efforts have been made to transfer and implement evidence-based intervention strategies to actual community intervention settings [170–172], there are difficulties in translating evidence-based practices from university settings into community experiences for various reasons, such as a lack of appropriately qualified technical staff, inadequate settings, or a lack of funding [173,174].

As a general conclusion, we must include parents in interventions with their children, providing them with training and defense strategies to help combat the possible stress associated with the intervention, without forgetting that the main agent is the affected child and, therefore, must be the focus of an intervention. The training of parents should be carried out using all possible resources,

e.g., reading of self-administered manuals, meeting and mutual support groups, video feedback sessions, and remote support through the web or video conferences [175]. Without forgetting that the perception of social support derived from the training programs for parents and the interaction and support between them has a great therapeutic value [176]. Comprehensive programs with training for parents, such as the P-ESDM, in which emphasis is placed on the development of play as a therapeutic element, meet the optimum conditions.

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**NEURAL ENGINEERING  
TECHNIQUES FOR AUTISM  
SPECTRUM DISORDER**

**Volume 2: Diagnosis and Clinical Analysis**

Edited by  
**Ayman S. El-Baz**  
**Jasjit S. Suri**



# NEURAL ENGINEERING TECHNIQUES FOR AUTISM SPECTRUM DISORDER, VOLUME 2

## DIAGNOSIS AND CLINICAL ANALYSIS

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CHAPTER

4

## Parents of children with autism spectrum disorders: interventions with and for them

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### 4.1 Introduction

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Autism spectrum disorders (ASDs) are neurodevelopmental disorders characterized by persistent deficits in communication and social interaction and restricted, repetitive patterns of behaviors, activities, and interests that cause significant impairment in social, occupational, or other areas of functioning. Such symptoms are typically present in the early developmental period [1]. In the children, the development of the nervous system is influenced by the interaction with the environment [2]. A child with ASD has deficits in skills for basic communication and social interaction, which can generate inadequate patterns of interaction, due to stress caused by the new situation, among other reasons [3,4]; this negatively effects neuropsychological development, producing a cascade effect [5–7]. Inappropriate interactions have two negative effects: they continue to feed back into the child’s developing nervous system, increasingly

diverting it from normative development, and they generate a high level of tension and discomfort in the parents, which in turn feeds the inappropriate interactions [8].

Early intervention using proper scaffolding with parents and their child can diminish the cascade effect, making the affected child’s development evolve closer to the typical pattern of development [3,9,10], benefitting from greater neuroplasticity of their early age [11]. Evidence for the relationship between parental behaviors and the development of children with ASDs is clear [12]. Thus, when children who show warning signs of autism and their families undergo interventions, their symptoms improve; this improvement manifests itself even years later [13]. Kim, Bal, and Lord [14] found that parental involvement in early intervention is a good predictor of later academic performance.

Parental involvement in implementing intervention strategies designed to help their children with ASDs has a long history [15,16]. Parent

training programs have been given different names: parental training (PT) or parent teaching. These terms are more or less vague and consist of parent—therapist coordination, psychoeducation sessions about the disorder, training in specific techniques for language development or improving social skills, as well as specific programs to address maladaptive behaviors [17].

As knowledge of the learning processes involved in the development of communication and language advanced for both typically developing children and children with ASDs [6,9], intervention trials began to appear specifically focused on the development of skills detected as precursors to communication and language or social interaction, such as imitation or social engagement. It is within the framework of development of these programs that “parent-mediated intervention” takes shape, such as those programs where parents are agents of change and their children are the direct beneficiaries [18].

Voluminous literature exists on different experiences where the focus is on parent involvement in early intervention programs [18,19]. Bearss et al. [17] classify these interventions in two large groups. First, interventions directed toward the orientation of parents, coordination with therapists and providing them with quality information about ASD. Second, programs in which parents have an active role either directed toward ASD’s core symptoms or directed toward maladaptive behavior. A third group of interventions, not included in the work of Bearss et al. [17], aim to decrease parents’ level of stress and improve their psychological well-being, which result in the beneficial effects of decreasing the intensity of ASD symptoms by improving interaction with their children [20].

Historically, parents have been excluded from the therapeutic process in the first trial [21], but for increasing treatment intensity or for economic or geographical reasons, parents were incorporated into the therapeutic process,

demonstrating its effectiveness [22,23]. Over time, different modalities have been explored ranging from psychoeducation sessions, where they are trained in the behavioral principles that would allow them to improve the management of negative behaviors in the child’s natural environments, to mindfulness programs for improving the psychological well-being of the family.

The irruption of new technologies, particularly the use of the internet for the distribution of information and use of these means for distance learning, has led to the appearance of digital-based parent training (DPT) programs [24]. Here, we will review those programs that have developed a version that uses technical means.

#### 4.2 Parent participation in early comprehensive intervention programs

The name “comprehensive intervention programs” is often used to refer to those programs that are structured and guided through manuals that focus on specific ASD deficits, such as communication difficulties, social skills, adaptive behavior, in a comprehensive way. Most of these programs apply behavioral principles, involve an intensive intervention 20 hours of intervention per week or more (for an extended period of time a year or more). In contrast, given the great symptom diversity associated with ASDs, some intervention programs are specifically directed toward a particular aspect of the disorder, for example, Picture Exchange Communication System [25]), noncontingent reinforcement to reduce aberrant behaviors [26], or eating interventions [27], among others. The best known comprehensive intervention programs are the Early and Intensive Behavioral Intervention [23], Pivotal Response Training (PRT) [28], Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH) [29], or the Early Start



Denver Model (ESDM) [30], among other educational programs [31]. The role of parents in these programs has varied over time and in most, the term “parental training” or “parental teaching” is used to refer to instructing or training of parents in the principles of the intervention.

#### 4.2.1 Parental training

Training programs for parents in the applied behavior analysis (ABA) principles are the ones that have given the generic name to PT [32]. The term PT is confusing, both in its origin and the methodology used [17]. The basic idea is that many disruptive behaviors of children are due to the parents, who model and reinforce them positively or negatively without being aware of them. The goal of these programs is to teach them how to identify their children’s behaviors and how they model and reinforce them. The purpose of this analysis is to implement strategies that weaken unwanted behavior. On occasion, PT programs have been identified as the training received by parents as co-therapists to replicate clinical sessions at home. This action is justified for economic reasons the parents do not have the economic capacity to cover the costs of an intensive intervention, or for geographical reasons distance between the home and the intervention center.

The first PT programs [33] were directed toward the extinction of disruptive behaviors such as aggression, self-injury, irritability, stereotyping, hyperactivity, and inappropriate language use in children. Two lines of action soon became evident: one focused on teaching parents to analyze the child’s behavior and administer reinforcement, directed toward the extinction of disruptive behaviors [34], while the second was based on improving the interactions between parents and their children with ASD Relationship Development Intervention [35]. In the treatment of people with ASDs, both situations can occur,

which has generated some confusion in the use of the term PT and made it necessary to bridge these two lines of action [36]. Different clinical trials have been conducted with contradictory results: on the one hand, Oosterling et al. [37] found no added value with parental involvement; on the other hand, Bears et al. [17,38] found a reduction in aberrant and disruptive behaviors.

As a consequence of the development of information and communication technologies and the social generalization of their use, they are being incorporated into therapeutic sessions. Clinical trials utilizing video modeling [39] or online PT programs with synchronous video calling [40] have been especially relevant in overcoming barriers associated with travel or availability of trained clinicians [41]. Marino et al. [42] conducted a randomized clinical trial to investigate the feasibility and efficacy of a tele-assisted intervention vs face-to-face approaches for parents of children with ASD in the context of an ABA intervention. Tele-assistance was designed based on a web platform where videoconferences, tutorials of ABA tasks for parents including cues, prompts, and reinforcements were provided. The same therapists attended to both groups of parents. As a result, the effectiveness, flexibility, and motivation of the telecare group were noted compared to the conventional group. Notably, no differences were found in the children’s results, although there were differences in the parents’ stress levels, which decreased in the tele-assistance group.

In Baumel et al.’s [43] review, four different types of technology-assisted parent training program formats were categorized self-directed noninteractive, interactive DPTs, remotely administered DPTs combined with professional phone-based coaching and smartphone enhancement of standard treatment, which addressed disruptive behavior problems [24]. The results suggested that the use of technological means may increase engagement with treatment and improve outcomes.

#### 4.2.2 Pivotal Response Training Program

Evolution of the ABA program has led to actions in specific development areas: the Koegel Autism Center at the University of California Santa Barbara, <https://education.ucsb.edu/autism>, has developed the PRT program [28]. The goal of this program is to provide comprehensive treatment in key areas to promote autonomy. Target behaviors are selected, parents are trained in treatment strategies based on behavioral models, and children receive intervention sessions at school and home. Parents or caregivers play an active role in treatment by helping implement the intervention [44]. Under PRT programs, parents are required to attend training programs in which they learn techniques and procedures to improve their child's motivation and self-initiation through communication and academic skills. Clinical trials have been developed to evaluate the parent-mediated application of PRT. Minjarez et al. [45] concluded that it is beneficial in increasing parent—child communication and improving language outcomes. Gengoux et al. [46] studied the permanence of the skills acquired by parents beyond the training sessions and found that these remain at least during the follow-up period. Studies on the effectiveness of parental mediation in PRT programs are already numerous [47—49].

Online programs have also been developed. Nefdt et al. [50] conducted clinical trial in which parents implemented a PRT strategy with fidelity, providing their children with more opportunities for communication and language development. As a result, parents showed greater confidence in parent—child interactions. Among other reasons, the immediacy of feedback was valued in the online program. Wainer and Ingersoll [51] led a web-based self-directed telehealth program to train new therapists and parents in reciprocal imitation training RIT [52]). Results suggested that

the system enabled learning and increased reciprocal imitation. A hybrid program self-directed internet-based instruction and remote coaching was tested to improve imitation in children with ASDs [51]. In another study, parent participants stated that the model was acceptable, usable, and effective in demonstrating that the use of remote assistance enhances access to services for people with ASDs [53].

#### 4.2.3 Treatment and Education of Autistic related Communication Handicapped Children Program

TEACCH is a philosophy developed in the state of North Carolina (<https://teacch.com>) approved by state parliament as a guide for life span care of people with ASD. Eric Schopler [54,55] defined the role of parents as necessary collaborators, generating an essential relationship between parents, professionals, and treatment centers. Specific training actions are developed for parents based on the characteristics of the disorder; and parents are instructed on measures to reduce the child's difficulties continuous and structured intervention, an adaptation of environments, and the use of alternative and augmentative communication systems. The technique that has transcended the most, and for which TEACCH is recognized, is structured teaching [56]. The premise behind this intervention is the application of the behavioral principles and modifying the context to meet the needs of the individual with ASD, by adapting the environment, collaborating with parents, assessing treatment outcomes, and providing generalist training. The results of TEACCH intervention programs developed by parents in the family home have been evaluated positively [57,58]. More recent results also indicate that collaboration between parents and schools not only provides benefits to children by reducing the intensity of symptoms and aberrant behavior, but also generates

benefits among parents by reducing parental stress [59,60]. Although the TEACCH program is well known, a number of available studies about it are limited [61]. In particular, regarding the use of technology support systems and parent education, we have not found any references in the literature.

#### 4.2.4 Early Start Denver Model

ESDM [62] is a method based on behavioral principles that consider the typical development of the child and was developed because of the need for early and intensive interventions. This program is designed for children between 12 and 60 months. In this intervention program, parents can receive training from professionals so that children are able to replicate what they have learned in other contexts. The main goal is to advance social skills and functional and language development, as well as increase attention and motivation and improve family dynamics. The evidence on the effectiveness of the method has been demonstrated in the review developed by Waddington, van der Meer, and Sigafos [63]. The authors of the method themselves have researched the effectiveness of involving parents in treatment [64–68], demonstrating that parents are able to acquire skills to manage their children, generating greater motivation and frequency, and quality in parent—child relationships.

Vismara et al. [69,70] developed a tele-assistance program in hybrid format on the contents of a training program for parents in the ESDM model. Parents were provided with DVDs and a website with the contents of the program, which was also supported by weekly synchronous video-conference sessions. Results suggested that parents were able to implement the strategies learned during the training course and that children showed gains in social communication behavior while their parents participated in the program.

### 4.3 Programs for the development of parent—child interaction

The family environment is where children develop communication and language and acquire the processes of socialization. It is known that parents' styles and quality of behavior influence cognitive development, language, and social skills in both typically developing children [71], and those at risk for the ADSs [72].

#### 4.3.1 Hanen's more than words

There are different programs that improve the dynamics and communication between parents and children; a significant one is the Hanen program, [73] with more than 35 years of experience. Hanen's More Than Words (<http://www.hanen.org/Programs/For-Parents/More-Than-Words.aspx>) and It Takes Two to Talk (<http://www.hanen.org/Programs/For-Parents/It-Takes-Two-to-Talk.aspx>) are two programs designed to improve family dynamics and parent—child communication. In a randomized clinical trial, Carter et al. [74] demonstrated the benefits of the More Than Words program; however, these results were related to the initial profiles of children. Although online training is present in the More Than Words program (<http://www.hanen.org/Special-Pages/MTW-telepractice-program-page.aspx>), we have not found any published studies in which this experience is evident.

#### 4.3.2 Preschool autism communication trial

Preschool autism communication trial (PACT) [75] is an intervention program from the University of Manchester, which aims to improve communication between parents and children with ASDs, directly affecting the social and language development of the child. The first trial was conducted between 2006 and 2009. The aim is to train parents to adapt their

style of communication to their child's abilities and respond to their child with greater sensitivity and responsiveness. The emphasis in the program is on increasing joint attention through looking or sharing, showing, giving, and adopting the language at the child's level. Different strategies are also presented to facilitate communication and child participation routines, verbal scripts, use of elaborations, pauses, etc. Through this training and with different adaptations, parental sensitivity and positive interactions within the family context are increased. In the initial trial, Green et al. [75] found that the severity of symptoms of children receiving PACT treatment was reduced. Pickles et al. [76] reanalyzed the results and proposed a model of mediation to understand the relationships between parent and child behaviors. In a later follow-up study [77], they observed that the improvement in dyadic parent—child communication was maintained although there was no change concerning the nuclear symptoms of the disorder. However, the improvement in communication was reported to positively influence behavioral problems in the family.

#### 4.3.3 Joint Attention Symbolic Play, Engagement, and Regulation

Joint Attention Symbolic Play, Engagement, and Regulation (JASPER) [78], developed at the Center for Autism Research and Treatment, UCLA [78], builds on previous research team studies where deficits in joint attention and symbolic play were found to be two of the major developmental problems in children with ASDs [79]. JASPER is an intervention program that focuses on the fundamentals of social communication and uses naturalistic strategies to increase social rhythm and complexity. The aim is to increase social commitment, verbal and nonverbal communication, and play skills, based on parental education, which generates commitment from parents to strengthen these

areas through motivation and enjoyable activities. The same research team has conducted several studies and clinical trials with parents and caregivers as mediating agents [80] and follow-up studies [81] in which the relationship between joint attention, symbolic play, and later language development was evident [80,82]. Community programs have also been developed for which the figure of teaching assistants was designed as an external support to maintain the acquired skills [83]. Similarly, trials have been developed to compare the results of using face-to-face and technology-enabled intervention programs [84]. The technology used included videoconferencing, video-reviewing, and static documentation, which made it possible to eliminate access barriers to programs related to distance from the therapeutic center, travel time of rural communities or those located at a distance from the center. Results suggest that there are no differences between the two training modalities.

#### 4.3.4 Improving Parents as Communication Teachers

Improving Parents as Communication Teachers (ImPact) [85,86] was developed in the Autism Research Lab at Michigan State University <http://psychology.psy.msu.edu/autismlab/projectimpact.html>. It is designed to integrate parents and teachers in the early intervention of children with ASD. It is based on numerous studies that reported on the importance of social communication [87] and imitation [88—91] in the social development of children with ASD and of parental involvement in the intervention [86,92]. ImPact focuses on teaching parents to increase their child's social engagement, communication, imitation, and frequency of play during daily play and routine activities. The goal promotes the generalization of children's skills, increases parents' optimism, and decreases stress [92]. ImPact

has been tested as a part of special education in a pilot study [93] and in case studies [94] where a decrease in parental stress and an increase in socio-communicative responses and oral language use was evident. In general, benefits are observed not only in the improvement of children's communication styles, but also in the increase of adherence to parental treatment and a decrease in parental stress [95]. The effectiveness of ImPact in the community setting has also been evidenced [95,96].

Ingersol et al. [97,98] conducted a trial to assess the most appropriate technological tools to apply ImPact parent-mediated treatment, and administered them thematically to overcome the obstacles of geographic spread and distance to the treatment center. The results are similar to those of previous studies, indicating that adherence is better maintained if accompanied by therapist support via videoconferencing. Web-based instructional experiences for community service providers have also been developed to promote parent-mediated intervention [99].

#### 4.3.5 Parent—child interaction therapy

Parent—child interaction therapy (PCIT) [100] is defined as a brief therapy program based on behavioral principles and aimed at solving problems of interaction between parents and children with behavioral problems or intellectual disabilities (ID). PCIT has also been applied with families with children with ASDs [101,102]. PCIT is divided into two phases: the first focuses on increasing positive parenting behaviors child-directed interaction and the second on teaching parents a structured and consistent approach to their relationship with their child parent-directed interaction. As part of the PCIT program, parents are assigned homework play practices with their children where they develop skills such as imitation, contingency control, and natural reinforcement.

The evidence is still limited, supported only by case studies [103—105], with pre- and post-test groups [106] and a clinical trial [107]. Results indicate that children show improvement in the following dimensions: respect, social skills, and flexibility, along with reduction of repetitive behaviors and parental stress. Comer et al. [108] developed an online version called I-PCIT internet-delivered parent—child interaction therapy. The results of their study showed that I-PCIT does not introduce negative effects. The differences between face-to-face presentation and internet-delivered were not significant.

#### 4.3.6 Stepping Stones Triple P

Stepping Stones Triple P (SSTP) [109] is a variation of the responsible parenting training program Triple P: Positive Parenting Program [110,111] developed from the Parenting and Family Support Centre, University of Queensland <https://pfsc.psychology.uq.edu.au/>. SSTP is a parenting program designed for families of children with developmental disorders, including ASDs, that shares strategies focused on concrete skill acquisition processes such as communication using ABA principles. Several clinical trials have been conducted to evidence the results of its implementation [112—115]. In all of them, improvements in children's behavior, parenting styles, increased self-efficacy, and reduced parental stress were evidenced. This type of methodology can be used to complement conventional interventions for children with ASD.

Kasperzack et al. [116] developed an experiment to evaluate the effectiveness of SSTP as a complementary intervention treatment in children with ASDs. Participants were parents of 24 children with ASD between 3.6 and 12 years. After training parents in the SSTP program, a significant reduction of comorbid behavior problems in the children was evidenced, in addition to the reduction of ASD's core symptoms. The

results seem to indicate that improved self-efficacy and parental attributions can influence children's problem behavior. Mazzychelli and Sanders [117] developed a theoretical review with empirical results in which they concluded that SSTP is a public health, multilevel approach including different means of delivery face-to-face, group sessions, telephone assisted, self-directed programs. Web-based applications have also been developed that have proven effective [118,119].

#### 4.4 Parent-child intervention based on anxiety reduction

Anxiety is a very common comorbidity among people with ASDs and their caregivers. There are different pharmacological treatments that are moderately effective; however, without a doubt the most effective and generalized treatment is cognitive behavioral therapy (CBT) [120—122]. The cognitive-behavioral model was developed by Beck [123], and its use for children with anxiety has been reported to help recognize anxious feeling, somatic reactions, identify dysfunctional reactions, catastrophic cognitions, and negative automatic thoughts, develop coping skills and change repetitive behaviors or tics [124]. CBT-based treatments are usually brief therapies, performed individually or in groups in weekly sessions of 40—50 minutes between 5 and 20 sessions depending on the case, accompanied by daily homework tasks. There are many clinical trials and systematic reviews that prove its effectiveness in children, youth and, adults [125]. CBT programs are usually modular allowing great flexibility [126] so that they can be adapted to the characteristics of the individuals being treated. In general, they consist of psychoeducation, relaxation training or training in the management of somatic symptoms, cognitive restructuring identification of negative thoughts and thought control, problem-

solving, and experiences in exposure to phobic or aversive stimuli [127,128]. Specific CBT programs have been developed with modifications to adapt to the specific characteristics of people with ASDs in areas such as social phobia [129]. Numerous studies provide evidence of the effectiveness of CBT programs in the treatment of anxiety in children and young people in both group [130] and individually settings, or jointly with their parents [131].

##### 4.4.1 Cognitive behavioral therapy for anxiety reduction in children with autism spectrum disorders with parental intervention

Parental participation in intervention programs can produce different positive effects; it increases the self-efficacy of parents who participate in training programs and reduces their stress; additionally, it improves the results of the intervention on their children [132].

Although a number of CBT protocols for treating preschool children with ASD are not very abundant, some positive reports are available [133]. There is more evidence in the application of CBT in youth and adults with ASDs, especially those who are high functioning (HFASD). In any case, parental involvement is considered critical to the success of CBT anxiety treatment [134—138]. Driscoll et al. [139] developed a clinical trial on a version of Kendall's "Coping Cat" [140], called "Being Braver" [141,142]. The goal was to involve parents in the process of training their children to overcome anxiety. Children and their parents were taught anxiety management skills through coping techniques such as relaxation exercises or coping plans, modeling parental behavior, planning, rehearsing, and practicing exposure exercises with contingent reinforcement. Results were similar to those of the neurotypical population which evidence its effectiveness. Conaughton et al. [143] developed an online version concluding that the BRAVE-Online program is effective

in reducing anxiety symptoms in children to the same extent as the face-to-face version.

#### 4.4.2 Mindfulness-based intervention

Mindfulness is a construct that can be understood as the capacity of full attention, attentive, and reflective presence in a value-free way [144]. Mindfulness-based intervention that has received the most support from research aimed at stress reduction [145]. These are short therapy interventions (8 sessions), developed in groups, in which the participants are taught to observe, recognize, and let thoughts, feelings, and emotions that come to consciousness flow [146,147]. Many mindfulness-focused intervention programs aim to optimize psychological well-being of parents or primary caregivers [148,149] which also benefits children with ASDs by improving their outcomes [150].

##### 4.4.2.1 Mindfulness training for parents mindfulness parenting

Mindfulness-oriented intervention programs aim to develop psychological well-being in parents or primary caregivers [148,149]. Optimizing psychological well-being in parents or caregivers also benefits children with ASD by improving their outcomes [150]. In particular, these programs have offered benefits in managing stress and anxiety and increasing the level of well-being in parents and caregivers of children with autism [150–153]. They also report that caregivers improve their response to their children's demands, making them more empathetic and appropriate, which requires high levels of attention, cognitive flexibility, and emotional regulation—characteristics that are reinforced in the mindfulness-based intervention [153].

Singh et al. [154] used a variant of mindfulness-based stress reduction (MBSR), incorporating Mindfulness-Based Positive Behavior Support [155], and found more

positive results in the therapeutic combination of mindfulness-based and positive behavior support than in each of the models separately. These results have been corroborated not only for families with children with ASD, but also for those with ID [156]. Torbet, Proeve, and Roberts [157] used a self-compassion-based mindfulness program demonstrating that this construct positively correlates with well-being and negatively with parental distress and stress. Moreover, sources of stress may be caused or reinforced by the social stigma of an ASD diagnosis. Cheung, Leung, and Mak [158] suggest that the exercise of caution, along with promoting parents' well-being and conscious parenting, generates multiple positive consequences for children with ASD. However, it is necessary to work on the social stigma of the diagnosis and the social perception of the behaviors of children with ASD as a source of parental stress.

In summary, background studies that have applied intervention programs focused on contemplative practices, for example, MBSR or variants, self-compassion or based on emotional regulation, for example, [159] which have focused primarily on developing the psychological well-being of parents or primary caregivers of children with ASD. Perhaps the clearest background results have been in relation to stress. Cheung, Leung, and Mak [158] found that parental stress was related to social stigma in relation to ASDs and therefore could benefit from parental care and self-compassion exercises. Singh et al. [154] found that stress levels of mothers of adolescents with ASDs reduced as a result of an MBSR intervention. Regarding depression, Blackledge and Hayes [160] found an improvement in symptoms following commitment and acceptance training. Finally, Torbet, Proeve, and Roberts [157] found that self-compassion training could introduce a protective factor for the development of parental stress in parents of children diagnosed with ASD.

#### 4.4.2.2 *Mindfulness training for Youngsters with autism spectrum disorder*

Mindfulness programs have been extended by combining intervention for children and youth with ASD with those aimed at their parents. MYmind [161] is a mindfulness-based program developed specifically for young people diagnosed with neurodevelopmental disorders and their parents. In this program, children and youths with ASD and their parents follow parallel sessions in which they practice mindfulness meditation exercises to be used in difficult situations [159,161]. Ridderinkhoff et al. [162] presented a study with 40 children and young participants 9—17 years, and their parents in which they applied MYmind by studying the key change processes and their relationships, proposing a model of interdependence between these change processes knowing, connecting with peers, pausing, being aware, being here and now, letting go, determining a strategy, being and responding calmly and tuning in to others. Salen-Guirgis et al. [163] developed a trial with 23 parent—child dyads, finding improvements in ASD symptoms, emotional regulation, and adaptive skills in young people and their parents. According to these data, Mymind is a program that can contribute to the improvement of emotion regulation and adaptability of young people with autism.

### 4.5 Conclusion

In this review, we have looked at different intervention programs where parents were either indirect subjects of the intervention on their children or were active subjects of the program itself with the purpose of improving their psychological well-being, thus indirectly benefitting their children with ASD. There is evidence that the inclusion of parents in treatments increases their effectiveness [164—167].

Since parental stress is associated to some extent with their participation in treatments [168], it is necessary that any intervention takes this reality into account.

Comprehensive programs have long incorporated parents into their schedules. Most of these programs incorporate psychoeducational sessions on the characteristics of ASDs and the resulting knowledge increases parents' competencies in defending their children's rights, generating a sense of empowerment which decreases stress and the feeling of isolation [169—171]. This was the origin of the term "Parental Training." As research and knowledge about ASDs has advanced and intervention programs have been developed in natural environments, parent involvement is increasingly justified. However, not all parents react in the same way and many develop high levels of stress, anxiety and even depression when faced with their child's diagnosis of ASD and subsequent interventions, both due to the investment of time and resources and because of the social stigma associated with the diagnosis. In this sense, programs have been developed to improve parenting skills by adjusting personal goals to the new reality. Cognitive-behavioral and mindfulness interventions are currently proving to be fruitful.

For training parents, different resources are used such as manuals, video demonstrations, video modeling, group, or individual sessions, and in recent years, video-conference sessions, and online programs based on web platforms. Online programs benefit from flexibility in their development and solve the problems of travel and access to the treatment centers. Studies show that they are as efficient as face-to-face programs. However, what we observe is that the online versions of the different parent training programs, independent of the model used or its focus, are only forms of distribution change and do not take advantage of the opportunities that technology offers to improve the learning and coaching of parents.



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## Capítulo III: Ensayos clínicos.

En los últimos años el interés por los efectos positivos de las intervenciones basadas en mindfulness ha aumentado significativamente. Mindfulness es una teoría que ayuda a entender la capacidad de relacionarse consigo mismo y con otros desde una atención plena y sin prejuicios. Las intervenciones basadas en Mindfulness han recibido un sin número de apoyo de la comunidad científica, siendo considerada una gran herramienta para la reducción de estrés, la mayoría de las intervenciones son cortas, de 8 sesiones (una por semanas) en las cuales se pretende enseñarles a los participantes a observar, reconocer y dejar a un lado pensamientos, emociones y sentimientos de juicio con la finalidad de reducir el estrés.

Durante el proceso de investigación ha sido notable la necesidad de implementar un programa basado en la atención plena a padres de niños autistas. Esto se debe a que la crianza en general es una fuente de estrés, ya que implica realizar cambios en las rutinas y adquirir nuevas responsabilidades, especialmente aquellos padres que se encuentran en el desafío de la crianza de un niño con cualquier tipo de trastorno del neurodesarrollo resultan mucho más complicados. Se ha demostrado a partir de varias investigaciones que estos padres reportan alteraciones en el bienestar psicológico, altos niveles de estrés y alteraciones en las relaciones conyugales y familiares.

Como consecuencia a esto se ha realizado un ensayo empírico titulado “*Mindfulness-Based Stress Reduction (MBSR) and Self Compassion (SC) Training for Parents of Children with Autism Spectrum Disorders: A Pilot Trial in Community Services in Spain*”, publicado en la revista “*Children*” de la editorial MDPI (JCR Q2). Artículo en el cual el objetivo principal fue evaluar la efectividad de un programa basado en Mindfulness y autocompasión y de forma paralela realizar sesiones de psicoeducación

acerca del trastorno. Para evaluar el impacto de la intervención fueron aplicadas las pruebas; DASS (ansiedad y estrés) y MASS (atención plena y capacidad de estar presente ) antes y después de la intervención.

En este estudio fueron seleccionados 12 padres de niños con diagnóstico confirmado de TEA menores de 12 años, de los cuales 10 completaron el programa. Los participantes fueron asignados en dos grupos, recibieron la misma intervención, pero en dos momentos diferentes. (Grupo intervención – Grupo control)

El análisis de los resultados demostró reducción en el estrés, la ansiedad y un aumento en la atención plena. La prueba DASS de ansiedad mostró mejoras significativas en ambos grupos. En cuanto a la prueba DASS de estrés se obtuvieron mejoras visibles, pero el contraste no alcanzó a ser estadísticamente significativo. Como resultado directo de la intervención, se observó un aumento en la tendencia a prestar atención al momento presente, resultado obtenido por la prueba MASS. Los resultados de ANOVA mostraron que el aumento de la capacidad de la atención plena tras el tratamiento fue significativo en ambos grupos, aunque se observó un ligero descenso durante la fase de seguimiento. No obstante, la diversidad de edad de los niños y niñas hizo que no se pudiera incidir en la mejora de la interacción padres-hijos. Los resultados del programa de intervención demuestran una disminución post tratamiento de los valores de ansiedad, estrés y depresión en los padres, lo cual podría generar cambios positivos en el bienestar psicológico y la calidad de vida de las familias. Sin embargo, resulta difícil que sea una intervención aplicada y/o estudiada debido a que en la actualidad es una práctica que no se encuentra generalizada por la falta de regulación de la formación de profesionales en mindfulness. Razón por la cual consideramos de suma importancia las buenas prácticas,

formación y mayores investigaciones con respecto a esta corriente, para que forme parte de programas de intervención en TEA.

Aunque haya sido una investigación que mostrara resultados positivos tras su aplicación, consideramos que la heterogeneidad de la muestra pudo haber afectado los resultados finales de la investigación, razón que nos han impulsado a realizar un segundo ensayo clínico. En consecuencia, se pensó en repetir el ensayo introduciendo algunas variaciones:

- a) Seleccionar a las familias participantes teniendo en cuenta que los niños y niñas no fueran mayores de 4 años.
- b) Que participara a ser posible los dos miembros de la pareja.
- c) Para facilitar la asistencia, se desarrolló un programa de juego en el suelo para los niños y niñas durante las sesiones de los padres.

El objetivo principal fue realizar un entrenamiento en Mindfulness Parenting a padres y madres con el objetivo de reducir los conflictos parentales disminuyendo la reactividad emocional en los miembros de la pareja y evitando un espiral de sentimientos negativos y la culpabilidad dentro de la crianza.

Nuestro estudio contó con la participación de 14 padres y madres (6 parejas y 2 madres) de edades entre los 30 a los 51 años, quienes fueron divididos en dos grupos de tres parejas y una madre. A los participantes se les aplicó las siguientes pruebas para realizar un análisis pre y post intervención; GAD-7, PSI-4, Autism Impact Measure, SCAARED y FMMQ. El programa de entrenamiento en mindfulness fue basado en el manual de Bögels & Restifo (2014) y consistía en 8 sesiones de 90 minutos, una vez por semana. Simultáneamente los niños y niñas fueron atendidos en una sala de juego utilizando técnicas de imitación y juego en el suelo.

Con respecto al análisis de los resultados, la investigación conto con dos tipos de medidas, por un lado, se realizaron medidas semanales de los niveles de ansiedad usando la prueba GAD-7, herramienta que ayudo a analizar los efectos a corto plazo del tratamiento y por otro lado medidas pre y post intervención.

Los análisis siguieron que el entrenamiento de Mindfulness Parenting ayuda a los padres y madres a aumentar la conciencia plena, incrementando una actitud sin prejuicios y como consecuencia reduciendo los niveles de ansiedad y mejorando las interacciones entre los padres e hijos. Sin embargo, los resultados no han logrado ser estadísticamente significativos y generalizados, ya que la cantidad de participantes fue muy reducida.

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Article

# Mindfulness-Based Stress Reduction (MBSR) and Self Compassion (SC) Training for Parents of Children with Autism Spectrum Disorders: A Pilot Trial in Community Services in Spain

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**Abstract:** This study aims to develop a clinical trial to test the efficacy of a mindfulness-based stress reduction (MBSR) and self-compassion (SC) program on self-reported values of anxiety, depression, and stress in parents of children with autism spectrum disorder (ASD) in primary school, in order to assess their integration into the framework of community intervention programs in Spain. **Methods:** A brief 8-week training program using mindfulness-based intervention (MBSR) and self-compassion (SC) has been applied to twelve Valencian ASD parents, ten of whom completed the program. Participants were assigned to two groups; both groups received the same treatment but at two different measurement moments. Depression, anxiety, stress, satisfaction with life and mindful attention awareness measurements were performed, in all participants, in three testing stages. **Results:** Analysis of variance results suggested that MBSR and SC training reduces stress and anxiety and increases mindful attention awareness. No significant changes were found in life satisfaction measurements. **Conclusions:** The small number of participants prevents us from generalizing the results found. More MBSR and SC clinical trials are needed in parents of ASD with results on anxiety, depression and stress in order to demonstrate the relevance of the inclusion of these programs in community-based early intervention services.

**Keywords:** mindfulness; autism spectrum disorders; parental stress; parent anxiety

## 1. Introduction

In the last decade, interest in mindfulness effects studies has increased significantly, as reflected in the number of recent publications [1,2]. Mindfulness is a theoretical construct that can be understood as the capacity related to mindful attention, and the attentive and reflective being in a non-judgmental way [3]. To analyze the positive effects produced by the development in mindful capacity, numerous clinical trials and intervention programs have been developed, as exposed in successful meta-analysis studies [4–8].

Likewise, neurological studies that show the relationship with mindfulness practice are especially relevant. For instance, in meta-analysis research, Falcone and Jerram [9] found that with meditation practice, brain activity increased in the frontal, anterior and insular regions, showing different results in experienced meditation practitioners compared to those who were not experienced in meditation. They also studied the possible genetic mechanisms that underlie the oxytocin receptors and their relationship with executive functions and the empathic network (including the right angular gyrus, the medial prefrontal cortex and the anterior cingulate cortex) and the development of self-compassionate attention [10]. These findings, still preliminary, advance our understanding of how the improvement of mindfulness skills can enhance a person's well-being and the prevention of any related psychological or physical conditions.

The mindfulness-based intervention techniques that have received the majority of support from the research community are the ones that aim to achieve stress reduction [11]. It is worth noting the two main research lines followed: MBSR (mindfulness-based stress reduction; e.g., [12]) and MBCT (mindfulness-based cognitive therapy; e.g., [13]). Both mindfulness-based approaches can be classified as brief therapies (8 sessions), typically including mindfulness-based practices along with other stress reduction and cognitive therapy approaches. Habitually, these interventions mainly focus on objectives that are centered on teaching participants to observe, recognize and let go of their judgmental thoughts, feelings and emotions that come to mind during mindfulness practice [14–17]. Although mindfulness techniques have their roots in the Eastern Vipassana meditation tradition (for a review, see [18]), they are also part of the theory and practice of dialectical behavior therapy (DBT; [19]), person-based cognitive therapy (PBCT; [20,21]) and acceptance and commitment therapy (ACT; [22]). Recently, the term “Mindfulness Integrated Cognitive Behavioural Therapy” (MiCBT) was created [23] in order to make explicit the integration of the theoretical principles of both mindfulness and cognitive-based techniques.

Parenting in modern society represents a source of stress for parents who must adjust their work responsibilities to those of upbringing. Consequently, psychological distress and discomfort can be found at the base of multiple alterations in family life and child-rearing [24]. Parents who are facing the demands of raising a child with some type of developmental disorder cope with a greater number of stress sources [25,26] that are present from the first developmental disorder-related warning signs [27]. Parents often report disturbances in their psychological well-being [28–31] or high levels of stress [32,33]. For instance, one of the most documented consequences of high stress is altered patterns of parent–child interaction [34,35]. It is worth mentioning that sources of stress experienced by parents are not only due to the changes that they must make to the family dynamic or the amount of time that they must invest in meeting their children’s needs, but also due to their participation in intervention or treatment activities [36]. Parental stress also feeds back into personal stress, having consequences not only for parents (i.e., on their personal stability and family relationships, e.g., [37]) but also has a clear impact on children’s psychological well-being and can cause a possible reduction in the effectiveness of an intervention or treatment programs (e.g., [28]).

Therefore, many mindfulness-focused intervention programs aim to develop parents’ or primary caregivers’ psychological well-being [38,39]. By optimizing psychological happiness in parents or caregivers, we can obtain benefits for the well-being of children diagnosed with autism spectrum disorders (ASD) [28]. It must be pointed out that there are two main types of parents of children with ASD intervention-focused therapy: the interventions that need to be done with parents only and the ones that are intended to be applied simultaneously with parents and children (i.e., aimed at solving parent–child interaction problems). In the parents-only group, PCIT (parent–child interaction therapy; [40]), PACT (preschool autism communication trial; [41]) and TP (Triple P: Positive Parenting Program; Sanders, [42,43]) are some examples that can be noted. On the other hand, the second group of parents’ interventions regarding mindfulness programs combines approaches addressed not only towards children and youth with ASD but also to their parents or caregivers. For instance, MYmind [44] is a mindfulness-based program developed specifically for young people diagnosed with neurodevelopmental disorders and their parents. In this program, children and youths with ASD, and their parents, follow parallel sessions in which they practice mindfulness meditation exercises and then develop the ability to apply them in difficult situations [45]. As an example, Ridderinkhoff et al. [46] studied a group of forty 9-to 17-year-old children (and their parents). They applied MYmind, proposing an interdependence in the model between abilities such as knowing and connecting with peers, pausing their impulses, being aware of the present moment, and letting go in a nonjudgmental way, coping strategies, responding calmly to others’ demands, etc. Similarly, Salen-Guirgis et al. [47] studied a 23-day parent–child trial, finding improvements in ASD symptoms, emotional regulation and adaptive skills in young people and their

parents. According to the data, MYmind has proven to be a program that can lead to an improvement in emotional regulation and the adaptability of young people with autism and parental care.

With regard to the aforementioned parent intervention methodologies, it can be noted that recent research has also shown that mindfulness-based programs have achieved positive changes in parents of children with neurodevelopmental disorders [28]. In particular, these programs offer benefits for stress and anxiety coping abilities in parents of children with ASD [28,36,37,48]. Overall, these studies showed positive improvements in the parents' well-being by reducing stress and increasing their levels of happiness [12]. They also report that caregivers exhibited an improvement in positive children's demand responses in the sense that their feedback was found to be more empathetic and appropriate, with greater levels of focused attention, cognitive flexibility and emotional regulation, all of which are abilities that are trained and reinforced in mindfulness-based interventions [48].

In the same way, Singh et al. [49] used a modified version of MBSR named Mindfulness-Based Positive Behavior Support (MBPBS). They found better results by applying the therapeutic combination of MBSR and MBPBS than by using them separately. These results have been verified not only for families with children with ASD, but also for ID (intellectual disabilities) children's families. In summary, previous scientific studies that have applied intervention programs based on contemplative practices (e.g., mindfulness-based stress reduction or variants, self-compassion) or based on emotional regulation (e.g., [44]) have focused primarily on developing psychological well-being for parents or primary caregivers of children with ASD by studying the impact of mindfulness-based training on either stress, anxiety or depression, but have not studied all three aspects at once in a sample of ASD children's parents or caregivers. Therefore, the clearest background results have been reported with stress factors. Cheung, Leung and Mak [50] found that parental stress could be seen as a mediating factor in relation to the exercise of more mindfulness-focused parenting that could affect the internalization of existing social stigmas concerning autism. On the other hand, Singh et al. [51] found that mothers of adolescents with ASD reduced their stress levels as a result of an intervention in MBSR. Finally, Torbet, Proeve and Roberts [52] found that self-compassion (SC) training could introduce a protective reason for the development of parental stress in parents of children diagnosed with ASD. Secondly, in relation to depression, Blackledge and Hayes [53] found an improvement in symptoms following SC and acceptance training. Finally, in relation to self-reported anxiety, we have found no previous studies that present results in relation to the reduction of anxiety values as a result of a mindfulness-based intervention. Therefore, and in order to fill the existing gap in earlier research, in the present study, we propose to evaluate the impact of mindfulness and self-compassion training on anxiety, depression and stress values, in a sample of parents with children diagnosed with ASD. To our knowledge, there are no studies that evaluate these three psychological aspects in the same sample of ASD children's parents or caregivers, at ages that are close to the communication of their child's ASD diagnosis.

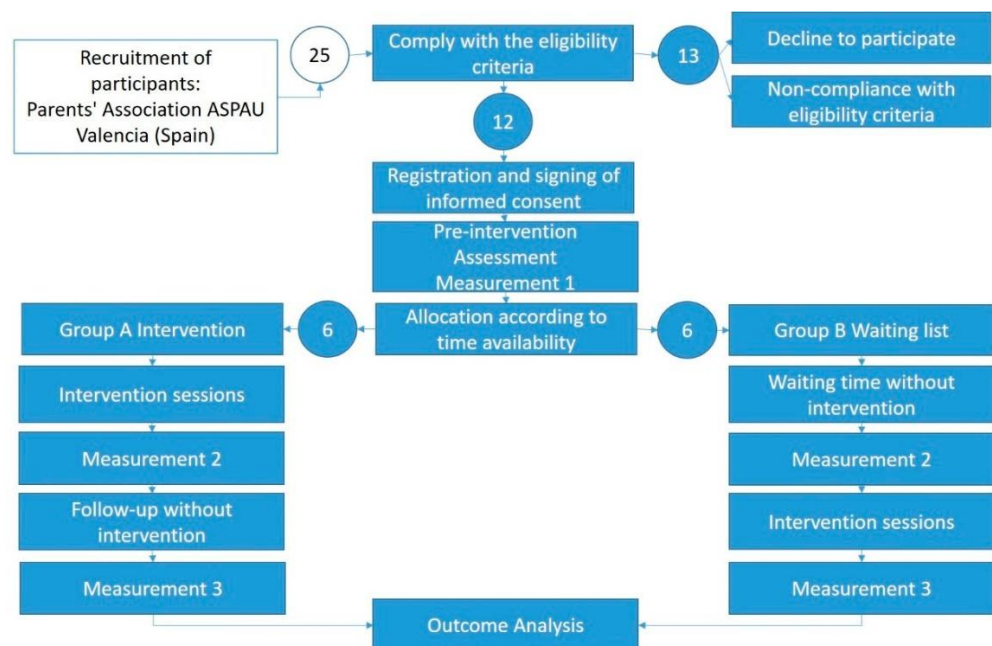
Autism spectrum disorders are neurodevelopmental disorders characterized by persistent deficits in communication and social interaction and restricted, repetitive patterns of behaviors, activities and interests that cause significant impairment in social, occupational or other areas of functioning. Such symptoms are typically present in the early developmental period [54]. In children, the development of the nervous system is influenced by the interaction with the environment [55]. A child with ASD has deficits in skills for basic communication and social interaction, which can generate inadequate patterns of interaction, due to stress caused by the new situation, among other reasons [35,56]; this negatively affects neuropsychological development, producing a cascade effect [57–59]. Inappropriate interactions have two negative effects: they continue to feed back into the child's developing nervous system, increasingly diverting it from normative development, and they generate a high level of tension and discomfort in the parents, which in turn feeds the inappropriate interactions [60].

In the present research, we aim to evaluate the effectiveness of a mindfulness-based and self-compassion program on self-reported values of anxiety, depression and stress in parents of children with ASD in primary school. We believe that the results obtained in the present study can be relevant for the inclusion of mindfulness-based interventions as a tool to be used in community center programs in order to help parents coping with stress, depression and anxiety.

**2. Methods**

*2.1. Procedure*

The trial was conducted from February to May of 2019. It was designed with a control group (waiting list). Parents were recruited from a call for participation made to all members of ASPAU (Asociación Proyecto Autismo de Valencia). The inclusion/exclusion conditions were: (a) children under 12 years of age (primary school age); (b) with a diagnosis of ASD, without associated intellectual disability; (c) that the participating parents lived with the children and (d) a signed informed consent form was provided (see Figure 1). This project was approved by the University of Valencia’s Committee on Ethics in Research with Humans, which guarantees compliance with the principles of the Helsinki agreement (Code: H1541505018986).



**Figure 1.** Distribution of the groups and description of the procedure.

*2.2. Participants*

Twenty-five parents responded to our call; after the first interview, 13 parents did not meet the eligibility criteria or declined to participate. Participation was voluntary, unpaid and adapted to the participants’ schedules. Due to family responsibilities, only one of the two parents participated in the program. The participants belonged to a medium social economic stratum, with medium and higher education level, and lived with the child with ASD and his or her spouse. The rest (twelve participants) were assigned to two groups according to their time availability (mornings or afternoons), not randomly. Only one participant had minor previous experience in body relaxation practices, and the rest of them had never engaged in meditation, relaxation or yoga exercises before the



intervention. It is worth noting that none of the participants had participated in a ruled mindfulness and self-compassion-based program before, and they were all naive to all the methods proposed during the training. The first group participated in the program in January–March, leaving the second group on a waiting list. Once the program was finished for the first group, the intervention was performed in the second group. Two parents (one from each group) did not complete the program due to changes in their work schedule, which made it impossible for them to attend the sessions. The descriptive family data of the participants are shown in Table 1. Only one member of the parent couple was allowed to participate. In group A, 5 mothers completed the program, and in group B, 4 mothers and 1 father completed the program.

**Table 1.** Age of the family members (parents and child with ASD) in the initial interview.

	N	Fathers		Mothers		Children		Level Severity		
		Age	Mean (SD)	Age	Mean (SD)	Age	Mean (SD)	1	2	3
Group A	5	40–45	43.33 (1.75)	37–43	39.83 (2.48)	3–12	5.33 (0.63)	4	1	0
Group B	5	37–48	42.25 (4.14)	33–46	40.00 (5.10)	4–10	6.90 (3.10)	4	1	0

SD: Standard Deviation.

### 2.3. Characteristics of Children

All the children were diagnosed with autism spectrum disorder according to DSM-5 [54] and had been diagnosed between 3 and 5 years old. In some cases, due to the child's age, the official diagnosis was TGD-Unspecified (DSM-IV T/R, APA, [61]). All children attended regular education centers with support (Level 1: “Requiring support”; Level 2: “Requiring substantial support” and Level 3: “Requiring very substantial support” [54]).

### 2.4. Measures

In order to provide evidence of the results of our mindfulness and self-compassion-based program, different evaluation tools commonly used in meditation practice have been analyzed. As many earlier studies reported (e.g., [5]), the mindfulness concept has multidimensional and complex meanings, not only related to the theoretical facet but also on the applied dimensions. Mindfulness conceptualization and measurement are always changing and growing [62]. Accordingly, Sauer et al. [63] reviewed eleven different intervention tools for measuring mindfulness, classifying them into two large groups according to the concept that they rate and whether mindfulness is treated as a one-dimensional or a multidimensional construct. At the same time, and depending on the results, it also determines their suitability depending on whether they evaluate experts or novices in the practice of mindfulness or target specific populations or specific intervention goals. In this regard, one of the most widely used and highly rated instruments is the MASS (Mindful Attention Awareness Scale; [64]), a short questionnaire (15 items) that measures the general tendency to pay attention to or be aware of the present experience in daily life. It has a one-dimensional structure that provides a total score that is the result of the sum of the item scores. The original version reaches an internal consistency of 0.82 (Cronbach's Alpha). The MASS has been selected for the present study mainly because it is indicated for populations without previous experience in mindfulness training [62]. We used the MASS Spanish version adapted by Soler et al. [65] with an internal consistency of 0.89 (Cronbach's Alpha).

For measuring anxiety, stress and depression indexes, we used DASS-21 (Depression, Anxiety and Stress Scale; [66]). This version is the short form derived from the 42-item DASS [66]. The DASS-21 is a self-report composed of 21 items, which evaluates the three dimensions (anxiety, stress and depression). The score for each scale is obtained by adding up the scores of each item (multiplying it by 2 to equate it with the score of the long version DASS) and the results for each dimension vary between 0 and 42 points [67]. The DASS-21 has been validated in the Spanish population, showing adequate psychometric properties

for the adult population [68] and for the clinical population [67]. For the present study, we used the Spanish version developed by Bados, Solanas and Andrés [69], which showed acceptable internal consistency indices (Cronbach's Alpha, according to scale: depression 0.84, anxiety 0.70 and stress 0.82).

Lastly, to study the general consequences of the program, we used the SWLS (Satisfaction with Life Scale; [70]) for assessing satisfaction, psychological well-being and happiness dimensions. Previous research [71,72] shows that satisfaction with life correlates with mental health measures and predicts future behaviors, such as suicide attempts. The version used in this study is the Spanish version of SWLS of Atienza, Pons, Balaguer and García-Merita [73], with an internal consistency of 0.84 (Cronbach's Alpha).

### 2.5. Mindfulness and Self-Compassion-Based Intervention Program

The intervention proposed for the present work was inspired by MBSR [16,74,75] and MSC (mindful self-compassion) training programs [76–78] and the characteristics of the sessions were adapted to the particular needs of the population that we were addressing (i.e., parents of children with ASD).

We mainly organized the sessions based on an MBSR standardized program (i.e., based on the integration of meditation techniques, body awareness and yoga and the understanding of the neuropsychological functioning of stress). At the end of the 8 weeks of MBSR training (e.g., [75]), the participant is expected to show an increased ability to manage stress and daily life challenges, face disturbing events in a more adaptive way and increase their sensation of remaining fully present at every moment, all with the goal of improving their well-being. It is worth remarking that prior to mindfulness training, participants reported anxiety as a consequence of the social stigmatization that society places on them and the consequent daily self-criticism that they experienced. This outcome, also verified by previous research (e.g., [50]), encouraged us to include a specific combination of psychological and educational sessions designed to cope with ASD social stigmatization for reducing daily stress. Additionally, we also integrated some aspects that we believed to be fundamental for ASD parents, based on MSC training [79] that focuses on the development of self-compassion skills to overcome self-criticism and prevent them from becoming anxiety or depression. Self-compassion [77] involves the ability to cope without mercilessly judging and criticizing ourselves by learning to be kind, self-comforting and understanding when confronted with personal failings or when feeling frustrated. Additional modifications (following recommendations addressed by [80,81]) were made in aspects of the organization of the sessions (i.e., their duration, environmental conditions, etc.) and in their content to adapt the sessions to the population.

In general terms, the program that we performed consisted of 8 sessions of around 90 min (1 per week). In addition to the face-to-face session, participants were asked to perform exercises at home (between 15 and 30 min per day). Each session was divided into two parts: the first consisted of the development and training on mindfulness exercises, being moderated by one of the authors of this article. The second part consisted of developing psychoeducational sessions about the ASD disorder, based on active listening [82,83], and mediated by one of the authors, an expert in the ASD research area.

According to the recommendations of many current publications of the line inspired by MBSR and MSC (e.g., [80]), the weekly sessions were accompanied by tasks to complete at home. We supported the homework with different resources such as videos, readings and targeted practices that aimed to enable participants to build up autonomy and self-management coping tools for everyday situations. Typically, each session had the same pre-set structure order that is detailed as follows: (a) shared group thoughts about videos or documents that were assigned before (duration: 15 min); (b) shared group thoughts about day-to-day homework tasks (duration: 15 min); (c) participant's individual relevant insights achieved during the accomplishment of the home tasks (duration: 35 min); (d) explanation of the session and homework activities (i.e., formal and informal practices) of the current week (duration: 25 min); (e) joint mindfulness practice conducted by the

mindfulness trainer. This last part of the session is designed not only as a mindfulness practice but also as a practical explanation of the formal task of the current week that the participants typically must do on their own before the next joint session (duration: 30 min). The general topics and practices are performed in both the mindfulness and psychoeducational parts of the face-to-face sessions are explained in Table 2.

**Table 2.** Topics and practices done in both mindfulness and parts of the face-to-face sessions.

WEEK N	Part 1: Mindfulness Session	Part 2: Psychoeducational
1	<b>Topic:</b> Introduction to Mindfulness <b>Practice:</b> “Grape meditation”	What is autism?
2	<b>Topic:</b> Basic awareness <b>Practice:</b> Introduction to body mapping technique	Causes of autism
3	<b>Topic:</b> The importance of mindfulness to “change” our brain. <b>Practice:</b> Sitting Meditation	Intervention Methods in ASD
4	<b>Topic:</b> Self-control of thoughts. <b>Practice:</b> Introduction to yoga as a technique of mind-body integration.	Intensity or quality of the intervention in ASD. How and who?
5	<b>Topic:</b> How to “own” our own stress. <b>Practice:</b> Intermediation of automatic reactions through mindfulness	Primary and secondary school for ASD patients and parents
6	<b>Topic:</b> How to be aware of our difficult emotions or sensations before they generate consequences? <b>Practice:</b> Meditation to Calm, Allow and Accept	ASD Adolescence
7	<b>Topic:</b> Mindfulness and improving our communication <b>Practice:</b> meditation on conscious and present communication	Access to Work for ASD
8	<b>Topic:</b> Mindfulness and Self-Compassion Empathy <b>Practice:</b> Meditation on empathy and compassion to reduce the consequences of self-centeredness in stress	Autonomy Development and Self-Determination in ASD

It is worth mentioning that prior to the mindful and self-compassion training, participants reported anxiety as a consequence of the social stigmatization that society puts on them and their ASD child. This finding is also verified by previous research [50], and it encouraged us to include a specific session to cope with ASD social stigmatization for reducing daily stress.

#### 2.6. Weekly/Daily Qualitative Assessment

Following MBSR program recommendations (e.g., [16]), a set of ad hoc daily homework activity sheets were included, specially adjusted to each session. They typically included both formal and informal practice sheets (PS). Formal homework practice consisted of applying at home the methods learned during the previous session, and the informal homework practices involved tasks related to bringing mindful awareness to some daily routine activity. The formal daybook accordingly contained PS for documenting impressions after the formal activity was completed at home. The informal daybook was where the participants were asked to record on the PS any daily activity that could transform into a moment of full attention by applying what was learned in the previous session of each week. Typically, the formal and informal daybook charts had six boxes in order to dedicate one to each day of the week. On the last day of the week, prior to the group session, participants received the multimedia material and preparatory documents for the face-to-face session through the WhatsApp group or by accessing the course website. All participants were required to attend the session having read, heard or seen the material submitted earlier by WhatsApp.

During the first 15 min of each session, the participants expressed their thoughts about the material sent, analyzed the records that they had made, and then the moderator

therapist explained the activities for the following week. Once the more explanatory part was concluded, a joint contemplative practice was carried out (i.e., guided meditation, yoga session, etc.) modeled by the therapist and adapted to the aims of each session.

### 2.7. Support Materials

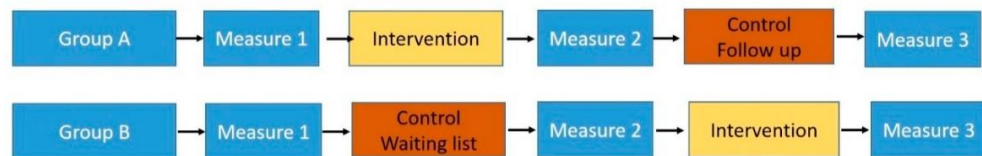
For the development of the program, there was a website (Moodle) that was used as a repository of documents and multimedia material that were used as needed throughout the group sessions and during the individual practice performed by each participant as homework (formal and informal). Fluid and constant communication was also maintained through a WhatsApp group that also allowed the distribution of documents and multimedia material. The material was distributed on a weekly basis, and questions raised by participants were reported or answered on a daily basis.

### 2.8. Adherence to Treatment

We only had two waivers throughout the program (one in each group). One of them (group A) occurred after treatment in the follow-up phase. The second (Group B) occurred during treatment. Both cases were excluded from data analysis. The daily activities that they had to register in the daybooks were used also as a system to monitor adherence to treatment. From the analysis of these records, it could be concluded that adherence and commitment to treatment were satisfactory (i.e., more than 80% of the participants recorded the PS daily and the rest did so in 67% of the sessions). There were no cases of participants that did not accomplish all the weekly sessions.

### 2.9. Design and Data Analysis

The participants were assigned to two crossed groups [84]. In this sense, the first group received the mindfulness and self-compassion-based training, while the second group remained on the waiting list. In the second stage, the first group remained on the waiting list without receiving treatment in the follow-up phase, while the second group received the same mindfulness and self-compassion-based treatment (see Figure 2).



**Figure 2.** Diagram of the design of repeated measures with alternate treatment control groups.

## 3. Results

In Table 3, the means and standard deviations (SD) of the three scales of the DASS-21 (i.e., Stress, Anxiety, and Depression) in the three assessed measurements moments, separated by group, are shown. All the calculations were performed with SPSS, version 26, licensed by the University of Valencia.

Since the assignment to the groups was not random, we performed some specific analyses of variance in order to analyze the homogeneity of the groups of the three measures in relation to the two groups, and we did not observe significant differences, except for DASS-Stress in measures 1 and 3 ( $F(\text{measure 1}) = 11.37, p = 0.1$ ;  $F(\text{measure 3}) = 9.53, p = 0.02$ ). Additionally, we performed some analyses in relation to the between-subjects variable "GROUP", obtaining only significant differences in MASS ( $F = 124.8, p = 0.00$ ). In this sense, while no main effects of "GROUP" were found in DASS (i.e., anxiety, depression and SWLS), we assumed that we could perform multivariate analysis to estimate treatment effects. In the case of the DASS-Stress and MAAS questionnaire, because they showed some significant effects on the variable GROUP on the corroborations that we made, we assumed that the observations of the data presented in the present work related to these

two variables should be taken as orientating and in future work should be analyzed and supported with a larger sample of data.

**Table 3.** Means and standard deviations of the three scales of the DASS-21, MASS and SWLS for the two groups in the three assessed measurement times.

		Assessment Time		
		Measure 1	Measure 2	Measure 3
		Mean (SD)	Mean (SD)	Mean (SD)
DASS-Stress	Group A	31.2 (4.1)	22.0 (4.0)	19.2 (4.1)
	Group B	18.4 (7.4)	17.6 (9.0)	12.0 (3.2)
DASS-Anxiety	Group A	21.2 (6.4)	13.0 (6.4)	15.2 (4.8)
	Group B	14.4 (12.6)	13.2 (8.3)	6.4 (5.2)
DASS-Depression	Group A	16.8 (6.9)	13.6 (9.7)	13.2 (9.7)
	Group B	12.4 (14.6)	11.6 (13.7)	6.4 (5.2)
MASS	Group A	2.5 (0.86)	4.1 (0.43)	3.5 (0.61)
	Group B	3.2 (0.35)	3.5 (0.35)	4.6 (0.19)
SWLS	Group A	16.0 (3.7)	16.8 (3.1)	13.0 (3.9)
	Group B	10.6 (4.3)	11.8 (3.9)	13.6 (5.2)

MASS (Mindful Attention Awareness Scale [64]); DASS-21 (Depression, Anxiety and Stress Scale; [66]); SWLS (Satisfaction with Life Scale; [70]).

As the core analysis of the Results section, we performed a two-way mixed ANOVA, with ASSESSMENT TIME (i.e., measure 1, measure 2, measure 3) as a within-subject factor and GROUP as a between-subject factor. In Table 4, we present the details of the variance model (i.e., two main effects—main effect of ASSESSMENT TIME and main effect of GROUP—and one interaction—ASSESSMENT TIME × GROUP) for each questionnaire.

**Table 4.** Results of the ANOVA of all scales.

	ANOVA Repeated Measures								
	Group			Assessment Time			Assessment Time × Group		
	F	p	η <sup>2</sup>	F	p	η <sup>2</sup>	F	p	η <sup>2</sup>
DASS-Stress	7.21	0.03 *	0.47	14.5	0.00 **	0.64	3.1	0.07	0.28
DASS-Anxiety	1.85	0.21	0.19	3.6	0.05 *	0.31	1.5	0.25	0.16
DASS-Depression	0.51	0.49	0.06	2.5	0.11	0.24	0.62	0.55	0.07
MASS	1.67	0.23	0.17	50.4	0.00 **	0.86	27.6	0.00 **	0.78
SWLS	2.12	0.18	0.21	0.55	0.58	0.06	4.7	0.02	0.37

(\*)  $p < 0.05$ , (\*\*)  $p < 0.01$ .

We additionally performed univariate tests of significance for planned comparisons to see the variances that arose from the combination of the between- and within-subjects factors and their contrast coefficients. In Table 5, the results of the post hoc test (i.e., contrasts) analysis are provided.

The main results of these corroborations are as follows and can be observed graphically in Figure 3. Firstly, concerning the DASS Anxiety scale, regarding the Group A between-subjects factor, DASS Anxiety measurement 1 and DASS Anxiety measurement 2 as within-subjects factors were selected for comparison. In this group, it represented the training phase, and we obtained  $F(1,8) = 8.74$ ;  $MSE = 18.3$ ;  $p = 0.02$ . On the other hand, regarding the Anxiety scale, for the Group B between-subject factors, DASS Anxiety measurement 2 and DASS Anxiety measurement 3 were selected as within-subjects factors for comparison. In this group, it represents the training phase, and we obtained  $F(1,8) = 4.5$ ,

$MSE = 25.8$ ;  $p = 0.06$ . In summary, regarding the DASS Anxiety scale, we found a significant improvement between the evaluation measurements comprising the training phase (pre–post) in both groups. Secondly, concerning to the univariate contrasts for the Stress scale, regarding the Group A between-subject factors, DASS Stress measurement 1 and DASS Stress measurement 2 were selected as within-subject factors for the comparison. In this group, it represents the training phase, and we obtained  $F(1,8) = 23.25$ ;  $MSE = 9.1$ ;  $p = 0.00$ . Conversely, with reference to Group B between-subject factors, DASS-Stress measurement 2 and DASS-Stress measurement 3 were selected as within-subject factors for the comparison, in the sense that this group represents the training phase, and we obtained a visible improvement, but the contrast did not reach significance ( $p = ns$ ).

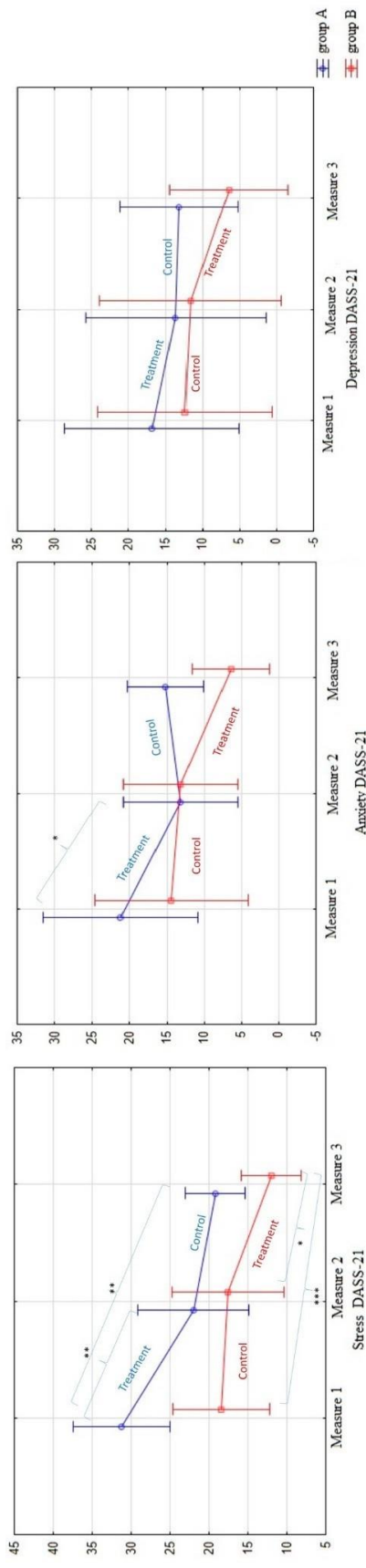
**Table 5.** Post hoc test ( $p$ ): significance of the differences between measures based on the estimated marginal means.

Measures		1	2	3
1	DASS-Stress		0.00 **	0.00 **
	DASS-Anxiety		0.04 *	0.08
	DASS-Depression		0.19	0.11
	MASS		0.00 **	0.00 **
	SWLS		0.34	1.0
2	DASS-Stress	0.00 **		0.05 *
	DASS-Anxiety	0.04 *		0.32
	DASS-Depression	0.19		0.23
	MASS	0.00 **		0.05 *
	SWLS	0.34		0.19
3	DASS-Stress	0.00 **	0.05 *	
	DASS-Anxiety	0.08	0.32	
	DASS-Depression	0.11	0.23	
	MASS	0.00 **	0.05 *	
	SWLS	1.0	0.19	

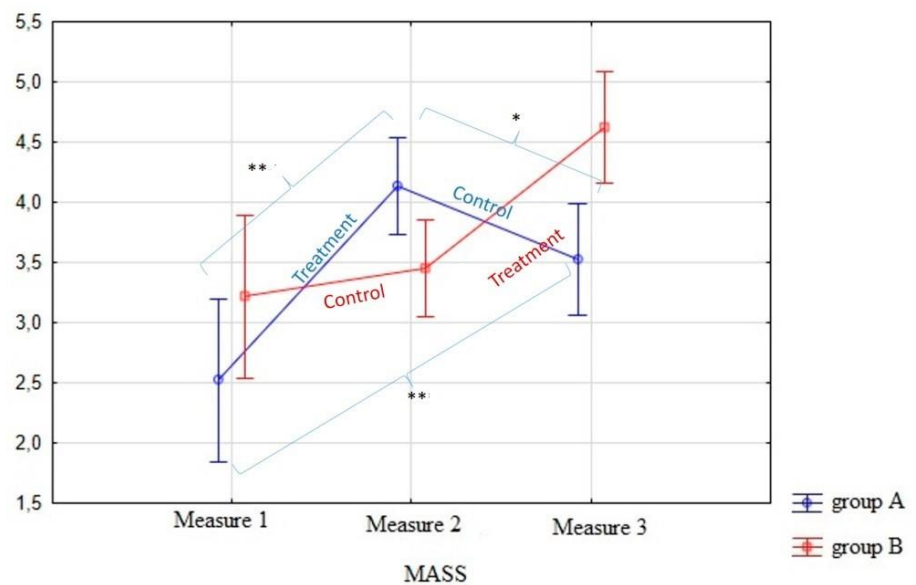
(\*)  $p < 0.05$ ; (\*\*)  $p < 0.01$ .

In summary, we found a significant improvement between the evaluation measurements comprising the training phase (pre–post) in group 1 and with a non-statistically significant effect, but a visible improvement in the expected direction that clearly could have reached significance with more participants involved.

As a direct result of the intervention, an increase in the tendency to pay attention in the present moment of everyday life as measured by the MAAS was also observed [64] (see Figure 4). In other words, the ANOVA results (see Table 4) showed that the increase in full attention capacity after the treatment was significant in both groups, although a slight decrease was observed during the follow-up phase for group A, as was observed in the rest of the variables. The “post hoc” overall contrast showed that differences were found between the control and treatment phases in both groups. As mentioned above, despite the promising observations that we pointed out in relation to the MAAS results, in future research, we should repeat these analyses with a larger sample because, in this case, the groups’ differences were found to be significant, which may be due to the small number of participants included in the sample.

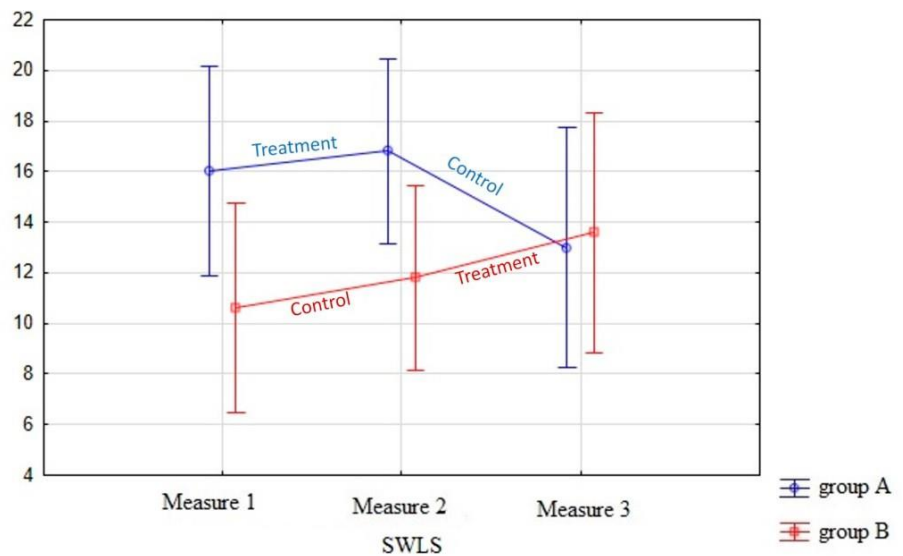


**Figure 3.** Graphical representation of DASS-21 (Stress, anxiety and depression) residual means with indication of significance of post-hoc differences. (\*)  $p < 0.05$ ; (\*\*)  $p < 0.01$ ; (\*\*\*)  $p < 0.001$ .



**Figure 4.** Graphical representation of MASS test results (\*)  $p < 0.05$ ; (\*\*)  $p < 0.01$ .

Finally, life satisfaction measured by SWLS [70] was also evaluated, taking into account that the largest score was 25 and that, in the adaptation study [73], an average score of 19.24 was reached in the youth population. In our study, the effect of the treatment in both group A and group B produced a slight improvement in this value (See Figure 5). This improvement disappeared during the follow-up phase of group A once the intervention was completed. The results of the ANOVA showed (see Table 4) that there were no differences due to the treatment, although there were differences between the groups.



**Figure 5.** Graphical representation of SWLS test results.

The qualitative data collected in the daily logs show a high level of satisfaction. All of them expressed their interest in continuing contact among the participants by generating mutual support groups.



#### 4. Discussion

Childbirth implies a change and reorganization of the family context [85] and the most common sources of parental stress are related to the child's health. All parents want to have a healthy child with normal development. In fact, any health disorders, typically related to possible lifelong consequences of disability in many psychological and physical areas, are logically a source of parental stress [86]. There is a great variety of parenting and parental stress that may be suffered by parents of children with neurodevelopmental problems. On the other hand, the amount of special care that a child with a developmental disorder demands may generate an extra source of stress in parents, and so it can affect their well-being and quality of life [87].

Parental stress can be also related to diagnosis timing. Sometimes, at birth or early age, the child does not present any symptoms and it is during the first months/years of life when the ASD symptoms emerge, and subsequently, parental stress emerges too. There is a range of emotional states that parents can present when the ASD symptoms arise. Climent Giné [88] describes the characteristics of these situations as a strong psychological and emotional impact, the process of adaptation and redefinition of family functioning, changes in the couple's relationship and the need for help and advice. This stressful situation can be momentary and satisfactorily resolved or can remain for a long time, in which case it could cause a more serious post-traumatic stress anxiety disorder.

Most parents find themselves in unfamiliar situations with which they are not able to cope. One of the most well-known possible supports is providing them with quality, scientifically proven information about ASD [89,90]. However, the diagnosis news, the uncertainty about the future of their son or daughter and the increased demand for raising them increase the stress. Parents need additional strong support to cognitively restructure the situation, assume their new reality and develop new coping strategies. In this context, CBT with mindfulness and self-compassion-based programs has been shown to be effective in reducing stress in parents, but these types of interventions have been scarcely studied and fail to address a time window that is closer to the ASD diagnosis. The main goal of this article was to determine the feasibility of implementing brief interventions based on mindfulness and self-compassion within the framework of parental care received in community early care centers.

The results of the intervention program presented here prove a post-treatment decrease in self-reported values of anxiety, stress and depression in parents that might generate positive changes in the psychological well-being and quality of life of families, as evidenced in the literature [45,53,91,92]. It is worth noting that it is not a widespread practice in ECCs in Spain to apply therapies both to ASD children and to their parents to achieve better well-being in the family, since it is seen as a complex and unitary system. The reason that this practice is not more widely developed is due to the lack of regulation of mindfulness training for professionals and the practice itself as a health intervention. This lack of regulation has led to the emergence of multiple professionals with dubious training, which in turn generates dubious results, in some cases even considering full care techniques as pseudo-therapies. As more research is being developed that provides evidence, and the more mindfulness is understood as an integrated part of cognitive-behavioral programs such as MiCBT [23], the acceptance of this practice is gaining more space in the field of ASD intervention (for a review, see [5]).

In the present study, a short intervention program for parents of children with ASD based on mindfulness and self-compassion and with cognitive-behavioral and emotional regulation components was shown to be effective not only in quantitative but also in qualitative aspects. In relation to the quantitative data, it should be noted that this study presents a set of relevant data that, to our knowledge, have not been reported in previous studies. Regarding the mindfulness training used, background studies on parents of children with ASD who have implemented intervention programs focusing on contemplative practices have focused on MBSR with variants (e.g., [50]) or on self-compassion (e.g., [52]) or emotional regulation (e.g., [44]). In our study, we conducted mindfulness

training that included both aspects of MBSR and SC, as well as emotional self-regulation and psychoeducation as a tool for social stigma reduction. In other words, we developed a more holistic and a systematic approach, taking into account previous studies and their successful interventions, all of them in a single intervention. On the other hand, concerning the data obtained, previous studies have reported the impact of contemplative training on measures of stress (e.g., [49,50,52]) and depression (e.g., [53]), but did not evaluate self-reported measures of stress, anxiety and depression in the same study. We believe that all three indicators can be informative in assessing the impact of holistic MBSR and SC-based programs conducted in the time window near the communication of the ASD diagnosis to parents.

The dimensions typically associated with the life satisfaction construct are feelings of happiness and loneliness (affective dimensions) and personal satisfaction (as a cognitive dimension). It seems that this dimension is affected by many other external variables that produce covariant effects. However, with regard to life satisfaction, it is important to note that during the treatment phases, slight positive changes are observed in both groups. However, it is also worth mentioning that the intervention is brief and is normally assessed in the context of a stressful situation. During the training, a certain psychological well-being improvement can be achieved, but it later deteriorates when contact with the group is lost and participants are exposed to new stressful situations. Therefore, it is possible that, if therapeutic care is prolonged by generating a group of supportive parents in a complementary way, the changes in their psychological well-being can only be observed by prolonging the sessions over time. We believe that by extending the periods of intervention and follow-up with psychological support, more significant changes can be produced.

The first main limitation of the present study is related mostly to the analysis of a reduced sample of participants. In future studies, we believe that it would be convenient to analyze a larger sample. Second, it would be desirable to include other measures, such as MPQ (Mindfulness in Parenting Questionnaire; [93]) or the PSI-4 (Parental Stress Inventory Fourth Edition; [94]), which we could not include in this study because both instruments were in the process of validation for Spanish samples when we performed the present research.

The relevance of the present clinical trial relies mainly on the relationships shown between mindfulness and self-compassion interventions and anxiety, depression and stress self-report indexes. The potential extent of these findings depends on the application of the mindfulness-based programs in community early care centers in Spain, mainly in a time window close to the communication of ASD diagnosis to parents.

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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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Nos complace informarle que el manuscrito titulado: **“Mindfulness Parenting and Childish Play: A Clinical Trial for Parents of Children With Autism Spectrum Disorders** [Mindfulness Parenting y Juego Infantil: Un Ensayo Clínico en Padres de Niños con Trastornos del Espectro del Autismo]” cuyos autores son: Dña. Liliana Paulina Rojas-Torres, Dña. Yurena Alonso-Esteban y D. Francisco Alcantud-Marín, ha sido aceptado para su publicación en Psicothema.

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*Mindfulness Parenting and Childish Play:  
A Clinical Trial for Parents of Children With Autism Spectrum Disorders*

**Mindfulness Parenting y Juego Infantil: Un Ensayo Clínico en Padres de Niños con Trastornos del Espectro del Autismo**

Mindfulness Parenting y Juego Infantil

Mindfulness Parenting and Childish Play

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**Abstract:**

**Background:** Behavioural, communication and social interaction problems associated with Autism Spectrum Disorders can overwhelm parents. Disturbances in parents' psychological well-being (anxiety, depression) affect adherence to treatment making it less effective. There is a need to investigate how to increase the psychological well-being of parents of children with autism. **Method:** An 8-week brief training programme using the Mindfulness Parenting (MP) intervention was applied to fourteen parents (6 couples and two mothers). Participants were assigned to two groups, both groups received the same treatment but at two different time points. Measures of anxiety (SCAARED), parental stress (PSI-4), autism severity level (AIM) and mindfulness awareness (FFMQ), were assessed. **Results:** Analyses suggest that MP training increases mindfulness awareness, increasing non-judgment and reactivity and, as a consequence, reduces anxiety (parental, general, social), improving parent-child interaction. This improvement does not influence parents' perception of the severity of the disorder. **Conclusions:** The small number of participants precludes generalisation of the results found. More clinical



trials are needed to demonstrate the relevance of including these programmes in early intervention services, as well as the profiles of potential beneficiary parents.

**Keywords:** Mindfulness Parenting, Autism Spectrum Disorders, Parental Stress, Early Intervention, Parent Anxiety.

**Resumen:**

**Antecedentes:** Los síntomas asociados a los Trastornos del Espectro Autista pueden abrumar a los padres. Las alteraciones del bienestar psicológico de los padres (ansiedad, depresión) afectan a la adherencia al tratamiento, haciéndolo menos eficaz. Es necesario investigar cómo aumentar el bienestar psicológico de los padres de niños con autismo.

**Método:** Se aplicó un programa de entrenamiento de 8 semanas en Mindfulness Parenting (MP) a catorce padres (6 parejas y dos madres). Los participantes fueron asignados a dos grupos, ambos grupos recibieron el mismo tratamiento, pero en dos momentos diferentes. Se evaluaron medidas de ansiedad (SCAARED), estrés parental (PSI-4), nivel de gravedad del autismo (AIM) y conciencia de la atención plena (FFMQ). **Resultados:** Se sugiere que el entrenamiento en MP aumenta la atención plena, incrementando el no juicio y la no reactividad y, como consecuencia, reduce la ansiedad (parental, general, social), mejorando la interacción entre padres e hijos pero no influye en la percepción de la gravedad del trastorno. **Conclusiones:** El reducido número de participantes impide la generalización de los resultados encontrados. Son necesarios más ensayos clínicos para demostrar la pertinencia de incluir estos programas en los servicios de intervención temprana, así como los perfiles de los padres potencialmente beneficiarios.

**Palabras clave:** Mindfulness Parenting, Trastornos del Espectro Autista, Estrés Parental, Intervención Temprana.

## **1. Introduction:**

The core symptoms of Autism Spectrum Disorders (ASD) are persistent deficits in communication and social interaction and repetitive and restricted patterns of behaviours, activities and interests that cause significant impairments in social, occupational or other areas of personal functioning (APA, 2013, 2022). Studies on the aetiology of ASD suggest that the disorder may arise from an early alteration in brain development caused by an interaction between certain genetic abilities and environmental variables (Muhle et al., 2018). These alterations in brain development seem to focus, from the symptoms of the disorder, on areas related to socio-communicative functions among others (Alcantud-Marín & Alonso-Esteban, 2022). That is, as the structure and functioning of the brain is determined by interaction with the environment (Koizumi, 2004), a disturbance in the development of communication and social interaction will generate a cascading disorder (Mundy & Crowson, 1997). Early intervention to enhance social-communicative interactions, by taking advantage of brain plasticity in the early years, can mitigate symptoms of ASD (Artigas-Pallarés, 2007; Dawson, et al., 2012; Holland, et al., 2014; Pierce et al., 2016). The increasing prevalence rate evidenced in recent studies (CDC, 2020; Autism Europe, 2019), justifies the interest in developing evidence on the efficacy of early intervention.

Many early intervention techniques and methods focus on the development of communication and social interaction functions (Prizant et al., 2003; 2006), including involving parents (Ingersoll & Dvortcsak, 2010; Ingersoll & Wainer, 2011; 2013). In review studies (Rojas-Torres, et al., 2020), the positive influence of parental involvement in early intervention programmes was demonstrated. If infants show warning signs of autism and intervention is provided, there is an improvement in symptomatology (milder signs of autism and increased social interaction). This improvement manifests itself even years later (Green et al., 2017). Kim et al., (2017) identify that in addition to cognitive skills, parental involvement in early intervention at age 3 is a predictor of later academic performance. However, many parents report a high level of stress related to their child's disorder and intervention (Bluth et al., 2013).

Parenting requires resources that can sometimes exceed the means of one or both parents (Diener & Swedin, 2020). The feeling of exceeding one's means is a source of distress,

anxiety and psychological discomfort and can be at the root of multiple disturbances in family coexistence and parenting (Mikolajczak et al., 2019). The scientific literature highlights that parent coping with parenting a child with developmental disorders experience a greater number and intensity of sources of distress and anxiety (Newacheck et al., 2004; Sen & Yurtsever, 2007). Distress and anxiety are present from the earliest warning signs (Hartley et al., 2010) and depending on the supports received, this stress tends to become chronic. Parents often seek help, either for impaired psychological well-being (Cachia et al., 2016; Falk et al., 2014; Firth & Dryer, 2013; Merkaç et al., 2013) or for high levels of stress (Almansour et al., 2013; Hayes & Watson, 2013). Parental stress also feeds back into personal stress, with consequences not only for parents, their personal stability and family relationships (Benn et al., 2012), but also for their children's psychological well-being and possible reduction in the effectiveness of intervention programs (Cachia et al., 2016). One of the most documented causes of high levels of stress is alterations in parent-child interaction patterns (Pons-Salvador et al., 2005; Osborne et al., 2008).

Parents and caregivers who are under high levels of stress tend to collapse, therefore, there is a need for targeted intervention for parents to improve coping with stress in order to improve family functioning (Bögels & Restifo, 2014). Research provides evidence for the positive changes produced by mindfulness practice (Boekhorst et al., 2020; Cachia et al., 2016; Gammer et al., 2020; Rojas-Torres, et al., 2022). In particular, these mindfulness-based programmes offer positive effects on stress and anxiety management in parents of children with autism (Benn et al., 2012; Bluth et al., 2013; Cachia et al., 2016; Ferraioli & Harris, 2012). Preserving good parental health and well-being is a precondition for optimal care of children with autism (Keen et al., 2010).

The present clinical trial aims to train parents in Mindful Parenting (Bögels & Restifo, 2014) and play activities with their children as a start to communicative interaction. The concept of Mindful Parenting is directed towards the development of mindfulness in parents, children and family relationships and was already proposed in the early work of Kabat-Zinn (1997). For Ahemaitijiang et al. (2021), mindful parenting consists of five elements (awareness, attention, non-judgmental acceptance, compassion and self-regulation) through three orientations (parents, children and interaction between the two), defining it as "a parenting process in which parents make every effort to provide

awareness, attention, non-judgmental acceptance and self-control" (Ahemaitijiang et al., 2021, pp3). In this sense, the hypothesis of interventions based on Mindfulness Parenting is to help reduce interparental conflict by reducing emotional reactivity in the partners, avoiding a spiral of negative feelings and guilt during parenting (Bögels et al., 2010).

## **2. Method**

### *2.1 Participants*

The management of ASPAU (Asociación Proyecto Autismo de Valencia -Spain-) was contacted, asking for their collaboration. From the ASPAU management, an e-mail was sent to all ASPAU members who fulfilled the condition of having an autistic son or daughter under four years old. An informative meeting was held with the researchers and parents interested in participating. At this meeting, only seven families attended, of which only four expressed their wish to participate. The response time to the call was extended and the families attended at the AVAPACE (Valencian Association for Cerebral Palsy Support) early care centre "Xicotets" were also contacted. The trial was conducted between October 2021 and March 2022. It was designed with a control group (waiting list) that would receive treatment afterwards. The inclusion/exclusion conditions were (a) Parents of children under 4 years old; (b) with a diagnosis of ASD confirmed by medical report; (c) that the participating parents lived with the children; and (d) that a signed informed consent form was submitted.

A total of fourteen participants were selected (six couples and two mothers) with ages between 30 and 51 years. The children were between 3 and 4 years old (7 boys and 1 girl), (see Table 1). With the exception of one family whose children were twins, all were so far only children (first child). All fathers, and more than 60% of mothers, were in paid employment, with average incomes (20.000-30.000€ annually). All of them parents provided a diagnostic report from the USMIAS (Child and Adolescent Mental Health Units). The reports took the data from the administration of the ADOS-2 (Autism Diagnostic Observation Schedule. Lord, et al., 2012), confirming a level 3 (non-verbal or minimally verbal, avoided looking, some showed ecological language, little interest in interaction with adults or peers). All the children have been attending for at least one-year general comprehensive intervention programmes in early childhood centres. The two groups consisted of three couples and one mother, with the intervention took place on

Fridays at 6 p.m. for a duration of two hours. The first group started treatment in October 2021 and finished in December. The second group remained without treatment (waiting list), and began the intervention in January 2022 and ended in March of the same year, maintaining the same timetable and operating rules.

**Table 1**

*Distribution of parents age and children in the groups.*

	N	Fathers		Mothers		Children	
		Age	Mean (SD)	Age	Mean (SD)	Age in months	Mean (SD)
Group A	7	48-51	49.00 (1.73)	41-47	43.50 (2.64)	36-46	41 (6)
Group B	7	30-48	40.25(7.50)	30-48	39.57 (7.50)	48-58	51 (1.5)

*2.2 Instruments:*

In order to test the effects of the Mindfulness Parenting program, a battery of tests was designed:

*Generalized Anxiety Disorder (GAD-7; Spitzer et al., 2006)*, is self-report scales for screening, diagnosis and severity assessment of anxiety disorders. The GAD-7 score is the result of the sum of the responses to the items (5-point Likert type) and therefore informs us of the degree to which the symptoms have been present in recent weeks. The numerical value indicates the magnitude of the perceived anxiety. The Spanish version (Garcia-Campayo et al., 2010) has obtained excellent reliability (Cronbach's Alpha = 0.94) and high stability of the measure (Test-retest correlation of 0.84). In our trial, we will limit it to the last week in order to use the results as feedback to trial participants to assess the immediate results, adherence to treatment and whether any extraneous variable has influenced the variation in anxiety perceived by them.

*Parental Stress Index Fourth Edition (PSI-4; Abidin, 2012)*, is a 120-item questionnaire used to explore parental stress levels. There is a short form (PSI-SF; Abidin, 2012) consisting of 36 items taken directly from the full form. The short form provides a Total Stress score (TS) that is a combination of three components: Parent Distress (PD), Difficult Child (DC) and Parent-Child Dysfunctional Interaction (P-CDI). The Spanish version of the PSI-SF (Díaz-Herrero et al., 2010, Rivas et al., 2021) was used in this study, showing internal consistency (McDonald's Omega = .84 -.94 and Cronbach's Alpha = .79

- .93), high convergent and diagnostic validity. All items are rated on a five-point Likert scale. The numerical magnitude expresses the perceived stress.

*Autism Impact Measure* (AIM; Kanne et al., 2014). It is a measure of frequency and impact of behaviors and symptoms characteristic of autism. It uses a double Likert scale (five points) to assess the frequency of certain symptoms and the impact (also five points). The result is the sum of the frequency and impact scores. It is composed of 41 items distributed in 5 subdomains: Repetitive Behavior (RB); Communication (C); Atypical Behavior (AB); Social Reciprocity (SR); Peer Interaction (PI). The numerical magnitude expresses the severity of symptoms as perceived by parents and caregivers. The numerical magnitude expresses the severity of symptoms as perceived by parents and caregivers. The original version offers acceptable internal consistency (Cronbach's Alpha = .66 - .79) and stability of the measure (test-retest = .53-.85).

*Screen for Adult Anxiety Related Disorders* (SCAARED; Angulo et al., 2017), is a version of the SCARED (Birmaher et al., 1997) for adults composed of 41 items Likert type assessing four major factors: Generalized Anxiety Disorder (GA), Social Anxiety (SA), Panic Disorder (PD) and Separation Anxiety Disorder (SAD). SAD was included among anxiety disorders in the DSM 5 (Silove et al., 2015; APA, 2013). The numerical magnitude expresses the severity of the perceived anxiety symptoms. The Spanish version of the SCAARED used in this study (Sánchez-Cueva et al., 2021) has very good internal consistency (Cronbach's alpha = .91) and test-retest stability (<.81).

*Five Facet Mindfulness Questionnaire* (FMMQ; Baer et al., 2006; 2008), is a self-report made up of 39 items that aims to measure mindfulness based on five domains: Observation (Ob), Description (Des), Acting with Awareness (AA), Absence of Judgement (AJ) and Absence of Reactivity (AR). The scores range from 39 points to 195, with higher scores indicating a greater state of mindfulness (Schmidt & Vinet, 2015). In this study we used the Spanish version of the FMMQ (Cebolla et al., 2012) which has high internal stability (Cronbach's Alpha = .80 -.91).

### 2.3. Procedure

The allocation of participants to the groups was not random and was determined according to the couple's possibilities of reconciling work and work schedules. While the parents received the Mindfulness Parenting training, the children were cared for by a

group of volunteer students from the 3rd year of the Primary Education Teaching Degree (Therapeutic Pedagogy) guided by a member of the research team. The playroom of the "Xicotets" centre was available with various materials (balls, dolls, cars, construction games, etc.) and spaces specifically designed for play on the floor (ball pool, slides, swings, etc.). During this period of time the children engaged in non-directive play activities on the floor with the intention of improving communication and social interaction. Play-focused therapy techniques with children with autism have been used for some time, and have even been shown to be effective in meta-analysis studies (Bratton et al., 2005; Hillman, 2018; Leblanc & Ritchie, 2001), with results demonstrating changes in social-emotional and communicative development.

The clinical trial took place during the sixth wave of the COVID-19 pandemic. During the sessions, the recommended sanitary measures were maintained (use of masks, distance, temperature control, hand washing, etc.). In anticipation of possible quarantines, a course was designed on the Moodle platform (<https://acceso.uv.es/Moodle>) and a WhatsApp instant messaging group was created. On the Moodle platform, participants could access all the material used in the face-to-face sessions. The sessions were carried out normally with no significant absences (never more than one family) which were compensated by the use of the telematic tools. There was only one session in each group held for all attendees virtually due to the high incidence of COVID-19 infections among children and parents that week. This project was approved by the Human Research Ethics Committee of the University of Valencia, which ensures compliance with the principles of the Helsinki agreement (Code: H1541505018986).

#### *2.4. Intervention programme*

For the development of the program, the manual of Bögels & Restifo (2014) was followed and consisted of 8 sessions (1 per week). The scheduled duration of each session was 90 minutes (See table 2 for sessions description). Following the recommendations, a set of daily activity sheets was included ad hoc for home and work, specially adjusted to each session (between 15 and 30 minutes per day). During the first 15 minutes of each session, the participants expressed their thoughts about the material sent analyzed the records they made, and then the moderator therapist explained the activities for the following week. Each session was divided into two parts, the first part consisted of the development and

training in Mindfulness exercises, being led by one of the authors of this article. The second part consisted of developing psychoeducation sessions on ASD with an active listening dynamic (Robertson, 2005; Rogers & Farson, 1957), led by the senior researcher, an expert in ASD.

**Table 2**

*Brief description of the Mindfulness parenting programme sessions (Modified from Bogels & Restifo, 2014).*

<i>Number session</i>	<i>Denomination</i>	<i>Brief Description</i>
1	Automatic Parenting	The focus of the first session is to make parents aware of parenting on autopilot. It explores the reactions of parents in typical situations that can generate discomfort. We will teach them to stop before acting, particularly in those situations where they may present high levels of stress, and to take the time to act with intentionality.
2	Parental Awareness for Beginners	Parents share the experience of observing their children with awareness and often discover the positive qualities they had not been paying attention to when they were only looking at the children's difficulties. We talk about the predisposition to see children in a negative way, especially when they have received a diagnosis and how they tend to always see it in that context. On the other hand, we invited parents to use "kindness" as part of their parental experience, especially when they are experiencing stress levels.
3	Reconnecting with our bodies as parents	The main theme of this session is for parents to become aware of bodily sensations. We explore how often we forget about body signals and limits. The main idea is that parents reconnect with their body and take care of it.
4	Responding rather than reacting	This session will explore how many automatic responses occur when we respond to stress and how our thoughts can generate more of these situations. A relaxed state and knowing how to breathe can help us get out of automatic stress reactions, to learn to stop and respond more intentionally.
5	Parenting Patterns and Schemes	Parents learn to recognize the anger and reactions they may have to situations that create difficulties with their children. The main practice in this session is self-compassion and acceptance mainly in situations of emotional difficulty involving their children.
6	Conflict and parenting	In this program parents have had the opportunity to practice "self-compassion" and "acceptance" on themselves, now we ask them to do this practice on the emotional states of their children. We ask parents to be able to recognize and manage their own emotions and simultaneously those of their children.
7	Love and boundaries	This session has two main themes. The aim is to extend the practice of self-compassion and to formally introduce "lovingkindness" by developing our capacity to love and be kind by exploring boundaries within parenting.



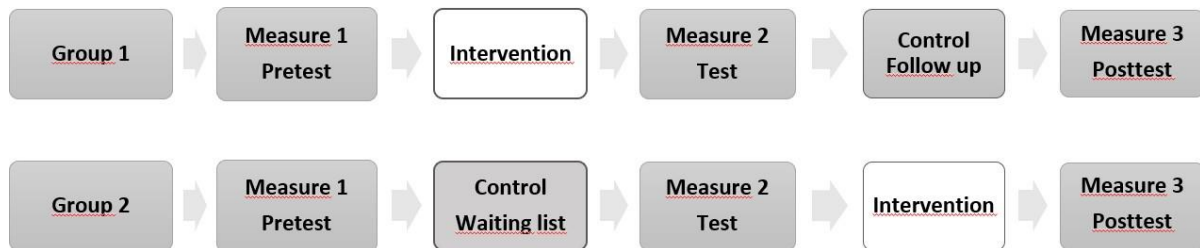
8	Conscious Path through Parenting	We will reflect on the program and ask if parents have felt any changes personally, outside and inside the home. Some parents may have had difficulties during this process and others may have had moments of introspection and change.
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### 2.5. Data analysis

The design of two groups was made. The first group (A) received the Mindfulness Parenting training while the second group (B) remains on the waiting list. At a second stage, the first group (A) remains on the waiting list without receiving treatment in the follow-up phase while the second group (B) received the same Mindfulness Parenting training program (see Figure 1).

**Figure 1**

*Diagram of the design of repeated measures with alternate treatment-control groups.*



Two types of measures were taken. On the one hand, weekly measures of the level of generalised anxiety using the GAD-7 to analyse treatment effects and give feedback to participants, and on the other hand, pre- and post-test measures.

The repeated measures at the three points in time in the two groups required a two-group repeated measures ANOVA (Mitchell & Jolley, 2010). All the calculations were made with SPSS, version 26, licensed by the University of Valencia.

### 3. Results

As a direct result of the intervention, a decrease in generalized anxiety as measured by the GAD-7 was observed. In other words, the ANOVA results (see Table 3 and Figure 2) showed that the decrease in anxiety levels in the two groups and over the course of the treatment was significant ( $p < .01$ ).

**Table 3**

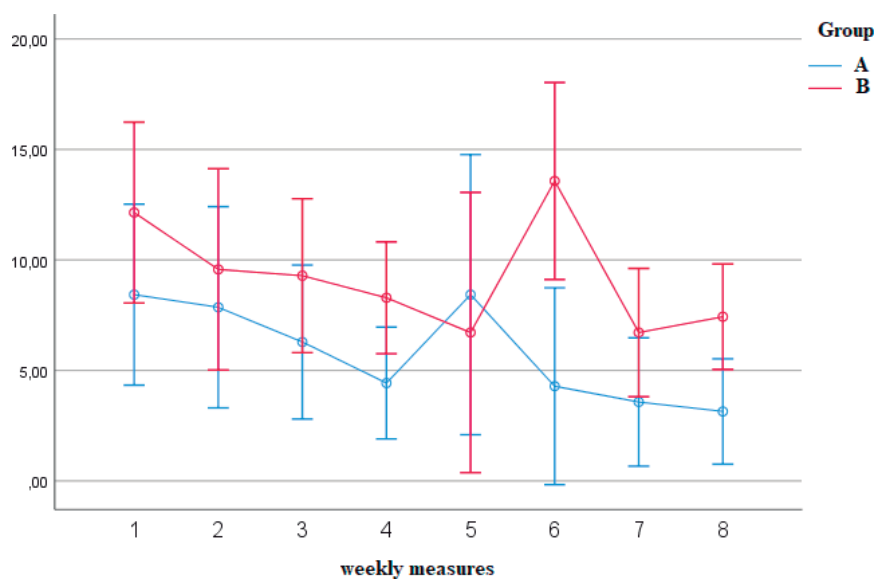
*Results of repeated measures (ANOVA) for Generalised Anxiety across the 8 weeks of intervention.*

ANOVA GLM					ANOVA Reaped Measures							
					Measures		Measures group		Effect Sizes and Powers			
									Partial eta-squared		Observed power (alpha= 0.05)	
F	p	Eta <sup>2</sup>	Power	F	η	F	η	Measures	Measures group	Measures	Measures group	
GAD	73.67	.00	.86	1.00	3.05	.00	2.14	.12	.20	.15	.92	.78

GLM: General Linear Model. GAD: Generalized Anxiety Disorder index evaluated with GAD-7 (Spitzer, et al., 2006)

**Figure 2**

*Graphical representation of the weekly results of the GAD-7 test.*



In Table 4, the descriptive data for the four scales used are presented and in the table 5, we present the details of the variance model for each variable measured. In addition, post-hoc tests were performed to compare the different measures that emerged as significant.

**Table 4**

*Means and standard deviations of the measures used for both groups.*

			Measure 1	Measure 2	Measure 3
			Mean (SD)	Mean (SD)	Mean (SD)
Group					
PSI-4	TS	↖	88.00 (17.30)	80.71 (22.20)	84.29 (26.05)
		B	105.71(15.45)	100.86 (19.76)	84.00 (20.88)
	PD	↖	30.71 (7.54)	27.28 (8.82)	28.28 (10.64)
		↗	34.00 (8.98)	34.29 (9.15)	29.71 (11.83)
	DC	↖	19.00 (4.36)	17.00 (6.55)	17.14 (6.30)
		B	21.43 (4.57)	21.28 (5.12)	18.00 (7.16)
P-CDI		↖	27.57 (7.23)	25.85 (7.22)	26.85 (7.45)
		B	35.42 (7.04)	31.57 (9.38)	25.42 (7.21)
AIM	RB	↖	31.14 (16.75)	32.29 (9.98)	30.43 (12.97)
		B	34.57 (6.16)	33.87 (5.87)	34.29 (5.99)
	C	A	34.00 (4.65)	31.85 (7.77)	34.71 (10.22)
		B	31.43 (2.37)	32.71 (3.77)	31.00 (2.94)
	AB	↖	28.14 (9.60)	24.42 (5.02)	24.29 (6.72)
		↗	23.29 (4.68)	25.86 (8.34)	23.57 (6.32)
	SR	↖	28.86 (8.15)	29.00 (6.61)	31.14 (6.30)
		B	32.43 (5.86)	30.57 (7.18)	27.86 (5.67)
	PI	↖	21.43 (2.82)	22.29 (2.98)	25.14 (3.72)
		B	23.86 (4.63)	23.14 (4.06)	23.00 (6.48)
TAI		↖	143.57 (27.55)	139.86 (14.54)	145.71 (23.31)
		B	145.57 (12.99)	146.14 (13.93)	138.71 (14.53)
SCAARED	PD	↖	6.29 (5.44)	3.14 (3.89)	4.00 (3.31)
		B	8.00 (4.24)	8.43 (4.35)	4.71 (4.23)
	GA	↖	14.00 (7.37)	8.71 (3.99)	9.71 (4.54)
		B	15.29 (5.02)	16.00 (5.48)	14.00 (5.63)
	SA	↖	2.71 (1.89)	1.28 (1.25)	2.14 (1.68)
		B	5.29 (1.49)	5.43 (1.51)	4.29 (1.60)
	SAD	↖	3.57 (4.03)	3.71 (5.12)	3.57 (4.31)
		B	7.14 (3.08)	8.00 (3.06)	5.42 (2.70)
TA		↖	27.14 (16.56)	17.14 (12.82)	19.71 (12.24)
		B	36.00 (11.46)	38.14 (11.27)	28.57 (11.45)
FFMQ	Ob	↖	25.57 (7.98)	31.00 (2.76)	26.28 (4.61)
		B	23.57 (6.19)	22.71 (4.30)	23.43 (5.74)
	Des	↖	28.71 (4.61)	31.29 (3.45)	30.43 (5.94)
		B	23.86 (4.84)	24.14 (5.67)	25.14 (7.24)
	AA	↖	26.43 (6.92)	27.43 (5.29)	27.43 (5.26)
		B	23.28 (6.73)	24.00 (4.97)	24.57 (5.62)
	AJ	↖	23.57 (7.72)	25.29 (4.11)	26.86 (3.94)
		B	23.86 (6.51)	23.14 (5.87)	27.14 (5.40)
AR		↖	22.57 (5.09)	25.00 (3.06)	21.00 (4.00)
		B	21.28 (3.20)	22.00 (3.83)	22.00 (4.94)

Total Parental Stress (TPS); Parent Distress (PD); Difficult Child (DC ); Dysfunctional Parent-Child Interaction (P-CDI); Repetitive Behavior (RB); Communication (C); Atypical Behavior (AB); Social Reciprocity (SR); Peer Interaction (PI); Total Autism Impact (TAI); Panic Disorder (PD); Generalized Anxiety Disorder (GA); Social Anxiety (SA); Separation Anxiety Disorder (SAD); Total Anxiety (TA); Observation (Ob), Description (Des), Acting with Awareness (AA), Absence of Judgement (AJ) and Absence of Reactivity (AR) .

**Table 5**

*Results of repeated measures analysis (ANOVA) for PSI-4, AIM, SCAARED and FFMQ.*

		ANOVA		GLM		ANOVA Reaped Measures							
						Measures		Measures group		Effect Sizes and Powers			
										Partial eta-squared		Observed power (alpha= 0.05)	
		F	p	Eta <sup>2</sup>	Power	F	p	F	p	Measures	Measures group	Measures	Measures group
PSI-4	TPS	321.83	.00	.96	1.00	5.73	.00	4.41	.02	.32	.27	.82	.70
	PD	162.47	.00	.93	1.00	2.44	.11	1.74	.19	.17	.13	.44	.33
	DC	178.85	.00	.94	1.00	3.17	.06	1.32	.29	.21	.10	.55	.26
	P-CDI	256.05	.00	.95	1.00	5.18	.01	4.21	.03	.30	.26	.77	.69
AIM	RB	161.06	.00	.93	1.00	.08	.92	.21	.81	.01	.02	.06	.08
	C	625.84	.00	.98	1.00	.07	.93	1.09	.35	.01	.06	.08	.22
	AB	274.75	.00	.96	1.00	.74	.49	1.30	.29	.06	.16	.10	.25
	SR	394.63	.00	.97	1.00	.26	.78	2.27	.13	.52	.16	.09	.42
	PI	602.16	.00	.98	1.00	1.01	.38	2.10	.14	.08	.15	.21	.39
	Total	1131.88	.00	.99	1.00	.14	.87	1.14	.34	.012	.09	.07	.23
SCAA RED	PD	33.86	.00	.74	1.00	3.85	.04	2.88	.08	.24	.19	.64	.51
	GA	88.59	.00	.88	1.00	6.62	.005	6.76	.005	.36	.36	.87	.88
	SA	88.20	.00	.88	1.00	3.04	.07	4.82	.02	.20	.28	.53	.74
	SAD	30.23	.00	.71	.99	2.40	.11	1.98	.16	.17	.14	.44	.37
	TA	76.47	.00	.86	1.00	5.94	.008	5.29	.01	.33	.31	.83	.78
FFMQ	Ob	398.03	.00	.97	1.00	1.89	.17	3.54	.04	.14	.23	.35	.60
	Des	455.22	.00	.97	1.00	1.02	.38	5.17	.59	.08	.04	.21	.13
	AA	318.13	.00	.96	1.00	.60	.56	.04	.96	.05	.003	.14	.06
	AJ	311.05	.00	.96	1.00	5.92	.008	.93	.41	.33	.07	.83	.19
	AR	485.78	.00	.97	1.00	4.29	.02	3.89	.03	.26	.25	.89	.64

(TPS), Total Parental Stress; (PD), Parent Distress; (CC), Child Characteristics; (P-CDI), Dysfunctional Parent-Child Interaction; (PD) Panic Disorders; (GA) Generalized Anxiety Disorder; (SA), Social Anxiety; (SAD) Separation Anxiety Disorder; (AT) Total Anxiety; (RB), Repetitive Behavior; (C), Communication; (AB), Atypical Behavior; (SR), Social Reciprocity; (PI), Peer Interaction; (TAI) Total Autism Impact; (Ob), Observation, (Des) Description, (AA) Acting with Awareness, (AJ) Absence of Judgement and (AR) Absence of Reactivity

Firstly, with respect to the PSI-SF scale, we found that there are significant differences between the groups in all dimensions (PD, CD and P-CDI) and in total parental stress. These differences are greater at the beginning of the treatment and tend to disappear at the end of the treatments. A significant improvement between the assessment measures comprising the training phase (pre-post) in both groups is noteworthy. The results show that there is a significant decrease in total parental stress TPS ( $F_{(2,24)} = 5.73$   $p=.00$ ) due to a decrease in anxiety derived from the characteristics of the children DC ( $F_{(2,24)} = 3.17$   $p=.06$ ) and from the dysfunctional parent-child interaction P-CDI ( $F_{(2,24)} = 5.18$ ,  $p= .01$ ). However, post hoc tests show that only P-CDI and TPS show significant differences between the different measures (see Table 6 and Figure 3).

**Table 6**

*Post hoc test (p): significance of the differences between measures based on the estimated marginal means of PSI-4.*

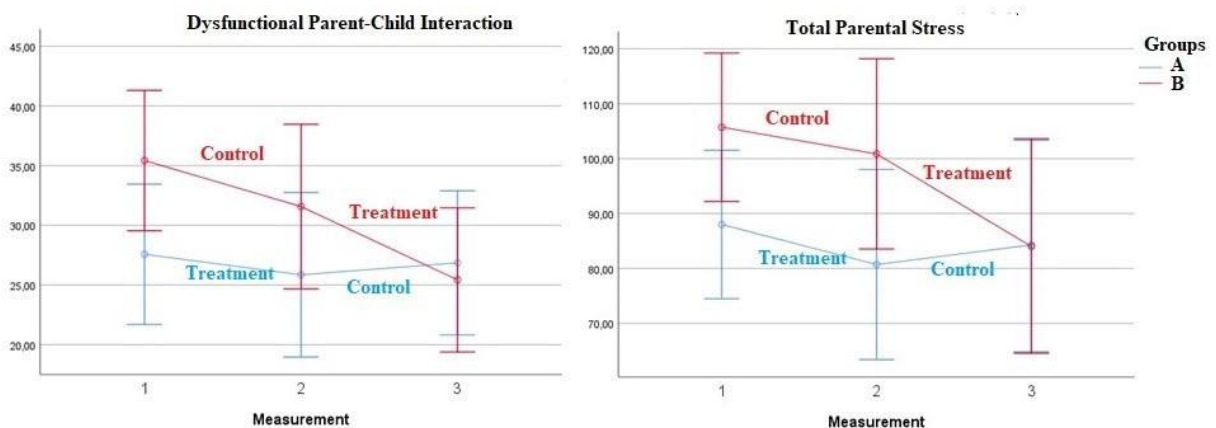
		Measures Group A		
	Measures Group B	1	2	3
P-CDI	1	-	.07	.62
	2	.08	-	.54
	3	.02*	.14	-
TPS	1	-	.08	.41
	2	.08	-	.19
	3	.03*	.08	-

(\*)  $p < 0.05$

Total Parental Stress (TPS);; Dysfunctional Parent-Child Interaction (P-CDI);

**Figure 3**

*Graphical representation of total parental stress levels and dysfunctional parent-child interaction as assessed by the PSI-4 SF at the three intervention times.*



The AIM results show that although there are differences in the perception of severity between groups A and B in all subdomains, these remain unchanged across the three measures. No change in parents' assessment of symptom severity was expected. However, it was necessary to measure it in order to show that the decrease in the level of stress does not imply a decrease in the assessment of their children's autistic symptoms (see Table 5).

Four types of anxiety were assessed using the SCAARED (Angulo et al., 2017). In SAD, no treatment-dependent changes were generated. However, there was a decrease in GA ( $F_{(2,24)}=6.62$   $p= .005$ ), SA ( $F_{(2,24)}= 3.04$   $p= .07$ ) and PD ( $F_{(2,24)}=3.85$   $p=.04$ ) and total anxiety TA ( $F_{(2,24)}= 5.94$   $p=.008$ ), during the treatment phases (see Table 7 and Figure 4).

**Table 7**

*Post hoc test (p): significance of the differences between measures based on the estimated marginal means of SCAARED*

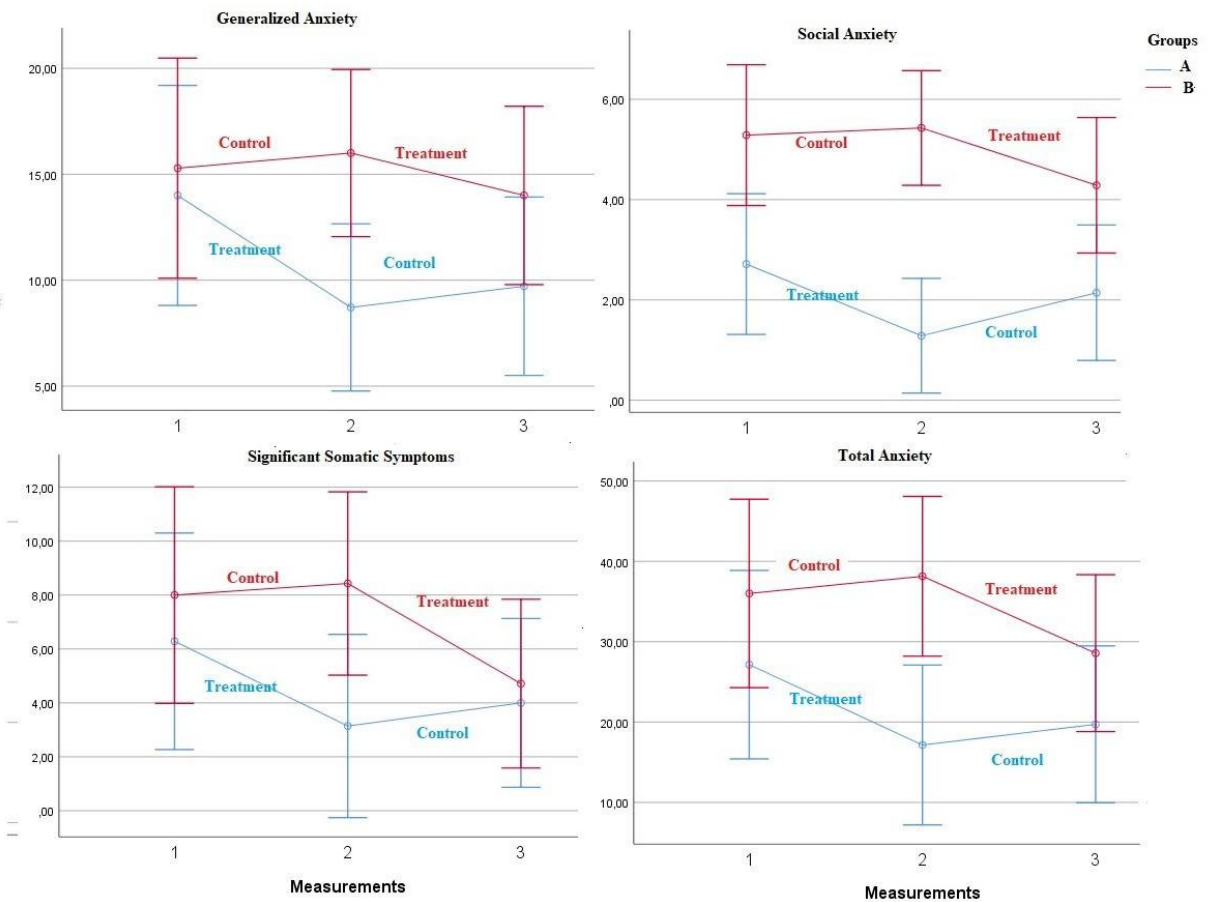
		Measures Group A		
		1	2	3
Measures Group B				
GA	1	-	.01*	.02*
	2	.37	-	.04*
	3	.29	.22	-
SA	1	-	.04*	.00**
	2	.60	-	.00**
	3	.00**	.00**	-
PD	1	-	.05*	.24
	2	.40	-	.38
	3	.10	.08	-
TA	1	-	.00**	.04*
	2	.26	-	.12
	3	.11	.08	-

(\*)  $p < 0.05$ ; (\*\*)  $p < 0.01$

Generalized Anxiety Disorder (GA); Social Anxiety (SA); Panic Disorder (PD); Total Anxiety (TA).

**Figure 4**

*Graphical representation of the changes produced by the programme in three types of anxiety assessed by SCAARED.*



The post hoc tests were, with the general anxiety measures, more significant than in the case of parental stress. In the table 6 shows the results of the post hoc contrasts for group A (upper half) and group B (lower half). These differences focus on TA, GA, SA and PD. It is noteworthy that the greatest overlaps occur precisely in Social Anxiety, probably due to the stigma that parents suffer as a result of the diagnosis.

The evaluation of the effects of mindfulness training has been assessed by means of the FFMQ (Baer et al., 2006; 2008). Although the two groups start from similar initial positions, only two of the five dimensions AJ ( $F_{(2,24)} = 5.92 p = .008$ ) and AR ( $F_{(2,24)} = 4.29 p = .02$ ) change during treatment (see Tables 8 and Figure 4).

**Table 8**

*Post hoc test (p): significance of the differences between measures based on the estimated marginal means of FFMQ*

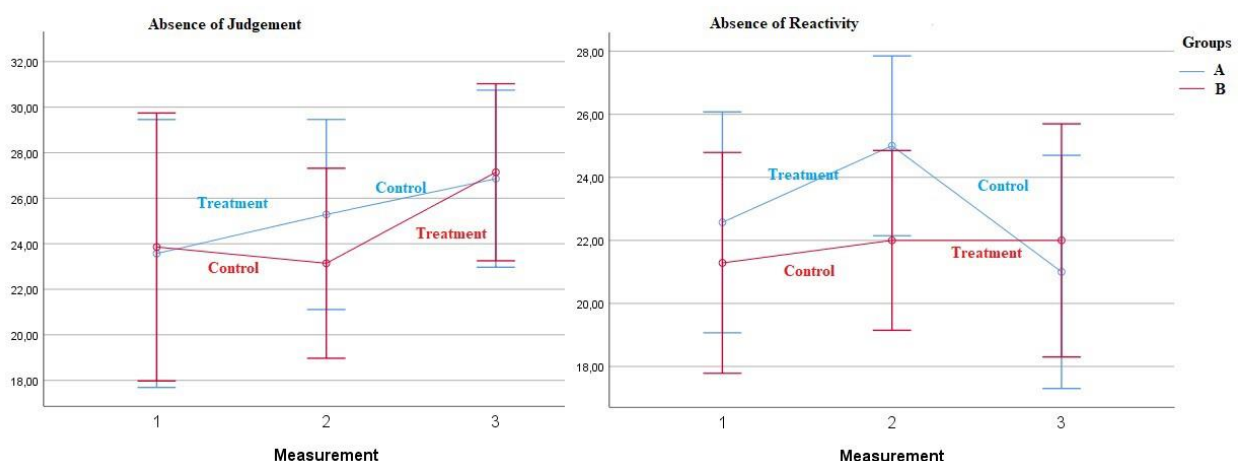
		Measures Group A		
	Measures Group B	1	2	3
AJ	1	-	.28	.08
	2	.18	-	.05*
	3	.14	.07	-
AR	1	-	.10	.16
	2	.18	-	.00**
	3	.52	1.00	-

(\* )  $p < 0.05$ ; (\*\* )  $p < 0.01$

Absence of Judgement (AJ) and Absence of Reactivity (AR) .

**Figure 5**

*Graphical representation of two of the five dimensions of the FFMQ in which changes have occurred during treatment.*



The post hoc tests were, with the measures of the effects of mindfulness training less significant than in the previous cases, concentrating in both variables on the comparison between measure 2 and 3 in group A (treatment follow-up). Table 7 shows the results of the post hoc contrasts for group A (upper half) and group B (lower half). These differences focus on Absence of Judgement (AJ) and Absence of Reactivity (AR) being significant only in group A and during the follow-up phase. These results make us think that it is possible that the results of mindfulness training are more evident over longer periods of time, opening up a new working hypothesis.

#### *4. Qualitative Data Analysis*

Following the recommendations of the Mindfulness programme, a set of recording sheets for daily activities was designed. Formal Practices (FP) and Informal Practices (IP) were differentiated. The FP refers to the practical sessions in which parents had to repeat the methods and techniques learned during the previous session. The IP refers to the incorporation of mindfulness into some routine daily activity.

From the analysis of the qualitative records, it was found that parents had a high adherence to the programme. They also reported that this kind of programmes are a great tool for parents of children with autism, especially for those who have been recently diagnosed with autism. The families in this trial, week after week, reported the usefulness of the activities in the session and the tasks they had to do at home. This helped them to be more aware of their relationships with their children and their partners. In this sense, the participation of both members of the couple (when there was one) was positively valued as it allowed for better organisation at home and an appreciation of the effort made. They also highlighted the importance of having a support group with people who were going through similar situations, as it allowed them to share personal experiences or feelings, coping strategies or to receive direct information about the diagnosis and treatments. According to parents, this space not only allowed them to work on their mental health and relationships with their children, but it was also a space where they could solve practical doubts, and contributions were mostly received by the other participants.



#### **4. Discussion**

There is evidence in the literature that parents of children with autism report more mental health problems than parents of children with neurotypical development (Falk et al., 2014). In particular, parents and caregivers of children with autism often report high levels of stress (Dabrowska & Pisula 2010), anxiety and depression (Rezendes & Scarpa, 2011). In some early intervention programmes, parents are directly targeted as agents of the early intervention process (Minguela & Alcantud-Marín, 2022). This demand, sometimes increases the stress on the couple or on one of the partners who feels overwhelmed. In community-based early childhood centres in Spain, different comprehensive programmes are followed. Attention to families is usually reduced to orientation, coordination and psychoeducation. The aim of this trial is to demonstrate that a brief intervention (8 weeks) can improve parents' stress and anxiety levels and, as a consequence, create more and better interactions with children. However, it has only been in the last few years that stress coping techniques for parents have been incorporated into early intervention programs (Torres-Rojas et al., 2020). Quality information based on scientific evidence is undoubtedly the greatest support we can give to parents, but it is not enough. To the extent that our activity is recognized, is a reference, we will achieve greater adherence to the treatment guidelines that we propose. Parents need strong additional support and even guidelines to cognitively restructure the situation, come to terms with their new reality and develop new coping strategies.

All these problems impact on both personal and family well-being (Hartley et al., 2017), as well as on child development. Keen et al. (2010) establishes as a precondition for the optimal care of an autistic child the preservation of good mental health and well-being of the parents. It is essential that the determinants of stress, anxiety and depression are clearly identified in the intervention programs. In this line, it is necessary to remember that the results of this trial are based on the participation of parents of children with a high demand for support (level 3) and its implications. That experiences of mutual social support are generated among the participants in the program and that they experience how to deal with maladaptive behaviors of children, regulating their reactivity. In this context, mindfulness parenting program aimed at improving parent-child interaction and reducing parental reactivity have been shown to be effective in reducing parental stress by improving the level of communicative interaction between parents and children. However, these types of interventions have been scarcely studied in a time window close

to the diagnosis of ASD. Implementing brief interventions based on mindfulness parenting within the framework of the care received by parents in early intervention centres can enhance the positive effects of intervention programmes on children.

The results of the intervention programme presented here demonstrate a post-treatment decrease in parents' self-reported anxiety values that could lead to positive changes in the psychological well-being and quality of life of the families. The demonstration of this fact opens up new lines of research since psychological well-being and quality of life do not only depend on a low level of anxiety.

Perhaps the most important limitation of the present study relates to the small number of participants. However, it is important to note that for the group dynamics to be adequate, the number of participants must be small. In terms of strength, we believe that the results demonstrate how mindfulness training can reduce the levels of stress and anxiety related to raising a child with autism.

#### **Acknowledgments:**

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## Capítulo IV Conclusiones

Este trabajo surge del interés por demostrar la importancia de la aplicación de metodologías que centren la atención a los padres de niños y niñas autistas que reciben intervención en los CAT y CDIAT.

Nuestra investigación se centró inicialmente en el desarrollo de una revisión sistemática que nos diera una visión general de las técnicas y métodos utilizados en la práctica de la intervención temprana. A su vez, determinar la eficacia de los programas y conocer más detalladamente todas aquellas metodologías que recalcan la importancia de los padres dentro del proceso terapéutico.

Durante este proceso encontramos que estas metodologías resultan ser de gran ayuda para la intervención, adherencia y los resultados en los niños y niñas autistas. Son programas que cuentan con procesos de entrenamiento y psicoeducación acerca del trastorno, modelamiento y enseñanza de herramientas para la aplicación a los niños en ambientes naturales. Razón por la cual resulta de gran utilidad para los cuidadores, ayudándoles a ser más conscientes y empoderándolos de la situación.

Sin embargo, llamo nuestra atención la falta de atención que se le da al bienestar del principal cuidador. Todos los programas de entrenamiento a padres se centran en general en los resultados positivos que pueden adquirir los niños durante el proceso, lo cual consideramos vital para el adecuado desarrollo de los niños y niñas. No obstante, durante este proceso de investigación hemos evidenciado las problemáticas de salud mental que muchos de los padres que se encuentran en este proceso pueden estar viviendo. Investigaciones como las de Mikolajczak et al., (2019) y Sen & Yurtserver (2007) nos han mostrado que la crianza y en especial de aquellos niños con un trastorno del neurodesarrollo resulta ser un proceso cargado de altos niveles de estrés, ansiedad y

cambios en la dinámica que pueden afectar negativamente en las relaciones familiares, de pareja e interpersonales.

Esta última inquietud nos ha llevado a realizar dos investigaciones empíricas que, por un lado, nos sirvieron para determinar la validez y efectividad de programas mindfulness y mindfulness parenting y, por otro lado, aportar más investigaciones científicas que ayuden a profesionales a conocer e interesarse no solo por el tratamiento directo a los niños y niñas, sino también al cuidado a los cuidadores.

Los resultados de las dos investigaciones nos han demostrado que este tipo de programas acompañados por tratamiento de intervención temprana a los niños y niñas autistas, ayudan a los niños a tener mayores resultados en el desarrollo integral y a los padres y madres a relacionarse de manera positiva con sus hijos y familiares, ayuda a reducir los niveles de estrés, ansiedad y depresión y mejora la interacción entre padres e hijos, incrementando la eficacia de las intervenciones desarrolladas sobre el niño o niña.

Consideramos que, aunque los resultados hayan sido estadísticamente significativos, debido a la cantidad de participantes es necesaria la acumulación de más evidencias sobre la bondad de este tipo de intervención. En general, resultan ser intervenciones con alta adherencia y de gran ayuda para los padres en la adquisición de herramientas para el manejo de sus hijos y el control de sentimientos negativos que pueden presentarse durante la crianza. Los dos estudios empíricos presentados en esta investigación demostraron que una corta intervención en Mindfulness puede ayudar a los padres a mejorar los niveles de ansiedad y estrés y como consecuencia, crear más y mejores interacciones con sus hijos. Determinamos que los padres necesitan recibir un apoyo extra que les permita procesar la información y aprender a utilizar nuevas estrategias de afrontamiento.



Finalmente podemos concluir que esta investigación en general no solo es un aporte a la comunidad científica y a la investigación en los trastornos del espectro autista, sino también y más importante, ha sido una excelente herramienta para algunas familias, para ayudarles a entender el diagnóstico de una forma más natural y permitirles tener espacios en donde pudieran compartir con otros padres que se encontraban en situaciones similares y con ello compartir experiencias, dudas, sentimientos, información acerca del trastorno, el proceso diagnóstico y la intervención.

Así mismo consideramos que este trabajo puede ser una oportunidad para la investigación en el cuidado de los cuidadores y en particular en técnicas fuera de las tradiciones, los entrenamientos en mindfulness aunque lleva años siendo estudiados y ha demostrado empíricamente ser significativos y provechosos para el tratamiento en estrés, ansiedad y depresión, siguen siendo muy rechazados en la comunidad científica y en los profesionales de la salud, razón por la que creemos que más investigaciones y trabajos que demuestren la trascendencia y el impacto que tienen sobre las personas, permitirá a más profesionales a estudiarlo y ponerlo en práctica.

Finalmente es importante recalcar que esta investigación nos ha enseñado la importancia del bienestar personal y psicológico y a establecer la necesidad que muchos padres de niños y niñas autistas tiene por ser parte de espacios en donde se encuentren cómodos y puedan ser apoyados.

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## **Anexos**

### Programa de Intervención de atención plena en la crianza

La crianza de los hijos es una de las tareas que más responsabilidades requiere en la vida de muchos padres, exige recursos que en ocasiones resultan elevados y difíciles de satisfacer, siendo fuente de angustia para los padres. Esta angustia y malestar psicológico puede encontrarse en la base de múltiples alteraciones en la convivencia familiar y la crianza de los hijos (Mikolajczak et al., 2019).

En especial aquellos padres que se enfrentan a la crianza de un hijo con algún tipo de trastorno del desarrollo sufren un mayor número de fuentes de tensión y, a su vez, esta se manifiesta con mucha más intensidad (Newacheck et al., 2004; Sen y Yurtsever, 2007).

Los padres y Madres informan y buscan ayuda con frecuencia, por alteraciones en el bienestar psicológico (Cachia et al., 2016; Falk et al., 2014; Firth y Dryer, 2013; Merkaj et al., 2013) o altos niveles de estrés (Almansour M et al., 2013; Hayes y Watson, 2013).

Una de las consecuencias del alto nivel de estrés más documentada son las alteraciones de los patrones de interacción entre padres e hijos (Pons-Salvador et al., 2005; Osborne et al., 2008). Las fuentes de tensión que experimentan los padres no solo son debidas a los cambios que deben introducir en la dinámica familiar o a la cantidad de tiempo que deben invertir para atender las necesidades de sus hijos, también incide la participación en las actividades de intervención (Bluth, et al., 2013). El estrés parental, también retroalimenta el estrés personal, teniendo consecuencias no solo en los padres, en su estabilidad personal y en las relaciones familiares (Benn et al., 2012), sino también en el bienestar psicológico de los niños y posible reducción de la efectividad de los programas de intervención (Cachia et al., 2016).

Los padres y cuidadores que se encuentran bajo altos niveles de estrés tienden a colapsar, por lo tanto, existe la necesidad de una formación en la que los padres se adueñen del estrés y sufrimiento, en donde los síntomas de malestar tengan un lugar importante en el proceso de mejorar el funcionamiento familiar (Bogels y Restifo, 2014). Por esta razón, muchos programas de intervención centrados en Mindfulness se dirigen a desarrollar bienestar psicológico de los padres o principales cuidadores (Boekhorst et al 2020; Gammer et al., 2020). La optimización del bienestar psicológico en padres o cuidadores beneficia también a los niños con TEA obteniendo mejores resultados en su evolución (Cachia et al., 2016).

Investigaciones recientes han demostrado que los programas basados en Mindfulness han logrado cambios positivos en padres de hijos con trastornos del neurodesarrollo (Cachia et al., 2016). En particular, estos programas ofrecen beneficios en el manejo del estrés y la ansiedad en padres con niños autistas (Benn et al., 2012; Bluth et al., 2013; Cachia et al., 2016; Ferraioli y Harris, 2012). En general, todos estos trabajos demuestran cambios positivos en los padres al reducir el nivel de estrés e incrementar el nivel de bienestar entre los cuidadores (Benn et al., 2012). También informan que los cuidadores mejoran la respuesta a las demandas de sus hijos, haciéndolo de forma más empática y apropiada, lo cual requiere altos niveles de atención, flexibilidad cognitiva y regulación emocional, características que son reforzadas en la intervención basada en Mindfulness (Ferraioli y Harris, 2012).

Actualmente y teniendo en cuenta el gran impacto que tienen las intervenciones basadas en Mindfulness se han creado varios tipos de programas que ayudan al manejo de dichos sentimientos en los padres, Mindful Parenting ofrece otra forma de abordar la crianza en momentos de mucho estrés, en donde son los principales cuidadores son los encargados de aprender a utilizar herramientas del mindfulness en ellos mismos y en sus experiencias



durante la crianza de sus hijos (Bogels y Restifo, 2014). El término *Mindful Parenting* fue usado por primera vez por Myla y Jon Kabat-Zinn en el libro “Everyday Blessings” en 1997, donde describen como traer intencionalmente una consciencia del aquí y ahora sin perjuicios en la crianza de los hijos y las relaciones familiares, lo cual conduce a una comprensión más profunda de los hijos y de ellos mismo. (Bogels y Restifo, 2014)

En este orden de ideas la hipótesis de las intervenciones basadas en la crianza consciente *Mindfulness Parenting* es ayudar a reducir el conflicto interparental al disminuir la reactividad emocional en los miembros de la pareja, evitando una espiral de sentimiento negativos y de culpabilidad durante la crianza (Bogels et al., 2010).

Las sesiones descritas a continuación fueron tomadas y adaptadas de libro “Mindful Parenting Guide for Mental health practitioner” de Susan Bogels y Kathleen Restifo (2014). Adaptación que fue utilizada como programa de intervención para la realización del ensayo clínico “*Mindfulness Parenting and Childish Play: A Clinical Trial for Parents of Children With Autism Spectrum Disorders*”.

Describir primero y hacer un esquema por sesiones. Por ejemplo, en total se desarrollaron 8 sesiones programadas como de una hora y media de extensión, aunque con un margen de variación entre 15 y 20 minutos en función de la interacción con los padres.

Durante las sesiones con los padres, los niños permanecieron al cuidado de un equipo de voluntarios, alumnos de 3º de magisterio mención de Pedagogía Terapéutica y Audición y Lenguaje y de Logopedia de la Universitat de Valencia bajo la tutela de uno de los directores de la tesis. Las sesiones con los niños consistieron en actividades de juego no estructurado con imitación de la actividad propuesta por el niño buscando siempre la comunicación e interacción social.

Debido a la situación de pandemia y las consecuencias que esto podría tener en la asistencia a las sesiones programadas, el equipo decidió realizar las sesiones de manera virtual por la plataforma Moodle, para que los padres que no pudieran asistir a la sesión presencial pudieran tener acceso a la información.

### **Objetivos del programa**

1. Reducir el estrés y aumentar el bienestar psicológico en los padres y madres.
2. Reducir el estrés y aumentar bienestar psicológico en los niños y niñas .
3. Mejorar las habilidades parentales y las relaciones con los niños y niñas.
4. Incrementar actitud mindfulness fuera y dentro de la crianza.

#### Sesión 1: Paternidad Automática

El tema central de la primera sesión es volver a los padres conscientes a cerca de la paternidad en piloto automático. Se exploran las reacciones de los padres en situaciones típicas que pueden generar malestar. Les enseñaremos a parar antes de actuar, particularmente en aquellas situaciones en las que pueden presentar altos niveles de estrés y que se tomen el tiempo para actuar con intencionalidad. Invitamos a los padres a que experimenten que pasa cuando la paternidad se vuelve más intencional y consciente<sup>1</sup>.

Tradicionalmente, el primer ejercicio en los programas de Mindfulness consiste en la toma de conciencia y se suele emplear el ejercicio de la uva pasa. Mediante este ejercicio intentaremos que los padres experimenten una experiencia Mindfulness y que sean capaces de ponerla en práctica dentro del hogar.

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<sup>1</sup>La mayoría de las meditaciones o ejercicios mindfulness están compuestos por varias fases y/o etapas, los participantes deberán realizarlas de manera formal (dentro de las sesiones) y de forma Informal (dentro del hogar)

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1. Meditación sobre las intenciones (10 minutos)

*“Siéntate cómodo y cierra los ojos. Toma un momento para concentrarte en este momento, piensa en todo lo que has tenido que hacer para poder llegar al lugar en el que estás. Piensa en las cosas que tuviste que hacer ... En todas aquellas sensaciones y emociones que experimentaste durante la mañana, intenta recordar como fue el viaje de camino a dónde estás, en los sentimientos que estabas viviendo y finalmente como llegaste a este espacio... Ahora quiero que concentres tu atención en tu cuerpo... en cómo se sienten tus pies sobre el suelo, en el contacto de tus piernas con la silla en la que estas sentado, date cuenta de todas las sensaciones de tu cuerpo y de las emociones que estas viviendo... lentamente vas a llevar a tu mente al pasado... a ese día en el que decidiste hacer parte de este taller, recuerda cuales fueron las razones que te trajeron a este espacio ¿Por qué decidiste realizar este curso? ¿Qué dificultades estás experimentando? y ¿Cuáles son tus expectativas durante estas semanas?... Ahora quiero que vuelvas a traer tu mente en el momento actual, se consciente del momento en el que estás... en el aquí y el ahora... cuando vuelvas a escuchar la campana quiero que abras tus ojos lentamente”.*

3. Ejercicio de la Uva Pasa (35 minutos)

*“Primero, coge la uva pasa y sostenla entre tus dedos. Concéntrate en ella e imagina que es un objeto traído de otro planeta... un objeto que nunca habías visto antes. Dedicar un momento para mirarla detenidamente... explora con mucha atención cada una de sus características. Deja que tus ojos exploren cada parte de ella, examina todos aquellos lugares en donde llega la luz y poco a poco dirige tu atención en aquellos espacios donde hay sombra. Mira cada uno de sus*

*pliegues y presta especial atención a su color... Mueve la uva pasa entre tus dedos, explora su textura y cuando lo desees cierra tus ojos y concéntrate en la sensación que estás experimentando y como la sientes al rodear en tus dedos”. Ahora acércala a tu nariz y nota su olor tan particular, puedes percibir que con cada inhalación su olor incrementa. Lentamente llévala a tus labios, nota como tu mano y tu brazo saben exactamente donde es la posición. Suavemente pon la uva en tu boca y sin masticar tomate un momento para percibir las sensaciones que tu boca esta experimentado. Cuando estes listo, prepárate para masticar la uva pasa... conscientemente da una o dos mordidas y sin tragarla empieza a notar cada uno de los sabores y sensaciones que están pasando por tu boca... presta atención a cada uno de los sabores, la textura y sensaciones que experimentas con cada mordisco... sigue masticando y cuando te sientas listo y tengas el deseo de comer la uva pasa... hazlo, pero de manera consciente, apreciando cada una de las sensaciones que están sucediendo... Cuando te sientas preparado abre lentamente los ojos”.*

#### 4. Estrés matutino (15minutos)

Les pedimos a los participantes que se sienten cómodos, cierren los ojos e imaginen que están viviendo la siguiente situación:

*“Son las 8:20 de la mañana y tu hijo debe estar en el colegio a las 8.30. Hace unos días recibiste una notificación del colegio en la que te decían que tu hijo a llegado muchas veces tarde y la próxima tendrá una amonestación.... Tu hijo está en su habitación casi listo, pero cuando le pides salir decide cambiarse el pantalón porque le está incómodo, tú le dices que se dé prisa porque llegaran*

*tarde y se lo repites varias veces. Al ver que no está listo intentas ayudarlo, pero se tira al piso y empieza a llorar diciendo que no, que no irá al colegio” .*

Se les pide a los participantes que apunten en un pizarra :

1. Sensaciones corporales
2. Emociones
3. Pensamientos
4. Tendencia a la acción

#### 5. Escaneo Corporal (45 min)

El escaneo corporal es la primera práctica formal de meditación en el programa de *Mindful Parenting*. Tiene como objetivo enfatizar la importancia de las sensaciones corporales, ya que ser consciente de nuestro cuerpo es la forma más sencilla y rápida de llevar nuestro cuerpo al momento presente.

1. A los participantes se les asignan tareas para realizar a lo largo de la semana:
  1. Leer documentos
  2. Práctica en Mindfulness Parenting
  3. Práctica informal (Ejercicios mindfulness en el día a día)
  4. Práctica formal (Meditación mindfulness)

#### 6. Despedida y cierre de la sesión.

#### Sesión 2: Conciencia parental para principiantes

Los padres comparten la experiencia vivida observado a sus hijos con conciencia y a menudo descubren las cualidades positivas que habían olvidado por estar pensando en las dificultades de los niños, así mismo otros padres se dan cuenta lo difícil que es ver a los niños con conciencia parental. Hablamos de la predisposición de ver a los niños de manera negativa, especialmente cuando han recibido un diagnóstico y como se tiende a verlos siempre dentro de ese contexto. Por otra parte, invitamos a los padres a utilizar dentro de la experiencia parental, la amabilidad, especialmente cuando están experimentado niveles

de estrés. Exploramos que tan a menudo somos amables con nosotros mismos, cuando actuamos de esta manera y si de manera natural empatizamos con otros padres que también están pasando por momentos complicados.

1. Reflexión acerca de sus hijos: *“El niño como una uva pasa”* (20 min)

Los participantes deben hacer parejas y describir su experiencia frente a la actividad “observar a nuestro hijo como una uva pasa”. Posteriormente, se les pide a los padres que describan su experiencia a todo el grupo.

2. Estrés matutino (30min)

Les pedimos a los participantes que se sienten cómodos, cierren los ojos e imaginen que están viviendo la siguiente situación.

*Acabas de dejar a tu hijo en el colegio, pero te das cuenta de que uno de tus amigos está corriendo frenéticamente hacia la entrada del colegio, arrastrando a su hija de la mano. Cuando tu amigo vuelve, te dice : “no puedes creer la mañana que he tenido... primero mi hija se ha negado a vestirse porque su camisa favorita no estaba limpia, después cuando estábamos a punto de salir se puso a llorar y se negó a salir por que su pelo no estaba de la forma en la que quería y me dijo que no quería ir al colegio. Entonces me puse muy nervioso y empecé a gritar y le dije que, si no se levantaba del suelo, iría al colegio sin ella, pero como no logré nada lo que hice fue arrastrarla al colegio, mientras mi otro hijo estaba mirando todo desde el coche. Fue horrible, es un milagro que hayamos llegado a tiempo.*

A continuación, se les pregunta a los participantes : ¿Qué sensaciones notaron en su cuerpo? ¿Qué sentimientos experimentaron? ¿Qué pensamientos vinieron a su cabeza? ¿Qué les gustaría haber hecho o haber dicho?

3. Viendo desde la atención plena (10 min)

*Nos ponemos de pie e intentaremos estar lo más cómodos posible, trae la atención a tu postura y nota si sientes algún tipo de tensión en tu cuerpo y conscientemente intenta relajarte y que toda la rigidez salga de tu cuerpo, permitiéndole a tus brazos que cuelguen... siente el contacto de tus pies sobre el suelo y se consciente del movimiento de tu respiración.*

*Ahora, lleva tu atención a lo que estás viendo en este momento e intenta pensar que lo estás viendo desde una mente de principiantes, imagina que eres de marte que nunca habías visto esto antes... las forma, líneas y colores... las luces, sombras y los movimientos. Pon toda tu atención en lo que estás percibiendo e intenta no poner nombres, intenta olvidar que has visto estos objetos antes. Mira detenidamente los objetos, las diferentes formas y colores. Concéntrate en lo que más llama tu atención, a dónde suele irse tu mirada y poco a poco enfócate en lo que sueles ignorar.*

4. Gorila en el medio (15min)

Pondremos un cortometraje de un juego de baloncesto en donde se evalúa la atención selectiva de los padres.

5. Práctica de agradecimiento (10 min)

*Siéntate cómodo, cierra los ojos y pon toda tu atención a tu posición corporal, en las sensaciones y en tu respiración... (Dar unos minutos)*

*Trae a tu cabeza la imagen de tu hijo pregúntate... ¿me siento agradecido por mi hijo? Ahora abre tu mente y tu corazón para pensar en tres cosas que en las que estas agradecido por tenerlo... (Dar unos minutos)*

*Ahora trae la atención a ti, imagínate en tu rol de padre. Y piensa si te sientes orgullo y agradecido por tu rol como padre y piensa en tres cosas que te hacen*

*sentir de esta forma ... deja que la respuesta venga de manera espontánea, sin pensarla mucho... (Dar unos minutos)*

*Lentamente abre tus ojos.*

6. Práctica sentada (20 min)

La meditación sentada, o práctica sentada, es el corazón de la meditación formal.

Todas las personas sabemos estar sentados, sin embargo, estar sentado con atención plena es diferente a estar sentado. En este tipo de meditación nos concentramos en la consciencia de nuestra posición corporal y de cada una de nuestras respiraciones.

Al finalizar la meditación indagamos en cada uno de los padres cuáles fueron sus sensaciones corporales y el estado de la mente durante este ejercicio.

7. A los participantes se les asignan tareas para realizar a lo largo de la semana:

1. Escoger rutina con el niño para hacerla con atención plena
2. Escaneo corporal
3. Practica sentada
4. Leer los documentos

8. Despedida y cierre de la sesión.

Sesión 3: Reconectando con nuestro cuerpo como padres

El tema principal de esta sesión es que los padres se vuelvan conscientes de las sensaciones corporales, durante experiencias placenteras o experiencias que generen malestar. Exploramos qué tan a menudo nos olvidamos de las señales y límites corporales. La idea principal es que los padres se reconecten con su cuerpo y lo cuiden.

1. Revisión de las prácticas en casa: saborear los momentos agradables. (20 min)



Repasamos la práctica casera de saborear los momentos en parejas y luego nos reunimos en grupo para debatir. Cuando discutimos en grupo, preguntamos por las sensaciones corporales que experimentan los padres.

El terapeuta dibuja una tabla en la pizarra:

Evento / Consciencia del momento / Sensaciones corporales/ Emociones /  
Pensamientos

Invitar a los padres a compartir sus momentos en el grupo. A medida que los padres describen un momento de disfrute, el profesor les pregunta: *¿qué hizo que fuera agradable? y ¿cómo supiste que era agradable?*, con el fin de centrar la atención en las sensaciones corporales implicadas en el placer, la alegría y otras experiencias positivas.

2. Tres minutos de espacio para respirar (10 min)

Invitamos a los participantes a prestar toda su atención en la respiración. *Siguiendo cada respiración desde el principio y hasta el final... quizás también siendo consciente de las pausas entre la inhalación y la exhalación. Ser consciente de la respiración. Usar la respiración para anclarte en el presente y ayudarte a sintonizar con un estado de conciencia en medio del estrés o la intensidad. Quizás una sensación de observar la agitación desde un lugar de quietud. Este es el segundo paso. Ahora amplía tu atención a todo el cuerpo, para que incluya un sentido del cuerpo como un todo, tu postura y la expresión facial. Puedes tener una sensación del momento de la respiración a través del cuerpo, como si todo el cuerpo estuviera respirando. Este cuerpo en movimiento, en este momento del tiempo, en este espacio. Abraza la sensación de incomodidad o tensión en el cuerpo. Diciendo a ti mismo: "Está bien. Sea lo que sea lo que estoy*

*sintiendo, está bien. Déjame sentirlo. Ya está ahí". Permanece un momento en esta conciencia más profunda.*

3. Yoga acostado y sentado (30 min)

Invitamos a los participantes a que intenten experimentar plenamente las sensaciones corporales y a que presten atención a cuando sientan que se acercan a sus propios límites físicos. El énfasis está en hacer el yoga en "modo de ser", es decir, experimentando plenamente todas las sensaciones del cuerpo, en lugar de lograr nada. Si un participante es físicamente incapaz de realizar una postura de movimiento, se le invita a realizarla en su imaginación.

4. Vigilar el cuerpo durante el estrés de los padres (10 min)

En este ejercicio, prestamos atención a lo que ocurre en nuestro cuerpo, pensamientos y emociones cuando nos sentimos estresados. Empezamos preguntando a los participantes: *¿Cómo sabéis cuándo os sentís estresados? ¿Dónde lo sientes en tu cuerpo? ¿Qué emociones notas? ¿Qué pensamientos?* Escribimos algunos ejemplos en la pizarra e invitamos a los participantes a describir con el mayor detalle posible su experiencia.

<b>Evento</b>	<b>Sensaciones corporales</b>	<b>Emociones</b>	<b>Pensamientos</b>
Hija que me miente lo veo en sus ojos	Tensión en la cabeza, pecho alto y rápido, respiración acelerada, latidos del corazón.	Ira, lástima, miedo, sensación de culpabilidad.	No puedo soportar más esto, debería creerla, ya no sé qué creer.
Trabajando toda la noche para cumplir un plazo.	Dolor de cabeza intenso, frío, hombros tensos, dolor en el brazo derecho.	Miedo, soledad.	Soy un estúpido por hacer esto, debería organizar mejor mi trabajo, me juzgarán

negativamente si no  
lo consigo.

5. Estrés en la crianza de los hijos: Llevar la bondad a nosotros mismos. (20 min)

Para realizar esta actividad le pedimos a los participantes que recuerden una interacción estresante reciente con su hijo o pareja y que se fijen en las sensaciones corporales, sentimientos y pensamientos, de forma similar al ejercicio anterior. Pero ahora iremos un paso más allá: con este ejercicio se darán cuenta de cuál es la actitud que tienen hacia ellos mismos...Queremos que lleven deliberadamente una actitud de bondad y compasión a este momento, de la misma manera que lo hicimos con "nuestro amigo" la semana anterior, y que noten cómo se sienten.

*“Siéntate cómodamente, dejando que tus ojos se cierren. Imagina una experiencia difícil o estresante de la crianza de los hijos que crees que no ha ido bien. Imagina la situación de la forma más vívida posible, como si estuviera ocurriendo ahora mismo ¿Quién está allí?, ¿qué están diciendo o haciendo?, y ¿qué estás diciendo o haciendo tú? (el profesor pregunta que aquellos que no tienen una situación levanten la mano, y si es así, permite unos momentos más). Cuando tengas una imagen clara, lleva tu atención a este momento, comprobando: cómo estás ahora mismo, notando lo que surja ¿Hay sensaciones corporales, emociones, pensamientos, o tensiones? Diciéndote a ti mismo: lo que surja... ¿hay pensamientos críticos o de juicio? ¿sentimientos de tristeza, ira, culpa? ¿Tensión en el cuerpo? (deja pasar un par de minutos).*

*Y ahora, mira si puedes tener una actitud de bondad y compasión hacia ti mismo, como lo harías hacia un amigo. Reconociendo que este es un momento de sufrimiento para ti. Consuélate, por ejemplo, diciéndote a ti mismo "esto es*

*realmente duro" o "mi querido yo, te esfuerzas tanto por ser un buen padre, pero a veces es demasiado duro". Si quieres, experimenta con consolarte físicamente colocando ambas manos sobre tu corazón, sintiendo el calor de tus manos en tu pecho (permítete unos momentos). O abrázate colocando tus brazos alrededor de tus hombros (deja pasar unos instantes).*

*Y ahora, recuerda que todos los padres se esfuerzan, cometen errores o sienten que han fallado a sus hijos a veces. Quizás recordando a otros padres que se esfuerzan o se arrepienten de cosas que han hecho. Recuerda que cometer errores es parte del ser humano, y nos conecta con todos los demás padres que luchan por hacer lo mejor posible y, sin embargo, cometen errores en el camino.*

6. Asignación de tareas para la próxima semana:
  1. Mirar y ser consciente de sus sensaciones corporales cuando se enfrentan a una situación estresantes relacionada con la paternidad.
  2. Escoger una situación difícil y darle un momento para ser comprensivo y bondadoso.
  3. Yoga acostado
  4. Meditación sentada
  5. Respiración 3 minutos
  6. Leer documentos
7. despedida y cierre

#### Sesión 4: Responder antes que reaccionar

El primer paso para responder al estrés parental es ser consiente de él y de cómo afecta a nivel corporal, se debe aprender a aceptarlo en lugar de hacerlo a un lado. En esta sesión se explorará la cantidad de respuestas automáticas que ocurren cuando respondemos al estrés y como nuestros pensamientos pueden genera más situaciones como esta. Un estado

de mindfulness y saber cómo respirar puede ayudarnos a salir de reacciones automáticas de estrés, para aprender a parar y a responder de manera más intencional.

1. Revisar actividades (15 min)

Discutimos los acontecimientos estresantes de la crianza en todo el grupo, centrándonos en cómo nuestra tendencia a apartar lo que es desagradable, y a agarrar lo que es agradable, aumenta el estrés. Invitamos a los padres a que busquen específicamente en su calendario de acontecimientos estresantes la tendencia a apartar lo que es desagradable.

2. Demostración de lucha, huida, congelación y baile (10 min)

Este ejercicio pretende demostrar de forma viva y física nuestros diferentes patrones de reacción cuando estamos bajo estrés.

*“El profesor se sitúa en el centro del círculo del grupo y pregunta quién quiere ser voluntario para ser el problema del profesor. El profesor pide al miembro del grupo que se acerque físicamente fingiendo ser su problema. El profesor anuncia al grupo que va a demostrar cuatro formas diferentes de responder al problema. El miembro del grupo se acerca al profesor y éste demuestra primero una respuesta de lucha, empujando con ambas manos contra las manos del miembro del grupo, ambos miembros de la diada empujando el uno hacia el otro con fuerza gruesa hasta llegar a un punto muerto. El profesor finaliza la primera ronda, diciendo al grupo que esa fue la primera forma de reaccionar, y luego invita a que el problema vuelva a acercarse nuevamente. Ahora el profesor demuestra una respuesta de huida, huyendo del miembro del grupo que, a su vez, persigue espontáneamente al profesor. El profesor sale corriendo de la sala, con el miembro del grupo siguiéndole. A continuación, el profesor vuelve, señala que ésta ha sido la segunda reacción e invita a su problema a acercarse de nuevo.*

*Ahora el profesor demuestra una reacción de congelación o sumisión, haciéndose un huevo en el suelo y cubriéndose la cara con la mano, mientras el problema sigue machacando al profesor. Esta es la tercera reacción. (El profesor puede demostrar las tres reacciones en el orden que prefiera, siempre que se demuestren las tres reacciones). A continuación, el profesor invita a acercarse a su problema por cuarta vez. Esta vez, el profesor intenta bailar con el problema, buscando una posición similar a la del tango, por ejemplo, cogiendo la mano derecha del problema con su mano derecha y poniendo su brazo alrededor de la cintura del miembro del grupo y comenzando a bailar. El profesor puede empezar a cantar suavemente. Normalmente, después de un poco de forcejeo en el que el profesor utiliza la fuerza del problema acompañándolo en lugar de resistirse a él, y toma el control, ¡el baile tiene lugar de verdad!”*

3. Tres minutos de respiración en situaciones de estrés (5 min)

*Sitúate en el momento presente adoptando deliberadamente una posición erguida y digna. Si es posible, cierra los ojos. Vuelve tu atención hacia el interior. Pregúntate: ¿cómo estoy? ¿cuál es mi experiencia en este momento? ¿Qué pensamientos pasan por mi mente? Lo mejor que puedas, reconoce los pensamientos como eventos mentales, quizás poniéndolos en palabras, dándoles etiquetas: "los pensamientos autocríticos están aquí", "los pensamientos rumiantes" y "los pensamientos catastrofistas". ¿Qué sentimientos hay aquí? Dirigirnos a cualquier sensación de malestar emocional o sentimientos desagradables, tal vez poniéndolos en palabras: "temor", "vergüenza", "ira" o "tristeza". ¿De qué sensaciones corporales soy consciente? Volviendo hacia cualquier malestar físico, sensaciones de malestar, incomodidad o presión corporal. ¿Qué tendencias de acción noto? Tomar conciencia de la tendencia de*

*levantarse y moverse, enfadarse, evadir y esconderse. es el primer paso has logrado conectar con tu estado actual. A continuación, vuelve a prestar toda tu atención a la respiración. Siguiendo cada respiración desde el principio y hasta el final... quizás también siendo consciente de las pausas entre la inhalación y la exhalación. Ser consciente de la respiración. Usar la respiración para anclarte en el presente y ayudarte a sintonizar con un estado de conciencia en medio del estrés o la intensidad. Quizás una sensación de observar la agitación desde un lugar de quietud. Este es el segundo paso.*

*Ahora amplía tu atención a todo el cuerpo, para que incluya un sentido del cuerpo como un todo, tu postura y la expresión facial. Puedes tener una sensación del momento de la respiración a través del cuerpo, como si todo el cuerpo estuviera respirando. Este cuerpo en movimiento, en este momento del tiempo, en este espacio. Abraza la sensación de incomodidad o tensión en el cuerpo. Diciendo a ti mismo: "Está bien. Sea lo que sea lo que estoy sintiendo, está bien. Déjame sentirlo. Ya está ahí". Permanece un momento en esta conciencia más profunda.*

4. Evaluación a mitad de camino (20 min)

Nos ha parecido útil evaluar a mitad del curso cómo va todo el mundo y en qué punto se encuentra cada participante en el proceso de este curso. El profesor invita a los miembros del grupo a compartir con el grupo en qué punto del proceso se encuentran y cómo van las cosas. Los participantes son libres de elegir si quieren hablar y cuándo quieren hacerlo. Se tiende a no mirar al miembro del grupo en particular ,generalmente, no se hacen más preguntas, pero se agradece a cada persona cuando ha terminado. Puede haber momentos de silencio durante esta evaluación, y está bien si los miembros del grupo no quieren hablar.

5. Yoga de pie (20 min)

El grupo se coloca en círculo, o de cara al profesor, con suficiente espacio entre cada miembro para que cada persona pueda extender sus brazos sin tocar a su vecino.

En la indagación, el profesor puede centrarse en cómo nos relacionamos con nuestros límites y con nuestra tendencia a terminar, es decir, ¿qué ocurre cuando te enfrentas al dolor, la rigidez o los problemas de equilibrio? ¿Qué se siente en el cuerpo, qué pensamientos surgen? ("no puedo hacer esto", "debería poder hacer esto porque los demás también lo hacen", "solía poder doblarme mucho más", "debería ir a clases de gimnasia", "soy terrible en esto"), qué tendencias de acción (ir más allá de lo que es prudente para el cuerpo en este momento, centrarse en los demás en lugar de en el propio cuerpo, o desafiar los límites demasiado poco)

6. Revisión de la práctica en casa (10 min)

1. Respiración de 3 minutos
2. Meditación sentada
3. Yoga de pie
4. Leer documentos

7. Despedida y cierre.

Sesión 5: Patrones y esquemas de crianza

Los padres exploran como son sus patrones y esquemas de crianza y si tienen alguna similitud con sus relaciones de pareja y con la forma en las que ellos fueron criados. Los padres aprenden a reconocer el enfado y las reacciones que pueden tener frente a situaciones que generen dificultad con sus hijos. La práctica principal en esta sesión es la autocompasión y aceptación, principalmente en situaciones de dificultad emocional que incluyen a sus hijos.

1. Crianza reactiva y modos de actuación de los esquemas (30 min)



Invitamos a los padres a notar patrones automáticos o tendencias de acción en sus interacciones con su hijo y a investigar si ven similitudes o conexiones en su relación con sus propios padres. Pedimos a los padres que se den cuenta de cuándo se activan sus modos de niño frágil o vulnerable en la interacción con sus propios hijos y cuándo se activan sus modos de padre punitivo o exigente. Están acostumbrados a etiquetarlo, del mismo modo que han aprendido a etiquetar los pensamientos y los sentimientos. "Estoy enfadado en modo niño" o "padre punitivo más está aquí". El simple hecho de etiquetar el modo pone cierta distancia entre la experiencia y el padre, planteando la posibilidad de que los pensamientos, sentimientos y sensaciones que experimenta el padre no sean la "verdad" y de que no tenga que reaccionar ante esta experiencia. También invitamos a los padres a darse cuenta de cuándo se ha activado su modo de padres punitivos o exigentes, ya sea en relación con sus hijos o con ellos mismos.

En sesiones anteriores, hemos pedido a los padres que se den cuenta de cuándo son duros y se juzgan a sí mismos. Esta "voz" enjuiciadora también puede escucharse en la voz del padre punitivo o exigente. Etiquetar esta voz como "padre punitivo" es simplemente otra forma de ayudar a la persona a descentrarse de esta voz, a verla como algo separado de sí misma.

El profesor anuncia que vamos a hacer un ejercicio para ayudar a tomar conciencia e identificar los modos de crianza. En primer lugar, el profesor escribe en una tabla o pizarra los tres modos de crianza en los que se puede encontrar un padre cuando interactúa con su hijo.

1. El padre como yo (o adulto sano)
2. Padre como niño - por ejemplo, modo de niño enfadado y vulnerable

3. El padre como padre interiorizado - por ejemplo, el modo de padre exigente o punitivo

Explicamos que, como padres, nos consideramos adultos sanos, pero que, en situaciones emocionalmente desafiantes, podemos pasar a la modalidad de padres infantiles e interiorizados. A continuación, escribimos en un folio cuatro columnas:

Detonantes.	Patrones de crianza reactivos.	Antecedentes	Modos de crianza infantil e internalizada
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2. Tres minutos para respirar (5 min)

*Presta toda tu atención a la respiración. Siguiendo cada respiración desde el principio y hasta el final... quizás también siendo consciente de las pausas entre la inhalación y la exhalación. Ser consciente de la respiración. Usar la respiración para anclarte en el presente y ayudarte a sintonizar con un estado de conciencia en medio del estrés o la intensidad. Quizás una sensación de observar la agitación desde un lugar de quietud. Este es el segundo paso. Ahora amplía tu atención a todo el cuerpo, para que incluya un sentido del cuerpo como un todo, tu postura y la expresión facial. Puedes tener una sensación del momento de la respiración a través del cuerpo, como si todo el cuerpo estuviera respirando. Este cuerpo en movimiento, en este momento del tiempo, en este espacio. Abraza la sensación de incomodidad o tensión en el cuerpo. Diciendo a ti mismo: "Está bien. Sea lo que sea lo que estoy sintiendo, está bien. Déjame sentirlo. Ya está ahí". Permanece un momento en esta conciencia más profunda.*

3. Meditación caminando (15 min)

La meditación caminando es una práctica aparentemente sencilla. Caminamos, con plena atención a las sensaciones físicas del caminar, sin otro objetivo que el de experimentar plenamente el caminar. Por lo tanto, no caminamos para llegar a un destino concreto, y no necesitamos apresurarnos porque no vamos a ningún sitio.

4. Cómo contener las emociones (20 min)

En esta sesión hemos trabajado con la toma de conciencia de nuestros modos de niños y padres. Ahora invitamos a los padres a adoptar una actitud abierta, de aceptación y de acogida hacia el niño enfadado o vulnerable más hacia ellos mismos. Esto es lo mismo que dar la bienvenida a todas las emociones y dejar que estén ahí. Empezamos por sostener las emociones como si se tratara de un bebé, acercándonos y embarcando una emoción fuerte.

*“Siéntese cómodamente y recuerde una experiencia reciente en la que haya sentido emociones fuertes, como ira, tristeza, miedo u otras. Comprueba si puedes sentir las emociones en tu cuerpo, ahora. ¿Qué sensaciones sientes? Si hay pensamientos, obsérvalos. Simplemente mantente presente con tus emociones y nota lo que sientes en tu cuerpo. Y ahora que nos acercamos a las emociones y a las sensaciones corporales. No es necesario tratar de arreglarlo o resolverlo, o cambiar la sensación de ninguna manera. Sólo ver si puedes estar presente con ello. Y ahora abrazar esta emoción - esta ira, miedo, tristeza, etc., - como si fuera tu bebé. Sosteniéndolo suavemente y con compasión, atendiéndolo, estando ahí para él. ¿Puedes traer un poco de dulzura o de bondad a ti mismo en este momento? y simplemente sostén el sentimiento todo el tiempo que quieras. Si te das cuenta de que tienes un modo infantil, puedes experimentar hablando con él desde tu modo adulto sano, puedes intentar darle a tu modo infantil un nombre*

*como "pequeño yo" o simplemente yo. Sé que estás ahí. Puedo sentir que estás muy enfadado ahora mismo. Está bien que estés aquí, y yo también estoy aquí contigo. Estoy aquí para ti ahora. ¿Qué necesitas de mí ahora? O, si se ha activado el modo de niño vulnerable, puedes intentar dar consuelo o compasión a esa parte de tu ser. Puedes intentar utilizar las palabras que te resulten más cómodas."*

5. Revisión de la práctica en casa (10 min)

1. Respiración de 3 minutos en momentos de estrés parental
2. Meditación sentada
3. Meditación caminando
4. Leer documentos

6. Despedida y cierre.

Sesión 6: Conflicto y paternidad

En esta sesión exploramos los conflictos que se presentan en la relación padre-hijo, los cuales consideramos una oportunidad para crecer y volverse más cercanos a sus hijos. La práctica Mindfulness nos ayuda a ampliar nuestra mente y tener la capacidad para entender los dos puntos de vista. En este programa los padres han tenido la oportunidad de practicar la "autocompasión" y "aceptación" en ellos mismos, ahora les pedimos que realicen esta práctica en los estados emocionales de sus hijos. Le pedimos a los padres que sean capaces de reconocer y manejar sus propias emociones y de manera simultánea la de sus hijos. Queremos que los padres vuelvan a sus hijos después de haber experimentado un problema y que reaccionen desde lo aprendido, de esta manera pretendemos reparar los daños emocionales dentro de las relaciones.

1. Meditación sentada, con conciencia sin elección. (30 min)

La meditación sin anclaje específico, siguiendo la atención a donde va de momento a momento. Puede ser muy reconfortante cuando nos encontramos inquietos, apresurado, al borde, nervioso y agotado, pero cuando nos permitimos mirar todo eso desde un lugar de quietud, sin querer que las cosas sean diferentes.

*“Acomódate en una postura sentada que refleje dignidad, estar despierto y presente. Tómate tu tiempo para sentir dónde el cuerpo toca la silla o el cojín en el que estas sentado, anclándote en este espacio, en este momento... Poner la atención en la respiración durante unos instantes, siguiendo cada respiración que recorre tu cuerpo lo mejor que puedas... esta respiración... y esta otra...cada respiración es una oportunidad para estar plenamente y presente en este momento.*

*Entonces, cuando estés preparado para ello, deja de centrarte en la respiración... permitiendo que tu atención simplemente flote, de momento en momento. Puede ir a las sensaciones físicas, al pensamiento, al sonido, a las emociones. Mira si puedes seguir tu atención desde un lugar silencioso detrás de ella... puedes intentar dejar caer esta pregunta de vez en cuando: ¿qué es esto?, la pregunta ¿qué es esto? puede ayudarte a investigar cualquier experiencia con curiosidad, atención abierta, mente de principiante... ¿Qué es esto? Cuando te sientas abrumado por la experiencia, siempre puedes volver a la respiración o al cuerpo para volver a anclarte en el momento presente. Continuamos con esta conciencia flotante durante unos 10 minutos en silencio.”*

2. Toma de perspectiva, reparación. (40 min)

La práctica se introduce brevemente, diciendo que los conflictos intensos, llamados rupturas, ocurren regularmente cuando las personas se aman y viven

juntas, como en las familias, y la práctica siguiente se centra en explorar las formas de resolverlos.

*Adopte una posición cómoda para sentarse y preste atención a cómo se siente el cuerpo en esta posición y dónde hace contacto con la silla, el cojín o el suelo. Deja que aflore una situación en la que estabas muy enfadado con tu hijo (expareja, pareja u otra persona cercana) y en la que no estabas contento con tu propio comportamiento, por ejemplo, porque explotaste o te sentiste fuera de control. Imagina el conflicto tan vívidamente como puedas, como si estuviera sucediendo ahora mismo. ¿Con quién estabas? ¿Qué hacías o decías? ¿Qué hacían o decían los demás? ¿Qué sentías? ¿Qué notaste en tu cuerpo? ¿Qué pensamientos pasaron por tu mente? ¿Qué tendencias de acción sentiste? Cuando tienes una imagen vívida de la situación de conflicto, cambia tu atención al aquí y al ahora, ¿de qué sensaciones corporales, sentimientos y pensamientos te das cuenta, justo ahora? ¿Puedes ser compasivo contigo mismo? Dite a ti mismo, lo que sea que estas sintiendo, está bien, déjame sentirlo... acoge cualquier emoción que surja, ya sea miedo, tristeza, ira, dolor...*

*Luego, lleva tu atención a la respiración, al movimiento de la respiración en tu cuerpo... siguiendo tres respiraciones con plena conciencia... ampliando la atención a tu cuerpo como un todo, en esta posición sentada... consciente de cualquier tensión...*

*Y entonces, cuando estés preparado para ello, en la siguiente exhalación, desplaza tu atención lo mejor que puedas hacia tu hijo (pareja u otra persona) ¿cómo se siente la otra persona, qué emociones puede experimentar la otra persona, qué sensaciones corporales... pensamientos... tendencias de acción... deseos... ¿puedes permitirte no sólo sentir lo que tú sientes... sino también*

*permitir que la otra persona sienta lo que está sintiendo... puedes permitir que se sienta enfadada... triste... herida... o asustada... puedes decirle, sea lo que sea lo que está sintiendo, que está bien? ¿Puedes entender a la otra persona desde su perspectiva? ¿Puedes sentir compasión por el estado en que se encuentra la otra persona? ¿Qué querrías decirle a la otra persona desde esta comprensión y compasión? ¿Podrías dejar de lado tu orgullo y -realmente partiendo de ti mismo- disculparte por lo que hiciste mal? Porque, si tú no puedes hacerlo, ¿cómo podrá hacerlo tu hijo (la otra persona)? Pide disculpas en tu imaginación, y sé consciente de lo que esto supone para ti... y para la otra persona.*

3. Leer un poema (5 min)

Leer el poema de Portia Nelson, titulado "autobiografía en cinco capítulos de orden", para recordar a los participantes que cambiar los patrones puede llevar toda la vida y que poco a poco empezaremos a reconocer nuestra forma de caer y ,al reconocerlo, acabaremos por cambiar nuestro comportamiento.

4. Revisión de la práctica en casa

1. Realiza tu programa de meditación basado en las meditaciones que has practicado durante este curso.
2. Meditación de consciencia sin elección
3. Leer documentos

5. Despedida y cierre.

Sesión 7: Amor y límites

Esta sesión tiene dos objetivos principales. El primero, extender la práctica de autocompasión e introducir de manera formal “el amor bondadoso”, lo que pretende cultivar nuestra capacidad de amar y ser amable. Con esto queremos que los padres

comprendan que todos tenemos la capacidad de amar de esta manera y sin importar las dificultades que estén experimentando con sus hijos, se debe reaccionar con amor y cuidado. El segundo será explorar los límites dentro de la crianza, consideramos que ponerles límites a sus hijos, los ayudará a poner una estructura dentro del hogar. Daremos ejemplos en los que puede haber obstáculos y dificultades y como superarlos.

1. Meditación de amor bondadoso (40 min)

Introducimos brevemente la meditación de amor-bondad. La bondad es la actitud que subyace a toda meditación. Hacemos esta práctica para cultivar más la mente de la bondad y la compasión. Enfatizamos que, en esta práctica, estamos formando la intención de ser amables, compasivos y amorosos con todos los seres, incluidos nosotros mismos, pero que puede que no nos sintamos así, y eso está perfectamente bien. Si te comprometes de corazón con esta intención, eso es suficiente.

*“Siéntate o tumbate cómodamente, cerrando los ojos. Toma conciencia de tu cuerpo sentado o tumbado en esta habitación, aquí y ahora, respirando. Lleva tu atención a ti mismo. No te centres en lo que te puede gustar o no de ti mismo, sino en el hecho de que eres un ser humano, que estás vivo... que respiras... que sufres. Recordando que todos los seres humanos anhelan ser felices y estar libres de sufrimiento. Nos deseamos a nosotros mismos el bien:*

*Puedo ser feliz.*

*Puedo estar en paz.*

*Puedo estar libre de sufrimiento.*

*Dejando caer las frases, y notando cualquier reacción... puedes repetirte esta frase, o cualquier otra, durante un rato...*



Para los padres que sienten que no pueden enviarse a sí mismos deseos amables, primero:

*Toma conciencia de tu cuerpo sentado o tumbado en esta habitación, aquí y ahora, respirando. Lleva tu atención a tu hijo (o a una mascota, a un personaje heroico), al hecho de que es un ser vivo... que respira... que sufre. Recuerda que todos los seres humanos anhelan ser felices y estar libres de sufrimiento. Y desearle lo mejor:*

*Que estés feliz.*

*Que estés en paz.*

*Que estés libre de todo sufrimiento.*

*Dejando caer las frases, y notando cualquier reacción... puedes repetir estas frases, o cualquier otra, a tu hijo durante un rato.*

*Y ahora, llamar a la mente a una persona querida: un mentor, un profesor, alguien que haya estado ahí para ti. También puede ser alguien que te haya inspirado. Y trae tu atención a esta persona. No te centres en lo que te pueda gustar o no de él o ella, sino en el hecho de que es un ser humano, que está vivo... que respira... que sufre. Recordando que todos los seres humanos anhelan ser felices y estar libres de sufrimiento. Le deseamos lo mejor:*

*Que seas feliz.*

*Que estés en paz.*

*Que te liberes del sufrimiento.*

*Y repitiendo esto para ti mismo durante unos momentos, notando cualquier reacción...*

*Y ahora, llamar a la mente a un amigo (o pariente, niño, etc.). Y llevar tu atención a esta persona. No te centres en lo que te gusta o no te gusta de él o ella, sino en*

*el hecho de que es un ser humano, que está vivo... que respira... que sufre.*

*Recordando que todos los seres humanos anhelan ser felices y estar libres de sufrimiento. Le deseamos lo mejor:*

*Que sea feliz.*

*Que esté en paz.*

*Que esté libre de sufrimiento.*

*Repite esto para ti mismo durante unos momentos, notando lo que surge...*

*Y ahora, llama a la mente a un extraño o a una persona anónima. Alguien que hayas visto pero que no conozcas personalmente: puede ser un dependiente de una tienda, un cajero de un banco, un padre del colegio de tu hijo que no conozcas, alguien que hayas visto en el ascensor del trabajo... y llevar tu atención a esta persona. No te centres en lo que te puede gustar o no de él o ella, sino en el hecho de que es un ser humano, que está vivo... que respira... que sufre.*

*Recordando que todos los seres humanos anhelan ser felices y estar libres de sufrimiento. Le deseamos lo mejor:*

*Que sea feliz.*

*Que esté en paz.*

*Que esté libre del sufrimiento.*

*Repitiendo esto para sí mismo por unos momentos, notando lo que surge...*

*Ahora, llama a la mente a una persona difícil, a un "enemigo". Alguien que haya sido difícil para ti, por ejemplo, debido a un conflicto en la relación. Puede ser un compañero de trabajo o jefe difícil, una pareja o expareja, un miembro de la familia familiar, tu hijo, un amigo o un vecino. Una vez más, llama la atención sobre esta persona. No te centres en lo que te puede gustar o no de él o ella, sino*

*en el hecho de que es un ser humano, que está vivo... que respira... que sufre. Le deseamos lo mejor:*

*Que sea feliz.*

*Que esté en paz.*

*Que esté libre de sufrimiento.*

*Repitiendo esto para ti mismo durante unos momentos, siendo consciente de lo que surge...*

*Y ahora, tomar conciencia de que estamos sentados en esta habitación, respirando juntos. Exhalamos, y eso se convierte en la inhalación o en nuestro vecino. Llevar nuestra conciencia a todos los que estamos sentados aquí, a todos los padres, que estamos vivos... que respiramos... que sufrimos. Recordando que todos nosotros anhelamos ser felices y estar libres de sufrimiento. Nos susurramos a todos nosotros bien:*

*Que seamos felices.*

*Que estemos en paz.*

*Que seamos libres del sufrimiento.*

*Repite esto para ti mismo durante unos instantes, siendo consciente de lo que surge...*

*Y ahora, tomando conciencia de todos los seres vivos. Comprender que todos respiramos el mismo aire, que todos compartimos la misma tierra, que todos estamos conectados con los demás. Todas estas criaturas, que están vivas... que respiran... que sufren. Recordando que todas las criaturas anhelan ser felices y estar libres de sufrimiento. Les deseamos lo mejor:*

*Que todas las criaturas sean felices.*

*Que todas las criaturas estén en paz.*

*Que todas las criaturas estén libres de sufrimiento.*

*Repitiendo esto para ti mismo, notando esto para ti, notando lo que surge...*

*En unos momentos, oirás la campana y podrás abrir lentamente los ojos.*

2. Límites (30 min)

Comenzamos esta práctica explicando que todos los niños necesitan amor y límites. Los límites son una forma de "compasión despiadada", algo que hacemos por amor a nuestros hijos, que a veces puede ser difícil para ellos y para nosotros. Empezamos conectando el tema de establecer límites con nuestros hijos con la experiencia de nuestros propios límites corporales, como hemos estado haciendo en la práctica de yoga, el escaneo del cuerpo, y llevando la conciencia a la interacción estresante. Establecer límites con nuestros hijos comienza con nuestra conciencia de nuestro cuerpo, sintiendo cuando sentimos que se está cruzando un límite con nosotros.

*"Recuerde una interacción con sus hijos que haya sido difícil y en la que haya sentido que se han traspasado sus límites, o un comportamiento concreto de su hijo sobre el que crea que debe poner límites más eficaces (rabietas, robos, golpes o no limpiar). Intenta imaginarlo de la manera más vívida posible: ¿Quién está ahí? ¿Qué está pasando? ¿Quién dice o hace qué?*

*Ahora, fíjate si puedes recordar cómo se sentía tu cuerpo, tus sentimientos y pensamientos, lo que te apetecía decir o hacer. ¿Notaste algún estado mental (ira, miedo, etc.)? ¿Eres consciente de una parte infantil de ti mismo que se desencadenó con esta interacción? ¿Niño enfadado o vulnerable? ¿Padre punitivo o exigente? Observa también lo que experimentas ahora. ¿Qué surge para ti en tu cuerpo, tus pensamientos y tus sentimientos, y qué tendencias de acción notas?*

*Y ahora, deja ir la situación, y toma un espacio de respiración de 3 minutos (el profesor guía al grupo). Mira si también puedes darte un poco de autocompasión por tu sufrimiento. Si quieres, puedes imaginar que te dices palabras amables a ti mismo, que te pones las dos manos en el corazón, que te acaricias, que te das un pequeño abrazo, o simplemente que sientes compasión por ti mismo como padre. Si sientes la presencia de tu hijo vulnerable o enfadado, puedes consolarlo...*

*¿Reconociste tus propios límites antes o después de que tu hijo los sobrepasara?  
¿Cómo te sientes cuando intentas poner un límite? ¿Qué evitarías al no poner un límite? ¿Qué quieres hacer ahora?*

*Ahora abre los ojos. Comentad en pareja o en trío lo que habéis experimentado.*

3. Los dos lobos. (5 min)

Enseñamos un video acerca de la parábola de los dos lobos, esta es una historia adaptada de una vieja fábula del tribu Cherokee. En este video los padres podrán reflexionar acerca de las elecciones que podemos hacer día a día y como esto puede uno u otros valores, creando así nuestra realidad.

4. Revisión de la práctica en casa (10 min)

1. Traer poema, canción, dibujo, objeto, etc., el cual represente la experiencia que han tenido durante las ocho semanas del curso.
2. Meditación de amor bondadoso
3. Leer documentos

5. Despedida y cierre

Sesión 8: Camino consciente a través de la paternidad

Se realizará una reflexión acerca del programa e indagaremos si los padres han sentido algún cambio personal, fuera y dentro del hogar. Algunos padres pueden haber tenido dificultades durante este proceso y puede que otros hayan tenido momentos de introspección y cambio. Para facilitar este proceso les pedimos a los padres que lleven a sesión algo que simbolice su proceso personal (objeto, dibujo, poema, canción, etc.) y que lo comparta con el grupo.

1. Escaneo Corporal (30 min)

Tiene como objetivo enfatizar la importancia de las sensaciones corporales, ya que ser consciente de nuestro cuerpo es la forma más sencilla y rápida de llevar nuestro cuerpo al momento presente.

2. Revisión de práctica en casa (15 min)

Los participantes comparten su experiencia durante las ocho semanas del curso y muestran el objeto que han decidido traer a sesión. Es una práctica libre que deja que los padres se expresen y compartan todo lo que han aprendido y los cambios que han visto en sus dinámicas, en sus parejas y sus hijos.

3. Meditación de cierre de ciclo (15 min)

Esta última meditación se hace a selección de los padres, son ellos quienes deciden cual de todas las prácticas que hemos realizado durante estas semanas se lleva a cabo, la selección suele basarse en la práctica que más les haya gustado o las que hayan utilizado más.