SUMARIO / SUMMARY / RESUMO

Editorial

We approach this second issue of the current year with a series of attractive research articles. The first article explores the effectiveness of psychedelic therapies in the treatment of depression. During the first year of the pandemic, an increase in depressive disorders affecting one billion people was observed. Therefore, it was verified whether the administration of psilocybin is effective for the treatment of depression, whether this drug is more effective compared to escitalopram, as well as the existence of adverse effects due to the treatment.

The second contribution investigates the self-fulfilling prophecy in couples and the role of self-esteem in aggressive and submissive coping styles. The starting hypothesis raises the correlation between submissive coping styles and low self-esteem with the self-fulfilling prophecy in interpersonal relationships. Also that aggressive coping styles and high self-esteem are related to this phenomenon. To do this, couples between 18 and 30 years old were evaluated. The results revealed a significant inverse association between male self-esteem and self-fulfilling prophecy in men with a submissive style.

The third article focuses on behavioral problems in children aged 8 to 11 years, their relationship with the emotional bond and parental skills. Behavioral problems that affect family dynamics and academic and social performance are one of the main problems in childhood. To do this, the E2P scale was used to evaluate parental skills and the ESPERI test to categorize child behavior with a sample of 150 families with children with and without behavioral problems. The results showed that high-frequency parenting skills have an impact on reducing problematic behaviors. It was found that the four dimensions of parental skills influence reducing negative behavioral reactivity.

The fourth article analyzes the perception of the variables quality of life, self-esteem, anxiety and depression in people with schizophrenia. For this, a sample of users of a psychosocial rehabilitation center was used, as well as a normative population. The results obtained indicate a significant difference in the quality of life subscales corresponding to physical health, psychological health and social relationships. A distinction is also observed in the scores for self-esteem and depression, thus confirming the fulfillment of three of the four hypotheses on which the research is based.

The fifth proposal consisted of research carried out with families of terminally ill patients. The objective of this study was to explore how systemic therapy contributes to the emotional well-being and resilience of families facing the difficult situation of having a loved one in a terminal state. Semi-structured interviews and participant observation techniques were used to collect qualitative data, which were analyzed using the thematic analysis approach. The results revealed that systemic therapy provided a safe space for families to express their emotions, relate in a healthier way and develop effective coping strategies. In addition, it was found that the therapy helped strengthen family ties and promoted open and honest communication.

The sixth paper aims to analyse Portuguese teachers' attitudes towards inclusive education, as well as the effect of demographic and professional characteristics on these attitudes. To this end, a quantitative study was proposed, with a non-experimental, descriptive and correlational design, using a demographic questionnaire and the MATIES scale (Multidimensional Scale of Attitudes towards Inclusive Education). The sample consisted of 437 primary and secondary school teachers from Portugal. The results show that teachers have a generally positive attitude towards inclusive education. No influence of gender, age or type of teacher was identified on teachers' attitudes towards inclusive education.

The penultimate paper presents research focused on the development of a group analysis device called 'The Talking Machine', designed to address the fears and anxieties experienced by teacher training students during their professional internships. This device mainly aims to improve student retention and performance by providing a safe and structured space where they can reflect on their concerns and find creative solutions. Through group activities, participants are expected to develop communication skills, strengthen their confidence and acquire competencies to face the challenges of their teacher training.

Cer

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Exploring psychedelic therapies: A systematic review of the effectiveness of psilocybin in the treatment of depression

Explorando las terapias psicodélicas: una revisión sistemática de la eficacia de la psilocibina en el tratamiento de la depresión

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	ABSTRACT
Keywords: psilocybin, depression, psychedelic treatment, efficacy, assisted therapy	**Introduction**: The main objective is to verify if the administration of psilocybin is effective for the treatment of depression. In addition, the aim is to verify whether psilocybin is more effective compared to escitalopram as well as to verify the existence of adverse effects due to the treatment. Currently, mental health faces global challenges; Proof of this is the 25% increase in depressive disorders during the first year of the pandemic, affecting one billion people. Major depressive disorder has increased by 50% in the last thirty years. Despite conventional treatments, attention is turning to innovative approaches such as psychedelic-assisted therapy, especially psilocybin, sparking global interest. **Method**: Pubmed and Sciencedirect were used as scientific data sources to carry out the review, following the PICO method. The process consisted of five phases, during which inclusion and exclusion criteria were applied, where a total of twenty-five articles were selected. **Results**: Psilocybin as assisted therapy is effective in the treatment of depression; reducing symptoms, changes in perspective and cognition as well as an improvement in mental health. **Discussion**: More research is required to determine long-term effectiveness as well as to establish treatment guidelines. Psilocybin stands out for its speed of action and safety profile, being effective for the treatment of depression. Likewise, the antidepressant escitalopram appears to show comparable efficacy to psilocybin.

	RESUMEN
Palabras clave:	**Introducción**: El objetivo principal es comprobar si la administración de psilocibina es efectiva para el tratamiento de la depresión. Además, se pretende comprobar si la psilocibina es más eficaz en comparación con el escitalopram así como comprobar la existencia de efectos adversos

Psilocibina, depresión, tratamiento psicodélico, eficacia, terapia asistida

debido al tratamiento. Actualmente, la salud mental afronta desafíos globales; muestra de ello es el aumento de un 25% en trastornos depresivos durante el primer año de la pandemia, afectando a mil millones de personas. El trastorno depresivo mayor ha aumentado un 50% en los últimos treinta años. A pesar de los tratamientos convencionales, la atención se dirige hacia enfoques innovadores como la terapia asistida por psicodélicos, especialmente la psilocibina, suscitando un interés a nivel global. **Método**: Se empleó Pubmed y Sciencedirect como fuentes de datos científicas para llevar a cabo la revisión, siguiendo el método PICO. El proceso constó de cinco fases, durante las cuales se aplicaron criterios de inclusión y exclusión, donde se seleccionaron un total de veinticinco artículos. **Resultados**: La psilocibina como terapia asistida es efectiva en el tratamiento de la depresión; reduciendo la sintomatología, cambios en la perspectiva y cognición además de una mejoría en la salud mental. **Discusión:** Se requieren más investigaciones para determinar la eficacia a largo plazo así como para establecer pautas de tratamiento. Se destaca la psilocibina por su rapidez de acción y perfil de seguridad, siendo eficaz para el tratamiento de la depresión. Asimismo, el antidepresivo escitalopram parece mostrar una eficacia comparable con la psilocibina.

Introduction

Currently, mental health challenges continue to be one of the main problems at the global level and, despite the fact that international organizations are showing greater interest, actions seem to be insufficient and inadequate, without providing a satisfactory response to the needs of the population, so it continues to be a problem that affects countries and communities around the world (World Health Organization, 2022).

During the first year of the global pandemic, cases of the most common mental disorders in society, such as depression and anxiety, increased by 25%, reflecting the fact that approximately one billion people now have a diagnosis. The data show a truly significant increase from pre-pandemic figures (World Health Organization, 2022).

Continuing in the same vein, major depressive disorder (MDD) is considered one of the most common mental health problems; figures show a 50% increase in the last thirty years, which means that more than two hundred million people suffer from such a disorder (Liu et al., 2020). Precisely, the World Health Organization states that depression is one of the leading causes of physical and mental disability in global terms and a significant factor in the global burden of disease (World Health Organization, 2021).

Depression is considered a chronic illness that influences a person's thoughts, mood and even physical health, resulting in the same sadness, difficulty falling asleep, lack of vitality and even inability to experience pleasure in life (Cui, 2015).

The Diagnostic and Statistical Manual of Mental Disorders (DSM), fifth edition, defines depression as a mood disorder characterized primarily by a constant feeling of sadness and loss of interest. The DSM-5 classifies depressive disorders into five: Disruptive mood dysregulation disorder, major depressive disorder, persistent depressive disorder (dysthymia), premenstrual dysphoric disorder, and depressive disorder due to another medical condition (American Psychiatric Association [APA], 2013).

All depressive disorders have sadness and emptiness as a common factor coupled with both somatic and cognitive changes that alter the subject's ability to function (Ormel et al., 2019).

As a result of the stigma of the mental illness disorder by society, almost 60% of people suffering from depression do not seek professional help, thus getting in the way of the person's life (Chand & Arif, 2023).

Treatment for depression has been extensively studied in the literature, primarily research has focused on therapeutic interventions, pharmacological interventions or the combination of both (Greenberg et al., 2012) and evidence indicates that, although the vast majority of antidepressants work, individual response may vary by subject (Chand & Arif, 2023).

For the treatment of depression, Cognitive Behavioral Therapy (CBT) and Interpersonal Therapy (IPT) have proven to be really effective. While the most commonly used medications for the treatment of depression are: Selective serotonin reuptake inhibitors (SSRIs), serotonin/norepinephrine reuptake inhibitors (SNRIs), atypical antidepressants, serotonin-dopamine activity modulators (SDAMs), tricyclic antidepressants (TCAs) and monoamine oxidase inhibitors (MAOIs). Also, for people who do not respond to drug therapy, electroconvulsive therapy (ECT) is used, which has been shown to be a very effective treatment (Chand & Arif, 2023).

In addition, one of the major problems in the administration of conventional antidepressants is that a minimum of four weeks is required to demonstrate a response to treatment. For this reason, current trials use different therapeutic targets such as the glutamatergic system; as a result, it has been possible to demonstrate the advantages of esketamine, such as the rapidity of patient response

9

Similarly, the trials contemplate esketamine as a therapeutic option for those patients with higher severity who have not obtained a positive response after the administration of two antidepressants and who require a third therapeutic option

The U.S. National Institute on Drug Abuse classifies psychedelic drugs into two categories: Classical hallucinogens and dissociative drugs. Both can eventually cause the person to hallucinate (National Institute on Drug Abuse, 2019).

Consequently, they are substances that produce effects primarily through an agonist (or partial agonist) action on the serotonin 5-hydroxytryptamine (5-HT) brain receptors (Nichols, 2016).

The U.S. Drug Enforcement Administration (DEA) classifies lysergic acid diethylamide (LSD), ayahuasca, psilocybin (4-phosphoryloxy-N,N-dimethyltryptamine), and MDMA (3,4-methylenedioxy-methamphetamine) as Schedule I substances, indicating a lack of information about safety or medical approval, as well as the possibility that it could be used inappropriately (Reiff et al., 2020).

Early clinical research with psychedelics employed LSD to address witnessed behavior in patients diagnosed with early childhood autism as well as in childhood schizophrenia (Simmons et al., 1972) (Simmons et al., 1966) (Hoch et al., 1952).

The 1970 U.S. government ban on scientific research on psychedelics significantly delayed medical progress on the therapeutic use of substances such as psilocybin (Lowe et al., 2021), although in recent years there has been an increase in research on the possibility of therapeutic benefit in the administration of psychedelic compounds (Reiff et al., 2020).

However, despite the cessation of all research, several clinical trials with psilocybin for the treatment of pain, anxiety and depression in patients with a diagnosis of cancer at an advanced stage of the disease were initiated in the 2000s (Lowe et al., 2021).

Such was the interest created worldwide that in 2019 John Hopkins University founded the Johns Hopkins Center for Psychedelic & Consciousness Research (Johns Hopkins Center for Psychedelic & Consciousness Research, 2019).

Psilocybin, or 4-phosphoryloxy-N,N-dimethyltryptamine, is the main psychoactive alkaloid present in certain types of mushrooms distributed throughout the world (Passie et al., 2002), in other words, psilocybin is the psychedelic compound isolated from hallucinogenic mushrooms, so the organism metabolizes it into psilocin (partial serotonin receptor antagonist) (Voineskos et al., 2020).

Recent studies began to assess the therapeutic potential of psilocybin in different psychological conditions such as end-of-life anxiety, obsessive-compulsive disorder, smoking dependence and depression (Carhart-Harris et al., 2016).

Despite advances in pharmacotherapy and psychotherapy, there is a need for more effective therapeutic options, especially for those subjects who do not respond adequately to conventional interventions. Also, in recent years, pilot studies and clinical trials have been developed that may suggest that psilocybin could have significant implications for the treatment of depression. It is for this reason that the aim of the present study is to test whether the administration of psilocybin is effective for the treatment of depression. In addition, we intend to test whether psilocybin is more effective compared to escitalopram as well as to test for adverse effects due to the treatment.

Method

For the collection of information, the PICO method was used to gather those articles that investigated the efficacy of psilocybin in depression.

The search engines used in this systematic review were Pubmed and Sciencedirect, using the English terms "*psilocybin*", "*depression*" with the Boolean operator "*AND*".

In addition, the inclusion criteria for both databases were: Clinical studies, clinical trials, controlled clinical trials, and randomized controlled trials.

On the other hand, in order to carry out a proper screening, a reading of titles and abstracts of each article was performed, thus excluding studies that: They did not evaluate the efficacy of psilocybin in depression, were far from the main objective and single case studies. In addition, duplicate articles were also eliminated.

In the first phase, the key words in English were chosen for the search of the articles of the present systematic review ("*psilocybin*" and "*depression*").

The second phase consists of applying a search criterion to the information collected using the above-mentioned keywords in the two databases. The search yielded 529 results in Pubmed and 1,887 in Sciencedirect, for a total of 2,416 articles.

The third phase focuses on the application of the inclusion criteria, where 41 articles were obtained in Pubmed and 518 in Sciencedirect, that is, a total of 559 articles.

In the fourth phase, articles were excluded by reading the *abstract*, results and discussion. Therefore, articles that were far from the main objective of the present systematic review, as well as case studies, were discarded. After applying the aforementioned criteria and a complete reading of all the articles, 25 were selected from Pubmed and 9 from ScienceDirect, for a total of 34 articles.

In the fifth phase, articles appearing in both databases were eliminated. There were 9 duplicate articles, so the sample was reduced to 25.

Consequently, after the search conducted on November 21, 2023, 25 articles were selected for this systematic review. Figure 1 visually presents the graphic scheme of the process.

Figure 1

Article selection search process.
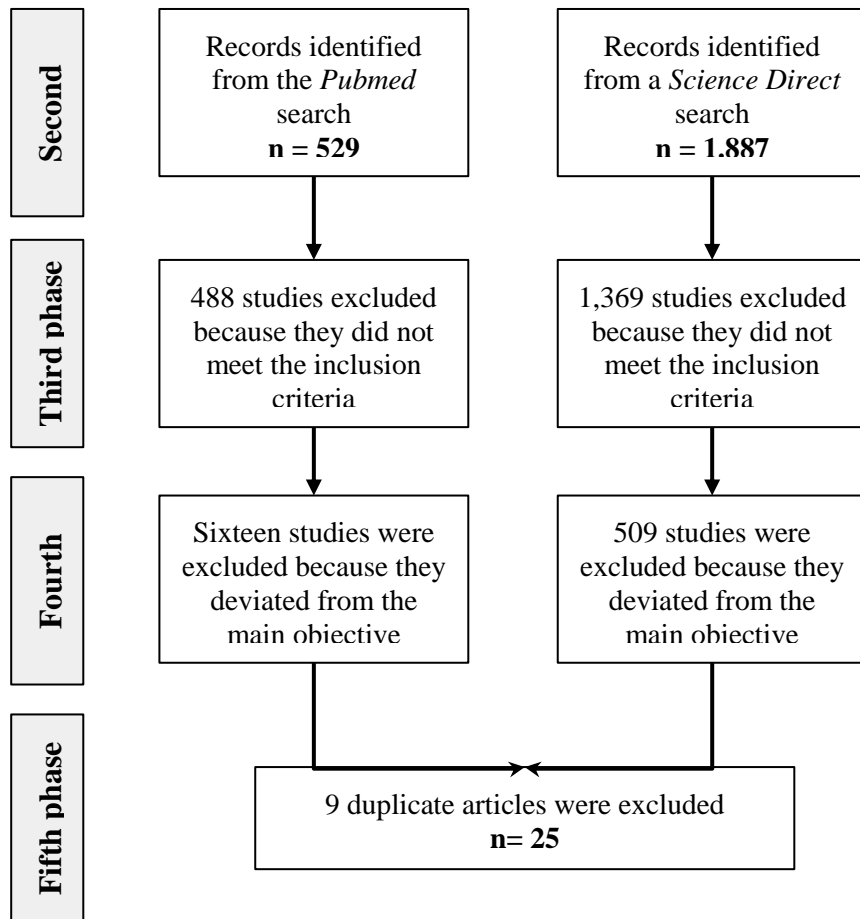
Results

In relation to the results obtained in the present review, a total of 25 scientific articles were analyzed through which the efficacy of psilocybin as an assisted therapy for depressive disorder was investigated.

These 25 selected articles can be seen in the following table, as well as a summary of the details and main findings of these studies

Table 1

Main results found in each article.

Authors	Sample	Type of assay and procedure	Instrument	Disorder	Results
Agin-Liebes et al. 2020	(*n=15*) 60% Women (*n=9*) 40% Men (*n=6*) Average age 53	Randomized controlled trial 1 dose	BDI	Mild depression (cancer)	Psilocybin + Therapy showed long-term improvement in cancer patients, addressing psychiatric and existential distress Ef. Beneficial: Sustainability of existential psychiatric improvements Ef. Secondary: No information provided
Anderson et al., 2020	(*n=18*) 100% Men (*n=18*) Average age 59.2	Single-group open rehearsal 1 dose (0.3 - 0.36 mg) [oral] + Group therapy 7 weeks	CESD	Moderate depression (HIV/cancer)	Psilocybin in group therapy was safe and feasible. Safety and viability in the population of interest Ef. Secondary: 0 serious adverse reactions, 2 unexpected and 7 expected, serious and self-limited.
Becker et al., 2022	(*n=23*) 48% Women (*n=11*) 52% Men (*n=12*) Average age 34	Double-blind, placebo-controlled, crossover trial Psilocybin after treatment with escitalopram or placebo 1 dose (25 mg) [oral] + Psychological support 7 weeks	5D-ASC	Healthy volunteers	Acute effects of psilocybin persisted after pretreatment with escitalopram or placebo. Confirmation of acute effects of psilocybin. Ef. Secondary: No information provided Comparison: Psilocybin vs. Escitalopram
Carhart-Harris et al., 2016	(*n=12*) 50% Women (*n=6*) 50% Men (*n=6*) Average age 34	Open feasibility trial 2 doses (10 - 25 mg) [oral] + Psychological support 7 weeks	QIDS	Moderate to severe unipolar major depression resistant to treatment.	Psilocybin + Psychological support effective in treatment-resistant depression. Significant improvements in depressive symptoms. Ef. Secondary: Adverse reactions (transient anxiety 100%), transient confusion (9 patients), transient mild nausea (4 patients) and transient headache (4 patients).

Carhart-Harris et al., 2017	(*n=31*) 26% Women (*n=8*) 74% Men (*n=23*) Average age 42.8	Clinical trial MRI scan before and after treatment with psilocybin and escitalopram 2 doses (10 - 25 mg) [oral] + Psychological support 7 weeks	QIDS-SR-16	Treatment-resistant depression	Psilocybin compared favorably with escitalopram for the treatment of depression. Effectiveness similar to escitalopram, with a shorter duration of treatment. Secondary Effects: No information is provided. Comparison: Psilocybin vs. Escitalopram
Carhart-Harris et al., 2018	(*n=20*) 30% Women (*n=6*) 70% Men (*n=14*) Average age 44	Clinical trial 2 doses (10 - 25 mg) [oral] + Psychological support 7 weeks	QIDS-SR-16 BDI	Treatment-resistant depression	Psilocybin + Psychological support effective in treatment-resistant depression. Significant improvements in depressive symptoms. Ef. Secondary: No serious adverse effects
Carhart-Harris et al., 2021	(*n=59*) 33.9% Women (*n=20*) 66.1% Men (*n=39*) Average age 39.1	Phase II double-blind, randomized, controlled trial ● Psilocybin (*n=30*) ● Escitalopram (*n=29*) 2 doses (25 - 1 mg) [oral] + Psychological support 9 weeks	BDI HAM-D MADRS QIDS-SR-16	Major depressive disorder	Psilocybin compared favorably with escitalopram for the treatment of depression. Effectiveness similar to escitalopram, with a shorter duration of treatment. Secondary Effects: No information is provided. Comparison: Psilocybin vs. Escitalopram
Carrillo et al., 2018	(*n=35*) 34% Women (*n=12*) 66% Men (*n=23*) Average age 40.5	Open label design Psilocybin (Dosage 10mg; Dosage 25mg) ● GExperimental(*n=17*) ● GControl (*n=18*) 2 doses (10 and 25 mg) [oral] + Psychological support	QIDS-16	Treatment-resistant depression	Natural language processing algorithm predicted positive response to psilocybin in treatment-resistant depression. Ef. Beneficial: Innovative use of algorithm to predict positive responses. Ef. Secondary: No information is provided.
Davis et al., 2021	(*n=24*) 67% Women (*n=16*) 33% Men (*n=8*) Average age 39.8	Randomized clinical trial Psilocybin: ● Immediate treatment group	GRID-HAMD QIDS-SR	Major depressive disorder	Trial on the effects of psilocybin-assisted therapy in MDD. Significant improvement of depressive symptoms. Ef. Secondary: No

		(*n=13*) ● Control group (*n=11*) 2 doses (20 - 30 mg) [oral] + Psychological support 8 weeks			information is provided.
Goodwin et al., 2022	(*n=233*) 52% Women (*n=121*) 48% Men (*n=112*) Average age 39.8	Phase II double-blind trial Psilocybin: ● G1 (*n=79*) ● G2 (*n=75*) ● G3 (*n=79*) 1 dose (25 - 10 - 1 mg) [oral] + Psychological support 3 weeks	MADRS	Treatment-resistant depression	Depression scores were significantly reduced Ef. Secondary: Adverse events in 76.8% and serious adverse events in 3.4%
Goodwin et al., 2023	(*n=19*) 68% Women (*n=13*) 32% Men (*n=6*) Average age 42.2	Phase II fixed-dose exploratory study Psilocybin in synthetic form (COMP360) + SSRIs 1 dose (25 - 10 - 1 mg) [oral] + Psychological support 3 weeks	HAM-D-17 MADRS	Treatment-resistant major depressive disorder	Significant impact on severity of depression, anxiety, function and quality of life. Ef. Secondary: No information is provided.
Griffiths et al., 2016	(*n=51*) 49% Women (*n=25*) 51% Men (*n=26*) Average age 56.3	Randomized, double-blind, crossover trial 1 dose (1-3 mg/70kg) - (22-30 mg/70kg) [oral] 5 weeks	GRID-HAM-D-17 HAM-A	Cancer patients coping with anxiety disorders and depression	Substantial and sustained reductions in anxiety and depression. Ef. Secondary: No adverse events occurred.
Gukasyan et al., 2022	(*n=24*) 67% Women (*n=16*) 33% Men (*n=8*) Average age 39.8	Randomized controlled trial ● Psilocybin (immediate treatment) (*n=13*) ● Psilocybin (deferred treatment)	GRID-HAM-D-17	Major depressive disorder	Confirmation of long-term efficacy and safety. Ef. Secondary: There were no serious adverse events.

15

	(*n=11*)				
	2 doses (20 mg/70 kg) (30 mg/70kg) + Psychological support				
	8 weeks				
Kraehenmann et al., 2014	(*n=25*) 36% Women (*n=9*) 64% Men (*n=16*) Average age 24.2	Randomized, double-blind, placebo-controlled, crossover design ● Psilocybin ● Placebo 1 dose (0.16 mg/kg)	PANAS STAI	Healthy volunteers	Decreased amygdala reactivity correlated with improvements in positive mood. Ef. Beneficial: Correlation + between decreased amygdala reactivity and improvements in mood. Ef. Secondary: No information is provided.
Lewis et al., 2023	(*n=12*) 67% Women (*n=8*) 33% Men (*n=4*) Average age 48.2	Open pilot study Psilocybin-assisted group therapy 1 group session (25 mg) 2 weeks	HAM-D	Depression in cancer patients	Indications of efficacy in the improvement of psychological symptoms in oncology patients. Ef. Secondary: No serious adverse events occurred.
Lyons and Carhart-Harris, 2018	(*n=30*) 33.3% Women (*n=10*) 66.7% Men (*n=20*) Average age 41.5	Controlled and open trial ● Control group (*n=15*) ● Experimental group (*n=15*) 2 doses (10 - 25 mg) + Psychological support 7 weeks	BDI POFLE	Major depressive disorder	Psilocybin improves realistic prediction of future events in treatment-resistant depression. Ef. Beneficial: Improved accuracy in predicting future events. Ef. Secondary: No information is provided.
Marschall et al., 2022	(*n=96*) 52% Women (*n=50*) 48% Men (*n=46*) Average age 35.2	Intrasubject, double-blind, placebo-controlled crossover trial Microdoses of psilocybin: ● S1 and S3 (*n=52*) ● S2 and S4 (*n=44*)	DASS-21 MAIA	Depression, Anxiety and Stress	Microdosing of psilocybin does not affect symptoms and emotional processing. Lack of significant effects on symptoms and emotional processing. Ef. Secondary: No information is provided.
Mertens et al., 2020	(*n=19*)	Open studio	QIDS-	Major depression	Changes in brain functional

16

	31.5% Women (*n=6*) 68.5% Men (*n=13*) Average age 44.7	Amygdala response 1 day after overt psilocybin treatment 1 dose (25 mg)	SR16 fMRI design	resistant to treatment	connectivity after psilocybin in treatment-resistant depression. Ef. Beneficial: Alterations in brain connectivity related to emotional processing. Ef. Secondary: No information is provided.
Murphy et al., 2022	33.9% Women (*n=20*) 66.1% Men (*n=39*) Average age 39.1	Randomized double-blind clinical trial 2 doses (25 mg) [oral] + Psychological support 6 weeks	BDI HAM-D MADRS QIDS-SR-16	Major depressive disorder	Therapeutic alliance and rapport modulate responses to psilocybin-assisted therapy. Ef. Beneficial: Importance of the quality of the therapeutic relationship on outcomes. Ef. Secondary: No information is provided.
Roseman et al., 2018	(*n=19*) 31.5% Women (*n=6*) 68.5% Men (*n=13*) Average age 44.7	Clinical trial Psilocybin screening with RMF 2 doses (10 - 25 mg) [oral] + Psychological support 3 weeks	BDI QIDS	Moderate to severe treatment-resistant depression	Increased amygdala responses to emotional faces after psilocybin for resistant depression. Ef. Beneficial: Changes in amygdala response to emotional processing. Ef. Secondary: No information is provided.
Ross et al., 2016	(*n=29*) 62% Women (*n=18*) 38% Men (*n=11*) Average age 56.28	Randomized, blinded, controlled, crossover trial ● Psilocybin (*n=14*) ● Niacin + Psychother apy (*n=15*) 1 dose (0,3 mg) [oral] + Psychological support 7 weeks	HADS BDI STAI	Clinically significant depression and anxiety in patients with life-threatening cancer	Rapid and sustained symptom reduction after psilocybin in cancer-related anxiety and depression. Ef. Beneficial: Rapid and sustained therapeutic effects. Ef. Secondary: There were no serious adverse events.
Stroud et al., 2017	(*n=16*) 31% Women (*n=5*) 69% Men (*n=11*) Average age 32	Controlled trial Emotional recognition ● Psilocybin ● Control 2 doses (10 mg - 25 mg) [oral]	QIDS-16	Treatment-resistant depression	Psilocybin improves emotional facial recognition in treatment-resistant depression. Ef. Secondary: No information is provided.

17

		+ Psychological support 6 weeks			
von Rotz et al., 2023	(*n=52*) 63.5% Women (*n=33*) 36.5% Men (*n=19*) Average age 36.7	Randomized, double-blind, placebo-controlled trial ● Psilocybin (*n=26*) ● Placebo (*n=26*) 1 dose (0.215 mg/kg) [oral] + Psychological support 2 weeks	MADRS BDI	Major depressive disorder	Confirmation of the efficacy and safety of psilocybin compared to placebo. Ef. Secondary: There were no serious adverse events.
Wall et al., 2023	(*n=19*) 32% Women (*n=6*) 68% Men (*n=13*) Average age 41.3	Open design without control group or placebo Psilocybin ● Low dose (10mg) ● High dose (25mg) + Music	QIDS-SR	Treatment-resistant depression	Increased low-frequency brain responses to music after psilocybin therapy for depression. Changes in brain responses to music after psilocybin. Ef. Secondary: No information is provided.
Zeifman et al., 2023	(*n=59*) 34% Women (*n=20*) 66% Men (*n=39*) Average age 41.2	Double-blind randomized controlled trial ● Psilocybin ● Escitalopram 2 doses (25 mg) [oral] + Psychological support 6 weeks	MADRS QIDS-SR-16	Major depressive disorder	Exploration of experiential avoidance as a possible mechanism of change in psilocybin therapy. Focus on the role of experiential avoidance in therapeutic outcomes. Ef. Secondary: No information is provided. Comparison: Psilocybin vs Escitalopram

Note. GRID-HAM-D-17: GRID-Hamilton Depression Rating Scale; HAM-A: Hamilton Anxiety Rating Scale; MADRS: Montgomery-Åsberg Depression Rating Scale; HADS: Hospital Anxiety and Depression Scale; BDI; Beck Depression Inventory; STAI: Spielberger State-Trait Anxiety Inventory; QIDS-SR-16: Quick Inventory of Depressive Symptomatology-Self-Report; DASS-21: Depression Anxiety and Stress Scale; MAIA: Multidimensional Assessment of Interoceptive Awareness Questionnaire; QIDS-SR: Quick Inventory of Depressive Symptoms; PANAS: Positive and Negative Affect Schedule; STAI: State-Trait Anxiety Inventory; MEQ30: Mystical Experience Questionnaire; CEQ: Challenging Experience Questionnaire; POFLE: Prediction Of Future Life Events task; CESD: Center for Epidemiological Studies Depression Scale-Revised; 5D-ASC: 5 Dimensions of Altered States of Consciousness Scale; fMRI: Functional Magnetic Resonance Imaging.

Participants

Of the 25 articles selected, the sociodemographic characteristics were analyzed.

A total sample of 1,095 participants was obtained, of which 44.6% were women (n=488) and the remaining 55.4% were men (n=607). In turn, the mean age of the total set of studies reviewed was 41.7 years.

In general terms, it is possible to observe a variability in the percentage of gender in the different articles. However, in one of the articles (Anderson et al., 2020), the gender distribution is skewed towards a specific group, given that the total sample is male.

The mean age varies significantly in the different articles, ranging from 24 years to 59.2 years, so that, overall, there appears to be a diversity of ages in the studies.

In terms of sample size, significant differences were observed, ranging from 12 subjects to 233. On the other hand, research with a considerably larger sample size shows a more even gender distribution or even a larger sample of women.

Instruments

The present systematic review shows that the most commonly used instruments to assess the variable of Major Depressive Disorder (MDD) have been: The BDI, the QIDS, the HAM-D and the MADRS.

The *Beck Depression Inventory* (BDI) is a self-report that provides an objective measure to assess the severity of depressive symptomatology in adults and adolescents with a minimum age of thirteen years. The instrument is made up of twenty-one items, with a Likert-type format, with four alternatives each, where the evaluated subject has to mark those with which he/she feels more identified, taking into account the last two weeks. The items indicate symptomatology such as sadness, crying, loss of pleasure, feelings of failure and guilt and thoughts or desires of suicide among others (Sanz et al., 2005).

The estimated time for the application of the test is around ten minutes, showing a good reliability, with a Cronbach's α of .89 and the estimated time for the application of the test is around 10 minutes. As for the correction method, each item is evaluated from 0 to 3 points, adding the score of all the items, the total score ranges from 0 to 63. In cases in which the subject can mark two alternatives in the same item, the more severe one will be selected (Sanz et al., 2005).

Several studies support the reliability and validity of this inventory in subjects suffering from psychological or ambulatory disorders (Sanz et al., 2005). The original citation of the self-report is (Beck et al., 1996), while the Spanish validated version is (Sanz and Vázquez, 2011).

The *Quick Inventory of Depressive Symptomatology* (QIDS-SR16) is a structured self- and hetero-applied measure that assesses the severity of depression in adults, including all symptoms of the DSM-IV criteria for Major Depressive Disorder (Gili et al., 2014).

The estimated time for the application of the QIDS-SR is around seven minutes, including sixteen items in which the person evaluated has to select the statement that best describes how he/she has felt the last seven days (with a score ranging from 0 to 3 according to severity) (Gili et al., 2014).

Likewise, the QIDS-SR16 questionnaire shows good reliability and high internal consistency (α .871) (CIBERSAM, n.d.). Several versions of the QIDS, QIDS-16 and QIDS-SR instruments can be found in the articles selected for this systematic review.

Items include: Sleep disturbances, sad mood, changes in appetite and weight, concentration and/or decision making, opinion of self, suicidal ideation, interest, energy level and restlessness, where the total score of the instrument ranges from 0 to 27. The QIDS-SR shows good test-retest reliability and a Cronbach's α of .871 (Gili et al., 2014). The original citation of the QIDS-SR is (Rush et al., 2003), while the Spanish version is (Gili et al., 2014).

The *Hamilton Depression Rating Scale* (HAM-D) is a heteroapplied and structured scale that assesses the intensity and severity of depressive symptomatology in adults. The

19

instrument has seventeen items with an administration time ranging from twenty to thirty minutes (CIBERSAM, n.d.).

The instrument evaluates the intensity or severity of depression, where each item is measured with a scale of three (absent, doubtful or trivial and present) or five options (absent, doubtful or trivial, mild, moderate and severe) according to the intensity of the symptomatology of the person evaluated (CIBERSAM, n.d.).

The content of the questionnaire focuses mainly on the somatic and behavioral presence of depression, identifying different indices: Index of melancholy, anxiety and sleep disturbances. Each item is evaluated from zero to two points or from zero to four points depending on the item. The total score of the scale is obtained with the sum of the scores assigned to each item, offering a score range from 0 to 52 points (CIBERSAM, n.d.).

Finally, regarding the psychometric properties of the instrument, the two versions it has, it has a good internal consistency (Cronbach's α between .76 and .92) as well as showing good psychometric indices in terms of validity (CIBERSAM, n.d.). The original citation of the HAM-D is (Hamilton, 1960), while the Spanish version is (Ramos-Brieva and Cordero, 1986).

In the present review, the articles found have different versions of the HAM-D questionnaire, such as the GRID-HAM, the HAM-D-17 and the HAM-A.

The *Montgomery-Asberg Depression Rating Scale* (MADRS) is a heteroadministered interview scale designed to measure the intensity of depressive symptomatology in adult subjects in addition to the effects of antidepressant treatment. The estimated time for the application of the questionnaire is short, since it consists of ten items related to the ten depressive symptoms, where each item consists of seven levels of intensity and severity, scored from zero to six (Lobo et al., 2002).

Each item is evaluated by means of a Likert-type subscale with seven degrees of severity, being 0 the absence of symptom and 6 the maximum level of severity. The total score ranges from 0 to 60. The questionnaire shows good psychometric properties, with a Cronbach's α of .88, as well as discriminant, convergent, test-retest and inter-observer reliability and sensitivity to change (Lobo et al., 2002). The original MADRS citation is (Montgomery & Asberg, 1979), while the Spanish version is (Lobo et al., 2002).

The rest of the instruments used throughout the twenty-five articles in this study are as follows: The Center for Epidemiological Studies Depression Scale (CES-D), *Positive and Negative Affect Schedule* (PANAS), State-Trait Anxiety Questionnaire (STAI), *Prediction Of Future Life Events* (POFLE), *Depression Anxiety Stress Scale* (DASS-21) and *Multidimensional Assessment of Interoceptive Awareness Questionnaire* (MAIA).

Procedure

Psychedelic-assisted therapy is a relatively new therapeutic model, so it does not have an established general procedure. No information is available in the literature on how to implement it, either in an individual or group format, nor on the number of sessions or their duration. Therefore, based on the articles reviewed in the present investigation, the various procedures used in the twenty-five clinical trials will be examined.

The doses of psilocybin used in the studies varied significantly among the clinical trials reviewed, indicating a range from 0.16 mg/kg (Kraehenmann et al., 2015) to 30 mg/70 kg (Griffiths et al., 2016).

Likewise, common doses of psilocybin are usually 25 mg and 10 mg, with some trial exploring wider ranges such as 20 mg and 30 mg (Davis et al., 2021) (Gukasyan et al., 2022).

It is noteworthy that there are only four studies that administer psilocybin doses taking into account the body weight of the subjects; two of them taking 70 kg as a reference (Gukasyan et al., 2022) (Griffiths et al., 2016), while the other two administered a psilocybin dose of 0.215 mg/kg (von Rotz et al.,. 2022) and 0.16 mg/kg (Kraehenmann et al., 2015).

20

Likewise, the study by Lewis et al., 2023 stood out for applying a single strategy by administering group doses of psilocybin, while the rest of the articles applied psilocybin-assisted therapy in an individual format.

Oral administration appears as the predominant method in the clinical trials analyzed. It was also observed that, in general terms, the frequency of dosing was fairly uniform, and although single oral doses were common in most studies, some chose to administer multiple doses throughout the treatment.

On the other hand, most studies incorporate psychological support as an integrated component of the interventions and, generally conducted in an individual format, the Anderson et al., 2020 trial was notable for specifying that the therapy administered in conjunction with psilocybin dosing was group-based.

The duration of treatment in the application of psilocybin-assisted therapy varied significantly among all studies; ranging from two to nine weeks. However, although the average duration settles around six weeks, studies such as Goodwin et al., 2023 and Goodwin et al., 2022 in which treatment lasted three weeks could be observed. Likewise, the studies by Lewis et al., 2023 and von Rotz et al., 2022 where the treatment lasted two weeks were also noteworthy.

Overall, the analysis of the psilocybin-assisted therapy procedure indicates a diversity in the implementation of interventions for the treatment of depression. Variability in dosing or the use of different doses among other data in the studies highlight the difficulty of the field.

Results

Efficacy of Psilocybin

After reviewing all twenty-five articles, it can be seen that psilocybin, as an assisted therapy, is effective for the treatment of depression.

In general terms, a reduction in depressive symptomatology has been observed, as well as a change in perspective, cognition and the way in which subjects process their emotions.

The results consistently indicate that psilocybin, as an assisted therapy, in combination with psychological support has efficacy for the treatment of depression, especially in situations of patients resistant to conventional treatment.

In several of the studies such as those by Carhart-Harris et al., 2016 and Goodwin et al., 2022 and 2023, it is shown that psilocybin when administered with psychological support may be more effective in the treatment of treatment-resistant depression in single doses. In addition, Carhart-Harris et al., 2018, provides evidence of long-term benefits; likewise, Davis et al., 2021 also demonstrated the effectiveness of psilocybin-assisted therapy for the treatment of major depressive disorder by 71%.

Following the same line, psilocybin microdosing does not noticeably affect both symptomatology and emotional processing, which poses a rather favorable safety profile (Marschall et al., 2022).

On the other hand, the use of innovative tools such as natural language processing algorithms shows really positive predictions in the face of psilocybin response, where it has been proven that the machine learning algorithm manages to predict with an accuracy of over 85% which patients with treatment-resistant depression would respond effectively to treatment (Carrillo et al., 2018).

Similarly, in studies such as Stroud et al., 2018, psilocybin with psychological support was observed to improve emotional face recognition in patients with a diagnosis of treatment-resistant depression.

Some of the articles such as Kraehenmann et al., 2014 and Mertens et al., 2020 have concluded, through neurological scans, how decreased amygdala reactivity and changes in brain connectivity correlate significantly in positive mood.

Furthermore, Lyons and Carhart-Harris, 2018 and Roseman et al., 2018 showed that psilocybin exhibits changes in amygdala response as well as a much more realistic prediction of future situations in treatment-resistant depression.

Trials on the use of psilocybin for the treatment of depression show very promising results in terms of response rates and efficacy. In statistical terms, throughout the trials, significant rates of improvement in depressive symptomatology can be observed, exceeding 50% efficacy.

Trials such as Ross et al., 2016 and Gukasyan et al., 2022 show consistent results with 83% and 75% effectiveness respectively, thus supporting the ability of psilocybin to generate significant responses.

Also noteworthy are studies such as that of Agin-Liebes et al., 2020, which shows remarkable results such as a 70% response rate at four and a half years.

Of note, some of the studies look at psilocybin-assisted therapy in depressed patients coping with cancer. In studies such as Agin-Liebes et al., 2020, Anderson et al., 2020, Lewis et al., 2023, Ross et al., 2016, it can be seen that psilocybin combined with psychotherapy is effective in patients with a diagnosis of cancer, presenting depressive symptomatology, addressing psychiatric and experiential distress, as well as perceived improvements in attitudes about life, mood, relationships and spirituality to experience among others.

Also noteworthy is the study by Wall et al., 2023, which highlights an increase in low-frequency brain responses to music after psilocybin-assisted therapy, suggesting a possible positive effect on the musical experience.

In turn, Zeifman et al., 2023 examine experiential avoidance as a potential transformative mechanism in psilocybin therapy, offering insight into the efficacy of the therapeutic approach.

Also, several of the subjects reported spiritual or mystical experiences during the sessions, which were related to improvements in mental health.

Similarly, the study by Murphy et al., 2022 demonstrates that the quality of the therapeutic relationship as well as *rapport* are key factors for treatment effectiveness.

Comparison with Escitalopram

Comparative studies with escitalopram (12% of studies), a commonly used antidepressant, such as Carhart-Harris et al., 2017 and Carhart-Harris et al., 2021, suggest that psilocybin appears to show similar effectiveness, albeit with a shorter treatment duration. Escitalopram prior to psilocybin reduced negative affect and anxiety but did not affect positive affect.

The study by Carhart-Harris et al., 2021 showed that psilocybin has a higher response rate (70%) than the escitalopram group (48%).

In statistical terms, throughout the trials, significant rates of improvement in depressive symptomatology can be observed, as in the study by Carhart-Harris et al., 2021, which highlights an improvement in the psilocybin group, where a 70% response rate is obtained, surpassing the escitalopram group, which obtained 46%.

It is worth mentioning the study by Becker et al., 2022, which highlights the importance of the acute effects of psilocybin after pretreatment with escitalopram or placebo in healthy subjects as well as the relevance of investigating about the combination of psilocybin with other psychiatric treatments.

Adverse Effects

Although the information provided is quite limited in several of the studies, in general terms, psilocybin appears to be of acceptable safety.

It could be observed that, at four and a half years, 70% of the patients in the study met the criteria for antidepressant responses (Agin-Liebes et al., 2020) as well as demonstrated the feasibility, relative safety and potential efficacy of psilocybin-assisted group therapy for demoralization (Anderson et al., 2020).

Studies such as Gukasyan et al., 2022 and von Rotz et al., 2022 provide 12-month follow-up that corroborate the long-term efficacy and safety of psilocybin administration for the treatment of depression.

However, although mild and transient adverse events occurred, such as anxiety, confusion, nausea or headache; no serious adverse events were noted in most studies, supporting the concept that psilocybin is safe if administered in an appropriate manner.

Furthermore, as striking data, the safety and feasibility of psilocybin in different populations, including HIV patients (4% of the studies) and healthy volunteers (8% of the studies), has also been highlighted. In addition, the speed and sustainability of the therapeutic effects, especially in oncology patients, should be highlighted.

Studies such as Lewis et al., 2023 additional benefits can be observed in psilocybin-enhanced group therapy in cancer patients compared to conventional therapy.

Discussion and Conclusions

Efficacy of Psilocybin

After analyzing the results obtained, it is evident that psilocybin as an assisted therapy is effective for the treatment of depressive symptomatology.

Nevertheless, it can be observed that psychological support could be decisive in the treatment with psilocybin, since the experience with psychedelics could be intense and a professional accompaniment in the process is beneficial for the subject. Likewise, psychological support can help in the process of integrating the experiences into daily life, thus increasing the long-term benefits.

On the other hand, analysis of studies suggests that the combination of psilocybin as an assisted therapy accompanied by psychological support is effective in treating depression. However, not enough specific information is provided about the comparison of the efficacy of psilocybin with and without psychological support.

Likewise, and although according to the analysis made of the different scientific studies that analyze the efficacy of psilocybin for the treatment of depression show positive results, where there seems to be an improvement in patients, a fairly recent study by Marshall et al., 2022, investigated whether microdoses of psilocybin could alter interoceptive awareness, as well as the reduction of anxious and depressive symptomatology. The results revealed that microdosing did not affect emotion processing or symptoms of anxiety and depression compared to placebo, results that cast doubt on the main hypothesis of the present study.

Therefore, the results of the review suggest significant clinical implications, where psilocybin could be considered as an adjunct or alternative for the treatment of depressive disorder. However, further research is required to determine its long-term efficacy and to establish treatment guidelines.

Comparison with Escitalopram

The analysis of the studies included in the present systematic review provides promising evidence about the efficacy of psilocybin for the treatment of depression, where an improvement of depressive symptomatology can be observed in patients treated with psilocybin, compared to escitalopram.

Likewise, the duration of the therapeutic effects of psilocybin is longer, so it could be used to reduce the frequency of doses as well as to improve adherence to treatment.

The study by Becker et al., 2022 provides an interesting perspective regarding the comparison of psilocybin and escitalopram, suggesting the use of psilocybin as an alternative to conventional antidepressants.

Thus, the study by Carhart-Harris et al., 2021 reinforces the idea put forward by the previous author, highlighting the need for research with the aim of interpreting more precisely the differences in the efficacy of both interventions.

The results of the clinical trials indicate that psilocybin may be equally or more effective than escitalopram for the reduction of depressive symptomatology, since response and remission rates could be observed between the psilocybin and escitalopram groups; therefore, psilocybin could be a therapeutic option for those patients suffering from treatment-resistant depression.

Adverse Effects

Regarding the adverse effects of psilocybin administration, while participants have been able to experience marked improvement in terms of depressive symptomatology, anxiety and quality of life (Goodwin et al., 2022), others may face more intense adverse effects.

Results such as Gukasyan et al., 2022 show a 12-month perspective, highlighting the need to take into account the duration and frequency of exposure to reduce potential risks.

Several of the studies have critical long-term safety issues, and while psilocybin has demonstrated therapeutic efficacy, the potential risks of its continued use need to be known.

Also, the inherent subjectivity of the adverse effects of psychedelics such as psilocybin suggests uncertainties as to how they are assessed and interpreted. This is why it is essential to take into account the cost of evaluating negative aspects as well as to consider subjective experiences that may vary according to the individual context, the environment as well as expectations.

Limitations

One of the main limitations found in the present review was the absence of detailed information about the psychological therapy applied. Although most studies include psychological support as part of psilocybin-assisted treatment, the absence of specific details about the nature or manner of employing the therapy has affected the full understanding of the intervention.

In addition, it is important to note that a minority proportion of the clinical trials focused on oncology patients and healthy volunteers, which limits the generalizability of the results to a wider range of patients with depression as well as potentially introducing bias and limiting the practical applicability of the findings in the therapeutic context of depression.

Likewise, the limitations related to smaller studies should be taken into account in order to evaluate the conclusions in relation to the number of subjects included in each study, as well as to highlight the importance of collecting the results for future research in the generalization of results.

However, it should be noted that the exploration of psilocybin-assisted therapy is relatively recent, so more research is needed to comprehensively understand the mechanisms and to enhance its clinical application.

Future research

Recent research on psilocybin as a therapeutic option for the treatment of depression has generated a promising outlook in psychology. However, questions and future areas for research have also emerged.

Mainly, the development of controlled clinical trials with long-term follow-up would be one of the first needs to be contemplated in order to be able to evaluate in a much deeper way the effectiveness and safety of psilocybin and provide long-term results. In addition, research focused on understanding the underlying neurobiological and psychological mechanisms of action of the consequences of psilocybin is critical to further understanding the impact of the substance on depression.

Likewise, we believe that future research should implement trials that develop direct comparisons between psilocybin treatment and conventional treatments for depression, providing a more accurate picture of its efficacy.

Finally, research into both the economic feasibility and accessibility of psilocybin therapy compared to conventional therapies is imperative to evaluate its implementation.

Conclusions

Regarding the main objective of the present study, the compilation of the results of scientific articles, support psilocybin as a therapeutic option for the treatment of depression, highlighting especially its efficacy, rapidity of action and safety profile, in addition to emphasizing the great importance surrounding contextual factors as well as the exploration of neurobiological mechanisms.

Regarding the second objective of the present study, research contrasting psilocybin with the antidepressant escitalopram indicates that both show comparable efficacy, although psilocybin stands out for its shorter treatment duration. In addition, modifications in the response of the amygdala are observed, as well as an improved ability to anticipate future situations in patients with treatment-resistant depression.

Regarding the third objective of the present study, in general terms, psilocybin seems to have an acceptable safety, being thus supported by studies providing long-term follow-up. Although mild and transient adverse events such as anxiety, confusion, nausea or headache were reported, no serious adverse events were reported in most studies. Proper administration appears to be the key to ensuring safety.

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26

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28

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Exploring the Self-Fulfilling Prophecy in couples: role of self-esteem in aggressive and submissive coping styles

Exploración de la Profecía Autocumplida en la pareja: papel de la autoestima en estilos de afrontamientos agresivos y sumisos

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	ABSTRACT
	Introduction: Self-fulfilling prophecy involves an erroneous contextualization that can influence behavior and confirm original beliefs. This prophecy can be positive (Pygmalion) or negative (Golem) and occurs in significant relationships. It is postulated that low self-esteem may contribute to this phenomenon, and that different coping styles, such as submission, aggression, assertiveness, and passive aggression, according to the two-dimensional model of assertiveness, may be related to self-fulfilling prophecy. The hypothesis posits the correlation between submissive coping styles and low self-esteem with the self-fulfilling prophecy in interpersonal relationships. Also that aggressive coping styles and high self-esteem are related to this phenomenon. **Method**: The sample consisted of 15 heterosexual couples between 18 and 30 years old, with at least one year of relationship and were administered the ASPA, the Rosenberg Self-Esteem scale and an Ad Hoc. questionnaire. **Results**: The results revealed a significant inverse association between male self-esteem and self-fulfilling prophecy in men with a submissive style, explaining 38% of the variance of the dependent variable. **Discussion**: This supports the hypothesis that low self-esteem along with a submissive style are related to self-fulfilling prophecy. It is important to keep in mind the limitations of this study, such as the small sample size and the possibility of desirability bias.
	RESUMEN
	Introducción: La profecía autocumplida supone una contextualización errónea que puede influir en el comportamiento y confirmar las creencias originales. Esta profecía puede ser positiva (Pigmalión) o negativa (Golem) y ocurre en relaciones significativas. Se postula que la baja autoestima puede contribuir a este fenómeno, y que los diferentes estilos de afrontamiento, tales como la sumisión, la agresión, la asertividad y la agresión pasiva, según el modelo bidimensional de la asertividad, pueden estar relacionados con la profecía autocumplida. La hipótesis plantea la correlación entre los estilos de afrontamiento sumisos y una baja

autoestima con la profecía autocumplida en relaciones interpersonales. También que los estilos de afrontamiento agresivos y una alta autoestima están relacionados con este fenómeno. **Metodología**: La muestra consistió en 15 parejas heterosexuales de entre 18 y 30 años, con al menos un año de relación y se les administraron el ASPA, la escala de Autoestima de Rosenberg y un cuestionario Ad Hoc. **Resultados:** Los resultados revelaron una asociación significativa inversa entre la autoestima masculina y la profecía autocumplida en hombres con un estilo sumiso, explicando el 38% de la varianza de la variable dependiente. **Discusión**: Esto respalda la hipótesis de que una baja autoestima junto con un estilo de sumisión está relacionada con la profecía autocumplida. Es importante tener en cuenta las limitaciones de este estudio, como el tamaño reducido de la muestra y la posibilidad de sesgo de deseabilidad social. Estas áreas podrían ser abordadas en futuras investigaciones para mejorar nuestra comprensión de este fenómeno.

Introduction

In the complexity of couple relationships, dynamics unfold that go beyond the mere interaction between two individuals. At times, emotional relationships become so intertwined that individual identity is compromised for the sake of meeting the needs and expectations of the other (Smith & Johnson, 2018). This phenomenon, known as loss of identity in favor of relationship, poses a blurred line where the boundaries between "I" and "we" become blurred, leaving room for mutual influence and conformity to the partner's desires.

This dynamic bears similarities to self-fulfilling prophecy, a phenomenon that explains how one person's expectations about another's behavior can influence the latter's performance and development (Jones et al., 2020). The self-fulfilling prophecy, described by Marton (1948), involves an erroneous contextualization that will determine an action that will make that contextualization true. A more current view on this self-fulfilling prophecy talks about how, in an interaction, whether inter- or intrapersonal, expectations toward a situation condition the behavioral response to meet those expectations (Sternberg, 2011; Madon et al., 2011). In the event that the subject about whom expectations were held fulfills that false belief, what is known as a self-fulfilling prophecy will occur. From this concept, two types of effects were successfully described: the Pygmalion Effect, which refers to how positive expectations about a person improve that person's performance, and the Golem Effect, which refers to how negative expectations about a person determine poor performance (Babad, Inbar, & Rosenthal, 1982; Davidson & Eden, 2000; Leung & Sy, 2018).

This need for validation can give rise to the Golem Effect, as described by Rowe and O'Brien (2002), where a connection is made between one person's negative expectations and another's poor behavioral performance. These expectations usually originate from significant figures such as parents, teachers, bosses and even highly relevant interpersonal relationships (Rowe and O'Brien, 2002). Expectations can accumulate over time, and studies have shown that they exert a stronger influence as the relationship lengthens, becoming stronger over time (Madon et al., 2011). It has been concluded that these expectations exert a stronger influence and shape the behavior of the other person more clearly as time passes in that affective relationship. This is because a person's expectations are dynamic, not static, and tend to intensify with the strengthening of the relationship, compounding the initial prophecy (Madon et al., 2011).

Studies conducted about self-fulfilling prophecy have had a tendency to target education, focusing on the relationship between teachers and students (Solís García and Borja González, 2017; Máñez and Fernández, 2020; Sánchez and Pacora, 2023; Cobos-Sanchiz et al., 2020; Madon et al., 2011). Here, the direct relationship between the affective-emotional bond generated between the two was shown as the main factor for this Pygmalion or Golem Effect to occur, and the frequency of their interaction and the quality of these interactions, a pleasant climate and positive reinforcement by the teacher were highlighted. Fortunately, this limitation was an impetus for other authors such as Madon, et al. (2008) who focused on a maternal-filial relationship to carry out several longitudinal studies in which they verified that outside the field of education it is also possible for self-fulfilling prophecy to occur. Within a romantic relationship, a study showed the ability of partners to modulate the perceived emotionality of their partners based on their expectations (Sels et al., 2017) thus relating to self-fulfilling prophecy.

These studies also sought to test the hypothesized causal relationship between self-fulfilling prophecy and self-verification theory as an independent variable (Madon et al., 2011). This theory accounts for the genuine human characteristic of wanting to fulfill one's own concepts even if they are negative, as it allows maintaining the stability of the self and helps to

predict the environment (Swann, et al, 2002). Maintaining coherence and stability is something common in human beings, this protects us against uncertainty and allows us to manage the future, which is basic to learning. Social interaction plays a key role in the construction of self-concept, since, according to Swann et al. (2002) this is developed from the observation of the reactions of the environment. Social experiences influence the formation of the belief system that includes the idea of oneself in one's environment. Furthermore, it was verified that the effects of these beliefs are long-lasting and tend to stability (Madon et al., 2011), as they are integrated into the personal self-concept. Therefore, individuals tend to reaffirm and reinforce these beliefs in order to maintain the coherence of their self-image.

Leung and Sy (2018) investigated self-concept as a mediator of the Golem Effect, indicating that a strong and positive self-concept can alleviate the effect of expectations on subject behavior. Self-concept is defined as the set of perceptions that the subject has of him/herself in different areas based on his/her experience and interactions (Gutiérrez and Martín, 2021). This self-concept has a valuational component of the person towards himself/herself, this corresponds to self-esteem, which, although they are constructs with similarities, they differ from each other. Self-esteem is a construct that varies in its definition, but it can be defined as the affective component of a person with respect to him/herself, in addition to including a link with what is related to those self-expectations in relation to him/herself, his/her social environment and his/her future (Gutiérrez and Martín, 2021).

Self-esteem is largely built by the subject's social relationships, and interpersonal romantic relationships are one of the major influences on a person's self. The affective partner's own expectations, or the context of the relationship, condition the person creating this self-fulfilling prophecy, influencing the subject's behavior and *self* in a more direct way than in other types of relationships (Downey et al., 1998). Here, research has focused on the influence of couple conflict in conditioning the cognitions and behaviors of the couple. One trait is mentioned within the couple, sensitivity to rejection (Downey et al., 1998). This trait is a continuum ranging from high or low sensitivity and describes the person's anxiety to rejection or anger from his or her partner that may lead to the end of the relationship. From this point on, a person with a high sensitivity to rejection will seek to meet the expectations and pleasures of his or her partner to avoid a breakup, fulfilling the self-fulfilling prophecy. It is then when self-esteem emerges as a fundamental variable in these processes. Those with strong self-esteem can maintain a sense of identity and autonomy within the relationship, resisting the pressure to conform completely to the other's expectations (Garcia & Martinez, 2019). In contrast, those with low self-esteem may feel a greater need to seek external validation, sacrificing their individuality in the process.

In relation to conflicts in couple relationships, according to the two-dimensional model of assertion, 4 types of coping style are distinguished when faced with a conflict situation in the couple (Carrasco, 2013). These form a spectrum where 4 features are distinguished, at the extremes would be located: Submission (S) and Aggression (AG). Carrasco (2013) defines them as follows: Aggression (AG) is the expression of feelings or opinions using coercive force to seek agreement, this force may be expressed through punishment or threats of possible punishment; Assertion (AS) is a way of expressing both positive and negative emotions in a clear and respectful direct manner; Passive Aggression (PA) encompasses those responses that include a direct non-expression of communication and yet an indirect coercive style through punishment or threats; finally, Submission (S) involves the total lack of expressiveness of feelings and opinions, lowering oneself to the authority of the other person.

Murray Bowen's systems theory, according to Kerr and Bowen (1988; cited in Lampis et al., 2017), emphasizes the importance of differentiation of the self in interpersonal dynamics. This differentiation implies the ability to maintain close emotional relationships with others without losing emotional autonomy. According to this theory, highly differentiated individuals

34

are able to resolve conflicts in a calm and effective manner, which may correspond to an AS style of conflict resolution. On the other hand, those with low differentiation tend to react by resorting to mechanisms such as emotional fusion, which corresponds to an S style, or emotional reactivity, which corresponds to AG, and may also resort to AP styles to coerce their partner depending on the sentimentality that has occurred. Individuals who lose that individuality react by attempting to adopt the values and attitudes of the other, satisfying their partner's needs and expectations at the expense of their own needs and desires (Lampis et al., 2017; Skowron and Friedlander 1998; Skowron and Schmitt 2003; Skowron et al., 2003). In addition, the study by Fišerová et al. (2021) addressed gender differences in conflict styles in couples, observing more reactivity in women and avoidance in men.

Thus, it is hypothesized that submissive coping styles, combined with low self-esteem, are correlated with the manifestation of self-fulfilling prophecy in interpersonal relationships. On the other hand, aggressive coping styles, together with high self-esteem, are correlated with the occurrence of self-fulfilling prophecy in such contexts.

Method

Participants

The sample for this study consisted of 15 couples, totaling 30 subjects. Inclusion criteria required that couples were heterosexual, had been in a relationship for at least one year, were in the age range of 18 to 30 years, and that at least one partner was a college student. Exclusion criteria included not understanding the Spanish language, none of the members being students, and inability to understand the tests.

Instruments

This study has 3 evaluation instruments. The Assertion Questionnaire in Couple, or ASPA (Carrasco, 2013) tries to find out coping styles of conflict coping in the couple in 4 dimensions. It is divided into two parts, part A deals with how the subject perceives the partner and part B with how the subject perceives his or her partner. Both parts, A and B, consist of 40 Likert-type response items (1 almost never, 6 almost always), 10 for each coping style (assertive, submissive, passive-aggressive and aggressive). Part A obtained a Cronbach's alpha of 0.89 and part B of 0.90.

Also included is the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the validated Spanish version (Morejón et al ,2004). This test consists of 10 Likert scale items (1 strongly disagree, 5 strongly agree). It shows an internal consistency of between 0.76 - 0.87, and a reliability of 0.8. The first 5 items are written in positive and the last 5 in negative to avoid bias or random responses.

Participants must also complete an Ad Hoc questionnaire (See Appendix 1) specifically designed to explore partner expectations and possible changes in behavior through the presentation of four hypothetical situations. Each situation contains four questions that inquire about anticipated thoughts, feelings, actions, and beliefs about the partner. This questionnaire allows for open-ended responses, making it easy for participants to express their thoughts and emotions in a detailed and free manner. Its inclusion in the study seeks to complement the quantitative measurements of the previous instruments, providing qualitative information on everyday aspects not addressed in the previous tests.

Procedure

The study was approved by the Ethics Committee of the European University of the Atlantic and the sample was recruited through the snowball system, disseminating a link through social networks. Participants had the option to sign the informed consent and comply with the Organic Law on Data Protection to provide their personal data. Once enrolled, couples were assigned alphabetic codes to preserve their anonymity and the tests were administered.

Once enrolled, the subjects were coded with an alphabetical system composed of the initials of their first and last names as a pair. Once the couples had been grouped according to codes and gender (male-female), it was administered. To ensure the proper treatment of personal data, the information was stored in two different databases. This process ensured the confidentiality and correct use of the study participants' data.

As soon as both parties of the couple sign up, the three scales are administered individually via Gmail to the e-mail addresses provided. In order not to make it tedious for the participants, the tests were divided into two. One link provided access to answer the ASPA and another, being shorter, the Rosenberg Self-Esteem Scale together with the Ad Hoc questionnaire.

Once the couples had answered both questionnaires, the scores for each of the scales and dimensions were calculated using Excel, which facilitates the digitization of information. Later, the information was linked to *PSPP* to proceed with data analysis.

Analysis analysis

This is an observational, cross-sectional, correlational study. The variables are observed in a natural context to observe the possible relationship between them at a given moment in time, looking for significant relationships between them.

The *T*-Student was calculated for independent samples in order to compare the means of different groups separated in this case by gender and, in addition, to determine if there are significant differences in the response tendency S, AG, AP and AS, as well as significant differences in self-esteem between men and women.

Next, a linear regression model is used to determine the influence of the two independent variables, in this case, Male Self-Esteem and Female Self-Esteem, on the dependent variable Self-Fulfilling Prophecy (Pelaez, 2016). The dependent variable is calculated from a member's ASPA-A scores on a trait, subtracting his or her partner's ASPA-B responses on the same trait. Four dependent variables are then created, one for each part of the pair and for trait S and AG. Since there are 4 dependent variables, a regression model is made for each dependent variable, that is, four models.

On the other hand, a bivariate correlation table is made to measure the relationship between the different variables. In this case it is calculated thanks to *Pearson's* correlation to work from a 6 x 6 table, observing how the six variables correlate with each other. The purpose of this table is to find statistical strength to support the hypothesis proposed.

Results

Table 1.
T-Student for independent samples, differences by gender.

	Group				
	Men (n = 15)		Women (n = 15)		t
	M	DT	M	DT	

Self-esteem	*31.13*	*6.35*	*31.47*	*1.08*	*-.17*
AG	*15.31*	*4.44*	*14.26*	*2.64*	*.78*
S	*23.28*	*6.01*	*18.39*	*5.79*	*2.27*
AP	*19.47*	*5.64*	*18.96*	*4.84*	*.27*
AS	*41.94*	*12.11*	*48.39*	*8.41*	*-1.70**

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

Here significant differences were observed between groups in the variable AS, being higher in women with a result of *t (28)* = -1.70 (*p* = .033).

Table 2.
Multiple Regression Self-Fulfilling Prophecy in Men by Trait S

Measure	*B*	*SEB*	*β*
Self-esteem Male	*-.92*	*.34*	*-.61**
Self-esteem Fem	*.13*	*.51*	*.06*

Note. Dependent variable: ΔR² = .38
Adjustment: F (2, 14) = 3.72, p = .055.
*p < .05, ** p < .01.

Table 3.
Multiple Regression Self-Fulfilling Prophecy in Men by Trait AG

Measure	*B*	*SEB*	*β*
Self-esteem Male	*.00*	*.22*	*.00*
Self-esteem Fem	*-.67*	*.34*	*-.50*

Note. Dependent variable: ΔR² = .25
Adjustment: F (2, 14) = 1.96, p = .183.
*p < .05, ** p < .01.

Table 4.
Multiple Regression Self-Fulfilling Prophecy in Women by Trait S

Measure	*B*	*SEB*	*β*
Self-esteem Male	*.28*	*.26*	*.307*
Self-esteem Fem	*.08*	*.39*	*.838*

Table 5.
Multiple Regression Self-Fulfilling Prophecy in Women by Trait AG

Measure	B	SEB	β
Self-esteem Male	.18	.18	1.01
Self-esteem Fem	-.01	.28	-.01

In these linear regression models, a significant relationship was observed between the variable Male Self-Esteem and the variable Self-Fulfilling Prophecy in Men by trait S, the β showed a reverse direction β = -.61 (p = .020) and the R^2 shows 38% variance. No statistically significant relationships were found in the rest of the models.

Table 6.
Table of bivariate correlations

	Self-esteem Male	Self-esteem Fem	P.A. Masc S	P.A. Masc AG	P.A. Fem S	P.A. Fem AG
Self-esteem Male	-	-.094	-.616*	.049	.290	.282
Self-esteem Fem	-.094	-	.113	-.497	.030	-.037
P.A. Masc S	-.616*	.113	-	-.299	.037	-.392
P.A Masc AG	.049	-.497	-.299	-	-.344	-.299
P A. Fem S	.290	.030	.037	-.344	-	-.126
P. A. Fem AG	.282	-.037	-.392	-.299	-.126	-

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

Here we found a significant inverse correlation between Male Self-Esteem and Self-Fulfilling Prophecy in Men by trait S with a correlation coefficient of *Pearson correlation* of -.616 (p = .014).

Discussion and Conclusions

This study hypothesizes that submissive coping styles, combined with low self-esteem, are correlated with the manifestation of self-fulfilling prophecy in interpersonal relationships. On the other hand, aggressive coping styles, together with high self-esteem, are correlated with the occurrence of self-fulfilling prophecy in such contexts.

Observing Table 6, it can be seen that the variable Self-esteem Male shows a significant inverse correlation with respect to the variable Self-prophecy in Men with a coping style S. The *β* obtained from the regression model of this variable (Table 2) also confirms the direction of

38

the relationship which in this case is negative, so it is concluded that, the less self-esteem in men, the more the self-fulfilling prophecy occurs with respect to submissive coping (S). This confirms the hypothesis that the subject with low self-esteem together with a submissive coping style in part of the couple favors the appearance of a self-fulfilling prophecy.

However, no statistically significant results were found to indicate that high self-esteem has a relationship with a type of AG coping style that determines a self-fulfilling prophecy, so that part of the hypothesis is rejected.

Based on the theoretical models explained above, it can be understood that low self-esteem encourages the person to adjust to the expectations of his or her partner in order to avoid conflicts that may lead to problems in the couple. This can be explained on the basis of rejection sensitivity or systems theory with emotional fusion in which the subject seeks to please and adapt to expectations about his or her behavior. According to these theories, it can be understood that self-esteem functions as a way of preserving the ability to resist the external pressure of a partner's expectations. Then, those individuals with low self-esteem, resort to styles characterized by submission due to the need to obtain the external validation that those expectations produce for them (Leung & Sy, 2018; García & Martínez, 2019).

In comparing this study with other research, Merton (1948) introduced the concept of self-fulfilling prophecy, describing how expectations can influence behavior and confirm original beliefs. This research extends this concept to the realm of couple relationships, exploring how low self-esteem and certain coping styles can trigger behaviors that reinforce the self-fulfilling prophecy in submissive contexts.

 This was also observed in the study by Sels et al. (2017) in which they explored the influence of one partner's perceived emotionality expectations toward the emotions of the other partner, seeing changes in the latter. This opens the possibility that emotionality may also be influenced by coping styles and the individual's own self-esteem.

On the other hand, Rusbult (1980) examined couple dynamics suggesting that high levels of investment can lead to loss of individuality. This study also addresses the loss of individuality, but in the specific context of submission and low self-esteem in couple relationships. Within clinical pathology, sensitivity to rejection is a characteristic feature of borderline and dependent personality disorders. This may make it difficult for the person to set boundaries by opting to seek satisfaction from his or her partner (Belloch et al 2020). Within the nonclinical population, the impact of past trauma should not be underestimated, as previous experiences of abuse, rejection, or dysfunctional relationships can shape both self-esteem and coping styles of individuals, increasing the likelihood of falling into patterns of behavior that perpetuate the self-fulfilling prophecy (Herman, 2015). These traumatic experiences may generate a greater susceptibility to submission or the need to control the relationship in an aggressive manner, as emotional protection mechanisms for fear of repeating old traumas. Therefore, addressing these factors from a therapeutic approach could be key to prevent the reproduction of destructive dynamics in interpersonal relationships.

In the study by Murray et al. (2000), investigated how self-esteem affects relationship security and responses to partners, the present study goes further by relating low self-esteem to the occurrence of self-fulfilling prophecy and submission. Building on Leung and Sy's (2018) research where they concluded that self-concept functioned as a mediator of the Golem Effect, this study opens the possibility that self-esteem also becomes a modulator of self-fulfilling prophecy in subjects with submissive coping tendencies.

Similarly, research conducted by Richter and Finn (2021) discusses the relationship between couple conflict and self-esteem. This study concludes that the perception of dysfunctional behaviors in a person about his or her partner negatively conditions the partner's self-esteem. This is interesting because from the perspective offered by this study we can see

that certain styles of coping in conflicts can influence the self-esteem of the other person, resulting in a self-fulfilling prophecy in a negative way, or Golem Effect.

Fišerová et al. (2021) further investigated how attachment and interpersonal relationships influenced each other, looking for the emergence of self-fulfilling prophecy, however, they did not find relevant conclusions about this, but saw that there were significant patterns where women tended to reactive conflict coping styles, and men avoidant. This study addresses this dynamic by including self-fulfilling prophecy as a dependent variable and self-esteem mediation as an independent variable, exploring a complementary and causal relationship between the two (Ripoll-Núñez, 2011).

On the other hand, at the clinical level, this study is relevant because it allows us to observe how self-esteem influences not only couple conflicts, but also the appearance of the self-fulfilling prophecy. This could direct primary prevention towards education and the development of healthy self-esteem, as well as training in constructive conflict resolution tools, to avoid dynamics of submission and aggression that affect both the relationship and the individual.

In addition, the creation of group interventions focused on conflict coping skills is suggested, stressing the importance of self-esteem and individuality within the couple.

Likewise, from the independent samples *T*-Student (Table 1), significant differences were observed in the AS coping style between groups, being higher in women. However, these results may have been conditioned by the limitations of the study itself. This coping style was the highest in both groups, i.e., a tendency to respond to behaviors related to socially well-liked behaviors, specifically the AS trait, was observed, so the possibility of social desirability bias could have influenced the accuracy of the participants' responses, which could affect the validity of the results. To address this bias in future research, it is recommended that the instruments be administered individually and face-to-face, thus ensuring that both partners complete the questionnaires separately.

Other limitations could arise from the exclusivity of the heterosexual sample and certain ages, which could limit the applicability of the findings to other populations, such as same-sex couples or couples of different age groups. The small sample size, together with time constraints during sample selection, may have influenced the representativeness of the results. For future more complete research, it is suggested to use a larger sample and to dedicate an adequate period of time to the selection of participants.

In addition, although several instruments were used to measure key variables, other relevant factors, such as attachment and other individual personality characteristics, may not have been considered in this study, which could have influenced the observed results. Therefore, these limitations suggest areas for future research that could address and improve understanding of the relationship between self-fulfilling prophecy, coping styles, and self-esteem in interpersonal relationships.

As mentioned above, based on the limitations encountered, we propose future lines where it would be interesting to explore, on the one hand, these effects of the self-fulfilling prophecy in the long term with a longitudinal study, covering a longer period of time to observe the influence of time on the relationship and coping styles.

Likewise, it is proposed to study the possible influence of attachment styles within the occurrence of self-fulfilling prophecy in couples since, attachment constitutes a determinant factor of satisfaction in couple relationships (Fišerová et al., 2021). Within this, it would be interesting to address how different personality factors, such as trait extraversion, may determine the occurrence of self-fulfilling prophecy.

Finally, based on this study, the idea of exploring how assertive coping styles can influence self-fulfilling prophecy and, in turn, contribute to the increase of the other person's

self-esteem, as well as the role of passive-aggressive styles in conflicts and their possible relationship with self-esteem.

From this study it has been possible to determine that self-esteem is a determining factor in the occurrence of the self-fulfilling prophecy in couples, particularly in men, together with a coping style characterized by submission. However, conflicts in couples are complex and are not homogeneous; therefore, further research is a key to address and prevent future conflict dynamics that affect its members.

Conflict of interest

There is no conflict of interest.

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Annex

Annex A.
Ad Hoc Questionnaire

Case 1. "You have argued with your partner about what you can have for dinner today. Yesterday you had a hamburger for dinner and your partner wants to repeat, but you don't."
Case 2. "You've had a long day and at bedtime your partner insists on having sex, but you don't feel like it because you're tired."

Case 3. "Your group of friends suggest you to go to a party and you really feel like it. When you tell your partner about it, he or she comments that he or she is not happy about you going.

Case 4. "It's a sunny day and you feel like going for a walk with your partner. However, your partner tells you that he/she prefers to stay at home watching TV."

In all four cases, the following questions were included and should be answered as briefly and concisely as possible: "What do you think?", "What do you feel?", "What do you do?" and "What do you think your partner will do?".

Influence of the parental skills on the manifestation of behavioral problems, in children from 8 to 11 years old, who reside in the province of San José, Costa Rica

Influencia de las competencias parentales en la manifestación de problemas de conducta, en niños de 8 a 11 años, que residen en la provincia de San José, Costa Rica

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	ABSTRACT
Key words: parenting skills, mental health, behavior problems, child development	The study explores behavioral problems in children aged 8 to 11 in San José, Costa Rica, and their relationship with parenting skills. These problems, which have significantly increased over the past decades (APA, 2014), affect family dynamics as well as academic and social performance. Despite their impact, there remains a lack of knowledge regarding their proper management (Gómez & Contreras, 2019). Recent studies indicate that behavioral problems are the third most common mental disorder in childhood, with an estimated prevalence of 3.3% (Barican et al., 2021; Vasileva et al., 2021) To evaluate the relationship between parenting skills and problematic behaviors, the E2P scale and the ESPERI test were used with 150 parents of children with and without behavioral issues. The analysis, conducted using SPSS, included cross tables, chi-square, and contingency coefficient. The results show that high-frequency parenting skills have a significant impact on reducing problematic behaviors. The higher the parenting skill, the lower the likelihood of developing dissocial or challenging behaviors. The data reflect that, in general, high parenting skills are associated with an oppositional behavior probability of around 13%, while approximately 30-40% of cases show a low likelihood of developing such behaviors. This suggests a clear tendency towards reducing negative behavioral reactions in the presence of stronger parenting skills. Although the results were positive, the correlations did not reach statistical significance, highlighting the need for further research. However, the descriptive analysis suggests that strengthening parenting skills could be key to addressing childhood behavioral problems.

RESUMEN

Palabras clave:
competencias parentales, salud mental, problemas de conducta, desarrollo infantil.

El estudio explora los problemas de conducta en niños de 8 a 11 años en San José, Costa Rica, y su relación con las competencias parentales. Estos problemas, que han aumentado significativamente en las últimas décadas (APA, 2014), afectan la dinámica familiar y el rendimiento académico y social. A pesar de su impacto, persiste una falta de conocimiento sobre su manejo adecuado (Gómez & Contreras, 2019). Estudios recientes señalan que los problemas de conducta son el tercer trastorno mental más común en la infancia, con una prevalencia estimada del 3,3 % (Barican et al., 2021; Vasileva et al., 2021)

Para evaluar la relación entre competencias parentales y conductas problemáticas, se utilizaron la escala E2P y la prueba ESPERI en 150 padres de niños con o sin problemas de conducta. El análisis, realizado con SPSS, incluyó tablas cruzadas, chi cuadrado y coeficiente de contingencia.

Los resultados muestran que las competencias parentales de alta frecuencia tienen un impacto significativo en la reducción de comportamientos problemáticos, cuanto más alta es la competencia parental, la probabilidad de desarrollar conductas disociales o desafiantes se reduce de manera notable. Los datos reflejan que, en general, las altas competencias parentales están asociadas con una probabilidad de conductas oposicionistas cercana al 13 %, mientras que aproximadamente el 30-40 % de los casos presentan una baja probabilidad de desarrollar estas conductas. Esto indica una clara tendencia a la disminución de reacciones conductuales negativas en presencia de mayores competencias parentales.

Aunque los resultados fueron positivos, las correlaciones no alcanzaron significancia estadística, subrayando la necesidad de futuras investigaciones. Sin embargo, el análisis descriptivo sugiere que fortalecer las competencias parentales podría ser clave para abordar los problemas de conducta infantil.

Introduction

Human physical and mental health are the result of a process of adaptation from the molecular to the systems that allow the body to function; this adaptation begins at conception and extends throughout life (Boyce et al, 2021)

Adaptive capacity is influenced by internal and external factors; the fluidity of the interaction between these two factors will determine physical and mental health (Shonkoff et al., 2021). The greater the adaptive capacity, the greater the cognitive flexibility and the greater the interaction between these factors (Masten et al., 2021)

The prenatal, perinatal, postnatal, childhood and adolescence stages are critical periods of development, in which the interaction of these factors acquire greater relevance in brain architecture, since they can modify its structure, causing lasting biological consequences over time (Boyce et al., 2021)

During early childhood, emotional needs are many and the way in which children, due to their immaturity, usually seek to satisfy these needs is through primitive behaviors such as an emotional outburst or tantrum, which are intense and frequent between 12 and 38 months of age. Around the age of 3.5 years, a decrease in the presence, intensity and duration of tantrums is expected (Deichmann & Ahnert, 2021; Manning et al, 2019; Sisterhen & Paulette, 2023).

Thus, the question arises: why are some children more irritable than others? what external factors could sustain or enhance the presence of temper tantrums and their continuity at ages when greater adaptive skills are expected? is interaction and bonding with parents or caregivers a factor that enhances or decreases the development of behavioral problems?

According to the DSM-V (APA, 2014), behavioral disorders are increasingly frequent in childhood, likewise Matali et al (2016), adds that "92.7% of pediatricians consider that behavioral problems or disorders represent one of the main demands in the field of mental health of children and adolescents" (p. 23) and that in recent years a significant increase in the presence of these behavioral disorders has been noted.

Definition of Behavioral Disorders:

The DSM-V classifies conduct problems as disruptive impulse control and behavioral disorders. This category includes disorders such as Negative Defiant Disorder (NDD), intermittent explosive disorder (IED), conduct disorder (CD), antisocial personality disorder (ASPD), pyromania, kleptomania and other specified and unspecified disruptive impulse control and behavioral disorders.

Each of these has specific characteristics, which in the DSM-V, are indicated as criteria. To establish such a diagnosis, a specific number of criteria must be met and the pattern must be persistent over a period, which can be variable depending on the disorder, however, it is generally expected that the behavior will be persistent for an average of 6 months to be considered a clinically significant trait.

The difference between developmental tantrums and behaviors associated with conduct disorders is that the latter usually manifest difficulty in self-control, irritability and difficulties in assuming responsibility for their actions, as a daily response pattern, which does not evolve, i.e., does not change in intensity, duration and frequency despite the fact that chronological development continues its course.

These features of disruptive behavior make it difficult to manage, not only in the family context, but also in educational and social settings (APA, 2014; Sisterhen & Paulette, 2023)

Generally, there is a lack of knowledge about the management of behavioral problems and emotional outbursts in general, not only on the part of parents and adults

involved in the parenting process, but also on the part of primary care professionals, which sometimes leads to the implementation of actions that tend to increase hostile behaviors and behavioral problems. A topic that has become more popular has to do with paying attention to the way of parenting and hand in hand with it the theory of parental competencies (Gómez and Contreras, 2019). There is now greater understanding that lack of parenting skills has a direct impact on children's neurodevelopment, but this knowledge is insufficient to address behavioral problems. For this reason, it is necessary to deepen in those essential aspects that have a direct impact on parenting and the way in which parents can access this knowledge and put it into parenting practice (Figueroba, 2020).

Causes of behavioral disorders:

APA (2014) and other authors (Barican et al., 2021; Dalsgaard et al., 2020), have referred to these facts as risk factors, dividing them into two: genetic and environmental components.

-Biological Factors: APA (2014), has referred to these factors as genetic, physiological and temperamental Temperamental factors are related to problems with emotional regulation.

In neuroscience research (Zelazo, 2020) it has been determined that children with behavioral problems present an immaturity in the frontal lobes, which derives at the behavioral level in an alteration of the functioning of executive functions.

-Socio-environmental factors: The family context is considered a factor of great influence on the development of adaptive or maladaptive behaviors, as well as cognitive, personal, emotional and socio-affective development (Paez & Rovella, 2019). Studies on epigenetics (O'Donnell & Meaney, 2020) have revealed that environmental conditions are capable of not only altering, but enhancing the development of psychopathology, thus highlighting the power of the environment to impact the plasticity of brain functions, it has been found that epigenetic signals are modified by environmental conditions, epigenetics is the result of the interaction between individual life and the environment and how this interaction modulates the information contained in genomes.

Modern paradigms interpret genomes as "an adaptive device that responds to environmental needs by regulating gene expression" (Bottaccioli & Bottaccioli, 2023, p. 74), i.e., beyond representing an instruction for the organism, genomes turn out to be an adaptive mechanism that functions as a biomarker; this concept is relevant to the present research because, unlike mutations, biomarkers can be reversible. Among the socio-environmental factors, we can mention elements such as:

Effect of stress on the development of behavioral problems:

Stress can be considered a biological marker, which directly influences the development of behavioral problems in childhood. Its impact can start from the prenatal stage, excess maternal stress during pregnancy can alter the stress response system of the fetus affecting its neurological development (O'Donnell & Meaney, 2020). Factors such as environmental stressors and maternal stress modify both the genetic expression of the fetus and its microbiome, increasing predisposition to behavioral disorders (Monk et al., 2019). In childhood, family conflict and weak parental bonds elevate cortisol levels, affecting brain structure and increasing the risk of behavioral problems (Xerxa et al., 2020; Riquelme et al., 2020)

Adverse Childhood Experiences (ACES)

The ACES is the existing relationship between childhood abuse and adult diseases, the experiences accumulated in childhood remain as an imprint in the memory and the accumulation of them (determined by the intensity and quantity), generate a

predisposition to pathology. This relationship is important, since it has been identified as one of the causes of mortality and physical diseases such as diabetes, cancer and substance abuse. Ten ACES are listed, which have been determined to be relevant in the germination of pathologies and where it is indicated that the greater the number of adversities in childhood, the greater the risk of pathology. (Finkelhor, 2018 and 2020), these are abuse:

1) Emotional
2) Physicist
3) Sexual
4) Physical negligence
5) Emotional neglect
6) A mother treated violently
7) Substance abuse in caregivers
8) Incarceration
9) Mental health disorders
10) Not raised by both biological parents

Studies have documented how ACES function as biomarkers that have a direct impact not only on the individual, but also on subsequent generations. Sun et al., (2017) sampled 1253 mothers of whom 56% had suffered at least one or more adverse experiences, this study demonstrated a direct relationship between mothers who had presented ACEs and the development of developmental disturbances in their children.

Riquelme et al. (2020) conducted a comparative study between the experience of maltreatment and the presentation of mental disorders, with a sample of 1558 Chilean children and adolescents between 4 and 18 years of age, from which it was concluded that the most prevalent disorders related to maltreatment are disruptive disorders in first place and anxious disorders in second place.

Afifi et al. (2019) gathered 36 309 male and female participants, of whom 46.7% were victims of any child maltreatment, to prove that there is a direct relationship between childhood abuse and the presence of antisocial behaviors in adulthood.

For Ureña (2015) cited by UNICEF (2017), a trigger for violence against children and adolescents is the reproduction of learned patterns in the use of violence as a way of life. According to these statistics, almost 3 out of every 4 children, or 300 million children between the ages of 2 and 4, are victims of physical punishment or psychological violence on a regular basis.

According to UNICEF data (2023) between 2013 and 2018 the Patronato Nacional de la Infancia PANI, received an annual average of 54 962 complaints, with physical, sexual, psychological aggression, neglect and family conflicts being the main reasons for attention.

Attachment and Psychopathology

The affective bond established between parents and children during early childhood is decisive for the constitution of the personality. For this bonding relationship to produce positive effects, a secure bond must be established from gestation, during the first years of life and sustained over time; there are vital or critical periods in which the secure bond is paramount, this stage is constituted by the first three years of life, which is where there is greater brain activity (Villero & Rodriguez, 2015; Xerxa et al., 2020)

The literature suggests that external factors that may impact children's development are secure parent-child bonding and discipline methods. Exploring child development theories, we find repeated authors referring to the research of John Bowlby and Mary Ainsworth, on the incidence of healthy attachment and bonding in the formation of a personality. Authors such as Winston y Chicot (2016) compared the results of studies

asserting that neglect, inconsistency, and lack of love in primary attachments lead to long-term mental health problems, as well as reduced overall potential and happiness, characteristics evidenced in children with behavioral problems. They also add that a child's ability to form and maintain healthy relationships throughout life may be significantly affected by having an insecure attachment to a primary caregiver.

Definition of parental competencies:

The concept of Parental Competence emerged about 20 years ago (Gómez & Contreras, 2019), however, the first studies on parenting can be found since 1950 (Verduzco & Morrow, 2001)

It is common to find in the literature references to various concepts related to parenting, all of them referring to the participation of parents and/or caregivers in the process of child development. Babies are fragile and dependent beings; paternal and maternal care is what makes it possible for their healthy development (Barudy & Dantagnan, 2010)

On the other hand, Barudy and Dantagnan (2005 and 2010) introduce the concept of parental competence. The authors allude to the fact that parentality or marentality are concepts that involve the actions of fathers and mothers directed towards the benefit of child development, which is different from biological parentality; they emphasize that one of the great challenges of parents is to evolve together with the needs of their children and it is here where a concept different from parenting style begins to be defined.

The parental competence model aims to promote effective strategies for the care of children and adolescents. It is a multidimensional model that has been used to explore and defend the well-being of children and adolescents (Gómez & Contreras, 2019).

Parental competencies are the set of knowledge, attitudes, and practices of bonding, formative, protective, and reflective parenting, learned and updated from a history and the opportunities offered by the ecology of parenting; they allow organizing one's own experience and conducting parental behavior through various situations of family life and parenting, accompanying, protecting, and promoting positive development trajectories in the baby, child, or adolescent, with the ultimate aim of ensuring their well-being and the full exercise of their human rights (Gómez & Contreras, 2019, p. 23)

Thus, following the research of Gómez and Contreras (2019) parental competencies could be defined as knowledge, attitudes, skills and actions, influenced by learning, one's own attachment and parenting history, and which promote physical, emotional, social and psychological well-being. These authors have proposed four types of parental competencies:

1.   They promote emotional connection, regulate stress and suffering, and protect mental health.

2.   In the formative ones, the adult is constituted as a positive guide to promote learning and organization.

3.   Protective, creating conditions conducive to development by reducing or eliminating sources of stress

4.   Reflective, self-evaluation of parenting, so that it always remains constructive and flexible.

Method

Participants

The sample consisted of 150 parents with children between 8 and 11 years of age living in the province of San José, Costa Rica. Families with children with or without behavioral problems were selected by chance in order to compare and analyze the influence of parental competencies on the manifestation of these behaviors. The sample was selected by chance. The participation of the subjects was free and voluntary.

Instruments

Two instruments were used: the E2P Scale to assess parental competencies and the ESPERI test to obtain a behavioral profile of the children.

E2P V.2, Positive Parenting Scale (Gómez & Contreras, 2019)

It is a questionnaire developed by the America for Children Foundation, recently revised and edited, to be used with parents of children from 0 months to 18 years of age. E2P is a 56-item questionnaire, where each item has 5 response options ranging from Never, Almost Never, Sometimes, Almost Always and Always.

The objective of the E2P v2 scale is to measure parenting practices in different dimensions: Vincular, Formative, Protective and Reflective. The results obtained are classified in frequency categories, evaluating the degree to which parents implement each of these practices. The classification is made in three levels: high frequency, intermediate frequency and low frequency. The high frequency indicates that the practices are applied consistently and habitually, suggesting a strong presence of the assessed competency. Intermediate frequency reflects sporadic or moderate application, while low frequency denotes infrequent or scarce implementation of the parental practices analyzed (Gómez and Contreras, 2019)

This test has content validity indexes above 0.9; the internal consistency indexes remain above 0.7. It is an instrument that was born in Latin America and has become more and more popular, expanding more and more in the continent.

The scale stems from the ODISEA assessment model Opportunities for the Development of Sensitive, Effective, Affectionate Interactions and as a model seeks to bring together four essential theoretical frameworks in the assessment of positive parenting: The Attachment theory, the Ecological theory of Human Development, Positive Parenting Theory and the theory of Human Resilience. Through this assessment model, developmental trajectories are studied, which allow us to foresee two possible scenarios, that of good treatment, which is the basis for mental health, and that of maltreatment, which leads to psychopathology (Gómez & Contreras, 2019)

ESPERI Test (Parellada et al., 2009)

Questionnaire for the detection of behavioral disorders in children and adolescents, when the scale was developed the authors paid special attention to the psychometric properties to address the categories proposed by ICD 10 and DSMV. It consists of three versions:
a) Questionnaire for children from 8 to 11 years of age
b) Teacher questionnaire
c) Questionnaire for parents

The research used the version for parents, which allows the identification of three categories of behavior: Inattention, Oppositional Defiant and Predisocial, as well as an

overall average of problem behavior. These results are shown in three possibilities Highly probable, probable and not probable.

It should be noted that specifically for the ESPERI questionnaire for parents, which was used in the research, it is still in an initial phase, since a reduced sample has been used. This questionnaire gathers the same items as the teacher questionnaire, which has a high reliability, with a total Alpha Coefficient of 0.987 and a specific one of 0.975 for the predissociative-disocial factor, 0.950 Oppositionalism, 0.975 Inattention Hyperactivity.

Specifically in the parent questionnaire, the statistical approximation dictates the following Alpha coefficient values of 0.91 for inattention-impulsivity-hyperactivity, 0.92 Predisocial-Disocial; 0.91 Oppositional-Defiant.

Aquehua (2018) proposes the ESPERI as the best tool for the analysis of behavioral problems because it takes into account elementary behavioral points such as impulsivity and severity of behaviors. For this reason, a study was carried out to check the reliability of the scale in the Latin American community, specifically in Peru, which is an input for the present research, since it has been used in the Spanish-speaking population of the American continent.

Procedure

Participants were recruited through partnerships with educational institutions in the province of San José.

Specifically, the data collection process involved the following steps:

1) Selection of subjects: A sample of 150 parents was used, composed of fathers and/or mothers with children between 8 and 11 years of age. Children may or may not exhibit features of behavioral problems. The selection was by chance. Public schools were used to disseminate information on the project, coordinating in advance with the institution a space to provide information through a workshop, the focus of which was the promotion of parental competencies. Parents were motivated, creating awareness that their collaboration is a contribution to the development and improvement of therapeutic processes.

2) Informed consent is requested, explaining the potential risks and benefits of participating in the project.

3) Application of behavioral screening: The ESPERI questionnaire for the Detection of Behavioral Disorders in Children and Adolescents was used. To complete it, the parent accesses the questions through the Google forms platform.

4) Application of the instrument E2P V.2, Positive Parenting Scale, through a questionnaire that can be answered digitally through the Google forms platform.

5) Data analysis using SPSS (Statistical Package for the Social Sciences): IBM SPSS Stadistics 25

Data Analysis

The data collected were subjected to categorical analysis using SPSS statistical software. Comparisons were carried out using cross-tabulations and the statistical relationship was evaluated using the chi-square and contingency coefficient between parental competencies, classified according to their frequency (high and low) and the behavioral profiles of the children, categorized according to their probability (high, medium and low) of presenting oppositional defiant and predispositional behavioral problems. The purpose of this comparison of variables was to identify possible associations and significant relationships.

Results

The sample, composed of 150 parents residing in the province of San José, is distributed among 79 parents of girls (52.7%) and 71 parents of boys (47.3%).

Global Analysis of Parental Competencies

In the sample represented by 150 parents evaluated through the E2P scale, it reveals that at least 50% of Costa Rican households show a highly favorable scenario for raising children.

Of the four parental competencies, protective competencies have the highest incidence in the population with 60% high frequency, followed by formative competencies with 57%, bonding competencies with 50% and reflective competencies with 45%.

As for low frequency indicators, it is notably higher in reflective competencies, i.e. parents and caregivers who participated in the study show a low ability in reflective competencies, with a percentage of 31.3%, followed by formative competencies with 30%, bonding competencies with 25% and protective competencies with 24%.

The data can be visualized in the following figure:

Table 1
Comparison of percentages in Parental Competences

Parental Competencies	High Frequency (%)	Intermediate Frequency (%)	Low Frequency (%)
Links	50	25.3	24.7
Training	57.3	12	30.7
Protectors	60	16	24
Reflective	45.3	23.3	31.3

Note: Distribution of the percentages obtained by parental competence and the result obtained in the E2P test.

Number of Children in the Sample with Indicators of Behavioral Problems

A transcendental aspect of the research is the monitoring of disruptive behaviors in the children who participated in the sample, for this purpose the ESPERI test (parent version) was used, this instrument evaluates some behavioral variables, for the purposes of the research, it is of interest to visualize the number of subjects who present a group of behaviors that could be related to disruptive behavior towards parents. It is important to note that, with the information gathered, it cannot be asserted that the subjects have a diagnosis of a behavioral problem because the information provided is only from the parents' perspective.

Although the subjects under analysis cannot be categorized with a definitive diagnosis, the test sheds light on how the child interacts with his or her mother, father or caregiver. This relationship reflects an immediate reality in the bonding interaction, i.e., what is of interest for the research is to typify the child's behavior with the parent and it is not necessary that this behavior corresponds to a behavioral disorder that meets all the DSM-V criteria.

Of the number of subjects analyzed through the questionnaires completed by the parents, the analysis of the variables shows that 23% of the sample presents a high

probability of presenting a behavioral problem and 9% present a probable possibility of manifesting it.

That is to say, in total, the sample is made up of overall percentages where 68% of the participants present an absence of indicators of behavioral problems and 32% present some probability of manifesting behavioral problems. As shown in Figure 1:

Figure 1
Number of subjects with indicators of problem behavior

Indicadores de Problemas de Conducta en total de la muestra de 150 sujetos

■ Altamente Probable   ■ Probable   ■ No Probable

23%
9%
68%
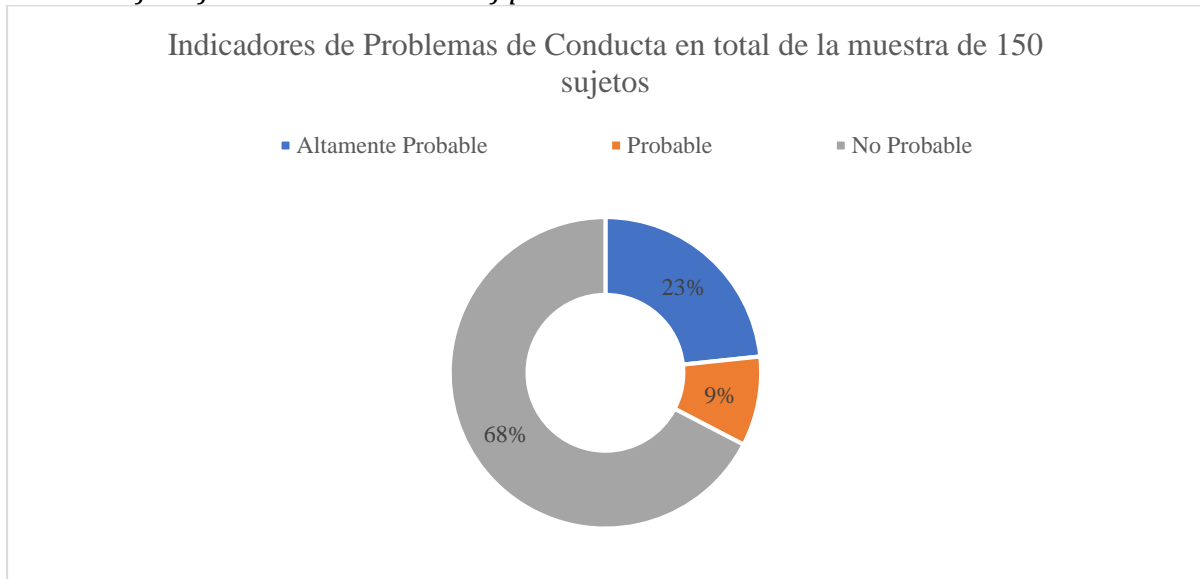
Note: The graph above illustrates in percentage terms the number of participating subjects and the results obtained through the ESPERI test, in terms of behavioral disturbance indicators.

Relevance of Parental Competencies in the Reduction of Behaviors Disruptive

When comparing the indicators of behavioral problems with the parental competencies through the cross tables, it is shown that the high frequency of parental competencies is a protective factor in the manifestation of behavioral problems in children.

This protective factor was clearly observed in the analysis of the four parental competencies, as can be seen in the figure below.

Figure 2

High-frequency totals in parental competencies and their relationship to oppositional defiant behaviors
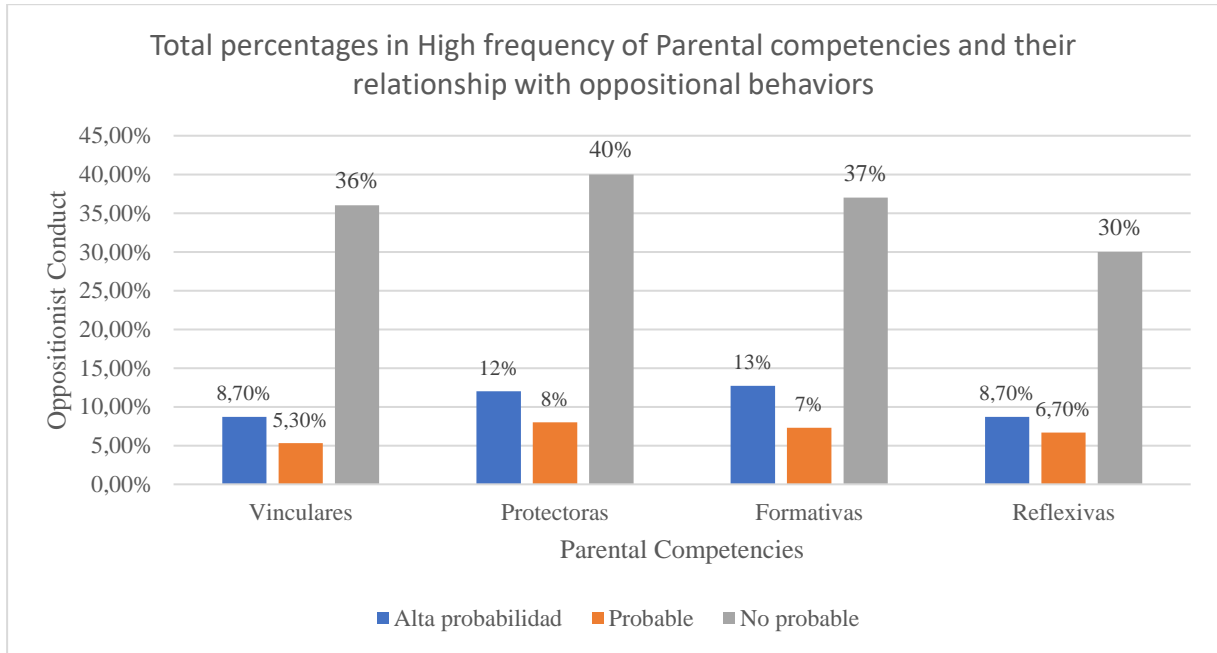
Note: Figure 4 shows the percentages of high parental competencies and their relationship with oppositional defiant behavior problems.

In the previous figure, we can also observe that at the percentage level the most influential competency in promoting adaptive behaviors in children is the protective competency with a total of 40% of absence of disruptive behaviors in children; followed by the formative competencies with 37%, the bonding competencies with 36% and the reflective competencies with 30%.

Figure 3 shows the comparison of the predissociative factor with the parental competencies, this factor indicates a higher level of aggressiveness that involves the possibility of transgressing the rights of others. In this figure, it can again be observed that at the percentage level the most influential competency in the promotion of adaptive behaviors in children is the protective competency with a total of 52% of absence of disruptive behaviors in children; followed by the formative competencies with 48%, the bonding competencies with 45% and the reflective competencies with 39%.

It is interesting to see the relationship between the caregiver's protective variable as a model of adaptive behaviors in children, thus decreasing the emotional and/or behavioral need to react violently or transgress the rights of others.

Figure 3

High-frequency totals in parental competencies and their relationship to predissocial behaviors
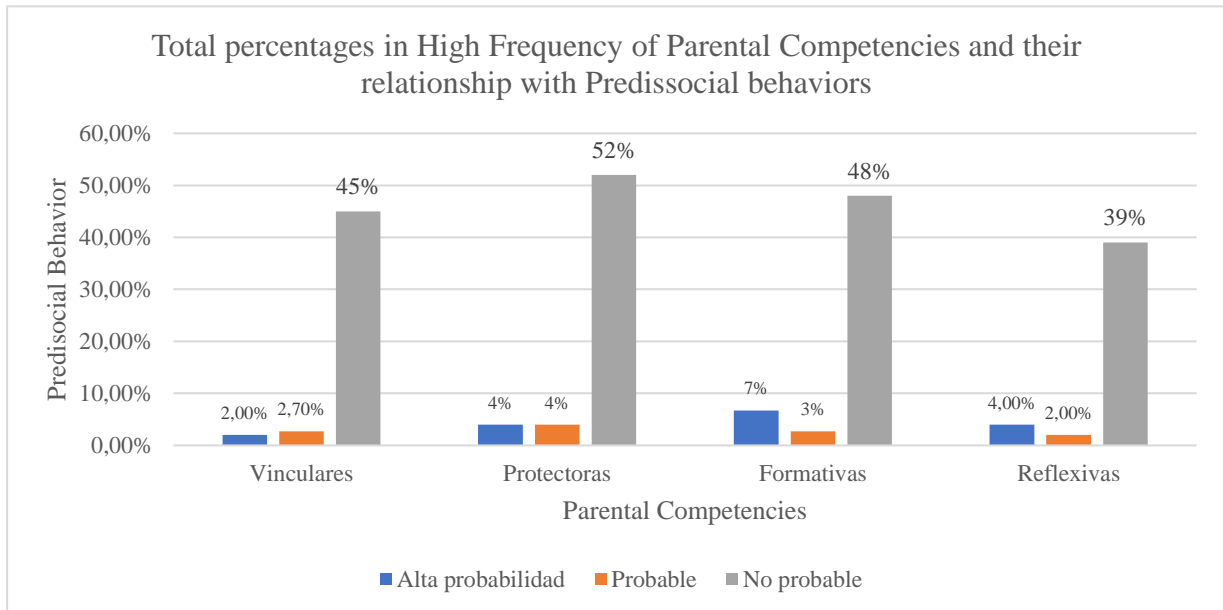
Note: Figure 20 shows the percentages of high parental competencies and their relationship with predissociative behavioral problems.

Significance Level in the Correlation of the Variables

For the analysis of the relationship between parental competencies and behavioral problems, the Chi-square test was used. This test determines whether there is a significant relationship between categorical variables. According to the results obtained using the SPSS program, different levels of significance were observed in the parental competencies: the bonding competencies presented a value of .000, indicating a non-significant relationship, while the formative competencies showed a significance of .047. The protective and reflective competencies also showed values of .019 and .009, respectively, indicating non-significant relationships.

The analysis was also complemented with Pearson's contingency coefficient, which measures the strength of the relationship between categorical variables. As in the Chi-square, the coefficients obtained were .000 for bonding competencies, .047 for formative, .019 for protective and .009 for reflective, confirming the existence of non-significant associations in all the competencies evaluated.

In summary, the results show a statistically non-significant relationship between parental competencies and the probability of presenting behavioral problems.

Table 2

Contingency Coefficient and Chi-square results

Parental Competencies	Chi-Square	Contingency ratio
Links	.000	.000
Training	.047	.047
Protectors	019	019
Reflective	.009	.009

Note: Results of the chi-square and contingency coefficient on the relationship between behavioral problems and attachment skills

Discussion and Conclusions

The results obtained reveal that most of the parents in the sample present a remarkably high frequency in parental competencies, with 50% in bonding competencies, 57.3% in formative competencies, 60% in protective competencies and 45.3% in reflective competencies. This finding is significant because the literature indicates that active parental involvement, particularly in formative and protective competencies, is associated with a lower prevalence of disruptive behaviors, and better social and emotional adjustment in children (Bernal-Ruiz et al., 2018). This is consistent with attachment theory, which highlights how the quality of the affective relationship can influence the child's behavior and socioemotional development (Bowlby, 1986).

It is important not to overlook the percentages of parents who present low frequency in parental competencies, which is a cause for concern. In particular, it is observed that 30.7% of parents have a low frequency in formative competencies, suggesting that a significant part of the sample could be facing difficulties in providing an adequate educational environment for their children. In addition, the 31.3% low frequency in reflective competencies indicates that many parents may lack the necessary tools to self-assess and adapt their parenting approaches. These deficiencies in parenting competencies, as pointed out by Pacheco and Osorno (2021), not only affect the ability to develop cognitive skills in children, but can also foster disruptive behaviors by failing to correct and improve inappropriate parenting patterns.

From the perspective of descriptive statistics, a significant impact is evident in the relationship between children's adaptive behaviors and the high frequency of parental competencies. The relationship observed in this study shows that the high frequency of protective and formative competencies seems to be related to the absence of disruptive behaviors. The data reflect that a greater presence of parental competencies acts as a protective factor in the manifestation of behavioral problems. In particular, the protective competence stands out as the most influential, with 40% absence of disruptive behaviors, followed closely by the formative (37%), bonding (36%) and reflective (30%) competencies. These findings underscore the importance of fostering and strengthening these competencies in parents, as their development can contribute to a healthier family environment and the promotion of adaptive behaviors in children, thus decreasing the risk of behavioral problems.

Despite the apparent relationship between parental competencies and children's adaptive behaviors, the correlation tests performed, such as Chi-square and contingency

coefficient using SPSS software, revealed a correlation of low significance. This result is surprising considering previous studies (Leijten et al., 2018) that found a strong correlation between increased parental competencies and reduced disruptive behaviors. However, this discrepancy could be explained by uncontrolled confounding variables, such as the influence of the socioeconomic context, the quality of education received, or even the interaction of children with educational figures. These results indicate that, statistically, no significant relationship can be established between the variables analyzed in the population studied. It is essential to consider that several factors, such as the sample size, the methodology used for data collection and the presence of uncontrolled variables, could have influenced the lack of significance of the findings. In the future, it would be useful to use a larger and more diverse sample, as well as longitudinal analyses, to examine the evolution of parental competencies and their relationship with children's behavioral development over time. This suggests that, although trends are identified in the data, further research is required to fully understand the dynamics between parental competencies and behavioral problems in children.

The results of this research differ from the results of the study conducted Leijten et al (2018) who examined the effectiveness of parenting programs in reducing disruptive behavior in children through two meta-analyses. This finding highlights the need to contextualize the results obtained in local research with respect to global trends, adjusting interventions to the specific needs of the population studied. Likewise, there are other studies that highlight the relationship between adaptive skills such as executive functions with the high frequency of parental competencies. Bernal-Ruiz et al. (2018) highlights the relationship between executive functions in 8-year-old children and parental competencies, finding that children whose parents exhibited more developed protective, reflective, and formative skills had better executive function development.

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ANALYSIS OF QUALITY OF LIFE EXPERIENCE, SELF-ESTEEM, ANXIETY AND DEPRESSION IN PEOPLE WITH SCHIZOPHRENIA

Análisis de la vivencia de la calidad de vida, autoestima, ansiedad y depresión en personas con esquizofrenia

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	ABSTRACT
Key words: Schizophrenia, quality of life, self-esteem, anxiety and depression	This research analyzes the perception of the variables Quality of Life, Self-Esteem, Anxiety and Depression in people with schizophrenia, using different tests for their evaluation. There is a sample of 70 participants, 19 of whom belong to users of a Psychosocial Rehabilitation Center, and the remaining 51 to the normative population. This report is a cross-sectional descriptive study which obtained results indicate a marked significant difference in the subscales of Quality of Life corresponding to Physical Health, Psychological Health and Social Relationships. A distinction was also observed in the Self-Esteem and Depression scores, thus confirming the fulfillment of three of the four hypotheses on which the research was based. Nevertheless, the need to extend the research with a larger population to obtain more precise results is pointed out. The conclusions and discussion reflect the need to implement interventions aimed at improving the non-psychotic dimensions of the disease in order to increase the well-being and quality of life of this population group.
	RESUMEN
Palabras clave: Esquizofrenia, calidad de vida, autoestima, ansiedad y depresión	Esta investigación analiza la percepción de las variables, Calidad de Vida, Autoestima, Ansiedad y Depresión en personas con esquizofrenia, utilizando como herramienta de medida diferentes test para su evaluación. Se dispone de una muestra de 70 participantes, de los que 19 personas pertenecen a usuarios de un Centro de Rehabilitación Psicosocial, y los 51 restantes a población normativa. Se trata de un estudio descriptivo transversal, donde los resultados obtenidos indican una marcada diferencia significativa en las subescalas de la Calidad de Vida correspondientes a Salud Física, Salud Psicológica y Relaciones Sociales. Se aprecia, así mismo, una distinción en las puntuaciones de Autoestima y Depresión, confirmándose con ello el cumplimiento de tres de las cuatro hipótesis de la que parte la investigación. No obstante, se señala la necesidad de ampliar la investigación con una población más extensa que permita la obtención de unos resultados más precisos. Las conclusiones y la discusión reflejan la necesidad de implementar intervenciones destinadas a la mejora de las dimensiones no psicóticas de la enfermedad, de cara al incremento del bienestar en la calidad de vida de este grupo poblacional.

Introduction

Schizophrenia is defined as a severe psychotic disorder, which presents important alterations in the individuals who suffer from it. Among the defining signs are positive symptoms, negative symptoms and cognitive disturbances (Faden & Citrome, 2023). According to the DSM-5 (American Psychiatric Association 2014), symptoms must persist for an extended time, usually six months, with one month of intense symptoms.

This disorder usually begins during adolescence or early adulthood (Keshavan et al., 2020), affecting more than 21 million people worldwide (Subdirectorate General for Health Information, 2021); with a permanent lifetime risk of 1% (Lam et al., 2019). Different researches warn that schizophrenia is the result of gene/environment interaction during neurodevelopment in childhood or adolescence (Jaaro-Peled & Sawa,2020). Among its environmental risk factors can be highlighted: complications during pregnancy and childbirth, social isolation, childhood trauma, urbanicity and substance abuse among others, negatively impacting over time and influencing the development of the individual's disorder (Stilo & Murray, 2019).

Recent studies support the existence of the role of glutamate deficient neurotransmission, in the mediation and development of cognitive symptoms (difficulty in attention, working memory and executive function) and negative symptoms (loss of motivation, interest and enjoyment of daily activities (Girdler et al., 2019). This type of psychological alterations is those that are interpreted as fundamental predictors of a possible type of need and dependence, leading to a marked loss of capacity for autonomy, associated with a constant need for care and support, either by the family environment or by a third person who is in charge of providing help or fulfilling the Activities of Daily Living, both basic and instrumental (de León et al., 2016).

Numerous investigations show a negative prognosis of the quality of life of people with schizophrenia, however recently there is the emergence of a new positive hypothesis in relation to this variable, where it is considered that this disorder is heterogeneous, with the possibility of finding some patients who meet the criteria of the disease and have an adequate quality of life, along with autonomy, social ties and economic and organizational independence; currently, studies have shown that optimal pharmacological and psychosocial treatment can improve in 1 out of 7 people, not only the symptoms of the disease itself, but also the social and cognitive functioning of the same, resulting in an improvement in their quality of life (Silva & Restrepo, 2019).

The purpose of this research will be to test whether the perceived levels of quality of life, self-esteem, anxiety and depression in people with schizophrenia are comparable to the levels of these same variables in the normative population.

Quality of Life

It is a complex and multiple concepts, which has been used to study the most relevant areas of people's lives, including both physical and psychological well-being, the economy, social relations, convictions and the life situation itself (Ramón-Arbués et al., 2022). This concept encompasses several dimensions: the state of physical health, the state of psychological health, social relationships and the environment. The assessment of this variable in a patient will describe the impact that the disease and the treatment will be having on the person's perception of happiness (Schwartzmann, 2003).

Quality of life in people with schizophrenia is lower than that of the normative population or people with other types of incurable diseases (Lin et al., 2023).

Self-Esteem

Self-esteem is considered an internal attitude, which is at the basis of personality development and psychic stability, as well as being responsible for adaptive processes in the person's life (Dore, 2017). Different studies revealed that people with low self-esteem, compared to those with high self-esteem, externalized inadequate interpersonal perceptions and behaviors, hindering the development of intimacy and perceiving or provoking less responsiveness in others (Forest et al., 2023).

According to Pardede et al., (2020), 24% of people suffering from schizophrenia, scored below the mean score on this construct, furthermore they stated that these patients presented a notably lower score compared to other psychiatric illnesses.

Anxiety

According to The American Psychiatric Association (2014), anxiety is "the anticipatory response to a future threat," which causes the sufferer to remain in a continuous state of vigilance that triggers fear and inordinate worry. The presence and magnitude of anxiety symptoms, are related to more severe clinical features and worse outcomes in schizophrenia (Braga et al., 2013). People with schizophrenia have 30% to 62% comorbid anxiety disorders associated with a higher overall burden (Howells et al., 2017).

Depression

This disorder is characterized by a permanent melancholic mood and a significant loss of interest in the tasks of daily life, which used to be motivating and pleasurable for the person, not finding the strength to carry them out; all this together with intrusive thoughts related to death and signs of discomfort, both physical and cognitive, causing a decrease in the subject's quality of life (Marx et al., 2023).

Some authors have shown that depressive symptoms are quantitatively and qualitatively among the most significant properties of schizophrenia (Ander Heiden et al., 2005).

Objectives and Hypotheses

The general objective will be to verify if the perception of quality of life, self-esteem, anxiety and depression of people with a diagnosis of Schizophrenia is comparable to that of the rest of the normative population.

The main hypotheses of the study will be:

- People with a diagnosis of schizophrenia have a significantly lower mean "quality of life" than the normative population.

- People with schizophrenia will score statistically lower on the variable "self-esteem" compared to the population without schizophrenia.

- People with the aforementioned disease will be notably more prone to suffer from "depression" than healthy people.

- The population with severe mental illness will present higher rates of "anxiety" than the normative population.

Hypothesis testing will try to decide the probability that the research objective is true or false.

Method

Participants

For this project, the selected sample has a size of 70 subjects, of which 19 will correspond to people with Severe Mental Disorder, in this case, Schizophrenia (clinical group), users of the Psychosocial Rehabilitation Center of Padre Menni and another 51 people will be selected as the normalized population (normative group) aged between 18 and 65 years of age. The recruitment method was discretionary, that is, probabilistic tools were not used. The only inclusion criterion for the selection of participants was, on the one hand, people diagnosed with schizophrenia and, on the other hand, people without any type of mental illness.

Instruments

Quality of Life Scale WHOQOL-BREF

The WHOQOL-BREF questionnaire was designed in 1994 by the World Health Organization (WHO). The Spanish version (Lucas, 1998), consists of 26 items, 2 of which integrate general questions on the perception of quality of life and satisfaction with the state of health and 24 questions grouped into four dimensions: physical health, psychological health, social relations and environment, contemplated in a reference period of two weeks. The response scales are of the Likert type, with 5 response alternatives (Espinoza et al., 2011). For its correct scoring it will be necessary to take into account that not all the items of the different areas are scored directly, since, in the "physical health" variable, items 3 and 4 will have their scores inverted. As for the variable "psychological health", the inverse item corresponds to number 26. In its correction, the higher the score in each dimension, the higher the perceived quality of life of the person evaluated (WHO, 1994). It presents a high overall internal consistency of 0.89, established by means of Cronbach's Alpha coefficient; obtaining "α" values above 0.70 for all the dimensions of the scale (Cronbach & Shavelson, 2004).

Rosenberg Self-Esteem Scale.

This evaluation test was created by Morris Rosenberg (1965) with its subsequent adaptation to Spanish by the authors (Martín-Albo et al., 2007). The questionnaire is made up of 10 items, 5 of which are stated positively and the other 5 negatively. The first 5 items will be scored directly and the following items will be scored inversely. All questions will be evaluated using a Likert scale with 4 response options (Balaguer Pich et al., 2018; Guijarro Orozco & Larzabal Fernández, 2021). The average application time is between 2 and 5 minutes, focusing the application of this instrument on people of the population aged 11 years or older. In relation to the internal consistency of the scale, values of 0.86 are obtained in Cronbach's alpha, which was a clear indicator of the high reliability that the test possesses (Morejón et al., 2013; Schoeps et al., 2019).

State-Trait Anxiety Inventory (STAI).

This instrument was developed by Spielberger et al., (1970), later adapted to Spanish by the authors Buela-Casal et al., (2011). It is a self-administered test, for individual or collective application for the evaluation of anxiety in adolescents from 16 years of age onwards, as well as in the adult population. It is composed of two scales of 20 items each, with independent criteria of anxiety: "state anxiety" and "trait anxiety".

The "state anxiety" scale will measure anxiety as a transient condition, characterized by subjective and consciously perceived feelings of stress and attachment among others (e.g., exams, job interviews). As for the "trait anxiety" scale, this concept

would explain the relatively stable anxious propensity that the person has and the tendency to perceive most situations in daily life as threatening, continuously raising their state anxiety (e.g. at work, social relationships) (Castillo Pimienta et al., 2016; Marteau & Bekker, 1992).

In the adaptation to the Spanish version of the STAI, in the "state anxiety" factor (A/E), an internal consistency of 0.94 is estimated, and for the "trait anxiety" subscale (A/R) it is 0.90, thus reflecting a high reliability index (Riquelme & Casal, 2011). In relation to the instrument as a whole, Cronbach's alpha in normal population is 0.94, and 0.98 in clinical population, reflecting equally a very good internal consistency (Ortuno-Sierra, et al., 2016).

Beck Depression Inventory (BDI)

This instrument was originally developed by Beck and his collaborators in 1961. It includes 21 questions that will evaluate the symptomatology and intensity, which the person presents around depression (e.g., sadness, thoughts of suicide and others), ordered by the level of severity, the subject will choose the option that best approximates his intermediate state in the last week, incorporating the day on which the test will be performed. Bearing in mind that if, for different reasons, the subject is confused in the choice and checks more than one box, the choice that reflects the highest severity will be considered valid (Vazquez & Sanz, 1999).

The BDI gives a Cronbach's alpha coefficient of 0.83, indicating good internal consistency (Beck et al., 1988).

Procedure

The study consists of conducting a series of psychometric tests, to later carry out a comparison of the results obtained during the evaluation of two different groups.

Before starting the selection process of the study participants, the approval of the Research Ethics Committee of the Universidad Europea del Atlántico was necessary and essential. On the other hand, it was also necessary to have the consent of the management of the Padre Menni Psychosocial Rehabilitation Center for the elaboration of questionnaires and their correction, being also essential the generosity and collaboration of the internship tutor (carried out in that center for 4 months).

The "normative group" is composed of 51 participants belonging to the general population, while the "clinical group" is made up of 19 people with severe mental illness, whose main diagnosis is schizophrenia.

The research project begins with the delivery of the information sheet to the selected participants about the study to be conducted. They are told that it is not necessary to answer at the time, and are asked to read the letter carefully, and can take it home for consultation, if necessary, with their family and/or friends.

Once participation is accepted, the research process begins, with the appropriate explanation to each person (clinical/regulatory group) about the project, which will be voluntary. Thanking them for their participation, they are informed that this involves the measurement of a series of variables, for which the completion of four questionnaires will be essential: Quality of Life Scale (WHOQOL-BREF), Rosenberg Self-Esteem Scale, Beck Depression Inventory (BDI) and the State-Trait Anxiety Inventory (STAI). The collection of sociodemographic data is carried out by means of the "Informed Consent", a document designed with the purpose of inviting each of the selected persons to participate in the research work, offering all the necessary information and clarifying all the doubts that may arise prior to the study; taking the decision to collaborate voluntarily in the study, which they may also revoke, if for any reason, they do not wish to continue participating

in it, signing the document at the end of its reading and keeping it under the responsibility of the researcher. The importance of the ethical commitment of all psychologists is explained to them, in relation to the confidentiality of the personal data of each of the persons who will participate in the study. It is indicated that the questionnaires to be completed are totally anonymous, with the clarification in one of them, since "Beck's inventory" presents data at the top of the questionnaire that should be obviated, i.e., not filling them in, respecting anonymity and avoiding possible doubts regarding confidentiality that could arise from not reviewing this point, being checked at each delivery and erasing them, if by mistake they had been written, in front of the participant for their complete peace of mind; the participants themselves will be the ones to integrate them in a random way, in a file cabinet specifically for this purpose.

Subsequently, the questionnaires were corrected using the scales provided by the creators of the questionnaires. The data are then added to an Excel spreadsheet to create the variables that will be used in the statistical analyses. The data are then exported to the statistical program, where the pertinent analyses are carried out and the discussion and conclusions of the present study are written.

Statistical Analysis

This was a cross-sectional descriptive study whose statistical data were analyzed with the SPSS program. The statistical analysis is based on the interpretation of the difference of means in the study variables, by means of the T-student test, by means of which the value of statistical significance and the size of the effect "Cohen's D" is obtained.

Results

In the total sample, the percentages of the sociodemographic variables are presented below: in relation to "sex", the sample is divided into: the "women" group (65.70%), while the "men" group (34.30%). With respect to "age", the sample is divided into three age groups: "18 to 30 years" (10.00%), "31 to 45 years" (24.30%) and "46 to 65 years" (65.70%). In terms of "level of studies" the sample was divided into: "primary studies" (17.10%), "intermediate level studies" (60.00%) and "university studies" (22.85%). In relation to "marital status", the sample is divided into: living "in a couple" (17.14%), being "married" (32.85%), being "separated" (14.28%), being "single" (34.28%) and being "widowed" (1.42%).

The following table shows the sociodemographic data of the sample (see Table 1).

Table 1

Sociodemographic data

		Clinical (N=19)	Normative (N=51)
Sex	Men	8	16
	Women	11	35
Age	18-30 years	0	7
	34-45 years	4	13
	45-65 years old	15	31
Studies	Basics	6	6
	Media	11	31

	University students	2	14
Marital status	As a couple	2	10
	Married	0	23
	Separated	4	6
	Single	13	11
	Widowed	0	1

Based on the above, the two groups were equivalent in terms of sex ratio, $\chi^2(1) = 0,71$, $p = 0,40$, in terms of age group, $\chi^2(2) = 3,42$, $p = 0,.181$, and in terms of educational level, $\chi^2(2) = 4,92$, $p = 0,085$. In the marital status variable, there were differences between the groups, $\chi^2(4) = 19,31$, $p = 0,001$, so that in the clinical group there were significantly more single people, and in the normative group, more married people and couples. Therefore, this variable is introduced into the analysis as a covariate.

Statistical analysis: MANCOVA

In this study, this analysis is used to determine whether there are significant differences between the means of the independent variable (people with or without schizophrenia) and the covariate (marital status).

A significant multivariate effect was found as a function of the group variable, F(8, 59) = 6.12, p < 0.001. Marital status had no significant effect, F (8, 59) = 1.08, p = 0.390. The univariate data are presented in the table below (see Table 1).

Table 2

Comparison of group means (clinical and normative)

	Group				*F*	η^2
	Clinical (n = 19)		Normative (n = 51)			
	M	SD	M	SD		
Cal. Life - Physics	22,06	4,385	27,80	3,335	32,16***	0,33
Cal. Life - Psychological	18,83	3,808	22,57	2,722	15,01***	0,19
Cal. Life - Rel. Soc.	9,22	1,865	11,37	2,400	6,31***	0,09
Cal. Life - Environment	28,17	4,817	29,39	4,792	0,70	0,01
Self-esteem	30,67	4,790	34,55	5,522	6,83*	0,09
Depression	9,33	8,218	5,02	5,526	4,89*	0,07
Ans. State	17,72	11,686	16,61	8,836	0,04	0,00
Ans. Feature	22,11	12,014	16,63	9,537	2,90	0,04

Note.
*$p < 0,05$, ** p < 0,01, *** p < 0,001

It has been observed that the measurement of depression presents a significant difference when comparing both groups. The same is true for the comparison of the "self-

esteem" variable, where the normative group has a higher statistical mean than the clinical group.

In relation to the variables that present greater significance, there are three subscales within the "quality of life" construct. The results show that in the items that make up the "physical quality of life", there is a significant difference in means, due to the fact that the normative group shows a higher score in relation to this variable. If "psychological quality of life" is considered, another significant difference in means can be seen, repeating the previous pattern: the group without disease obtains higher values in relation to the clinical group. To conclude, the last significant difference found in the research is found when studying the "quality of life in social relations", again observing a higher mean in the normative group.

Discussion and Conclusions

The present study corroborates previous research, which affirms that people with schizophrenia present lower scores in quality of life measures in relation to the normative population, according to the respective instruments used (Lin et al., 2023), with lower scores in the variable "self-esteem" (Pardede et al., 2020), with higher scores in both "state/trait anxiety" at a general level (Kaneda et al., 2003), highlighting the negative power of the confluence of depression/schizophrenia symptoms thus generating a decrease in the global functionality of these people (Conley et al., 2007). On the other hand, contrary evidence has been found, in relation to the quality of life of some people with a diagnosis of schizophrenia that affirm that, the combination of two appropriate treatments (pharmacological and psychosocial), provides in these patients an improvement in the symptoms of the disease, in cognitive and social functioning and ultimately in their quality of life (Silva & Restrepo, 2019).

The results obtained take into account the notable inequalities that appear between the two study groups (clinical and normative). In relation to the sociodemographic data, a significant difference was observed in the clinical group (schizophrenia), in the variable "marital status" (covariate). It is known that marriage is a community institution that requires social skills to develop good communication within the couple. Schizophrenia can diminish these competencies and make it difficult for these people to relate well; this is related to a low rate of marriages, mainly in men (Thara & Srinivasan, 1997). Similarly, patients with severe mental illness often present frequently with sexual dysfunction, either as a consequence of the illness itself or produced by the adverse effects of the medication of the illness, which limits the likelihood of establishing interpersonal and sexual relationships (Fanta et al., 2018). With respect to the main variables of this research, "quality of life, self-esteem, anxiety and depression", the results are explained in more detail below.

Focusing on the variable "quality of life" and dividing it into the subscales presented by the WHOQOL-BREF questionnaire, a significant difference was observed in the "physical health" of the clinical population, which can be explained by several factors: the first of these may indicate a lack of awareness or recognition of the disease, with the understanding that, as the cognitive functions in these patients are altered, this hinders adherence to treatment, leading to a worse evolution of the disease and resulting in greater relapses and a poorer prognosis (Sotelo et al., 2021), being the lack of empirical information what leads these people to have objectively erroneous perceptions about this variable. The next issue that is taken into account are the constant somatizations that these patients manifest in their daily life, believing that they happen to them because they

are physically ill. On the one hand, this psychotic distress manifested by these patients is responsible for all those physical symptoms that are difficult to explain, among which are dry mouth (52%), gastrointestinal problems (31%) and skeletal-muscular complaints (30%), leading to a prevalence of 24% in this clinical population (Calvo et al., 2003). On the other hand, the need to maintain constant monitoring of the disease (outpatient/hospital setting), due to the possible relapses and admissions that occur unpredictably, increasing an added danger in the decompensation that this disease produces in these people (Ayala Coronado, 2022), a reason that can influence in the same way, the perception that they express in their scores on physical health.

As for the variable "psychological health", a significant difference is also shown and a lower mean score is observed in the clinical group. The current situation of people with schizophrenia participating in this study is taken into account, since they regularly attend a psychosocial rehabilitation center, where professionals collaborate in the different areas of improvement or in the management of their weaknesses, helping in the same way in the enhancement of their strengths in their own environment (Florit-Robles, 2006), so it seems logical to think that their psychological well-being is more affected in this clinical group, more specifically, with everything related to the negative symptoms of the disease, which influence and directly affect the psychological health of these patients (Amador et al., 2019), so it is possible that this is the reflection of the scores obtained in the study of this variable.

Assessing the significant differences in "social relationships", it is not surprising that these scores are equally lower in clinical subjects, as confirmed by the numerous investigations reviewed for this work on this variable. Generally speaking, people suffering from schizophrenia usually have a childhood development marked by significant difficulties, which are considered predisposing to the future acquisition of schizophrenia, such as, for example, drug use in their developmental stage, affecting personal and social relationships (Stylo & Murray, 2019), or the abuse of alcohol, that even not knowing for sure, if the symptoms of the disease have favored such consumption, or if on the contrary have been the effects of the same, which have triggered schizophrenia; what is certain is that alcohol abuse is positively correlated with poor functioning in the social interaction of the daily life of these people (Villamil Salcedo et al., 2005), resulting in a negative perception of their social relationships and quality of life.

Next, it is observed in the variable "self-esteem", that people with schizophrenia present a significantly lower mean score than in the normative group, as in numerous research analyses on this variable, where high scores are not found in their results, which support a good self-esteem in these patients (Aragao & Silva, 2020). It is important to highlight the influence of social stigma, this includes a set of feelings, behaviors, beliefs and attitudes that determine in some way those prejudices and negative consequences of discrimination towards these people (Chang Paredes et al., 2018), otherwise, the subjective vision that these patients have about how others in their community see them and mainly how their family and friends see them with respect to the disease they suffer, considerably influences self-esteem in a negative way if they perceive it as unfavorable (self-stigma), hindering in many occasions, the adequate rehabilitation provided in Psychosocial Rehabilitation Centers (CRPS) to these patients (Ochoa et al., 2011).

On the other hand, in the variable "depression", it is observed that the subjects of the clinical group, score higher in this variable than in the normative population, which is not strange, since people suffering from this disorder, manifest in their daily life a symptomatology difficult to bear as the distressed mood with the loss of interest in any activity and that lack of energy that is accompanied by negative and ruminating thoughts

about different concerns (Marx et al., 2023), symptoms that remain present in schizophrenia, as the main characteristic of this disease (Ander Heiden et al., 2005), so it is logical to understand that the hypothesis initially put forward in this study is fulfilled.

All of the above confirms some of the hypotheses proposed in this research. However, it was also surprising to find that some of the variables analyzed in this study did not show significant differences in their results, so we will now try to find the relationship or limitations in these variables.

In relation to "quality of life", it should be noted that the "environment" subscale does not show significant differences in this variable. The questions in the questionnaire seem to be more suitable for people with disabilities, where the architectural barriers of the city, access to transportation, housing conditions, leisure activities..., (issues of this variable), are aimed at the safety and satisfaction of the person within the context in which he/she lives, being able to present different problems of mobility and autonomy among others, being more relevant their answers in relation to the perception they have of their quality of life in this variable. On the contrary, the users in the sample of this study (clinical population), are people who regularly attend the Psychosocial Rehabilitation Center (CRPS) and participate in different activities both for enjoyment and training. Their social relationships are adequate (friends, companions, partner...) and reinforced by the center, with autonomy in moving around, so it is less likely that they would be negatively influenced in the perception of this variable, showing no significant differences in it, compared to the normative population.

In relation to the variable "anxiety", and the hypothesis formulated "The population with mental illness will present higher levels of anxiety than the normative population", this hypothesis, initially proposed in this study, is not confirmed, i.e., no significant differences are found in the clinical population. The possible causes of the differences presented between the results of this study and those found in the literature reviewed for this research may be due to the limitation of the clinical sample, which may be insufficient (19 persons) for its evaluation, since, in the studies reviewed in relation to this variable, the samples presented in them are much larger and their results may be more precise.

Another of the limitations encountered was the failure to consider other equally important variables, such as "social stigma" and "self-stigma", variables that are very present in people suffering from schizophrenia and that negatively and intensely affect their quality of life, shedding more light on the study and providing relevant information for possible future treatments and/or psychosocial interventions.

At the same time, in order for these people to have a quality of life similar to that of the general population, it will be necessary to help by working on the elimination of the inadequate barriers produced by medication and collaborating in the indispensable needs for survival (del Cura Bilbao & Sandín Vázquez, 2021).

Conclusions

While it is true that increasing the study variables such as those mentioned above enriches the results and helps in the expansion of data and knowledge about the disease and its consequences, it is no less true that the intense effort required by these users to actively participate in the research by filling out the questionnaires, adding reading, understanding the instructions and paying full attention to them, is often difficult to achieve. As simple as it may seem and not generalizing in any case, it should be noted that there are people who find it very difficult to concentrate, who feel evaluated, with the

added fatigue and uncertainty generated by the research study and results, including the continuity of their participation, as has been the case of several users who, once their collaboration began, decided to decline their participation. This may provide the key to the fear generated by the possibility of believing that they are being evaluated and perceived in a negative way.

The main limitations of this study were the small size of the clinical population and the number of variables analyzed.

For all these reasons, it is very necessary to make society in general aware of the need to change the negative image of serious mental illness, particularly schizophrenia.

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74

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Analysis of Psychotherapeutic Experiences based on the Systemic Model in Families with a Terminal Patient

Análisis de Experiencias Psicoterapéuticas desde el Modelo Sistémico en Familias con un Enfermo Terminal

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	ABSTRACT
Key words: Systemic family therapy, terminally ill, resilience.	This article describes research with the families of terminal patients in the Municipal Hospital "Bajío del Oriente" in Santa Cruz de la Sierra, Bolivia. While interacting with terminal patients and their families, the need for systemic family therapy was recognized. Terminal illness interrupts the cycle of life of the individual as well as family dynamics. The objective of this study was to explore how systemic family therapy contributes to the emotional well-being and resilience of families facing the difficult situation of having a terminally ill loved one. Semi-structured interviews and participant observation techniques were used to collect qualitative data, which were analyzed using the thematic analysis approach. The Results revealed that systemic family therapy provided a safe space to express their emotions, engage in healthier relationships, and develop effective coping strategies. Additionally, the therapy was found to help strengthen family bonds and promote open and honest communication. These findings suggest that systemic family therapy can be a valuable tool in supporting families facing situations of terminal illness, providing them with a supportive space and promoting their emotional well-being.
	RESUMEN
Palabras clave: Terapia sistémica familiar, enfermo terminal, resiliencia.	El presente escrito describe una investigación hecha con las familias de enfermos terminales en el Hospital Municipal "Bajío del Oriente" de Santa Cruz de la Sierra, Bolivia. Al trabajar con los enfermos terminales se reconoció la necesidad del cuidado sistémico familiar. Una enfermedad terminal necesariamente es una fuente de estrés para todo el sistema familiar. La enfermedad terminal interrumpe el ciclo vital de la persona y la dinámica de la familia. El objetivo de este estudio fue explorar cómo la terapia sistémica contribuye al bienestar emocional y a la resiliencia de las familias que enfrentan la difícil situación de tener un ser querido en estado terminal. Se utilizaron entrevistas semiestructuradas y técnicas de observación participante para recopilar datos cualitativos, los cuales fueron analizados mediante el enfoque de análisis temático. Los

resultados revelaron que la terapia sistémica proporcionó un espacio seguro para que las familias expresaran sus emociones, se relacionaran de manera más saludable y desarrollaran estrategias de afrontamiento efectivas. Además, se encontró que la terapia ayudó a fortalecer los vínculos familiares y promovió la comunicación abierta y honesta. Estos hallazgos sugieren que la terapia sistémica puede ser una herramienta valiosa en el apoyo a familias que enfrentan situaciones de enfermedad terminal, brindándoles un espacio de contención y promoviendo su bienestar emocional.

Introduction

The experience of having a terminally ill loved one can be extremely challenging. Uncertainty, emotional pain and changes in family dynamics can generate great stress. Psychotherapy based on the systemic model has been shown to be effective in understanding family dynamics in the grieving process, changes in family structure in the face of death, addressing emotional needs, and promoting resilience.

The family is a whole where each member is part of a system, necessarily interacting with each other. generate situations of conflict and anxiety. Therefore, it is necessary to intervene together with all those who make up the family system. When the different subsystems are affected, alterations are caused in the rest of the family environment.

The systemic model has the family as its unit of analysis. Traditional models centered on the individual are not enough to understand the family. A new conceptualization is required, a new way of thinking, in which the object of analysis is not the individual but the system. Thus, the systemic model is inspired first by general systems theory and then by complexity theories.

Lynn Hoffman (1987) traces the history of systemic family therapy. By the 1950s in the United States, researchers such as Ackerman, Bowen, Boszormenyi-Nagi, Framo, Watzlawick, Don Jackson and Bateson, began to work more systematically with families. The psychoanalytic therapeutic process produced results-but before long they relapsed. This caused the aforementioned authors (among others) to begin research within the families of these patients.

This first organized effort was followed by Salvador Minuchin and Whitaker in the 1960s. Bertalanffy's ideas are assimilated to Systemic Family Therapy, defining a system "as a set of elements that maintain a constant interrelation among themselves, and are differentiated from the external environment, considering that certain groupings of its elements form subsystems" (quoted by Villareal-Zegarra, and Paz-Jesús, 1987 p. 47).

The second line that converges in the theoretical bases of systemics is Winer and Maruyama's cybernetics linked to the processes of homeostasis (maintenance of the status quo of a system) based on negative feedback and morphogenesis (process of change) related to positive feedback (Hoffman, 1987; Villarreal-Zegarra and Paz-Jesús, 2015).

Positive feedback has usually been considered from the point of view of its destructive effects on a system. There is an optimal feedback point. After that point the system will start to overcorrect causing the system to break down (Hoffman, 1987). The tendency to form personal interests, like social power, is, in essence, positive feedback beyond the sweet spot.

Something that characterizes families is their complex dynamics, in which emotional ties, projects in different phases, undertakings and confrontation with the problems that society poses on a daily basis have an impact on both their cohesion and their vulnerability. Therein lies the importance of research on therapeutic accompaniment from the systemic model, in order to understand and explain the different factors that can weaken the bond, increase conflicts or, on the contrary, be an opportunity to strengthen individual and group resilience. The framework for action will be the family system conceived by some authors as a group that is in a continuous process of change within itself as well as in its social context. In this way, it develops complex internment patterns in which each member fulfills different functions (Villarreal-Zegarra and Paz-Jesus, 2015).

The development of a terminal illness in a family member generates a series of maladjustments in the way the family functions and questions the ability of its members to cope with a difficult situation and can provoke complex situations that affect the functionality of the family system. The changes that occur do not follow a specific pattern, but will depend on certain family characteristics, such as family history, socioeconomic level, and the strength of their relationships, which determine the adequate adaptation to the new situation, not only the family system but also the patient (Ramirez, et. al., 2019).

Faced with the crisis of terminal illness, families find it difficult to make their habits more flexible and perpetuate previous patterns of functioning that may be ineffective in adapting to the new situation. These patterns (based on family history, values and rules) may hinder intrafamily communication, task distribution or role conflict, among others. The intervention of professionals in this situation should be aimed at making family functioning more flexible, for which it is necessary to know what the family is like, its rules and its capacity to adapt to new situations according to previous experiences (Cuesta, 2020). A circular epistemology is required, which Lynn Hoffman (1981) describes as a: "inextricable element of what he is trying to change" (p. 15). She explains that the therapist, family and other elements act and react on each other in unpredictable ways. Each action and reaction change the original situation-making circular epistemology necessary.

The family faces two stages during the patient's illness: the medical eviction stage that includes the announcement to the patient and family members of the end of possible treatments; and, the second stage is the patient's dying-a transition period in which some vital signs are still present and are gradually lost until the patient's life is ended. It is then that it becomes relevant to adequately face the inevitable fact in the family system. For them, systemic support is offered in order to achieve an understanding of the issue they are experiencing and the importance of the behavioral inheritance they leave to the next generations.

Authors such as David Kissane and An Hooghe (2022) argue for systemic family therapy as an effective approach to dealing with bereaved families. Generally, sharing the distress helps your recovery. Family therapy builds bridges between generations, utilizes an existing source of support, and allows for the cultivation of relational meaning as a key resource for recovery. The resilience of most families serves the needs of the grieving process admirably. Healthy families comfort each other, recognize and respond to needs, and encourage healthy adaptation among their members. For therapists, the challenge arises between families that are divided, or have damaged relationships, competition or lack of mutual support.

Likewise, Worden (2018) cites the literature (Gajdos, 2002; Roose and Blanford, 2011) in stating that an important reason for examining family systems is that unresolved grief not only serves as a factor in family pathology, but also contributes to multigenerational pathological relationships.

On the other hand, Kissane and Hooghe (2022) present several goals in systemic family therapy: (a) to recognize that illness, loss, and change entail human emotions of grief that are normal along with a transition point that is an opportunity to review, reconnect, and reconfigure, which flow from their relational and coping life; (b) to note areas of family relational strengths and cohesion that help balance differences in interests, temperaments, and disagreements that produce tension and vulnerability in the family; c) strengthen their acceptance of who they are as a family and what they can become by clarifying paths of mutual respect and caring, recognizing similarities and differences, embracing compromise, tolerance, and forgiveness; d) support each other through a period of reconciliation and reconfiguration as they grieve and choose future family life.

In their work, *Intervención desde el modelo sistémico*, Feixas, Muñoz, et al., (2016) state that systemic schools have the characteristic of finding the way to deepen in the basic systemic notions to develop their own style that allows them to work with families by placing their emphasis on this. On the other hand, they seek to exchange ideas with other schools they already know and thus enrich the possibility of intervention. In fact, almost all training programs in systemic family therapy teach content derived from various schools.

A theme very close to that of death that is accompanied by others such as grief, bereavement, is the concept of resilience-a term that has been adapted to the social sciences to characterize those people who, despite being born and living in high-risk situations, develop psychologically healthy and successful. These are subjects who, with their attitude and

mentality, have been able to positively overcome the limits that medical science predicted for them. R. Spitz in the sixties and J. Bowlby with the first attachment theory, were the first scientists of resilience (Arciniega, 2005).

The family nucleus faces this process and it is when the human being's capacity to emotionally restructure in the face of an adverse situation arises in order to adapt to its new needs in order to manage or maintain an appropriate mental health that allows it to continue with its daily functions, which is called resilience. The role of resilience in the face of high vulnerability, such as facing the news and process of a terminal illness and the possibility of losing a family member, is very important.

Javier Cabanyes Truffino (2010) defines resilience as: "the ability to recover from extreme traumatic situations is called resilience" (p. 145). It also identifies family characteristics that result in resilience, highlighting positive outlook, spiritual sense, communication and agreement among its members, flexibility, family time and fun sharing, and the existence of rules and routines.

Palliative medicine treats the patient and family as a unit to be treated. The illness of the family member produces discomfort in the group, communication problems, relationship problems, anguish, role changes and they tend to create strategies to face health and economic problems. Astudillo also states that both the family and the patient need to be heard in their distress, frustration, anxiety and feelings of guilt. As well as guidance for proper care of the sick person that becomes a sign of affection towards him, which in some way will help the family with their subsequent grief (Astudillo and Mendinueta, 2018).

A patient is considered terminally ill when he or she has an advanced, progressive disease with a severe prognosis and numerous symptoms that are closely related to the possibility of death. It is the sum of events prior to death, which must be faced by the patient and the family. It is important that the family understands what to do and what to expect in this terminal stage in which their sick family member is, providing the necessary support to avoid the physical and psychological suffering of the patient and the family (Allende-Pérez and Verástegui-Avilés, 2016).

There is a consensus among health personnel on important aspects that are appropriate for the patient's well-being, such as providing the patient with physical well-being, providing food, hygiene, rest, medical care, visiting, touching, and physical accompaniment. The affective relationship with the patient is also of vital importance; we must try to satisfy the patient's need to feel contained in his or her emotions. The patient needs to be surrounded by their loved ones in a sense of familiarity, of a transparent relationship where the truth is told regarding their diagnosis and prognosis, they need to know the symptoms that are normal to their disease and it is their right to know the truth regarding their health status. Family therapy aims to induce an adequate family organization that maximizes its potential for the growth of its members. The capacity they have to affect the structure of the system, a therapeutic strategy that focuses on not substituting the roles that the disease has imposed, the recovery of the roles that have ceased to be exercised can help to contain the family and the patient, and above all to prevent the family nucleus from developing a chronic crisis (Parra-Fabara, 2021).

Faced with a diagnosis of terminal illness, there are many issues that the family must face, such as death, which, of course, generates a crisis within the family, but the family will also be responsible for the remaining time of life of the sick family member. There is a confrontation of situations from the news of the diagnosis, possible treatments, prognosis of the clinical picture, the emotional, social, economic effects, etc., will provoke an intervention in the patient from all possible areas.

Steinhauser, et al., (2000) studied the factors considered important at the end of life by patients, family, physicians, and other caregivers. Their study involved three hundred and forty terminally ill patients; three hundred and thirty-two family caregivers; three hundred

physicians; and four hundred and twenty-nine others (nurses, social workers, chaplains, and etc.). The survey results suggest that for patients and their families, physical care is crucial, but it is only one aspect of total care. While physicians tend to focus on physical aspects, patients and their families view the end of life with a broader psychosocial and spiritual meaning shaped by a lifetime of experiences. There is no single definition of a good death. Care of the terminally ill patient is highly individualized and should be achieved through a process of shared decision making and clear communication that recognizes the values and preferences of patients and their families. Patients, families, caregivers, and physicians all play a critical role in shaping the end-of-life experience.

Elizabeth Kübler-Ross (2009) notes that attention should be paid to the dying for three reasons: a) they are still alive and still have unfinished business that they want and need to share; b) we need to listen actively so that we can identify with them in relation to their needs for care; c) they have much to teach us about the final stages of life with their anxieties, fears, and hopes. The central message of Kübler-Ross's *On Death and Dying* is the importance of listening to what the dying have to say about their needs, and trying to put oneself in their shoes at each of the final stages of the patient's life.

Based on the above findings, it was necessary to create the Psychology Service with systemic family therapy intervention in the processes and protocols of the Municipal Hospital "Bajío del Oriente", following the medical protocols already established. The investigation was carried out from diagnosis of the terminal patient and notification of the family until death or discharge to die at home. It is hoped that the results of this study can contribute to the understanding of the effectiveness of systemic therapy in the context of terminal illness and provide relevant information to improve psychological care in this health situation affecting the patient and his or her family.

Method

Research design

A qualitative phenomenological study was carried out in which semi-structured interviews, field notes, and group discussion were conducted with families receiving systemic therapy at the "ajío del Oriente"Municipal Hospital. Paley's nterpretive phenomenological design was used (2018). The phenomenological method is "form of interview-based research that usually invites interviewees to talk about their experiences, and aims to elucidate the meaning of the phenomenon of interest" (Paley 2018, p. 2).

The main characteristic of qualitative studies is the importance of seeing social phenomena in the light of the context, the experiences, since a proper analysis could not be carried out separately. It uses observation and is oriented towards the process and develops a description of the phenomenon to be investigated, making use of different techniques that serve for the recovery of data and its explanation. All this set must be understood as natural, in order to comply with the characteristics of a research with a qualitative methodology (Balcázar Nava et al., 2013).

Participants

We worked with 10 families with a terminally ill patient hospitalized at the Bajío del Oriente Municipal Hospital. Given the culture and structure of the family system in Bolivia, extended family members who live in the home and are in some way related to the patient and his/her care also participated. The research period was between January 2022 and November 2023. Patients were referred from intensive care or internal medicine to the Psychology Service. Intervention began with each family at the time of diagnosis of terminal illness. The

hospital physicians referred the patient to the investigating psychologist to inform the patient and family of the diagnosis. This according to the protocol implemented by the presence of the Psychology Service implemented for the purpose of the doctoral research.

Procedure

Participant observation techniques were used to obtain a more complete picture of family interactions during therapy sessions. Participants were selected if they had a loved one who was terminally ill and willing to voluntarily participate in the study. The interviews were recorded and transcribed for later analysis. The thematic analysis approach was used to identify relevant patterns and themes in the data collected.

Techniques were applied to analyze the phenomena from the point of view of each of the family members from a collectively constructed perspective. The discourse and specific themes in the family in the face of the situation were analyzed, as well as the search for meaning. The family's experiences were contextualized in terms of temporality (time in which they occurred) and the relational context-the bonds generated during the experience-by focusing on both the patient and the family to obtain firsthand information. Recordings and field notes were used for data collection during the interviews. The individual data files contain: the consent agreement, the semi-structured interview notes, observations subsequent to each interview, additional data volunteered by the participant, and preliminary grouping of words and phrases into themes related to the research.

Systemic family therapy was used to examine family dynamics and worked on communication, limit setting and conflict resolution. In addition, emotional support strategies, such as individual and group support, were employed to help family members express and manage their emotions in a healthy way. Education about the terminal illness and the grieving process is also essential to provide the family with information and coping tools.

The development of resilient capacities in the family was identified based on systemic psychotherapy. Systemic psychotherapy has been shown to play an important role in the development of resilience in families coping with terminal illness. Through this perspective, we sought to strengthen the family's internal and external resources to face challenges and adapt to changes. In systemic therapy, we work on identifying and strengthening the family's support systems, whether at the interpersonal, community or spiritual level. Open communication and the establishment of healthy boundaries within the family were promoted to facilitate collaboration and mutual support.

In addition, patterns and family dynamics that may be hindering resilience were explored, and strategies and techniques to modify them are offered. Family members are encouraged to seek joint solutions, share responsibilities and work as a team to cope more effectively with the terminal illness and the grieving process. Systemic psychotherapy can also help identify and strengthen each family member's individual resources, such as personal resilience, coping skills, and ability to find meaning and hope in difficult times.

To gather information about the psychotherapeutic experiences of the families, methods were used that led to a deep and meaningful understanding of their experiences. Through semi-structured interviews and questionnaires the perceived change and other relevant aspects of the therapy. Semi-structured interviews were used which provided the opportunity to explore in depth the experiences and perceptions of the families, allowing them to express their feelings, challenges and improvements throughout the therapeutic process. These interviews were recorded and later transcribed for further analysis.

Data Analysis

Data analysis involved identifying common experiences when interacting with families and the terminally ill, identifying words and phrases that related to the topic and might indicate

resilience. The researcher looked at the different ways in which families experienced grief and managed the family, patient, and medical staff relationship. The units of meaning relevant to the research questions were delimited and analyzed with psychological terms. Relevant meaning units were marked with different colors in order to code the text of the interviews. The citations were then extracted and classified according to the objectives of the study. The variables of interest in relation to the research objectives are: sociocultural context, risk factors, family typology, therapeutic techniques, resilient capacities. Key words (codes) were identified in relation to the variables. Although the objectives and variables of interest were established a priori in relation to the objectives, the emerging themes or codes were determined by the text.

The perspectives and meanings were grouped into an overall description of how families experience the eventual loss of a loved one. The end result is a description of the phenomenon through the eyes of people who have experienced it first hand.

Results

Analysis of the interviews identified several psychological risk factors in families with a terminally ill member. Some of the common factors mentioned by participants include high levels of stress, anxiety, distress, confusion, depression, feelings of guilt and loneliness. It was also noted that lack of social support and poor communication within the family can exacerbate interpersonal conflicts related to medical decision making and care of the terminally ill patient. Family members were observed who, when faced with the decision-making process, completely distanced themselves from the family nucleus. There were also other relatives who appeared even from other cities or regions, who for unimportant reasons had disappeared from the family picture and who appeared to contribute with their company and care for the sick person whom they had not seen for a long time.

Different typologies of families and the characteristics of their family dynamics emerged. There were families that showed a cohesive dynamic and mutual support, while others presented a conflictive dynamic and lack of communication. Families coped with terminal illness in different ways, including the degree of involvement of each member and the roles assigned. Through the observation of the families, it was possible to classify them into different typologies according to their characteristics and family dynamics. Cohesive families supported each other and showed greater emotional support. Families with more dysfunctional dynamics were also observed, with recurrent conflicts and difficulties in establishing clear limits and roles. These families had difficulty coping due to lack of emotional support and inability to make joint decisions. In addition, there are overprotective families, who may have difficulty accepting the reality of the terminal illness and may exaggerate in their care and protection, which can generate tensions and conflicts. It is important to note that these typologies are approximations and that each family has its own unique dynamics. However, recognizing these characteristics helped to tailor therapeutic interventions more effectively.

Positive changes were observed in the way families coped and adapted to terminal illness, such as increased problem-solving skills, greater flexibility in family roles, and improved communication and mutual support. The findings were compatible with Barnes and Figley (2005) with their five phases of family therapy.

A commitment was achieved to accompany the patient in the psychotherapeutic treatment and to the adherence to the medical treatment of all patients. The therapy helped patients to recall information, and to speak confidently in the family context without the need to defend their position.

For reasons of lack of time and others relevant to terminal patients and difficult or absent families, it was possible to reach a consensus and new meaning for the family to face the imminent death of the terminal relative in some families. Family restructuring as part of

therapy is noted in several of the patients in the study. In the case of absent and difficult families, more time is required than is available due to the hospitalization of the terminal patient.

The closing and preparation stage consists of a discussion on the need for intra and extra-familial social support and should be able to discuss to whom they would turn in the future in times of need. Being more prepared to accept the inevitable makes healthy grieving more likely. It was possible to involve patients in this stage of preparation for resilience.

These techniques focused on improving family communication, strengthening emotional support, and helping families develop effective coping skills. facilitating adaptation to the terminal illness situation.

When analyzing the development of resilient capacities in the family based on systemic psychotherapy, it was noted that it was efficient. During the interviews, systemic therapy was found to help families understand interaction patterns and identify internal and external resources for coping with terminal illness. In addition, systemic therapy was highlighted as fostering resilience by promoting adaptation and positive change in family dynamics. Resilience rested in most families:

1. On the responsibilities designated to you by the deceased family member.
2. In the acceptance of the family that respects such a decision.
3. The family adheres in some way to support the fulfillment of the wishes of the departed.
4. Teamwork that defines the new roles and functions that correspond to this new family structure.

Participants shared their perceptions of the benefits of therapy, such as increased understanding of the disease, improved family communication, and relief of emotional stress. Some challenges were also highlighted, such as initial resistance to therapy and the need for continued commitment to maintain the changes achieved.

Overall, the results provided a comprehensive view of psychological risk factors, family typologies, therapeutic techniques, resilience development and psychotherapeutic experiences in families with a terminally ill member. These findings can be very useful for the design of more effective therapeutic interventions focused on the needs of these families. The study provided valuable information on the psychotherapeutic experiences of the families, which were subsequently analyzed. These experiences included family members' perceptions of the effectiveness of the therapeutic intervention, the changes observed in their family dynamics, and the impact on their psychological well-being

Systemic therapy provided a safe space for families to express their emotions and share their concerns. The therapy facilitated open and honest communication between family members, which allowed them to strengthen their bonds and support each other. In addition, therapy was observed to help families develop effective coping strategies and find a sense of hope and resilience in the midst of adversity. These findings suggest that systemic therapy may be a valuable intervention in supporting families coping with terminal illness.

Discussion and Conclusions

In order to carry out this research work, we worked with 10 families with a terminally ill patient hospitalized in the Bajío del Oriente Municipal Hospital. Given the culture and structure of the family system in Bolivia, extended family members who live in the home and are in some way related to the patient and his/her care also participated.

Following the analysis of the present research, it has been identified that families with a terminally ill member are exposed to a series of psychological risk factors. These factors include high levels of stress, anxiety and depression, feelings of loss and anticipatory grief, family

conflicts and communication difficulties. It is essential to be able to recognize these risk factors in order to be able to intervene effectively and provide adequate psychological support to these families.

The psychologist's job in this intervention was to make the family feel accompanied, providing information and a link between the family and the rest of the hospital team. It also provides the patient and his family with the necessary tools to face the situation by strengthening their emotional state, favoring adaptation to the disease process and its inevitable end.

Systemic therapy provided a safe space for families to express their emotions and share their concerns. The therapy facilitated open and honest communication between family members, which allowed them to strengthen their bonds and support each other. In addition, therapy was observed to help families develop effective coping strategies and find a sense of hope and resilience in the midst of adversity. These findings suggest that systemic therapy may be a valuable intervention in supporting families coping with terminal illness.

This study explored psychotherapeutic experiences from the systemic model in families with a terminally ill person. The results indicated that systemic therapy provides valuable support to these families in different aspects of the family nucleus:
a) promoted emotional well-being; b) strengthened emotional bonds; c) facilitated the expression of emotions; d) promoted open and honest communication; e) helped families develop effective coping strategies.

These findings highlight the importance of providing psychotherapy services based on the systemic model in the context of terminal illness, and underscore the need to continue researching and developing appropriate therapeutic interventions for these situations in which emotional support is of vital importance for the entire family and the patient.

Overall, the study provided a broad overview of the psychological risk factors present in terminally ill families, as well as the typologies and family dynamics observed. It also made it possible to analyze the impact of therapeutic interventions and the development of resilient capacities in the families, as well as to gather relevant information on the psychotherapeutic experiences of the families for subsequent analysis and improvement of the care provided.

The accompaniment of the family in times of terminal illness strengthens communication and affection among survivors. Developing coping mechanisms for dealing with conflict and adapting to change is more fluid with the intervention of a therapist using systemic family therapy guidelines. The presence of an intermediary helps reconciliation and the establishment of new roles to make up for the absence of the deceased family member. Family counseling strengthens parent-child relationships to achieve mutual understanding, settlement of differences, and effective coping with risk factors associated with confusion, doubt, anxiety, stress, and deterioration of interpersonal relationships in the family. By being in the process, the terminal patient has more peace of mind concerning issues that would not normally be addressed and even those that are no longer relevant to address at this time. Among the limitations in conducting this research is the short period of time between diagnosis and death or the removal of the patient and family from the hospital to end their days at home. In some cases, the family was absent when they learned of the diagnosis due to lack of funds to continue with treatment, which depending on the pathology, the cost can be high. Future studies based on the results can work with categories defined in a psychological service protocol to be followed during the intervention with terminally ill patients and their families.

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Portuguese Teacher Attitudes Towards Inclusive Education in Basic and Secondary Schools
Atitudes dos professores portugueses do ensino básico e secundário perante a educação inclusiva

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	ABSTRACT
Keywords: attitudes, inclusive education, teacher, Portugal, MATIES.	Introduction: The availability of teachers to make personal, organizational and academic adaptations in their classrooms is essential for the implementation of inclusive education. This availability is influenced by teacher's attitudes towards inclusive education. There are not yet many quantitative studies regarding the attitudes of Portuguese teachers towards inclusive education. This study aims to examine the attitudes of Portuguese teachers towards inclusive education, as well as the correlation with demographic and professional characteristics. A quantitative study with a non-experimental, descriptive and correlational design was proposed, using a demographic questionnaire and the MATIES scale (Multidimensional Attitudes toward Inclusive Education Scale). The sample was made up of 437 primary and secondary school teachers in Portugal. Results: The results show that teachers have a generally positive attitude towards inclusive education. No influence of gender, age or type of teacher variables on teachers' attitudes towards inclusive education was identified. Discussion: Teachers have a good level of confidence in their ability to work in the field of inclusive education, but report a lack of specific training in this area. The implications of this evidence in the theoretical and practical field are discussed, as well as the limitations of using attitude assessment scales for inclusive education.
	RESUMO
Palavras-chave: atitudes, educação inclusiva, professores, Portugal, MATIES.	Introdução: Para a implementação da educação inclusiva, é fundamental a disponibilidade dos professores em efetuar adaptações pessoais, organizacionais e académicas nas suas salas de aulas, disponibilidade essa que é influenciada pelas suas atitudes face à educação inclusiva. Não existem ainda muitos estudos quantitativos acerca das atitudes dos professores portugueses perante a educação inclusiva. O objetivo deste estudo é o de analisar as atitudes dos professores portugueses em relação à educação inclusiva, bem como o efeito de características demográficas e profissionais sobre essas mesmas atitudes. Metodologia: Foi proposto um estudo quantitativo, com um desenho não experimental, descritivo e correlacional, com recurso à aplicação de um questionário demográfico e

da escala MATIES (*Multidimensional Attitudes toward Inclusive Education Scale*). A amostra foi formada por 437 professores do ensino básico e secundário de Portugal. Resultados: Os resultados mostram que os professores têm uma atitude geral positiva em relação à educação inclusiva. Não foi identificada influência das variáveis de género, idade ou tipo de professor na atitude dos professores perante a educação inclusiva. Discussão: Os professores da amostra demonstram um bom nível de confiança na sua capacidade para trabalhar no âmbito da educação, mas relatam carência de formação específica nesta área. São discutidas as implicações destas evidências no campo teórico e prático, bem como as limitações do uso de escalas de avaliação de atitudes para a educação inclusiva.

Introduction

According to the Salamanca Declaration (UNESCO, 1994), the concept of inclusive education refers to the idea that all children, including those with disabilities and special educational needs, should have access to mainstream schools and classes with the help of human and technical resources appropriate to their situation.

The concept of inclusive education has been progressively adopted and incorporated into national legislation in various countries. However, the implementation and promotion of education has proved to be a substantial challenge and, according to the European Agency for Development in Special Needs Education (EADSNE, 2012), segregated education has not substantially decreased in many countries.

It is essential to gain a deeper understanding of the mechanisms behind the difficulty in implementing inclusive education.

It is known that "inclusion depends very much on teachers' attitudes towards students with SEN, their view of differences in the classroom and their willingness to respond positively and effectively to those differences" (EADSNE, 2003, p. 15).

Teachers' attitudes have a significant influence on how inclusive educational practices are implemented (Forlin et al., 2008), with negative attitudes towards inclusion exerting an inhibiting influence on its success (Gibb et al., 2007). Teachers' attitudes affect the learning environment and the teaching approach (Ross-Hill, 2009).

According to Scruggs & Mastropieri (1996) the majority of teachers have positive attitudes towards the idea of inclusion, but a slightly smaller majority expressed a willingness to accept children with special needs into their classrooms.

Teachers' attitudes towards inclusion can be influenced by their belief in their competence to include these children, which points to the importance of the concept of self-efficacy, defined as teachers' confidence in their individual and collective ability to influence students' learning (Klassen et al., 2011).

Other variables that have been studied as mediators include teachers' training in special education, their experience of working with students with special educational needs and their amount of previous contact with people with disabilities. Having contact with people with disabilities is associated with more positive attitudes towards inclusion (Boyle et al., 2013). Teacher training has been positively correlated with inclusive attitudes (e.g. Ahsan et al., 2012), as has work experience (e.g. Sharma et al., 2006).

Teacher attitudes are associated with teacher categories, with special education teachers generally being the most positive group (Engelbrecht et al., 2013). School principals were also more positive than teachers (Boyle, 2014), and elementary school teachers were more positive than secondary school teachers (Chiner & Cardona, 2013).

As for the gender factor, the studies are not conclusive, with some studies finding no difference between male and female teachers (e.g., Chhabra et al., 2010); and other studies which show that female teachers have a more positive attitude towards inclusion (e.g. Alquraini, 2012). Only two studies found that male teachers felt more positive about inclusion than female teachers (Bhatnagar & Das, 2014).

As for age, this factor is also unclear, with some studies showing no association between teachers' ages and their attitudes towards inclusion (Chhabra et al., 2010) and other studies showing that younger teachers feel more positive about inclusion than older teachers (e.g. Ahmmed et al., 2014).

To assess teachers' attitudes towards inclusive education, many studies have used attitude assessment scales (Saloviita, 2015).

According to a review study by Ewing et al. (2018), the MATIES (Mahat, 2008) and the SACIE-R (Forlin et al., 2011) are the most psychometrically consistent questionnaires for

assessing teachers' attitudes towards inclusive education, as they consider all the affective, cognitive and emotional dimensions of the attitude components (Silva, 2019).

The MATIES (*Multidimensional Attitudes towards Inclusive Education Scale*) was developed by Marian Mahat in 2008 (Mahat, 2008), with the aim of creating a multidimensional instrument that could effectively measure the affective, cognitive and behavioral aspects of attitudes towards inclusive education, including its physical, social and academic dimensions; and contribute to a greater understanding of the theoretical nature and structure of attitudes and the knowledge base for the provision of inclusive education.

Since its initial creation, MATIES has been validated and applied in a range of languages, countries and educational contexts.

Srivastava et al. (2017) used MATIES to conclude that Indian teachers with more knowledge about inclusive education and disability are more positive about the inclusion of students with disabilities. The results also showed statistically significant differences in the affective and behavioral components between the two groups of teachers tested.

In Slovenia, Štemberger & Kiswarday (2018) showed that preschool and elementary school teachers have positive attitudes towards inclusion. They also show a positive understanding of inclusion and a willingness to adjust their behavior to enable effective inclusion.

In Nigeria, the study by Odo et al. (2021) investigated the roles of conscientious personality (based on the BIG five model) and work experience in predicting elementary school teachers' attitudes towards inclusive education. The results showed that conscientious personality and work experience positively predicted elementary school teachers' attitudes towards inclusive education.

On the other hand, in Slovakia, in the study by Barnová et al. (2022) the results revealed statistically significant differences in the affective and behavioral components between the two groups of teachers examined.

Polyzopoulou & Tsakiridou (2023) applied MATIES to a sample of primary and secondary general education teachers in Greece, showing that, in general, teachers expressed positive attitudes towards inclusion. They also found that the presence of and contact with the disabled person in the family are important factors in a more positive attitude towards inclusion, as well as the frequency of special education training, work experience and knowledge of the legal framework. Elementary school teachers develop more positive dispositions than secondary school teachers.

In Portugal, the concept of inclusive education is still a very recent idea and was only formally implemented in July 2018, through new legislation for inclusive education: Decree Law 54/2018 (Presidency of the Council of Ministers, 2018). Also called the "Diploma for Inclusive Education", this new Decree Law aims to provide effective learning opportunities for all children. Rejecting the reductive concept of "special educational needs", it assumes that there should be no arbitrary distinctions between children and admits that any student, at any point in their academic career, may need measures to support learning.

There are still not many good studies on teachers' attitudes towards inclusion in Portugal. A study (OECD, 2022), published before the aforementioned Decree-Law 54/2018, found "an overall positive attitude of early childhood education teachers towards inclusion" (p. 8), with more positive attitudes being found in teachers who personally knew someone with special educational needs. However, attitudes were less positive when teachers had direct experience in classrooms with students with special educational needs, probably due to negative experiences in the classroom. However, the majority of respondents reported having difficulties or doubts about the application of the law; feeling a lack of support from administration and training bodies and that the role of the special education teacher is not clear enough (OECD, 2022).

As for evaluating teachers' attitudes towards inclusive education, studies are scarce. Silva (2019) translated and validated MATIES for the Portuguese population. Similar to previous studies with MATIES, the Portuguese sample also showed a positive correlation between the affective and cognitive dimensions of attitudes and behavioral intentions.

However, it should be noted that this study was carried out with student trainees and not with teachers with real professional experience. To date, there has been no study into the application of MATIES with teachers in post.

Method

Project

The aim of this study is to analyze the attitudes of Portuguese primary and secondary school teachers towards inclusive education, as well as the effect of age group, gender, type of teacher (regular education teacher or special education teacher), level of education taught, level of knowledge about national legislation on inclusive education and level of confidence in teaching children with disabilities, on these same attitudes.

We chose to carry out the study with primary and secondary school teachers (1st to 12th grade) because these are the levels of compulsory education in Portugal and, as such, necessarily have to implement inclusive education in their schools and classes.

The analysis of Portuguese teachers' attitudes towards inclusion, as well as the identification of variables that influence them, will be useful to better understand the current situation surrounding inclusion in the Portuguese context.

Portuguese teachers' attitudes towards inclusive education have been studied, but not adequately. There is a need for more research on the subject, mainly quantitative, and with teachers in full exercise of their duties, since most quantitative studies have been carried out with university students in master's degrees related to teaching.

The study questions were formulated as follows:

(1) What are the affections, cognitions and behaviors of Portuguese teachers in relation to inclusive education?

(2) How do age, gender, type of teacher, level of education taught, level of knowledge about national legislation on inclusive education and level of confidence in teaching children with disabilities influence the affections, cognitions and behaviors of Portuguese teachers in relation to inclusive education?

This study is based on the quantitative paradigm, with a non-experimental, descriptive and correlational design. It is assumed to be a quantitative paradigm because the data collected will be quantitative. It has a non-experimental design as there will be no manipulation of an independent variable or random assignment to groups by the researcher. It is assumed to be descriptive as the variables under study will be measured without interference with the aim of describing characteristics and trends, and correlational as it will seek to test the relationship between the variables.

The necessary ethical issues related to the nature of the research were observed. The research presented in this article is part of a larger project aimed at analyzing Portuguese teachers' attitudes towards inclusive education, which has been reviewed and accepted by the International Ibero-American University - Mexico.

The participating teachers were informed about the objectives of the research, that their participation would be anonymous and voluntary and that their answers would only be used for the needs of the current research. The teachers expressly agreed to take part in the research by signing an informed consent form. The researcher in charge gave the participating teachers her personal contact details in case they wanted to communicate for any reason.

Participants

In this study, 437 Portuguese primary and secondary school teachers took part. This sample is representative of the Portuguese teacher population with a 95% confidence interval.

According to Table 1, the majority of teachers are women (81.7%, n = 357) and aged over 46 (78%, n = 341). The majority of the participants are regular school teachers (89.7%, n = 392) and teach in the 3rd cycle and secondary schools (59.7%, n = 261).

With regard to teachers' experiences, the majority rate their level of knowledge of national legislation on inclusive education as average or good (64.1%, n = 280), as well as their level of confidence in working with children with disabilities (65.6%, n = 287). However, the level of specific training for working with children with disabilities is rated as low or medium (58.3%, n = 255).

Table 1
Participating teachers' answers to the sociodemographic questionnaire.

Variable	Category	N	f%
	Male	77	17.6
Gender	Female	357	81.7
	Non-binary	3	0.7
	Special education teacher	45	10.3
Type of teacher	Regular education teacher	392	89.7
	Pre-school	35	8.0
	1st cycle	96	22.0
Level of education taught	2nd cycle	45	10.3
	3rd cycle	118	27.0
	Secondary education	143	32.7
	25 years old or less	16	3.7
	26 to 35 years old	13	3.0
Age group	36 to 45 years old	67	15.3
	46 to 55 years old	147	33.6
	Over 56 years old	194	44.4
	None	19	4.3
	Little	93	21.3
Level of knowledge of national legislation on inclusive education	Medium	159	36.4
	Good	121	27.7
	Very good	45	10.3
	None	93	21.3
	Little	115	26.3
Level of specific training for working with children with disabilities	Medium	140	32.0
	Good	57	13.0
	Very good	32	7.3
	None	16	3.7
	Little	89	20.4
Level of confidence in working with children with disabilities	Medium	147	33.6
	Good	140	32.0
	Very good	45	10.3

Instrument

Two questionnaires were used for the study: a socio-demographic questionnaire and the MATIES Scale - *Multidimensional Attitudes towards Inclusive Education Scale* (Mahat, 2008), in its Portuguese version (Silva, 2019).

As for the sociodemographic questionnaire, the first four questions were for demographic analysis of the sample regarding: level of education taught (pre-school, 1st cycle, 2nd cycle, 3rd cycle or secondary education), gender (male, female, non-binary), age group, divided into five classes (25 years old or less; 26 to 35 years old; 36 to 45 years old; 46 years old to 55 years old and over 56 years old) and type of teacher (regular education teacher or special education teacher). The last three questions of the sociodemographic questionnaire focus on the sample's assessment of their level of specific training for teaching children with disabilities; knowledge of national legislation on inclusive education and level of confidence when working with children with disabilities.

The MATIES (Mahat, 2008) is an 18-item scale that measures affective, cognitive and behavioral aspects of attitudes towards inclusive education. The instrument items have six response alternatives, ranging from Strongly disagree (1) to Strongly agree (6). The first 6 items of the scale (1 to 6) correspond to the cognitive dimension of attitude assessment, items 7 to 12 correspond to the affective dimension and items 13 to 18 correspond to the behavioral dimension.

In the cognitive dimension of MATIES, there are six statements referring to the fact that teachers believe that an inclusive school is one that enables the academic progression of all students, regardless of their abilities; believe that students with disabilities should be taught in specialized schools; believe that inclusion promotes appropriate social behaviour among all students; believe that any student can learn the contents of the curriculum, as long as adjustments are made according to their educational needs; believe that students with disabilities should be segregated because it is too expensive to change the physical space of the school and, finally, believe that students with disabilities should attend specialized schools so that they don't feel rejected.

In the affective dimension of the MATIES, there are six statements referring to possible feelings of frustration at difficulties in communicating with students with disabilities; annoyance when students with disabilities can't follow the content of lessons; irritability when students with disabilities can't be understood; discomfort at the inclusion of students with and without disabilities in the same class; anxiety at the inclusion of students with disabilities in classes, regardless of the severity of the disability and, finally, frustration at the need to adapt the curriculum to meet the educational needs of all students.

In the behavioral dimension of MATIES, there are six statements referring to teachers' willingness to motivate students with disabilities to participate in all social activities at school; adapting the curriculum to meet the educational needs of all students, regardless of their abilities; physically including students with severe disabilities in the class, with the necessary support; modifying the physical space to include children with disabilities in the class; adapting communication strategies to ensure that all students with an emotional and behavioral disorder are successfully included in the class and, finally, making individual adjustments to the student assessment process in order to implement inclusive education.

The data was collected using the *Google Forms* tool through random sampling, after contacting the heads of school groups in mainland Portugal and the islands.

The time taken to complete each questionnaire was approximately 10 minutes.

Data analysis

The results were analyzed using the IBM® SPSS® Statistics 27.0 program

At the inferential level, we first tested whether the variables to be statistically analyzed were normally distributed using the Kolmogorov-Smirnov normality test, which showed that the sample did not have a normal distribution of data.

The Kruskal-Wallis test was used to compare distributions between 3 or more independent samples, where at least one is small (n <30) and does not have a normal distribution. Bonferonni's post hoc analysis was used to test multiple comparisons in cases where there were statistically significant results in the Kruskal-Wallis tests.

Finally, Pearson's chi-squared test was used to assess the correlation between the variables asked in the sociodemographic questionnaire.

The significance of the tests was set at 5%.

Results

The validity of the MATIESp scale dimensions was calculated using the Cronbach's Alpha internal consistency coefficient, where acceptable values are those greater than 0.6 (Denzin & Lincoln, 1994). Table 2 shows that all the dimensions have acceptable validity.

Table 2

MATIESp validity analysis

Dimension	Cronbach's Apha
Cognitive	0.632
Affective	0.756
Behavioral	0.872

The validity of the MATIESp Scale items was tested using the Promax rotation method with Kaiser normalization, with the results indicating that most of the items demonstrate adequate construct validity, as shown in Table 3. However, in the cognitive dimension, items 1 and 4 correspond more closely to the behavioral dimension, and these same observations were previously reported in the validation study by Silva (2019). In the behavioral dimension, item 12 showed greater correspondence with the affective dimension. Items 10 and 11 showed low validity.

Table 3

Validity of MATIES items, with Promax rotation and Kaiser normalization

	Behavioral	Cognitive	Affective
Item 1	.581	-.164	
Item 2		.774	
Item 3		.400	
Item 4	.541	-.295	
Item 5		.879	
Item 6		.819	
Item 7			.776
Item 8			.767
Item 9			.790
Item 10		.469	.309
Item 11			.496
Item 12	.265		.469
Item 13	.677		
Item 14	.861		

Item 15	.743	
Item 16	.632	
Item 17	.763	
Item 18	.771	

As can be seen in Table 4, the gender variable shows no significant differences in cognitive, affective and behavioral levels between the genders (p = .273) (p = .407) and (p = .678).

As for the type of teacher, there were significant differences in affective (p = .019) and behavioral (p = .032) levels between mainstream and special education teachers. Regular education teachers scored higher on the affective and behavioral levels than special education teachers. There were no differences in cognitive level (p = .070).

For the level of education taught, there were no significant differences in cognitive (p = .686), affective (p = .072) and behavioral (p = .670) levels between the levels of education taught by the participant.

Also for the age group, there were no significant differences in cognitive (p = .404), affective (p = .243) and behavioral (p = .795) levels between age groups.

There are significant differences at the cognitive (p = .010), affective (p = .015) and behavioral (p < .001) levels between some of the knowledge of national legislation on inclusive education. In the cognitive dimension, having "little" knowledge scores higher than the "good" and "very good" levels. In the affective dimension, having "medium" and "little" knowledge scores higher than "no" knowledge. The "good" level of knowledge scored lower than the "average" and "poor" levels. In the behavioral dimension, participants who reported "little" knowledge and "medium" knowledge scored better than those who reported "good" knowledge. The "very good" level of knowledge scored lower than "little" knowledge.

There are significant differences in cognitive, affective and behavioral levels between some of the specific training levels for teaching children with disabilities. At the cognitive level (p = .009), participants who reported having "no" level of training and "little" level of training had better scores compared to those with "very good" level of training. "No" level of education results in better scores than "medium" level of education. On the affective level (p < .001), having "no" level of training scores better than having "good" level of training and "very good" level of training. Having a "poor" level of training results in a better score than a "very good" level of training and a "good" level of training. Having a "medium" level of education results in lower scores than "little" level of education and "no" level of education. At the behavioral level (p = .003) having "no" level of training scores better than "medium" level of training and "very good" level of training. Having "little" level of training scores better than "medium" level of training and "very good" level of training. Having "no" level of training scores better than having a "good" level of training.

Finally, there are also significant differences in cognitive, affective and behavioral levels between some of the levels of confidence working with children with disabilities. At the cognitive level (p = .038) having a "low" level of confidence is better than having a "very good" level of confidence, a "good" level of confidence and a "medium" level of confidence. At the affective level (p < .001) having a "low" level of confidence is better than having a "good" level of confidence and a "very good" level of confidence. Having a "medium" level of confidence is better than a "very good" level of confidence. At the behavioral level (p < .001) having a "low" level of trust is better than having a "medium" level of trust, a "good" level of trust and a "very good" level of trust. Having "no" level of confidence is better than having a "very good" level of confidence. Having a "medium" level of trust is better than a "very good" level of trust and a "good" level of trust is better than a "very good" level of trust.

Table 4

Correlations between the variables in the sociodemographic questionnaire and the MATIES dimensions

Variables	MATIES dimensions	Kruskal-Wallis	df	p-Value
Gender	Cognitive	1.201	1	.273
	Affective	.688	1	.407
	Behavioral	.173	1	.678
Type of teacher	Cognitive	3.275	1	.070
	Affective	5.537	1	.019
	Behavioral	4.609	1	.032
Level of education taught	Cognitive	2.272	4	.686
	Affective	8.609	4	.072
	Behavioral	2.360	4	.670
Age group	Cognitive	4.015	4	.404
	Affective	5.462	4	.243
	Behavioral	1.677	4	.795
Level of knowledge of national legislation on inclusive education	Cognitive	13.374	4	.010
	Affective	12.402	4	.015
	Behavioral	20.099	4	<.001
Level of specific training for working with children with disabilities	Cognitive	13.582	4	.009
	Affective	24.055	4	<.001
	Behavioral	16.075	4	.003
Level of confidence in working with children with disabilities	Cognitive	10.142	4	.038
	Affective	34.467	4	<.001
	Behavioral	19.964	4	<.001

Table 5 shows the correlations between the variables in the sociodemographic questionnaire.

There is a significant relationship between gender and the level of education taught (χ^2 (4, N=434) = 10.46, p = .033). Female participants are more likely to teach pre-school and primary school, while male participants are more likely to teach secondary school.

There were no significant relationships between gender and age group (p = .269), the assessment of the level of training specific to teaching with children with disabilities (p = .218), knowledge of national legislation (p = .120) or the level of confidence in working with children with disabilities (p = .359).

There are no significant relationships between the type of teacher and the level of education they teach (p = .271), gender (p = .276) or age group (p = .830).

There is a significant relationship between the type of teacher and the level of training for teaching with children (χ^2 (4, N=437) = 78.69, p < .001). Special education teachers are more likely to rate themselves as "good" and "very good".

There is a significant relationship between the type of teacher and knowledge of national legislation on inclusive education (χ^2 (4, N=437) = 33.10, p < .001). Special education teachers are more likely to rate themselves as "good" and "very good".

There is a significant relationship between the type of teacher and the level of confidence in working with children with disabilities (χ^2 (4, N=437) = 43.15, p < .001). Special education teachers are more likely to rate themselves as "good" and "very good". (none answered "none", "little" or "medium").

There is a significant relationship between the level of education taught and the level of training specific to teaching children with disabilities (χ^2 (16, N=437) = 30.894, p = .014). Participants who rate their level of training as "very good" are more likely to teach 1st cycle, those who answer "good" to teach 2nd cycle, those who answer "average" to answer "pre-school", those who answer "little" and "none" to teach 3rd cycle.

There is no significant relationship between the level of education you teach and your knowledge of national legislation (p = .209) or the level of confidence when working with children with disabilities (p = .414).

There is a significant relationship between age group and knowledge of national legislation (χ^2 (16, N=437) = 30.23, p = .017). Participants who rated their knowledge of legislation as very good were more likely to be over 56. Those who rate themselves as "good" and "average" are more likely to be between 46 and 55 and those who rate themselves as "poorly" are more likely to be between "36 and 45".

There were no significant relationships between age group and the level of training specific to teaching children with disabilities (p = .331) or the level of confidence in working with children with disabilities (p = .927).

Table 5

Correlations between the variables in the sociodemographic questionnaire

Variables		χ^2	p-Value
Gender	Type of teacher	1.185	.276
	Level of education taught	10.46	.033
	Age group	5.184	.269
	Level of knowledge of national legislation on inclusive education	7.315	.120
	Level of specific training for working with children with disabilities	5.763	.218
	Level of confidence in working with children with disabilities	4.360	.359
Type of teacher	Level of education taught	5.158	.271
	Age group	1.481	.830
	Level of knowledge of national legislation on inclusive education	33.10	< .001
	Level of specific training for working with children with disabilities	78.69	< .001
	Level of confidence in working with children with disabilities	43.15	< .001
	Level of knowledge of national legislation on inclusive education	20.248	.209
	Level of specific training for working with children with disabilities	30.894	.014
	Level of confidence in working with children with disabilities	16.574	.414
Age group	Level of knowledge of national legislation on inclusive education	30.23	.017
	Level of specific training for working with children with disabilities	17.881	.331
	Level of confidence in working with children with disabilities	8.653	.927

Discussion and conclusions

The results obtained in this study make it possible, firstly, to characterize primary and secondary school teaching in Portugal as a mostly female profession, especially at the initial levels of education; and an ageing profession in which the average age is around 50, data that is in line with official statistics (OECD, 2022).

The teachers surveyed report feeling that they have little or no training in inclusive education. In fact, according to the OECD study (2018), only just over a third of teachers in Portugal felt prepared to work in an inclusive environment with students with diverse

educational needs, and 27% said they would like to receive further training: 5 percentage points above the OECD average (22%).

In contrast to the idea that they have a lower level of training for working with children with disabilities, teachers mostly rate their level of knowledge of national legislation as average or higher. This raises the possibility that teachers may need specific training in teaching strategies and pedagogy and not so much in general concepts related to inclusion, special educational needs or inherent legal terms.

Despite feeling that they have little training in inclusive education, most Portuguese teachers feel confident in their abilities to meet the demands of inclusive education. We hypothesize that this may be due to teachers' possible self-efficacy beliefs, which will give them the confidence to adapt to the most challenging situations. It is suggested that more detailed studies be carried out on Portuguese teachers' sense of self-efficacy.

As for the results obtained on the MATIES scale, they show, firstly, that Portuguese teachers have favorable attitudes towards inclusive education, which is in line with the initial observations of the study by Scruggs & Mastropieri (1996) which showed that the majority of teachers have positive attitudes towards inclusive education. The OECD study (2018) conducted specifically with Portuguese teachers also found a generally positive attitude towards inclusion.

The Portuguese teachers surveyed mostly reported that an inclusive school is one that enables all students to progress academically, regardless of their abilities, and that inclusion promotes appropriate social behavior among all students. They reject the idea of segregation, based on financial arguments or to avoid students feeling marginalized, but are divided on the idea of the need for specialized schools and that any student will be able to learn the contents of the curriculum, as long as adjustments are made according to their educational needs. The teachers surveyed say they don't feel uncomfortable, anxious or irritated about pedagogical aspects related to the inclusion of students, for example, adapting resources or content. However, they seem to feel more discomfort on a personal level in their relationship with the students, particularly in managing communication and the relationship between mainstream and special education students.

This result coincides with the literature which states that teachers tend to express greater concern about difficulties in attention/concentration, language and communication and social skills of students with special educational needs when implementing inclusive education (Forlin et al., 2008). Teachers may be finding it more difficult to personally manage their inclusion efforts than to technically and professionally manage them. This hypothesis needs further study and, if proven, it raises the possibility that Portuguese teachers could benefit from greater organizational and training support in the personal management of the inclusion process.

At a behavioral level, Portuguese teachers show a significant predisposition to make changes at a personal, physical and organizational level for the inclusion of special education students, regardless of their degree of need, to adapt the curriculum, assessment methods, communication strategies and physical space.

With regard to inferential analysis, it was possible to increase knowledge about the factors that may influence teachers' attitudes towards inclusive education.

Firstly, we'll look at the type of teacher, distinguishing between mainstream teachers and special education teachers.

Regular education teachers have general education training and comparatively less special education training. Special education teachers are professionals who specifically choose to work in inclusive education, so we would expect them to have more positive attitudes towards inclusion. Engelbrecht et al. (2013) showed that special education teachers had more positive attitudes towards inclusive education than mainstream teachers. However, in the

present study, the results are not so linear, since in the MATIES, mainstream teachers showed more positive attitudes at the affective and behavioral level than special education teachers and there were no differences between teachers in the cognitive dimension of the MATIES.

It could be argued that the implementation of inclusive education means that these two categories of teacher are increasingly working collaboratively and that, as such, we will also see a lack of statistically significant differences between teacher categories. It may no longer make sense to continue to distinguish between regular education teachers and special education teachers and instead start talking about the single category of inclusive teacher.

This may also be a possible explanation for the fact that there were no statistically significant differences between the level of teaching of each teacher in this study. On this point, the results are contrary to the study by Chiner & Cardona (2013) and Polyzopoulou & Tsakiridou (2023), which showed that elementary school teachers had more positive attitudes towards inclusive education, and the study by Gaines & Barnes (2017), which showed that secondary school teachers had more favorable attitudes than elementary school teachers.

As for age, it could be argued that the more years of teaching experience, the more confident and available teachers would be for inclusive education (Dignath et al., 2022). However, the literature points to inconclusive results regarding the relationship between the years of professional experience of mainstream teachers and attitudes towards inclusive education (de Boer et al., 2011). This can also be seen in the results achieved with Portuguese teachers, where the results obtained through MATIES did not show any significant differences in relation to age group at the cognitive, affective and behavioral levels.

Finally, with regard to the demographic variables of age and gender, the results achieved in this study with Portuguese teachers are inconclusive.

As for the gender factor, there are studies showing no differences between genders (e.g. Chhabra et al., 2010); studies showing more positive attitudes on the part of females (e.g. Alquraini, 2012) and studies showing more positive attitudes on the part of males (Bhatnagar & Das, 2014). The results obtained in this study of Portuguese teachers revealed no relationship between gender and attitudes towards inclusive education. It suggests that focusing on the gender factor is not relevant to teachers' attitudes towards inclusive education.

As for the age factor, there are also inconsistent results, ranging from no association between age and more positive attitudes (Chhabra et al., 2010) to evidence that young teachers have more positive attitudes (e.g. Ahmmed et al., 2014).

The results obtained in this study of Portuguese teachers in MATIES show no relationship between age and attitudes towards inclusive education. As with the gender factor, it is suggested that the age factor is not significantly relevant to teachers' attitudes towards inclusive education.

A reflective comment should also be made about the MATIES assessment scale itself, since the validity tests carried out following its application with the sample of Portuguese teachers revealed some potential problems.

Starting with the issue of validity, in the validation of the original version of the MATIES questionnaire, Mahat (2008) calculated the validity of the scales with a Cronbach's alpha of 0.89 in the affective area; 0.79 in the cognitive area and 0.91 in the behavioral area. In the present study with Portuguese teachers, the results of Cronbach's alpha were 0.76 in the affective area, 0.63 in the cognitive area and 0.87 in the behavioral area, i.e. slightly lower than those found by Mahat (2008).

These values are still at an acceptable level, demonstrating acceptable content validity, construct validity, criterion validity and convergent validity. However, only validity coefficients above 0.70 are generally considered respectable and most attitude scales have validity estimates above 80 (Denzin & Lincoln, 1994). The Portuguese version of the MATIES is below this value in the cognitive and affective areas and after a detailed item-by-item analysis, there

was also difficulty with some of the items in the cognitive area (item 1 and item 4), exactly the same as those determined in the initial validation study for the Portuguese population carried out by Silva (2019).

On the other hand, as noted by Ewing et al. (2018), although both questionnaires are assumed to be scales for assessing attitudes towards inclusive education, in reality the focus of the questionnaires differs greatly from this basic assumption. MATIES focuses on the notion of incapacity and disability which, as Ewing et al. have warned. (2018) may mean that these questionnaires are not the most suitable for assessing teachers' attitudes towards the inclusion of children with behavioral, emotional or learning difficulties. Attitude assessment scales do not clearly reflect the basic principles of inclusive education and it is essential to refine them to encompass more up-to-date thinking, policies and practices.

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103

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Group methodology for psychoanalytic exploration: an intervention program for the proper management of situations of fear
Metodología grupal para la exploración psicoanalítica: un programa de intervención para la gestión adecuada de situaciones de temor

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	ABSTRACT
Keywords: group analysis device, teacher education students, fears and anxieties, communication skills, professional development	The article presents a research focused on the development of a group analysis device called 'The Talking Machine', designed to address the fears and anxieties experienced by student teachers during their professional internships. This device has the main objective of improving student retention and performance by providing a safe and structured space where they can reflect on their concerns and find creative solutions. Through group activities, it is expected that participants will develop communication skills, strengthen their confidence and acquire skills to face the challenges of their teacher training. The proposal of 'The Talking Machine' arises as a response to the need to provide tools to adequately manage the situations of fear and anxiety that may arise in the formative process of future teachers. The importance of promoting teamwork, personal reflection and self-knowledge is highlighted as fundamental elements for the professional development of students. Additionally, the possibility of incorporating this device into the teacher training plan in the province of Río Negro is raised, which could significantly contribute to improving the quality of education and the well-being of future educators.
	RESUMEN
Palabras clave: dispositivo de análisis grupal, estudiantes de formación docente, temores y angustias, habilidades de	El artículo presenta una investigación centrada en el desarrollo de un dispositivo de análisis grupal denominado 'La Máquina de Hacer Hablar', diseñado para abordar los temores y angustias experimentados por los estudiantes de formación docente durante sus prácticas profesionales. Este dispositivo tiene como objetivo principal mejorar la retención y el desempeño de los estudiantes al proporcionar un espacio seguro y estructurado donde puedan reflexionar sobre sus preocupaciones y encontrar soluciones creativas. A través de actividades grupales, se espera que los participantes desarrollen habilidades de comunicación,

| comunicación, desarrollo profesional. | fortalezcan su confianza y adquieran competencias para enfrentar los desafíos de su formación docente. |
| | La propuesta de 'La Máquina de Hacer Hablar' surge como respuesta a la necesidad de brindar herramientas para gestionar adecuadamente las situaciones de temor y angustia que pueden surgir en el proceso formativo de los futuros docentes. Se destaca la importancia de promover el trabajo en equipo, la reflexión personal y el autoconocimiento como elementos fundamentales para el desarrollo profesional de los estudiantes. Además, se plantea la posibilidad de incorporar este dispositivo al plan de formación docente en la provincia de Río Negro, lo que podría contribuir significativamente a mejorar la calidad de la educación y el bienestar de los futuros educadores. |

Introduction

The research arises from the need to address the fears experienced by students at the beginning of their teaching practice at the Instituto de Formación Docente Continua de El Bolsón[1] (IFDCEB), Argentina. These fears can hinder their training process and affect their performance as future teachers.

Numerous studies have analyzed fear in the educational environment, highlighting its impact on cognitive and emotional development (Garzón Arcos et al., 2013; Pulido Acosta & Herrera Clavero, 2016; Miller, 2017; Gutierrez Alvarez, 2021; Bellotti et al., 2023). However, there is a paucity of research specifically addressing student teachers' preprofessional fears and how they affect their training and motivation. In this context, Soledad Manrique's work in the field of teacher training stands out for its focus on the construction of subjectivity and its application of psychodrama as a therapeutic and formative tool. In his study "Subjectivity under construction in teacher education", Manrique (2019) analyzes the process of teacher education in residency in Argentina, focusing on identity transformation and the interaction between intrasubjective and intersubjective aspects. Using clinical approaches and post-Freudian psychoanalytic theories, his research reveals how identity transformation can lead to the reproduction of the teacher's original conditions, despite an apparent identity rupture. This study is relevant to understand the processes of subjective formation and transformation in higher education and teacher training.

The same author in his paper "Teacher training in residency: subjectivizing experience?", Manrique (2021) highlights the importance of residency in teacher education and its impact on professional subjectivity. It stresses the need to design instances of accompaniment that allow future teachers to explore their uniqueness and desire to teach, instead of simply adapting socially. It highlights the crucial role of promoting reflection and the emergence of self-talk in teachers in training, as well as the function of the holding as a container element to propitiate subjectivizing effects during the residency.

In the article "Contributions of psychodrama to the field of training", Manrique (2017) delves into the various contributions that psychodrama offers to the training process, both in the educational and therapeutic fields. It highlights psychodrama's ability to facilitate exploration and emotional unblocking, allowing participants to rehearse new responses and experience affect safely within a structured and supportive framework. This process leads to a subjective repositioning, where individuals can compose new roles and characters that reflect their internal and external reality in a more authentic and adaptive way. Manrique (2017, p.29) highlights the group approach of psychodrama, emphasizing how the group becomes an amplifying space of the imaginary, where participants can project their affections and internal contents. This projection allows each member of the group to take ownership of the individual conflict and contribute to its elaboration and resolution, generating a process of transformation at both the individual and group levels. The multiplicity dynamics of psychodrama emphasizes the interaction among participants and the co-construction of meanings, which enhances learning and reflection from multiple perspectives. In addition, Manrique (2017, p.31) emphasizes the role of psychodrama as a therapeutic and psycho-socio-educational intervention tool in institutions and groups. It highlights how this tool

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[1] The IFDCEB offers four teaching programs

addresses both individual and group aspects, recognizing the interdependence between personal development and group dynamics. This makes it a versatile tool for addressing a wide range of challenges and conflicts in diverse educational and social contexts. In the context of continuing teacher education, Manrique (2017, p.32) emphasizes the importance of addressing the conflicts and challenges of teaching practice in order to achieve personal repositioning in the face of them. Psychodrama provides a safe and structured space for teachers to explore their experiences and emotions, facilitating critical reflection and the search for creative solutions. Likewise, in upper secondary education, psychodrama is used as a response to conflicts in peer relationships, allowing students to experience different roles and modes of bonding within an open workshop framework.

In this context, the present research aims to develop and evaluate a methodological tool for group analysis, called 'The Talking Machine', which allows students to reflect on their fears and find creative solutions to address them. This qualitative methodology is based on descriptive hermeneutic work and relies on Action Research to investigate the origin of conflicts and generate creative alternatives for their resolution. It is hoped that the implementation of this tool will provide students with a safe and structured space to explore their fears and develop skills to face the challenges that arise during their teacher education, thus contributing to the improvement of the current teacher education program.

The experience of fear in the educational environment has been the subject of attention and analysis in academia. Specifically, those individuals who were educated during the 20th century may recognize fear as a significant obstacle that obstructed the full development of their cognitive and creative faculties and their inclination to explore and acquire additional knowledge. The school experience, which encompasses the most formative periods of life, has left an indelible mark on the psyche of many individuals, exerting a determining influence on their current thinking and behavior.

In addition to its direct impact on the individual in terms of fear and limitation of his or her capabilities, the experience of fear in the school context may contribute to the internalization of a superego marked by the norms and expectations imposed by the educational institution and society in general. This superego assimilates social representations and ideals of academic success and acceptable behavior, which can generate a sense of inadequacy and anxiety in those who fail to meet these predefined standards.

This proposal is based on the identification of the concerns expressed by advanced students in the Primary Education Teacher Training Program at the Instituto de Formación Docente Continua de El Bolsón (IFDCEB). These students have expressed fears that affect their academic and professional development, especially in relation to teaching practice, thus underlining the importance of considering teacher training as a process crossed by challenges and obstacles that affect the construction of identity and motivation of future educators.

The interest in addressing this issue arises from a concrete experience during a workshop on Comprehensive Sexual Education, aimed at advanced students in the career of Primary Education Teacher at the IFDCEB, in 2022. Throughout this activity, the participants had the opportunity to participate in group analysis sessions that facilitated the exchange of ideas and reflections. These discussions allowed for a deeper understanding of the motives and conflicts, both conscious and unconscious, that influence students' formative and emotional development.

The feelings of fear experienced by these students stem from different insecurities regarding their competencies and performance, which usually generates a high level of psychic suffering that conditions their teaching practices. Students who feel insecure about their skills and competencies may have less motivation to learn and less confidence in their ability to succeed in their future teaching career, which may lead them to drop out of teaching before completing it.

However, it is not intended to claim that neglect is due solely to feelings of fear. They recognize doubts about their own abilities, added to the difficulties in their own learning. Students are adults with family responsibilities that may force them to rethink their life plans.

It is important to understand that there is no single cause that explains why a student decides to leave a teaching career, but rather that it is a complex decision influenced by a variety of factors.

It is necessary to implement measures that provide academic and personal support to teacher training students, so that they can develop their vocation with the necessary tools and support. Teacher training in the jurisdiction of Río Negro lacks a space that provides support to appease situations of anguish and fear. Therefore, this research proposes to develop a methodological tool based on a qualitative methodology framed in descriptive hermeneutic work. This methodological tool aims to facilitate solutions to dilemmatic situations by transforming them into dialectics. Designed specifically to address the various fears students experience as they begin their teaching practice; it provides a safe and structured space where students can reflect on their fears and find creative solutions. Through group activities, students are expected to develop skills and competencies to effectively face the tensions and challenges that arise during their teacher training.

The intervention is based on Action Research and uses qualitative techniques such as interviews, content analysis and observation, with the objective of jointly investigating the origin of the conflict and generating a creative alternative to the situation.

This proposal aims to complement the training of future teachers, who, after experiencing and participating in the proposed device, will be able to transform their situations of fear. It is hoped that they will be able to find a propitious space to deploy their discourse and reflect on it, an epistemic process that will allow them to rewrite it in their own history. Likewise, this initiative is presented as an alternative to improve the current teacher training program.

Method

Research methodology refers to the set of strategies, techniques and procedures used to carry out a research study. This methodology includes decisions on research design, sample selection, definition of variables, data collection and analysis of results. In summary, research methodology provides the general guidelines for conducting a research study.

On the other hand, the methodology proposed in the research focuses on the construction of a group methodology for the psychoanalytic exploration of fearful situations in advanced teacher training students. This methodology is based on various theoretical references that support its development and involves several stages and techniques that seek to provide a safe and facilitating space where students can explore and express their concerns, fears and insecurities in relation to their professional practices.

Finally, the methodology used for the construction of the data refers to the specific processes and techniques used to collect and organize the data. This may include data reduction and data coding, with the objective of making the data more manageable and analyzable. It is important to note that the methodology used for the construction of the data depends to a large extent on the theoretical approach and research methodology used in each study.

Problem to Investigate

In the context of the research methodology, the problem to be investigated is addressed, which focuses on the analysis of psychoanalysis and its application in teacher training, especially in relation to the management of fearful situations by students. Psychoanalysis is often associated with a rigorous clinical apparatus centered on the ability to listen to patients. However, this conception has limited its explanatory power in the face of social phenomena. From depth psychology, a vision of the unconscious is attributed as something dark and inaccessible, which responds to the pretension of constituting an individual subject, alien to the reality that surrounds him and his history. This research proposal invites us to explore new directions and ideas for teacher training and to consider the links that can be established with psychoanalysis and groups.

The moment of the course in which the field work is carried out, in which the interaction with the school takes place, is an instance that gives students the opportunity to put into play their ideas about how learning subjects learn. This leads to rethinking, reconfiguring and even validating their view of themselves and their professional future. However, personal stress and feelings of uncertainty about their competencies and performance can generate a high level of psychological distress. Thus, the need arises to provide tools that allow them to face fearful situations during their teacher training.

In conclusion, the problem to be investigated focuses on how to ensure that advanced students in teacher training courses at the IFDC of El Bolsón learn to adequately manage situations of fear when faced with the imminence of their professional practices. This research seeks to provide constructive psychoanalytic and group-based tools to address these challenges and promote effective professional development.

Objective of the Research

To develop the group device of voluntary participation, La Máquina de Hacer Hablar (The Talking Machine), aimed at third year students of the IFDCEB teacher training courses, which allows the adequate management in the treatment of frightening situations in the face of the imminence of their professional practices.

Analytical Device to Address Dilemmatic Situations in Teacher Training

A qualitative approach is proposed to describe, understand and interpret the phenomena through the perceptions and meanings of the participants. Tools such as open and unstructured observation, participant observation and anecdotal records will be used. This research design will be conducted in a natural setting, focusing on the meanings extracted from the proposed experiences.

As for the instruments, research tools will be used that include open observation, participant observation, anecdotal records and a brief planning of each encounter. The objective is to analyze the fears expressed from the beginning of the workshop, both

110

conscious and unconscious, related to the quality of the work, the evaluation of competence and personal bonds.

The study population will be the advanced students (from third year onwards) of the four teacher training courses of the IFDCEB. The sample will be made up of students who voluntarily sign up to be part of the Action Research Group (GIA). Non-probabilistic random sampling will be used to obtain a representative sample and allow the use of inferential statistics. This approach seeks to ensure that all possible combinations of sampling units have an equal chance of being selected, which facilitates the generalization of results to the entire student population. Having outlined our methodological approach, it is crucial to highlight the influence of Freud's conception of the dispositif on psychoanalysis. This device, understood as a set of elements that are articulated to produce a certain effect, constitutes a fundamental pillar in our research. In this context, the four elements of the Freudian dispositif, namely free association, interpretation, transference and the analyst's response, play a central role in the understanding of unconscious processes in the context of teacher training. Free association consists of the subject expressing whatever comes to mind without censorship or criticism. Interpretation consists of the analyst making sense of what the subject says, revealing hidden or repressed meanings. Transference consists of the subject projecting onto the analyst his unconscious feelings and desires, especially those related to his parental figures. The analyst's response is for the analyst to intervene in the transference process, maintaining a neutral and distant position.

Methodological Aspects

In the proposed research, a qualitative methodology was used to collect and analyze the data. As part of this methodology, multiple techniques were used to construct and organize the data, including data reduction, coding and category formulation. Taken together, these processes sought to provide a sound and systematic theoretical framework for analyzing the data and extracting meaningful concepts.

As for the tool used for data analysis, specialized software such as ATLAS.ti was used to organize and analyze the qualitative data. ATLAS.ti has an automatic coding module that makes use of artificial intelligence algorithms to identify units of meaning and categories in the data, thus speeding up some analysis tasks.

Some Assumptions

The methodology designed for this research consists of psychodrama workshop meetings, a therapeutic technique based on the dramatic representation of personal or group conflicts. The objective of this methodology is to address and resolve dilemmatic situations that arise during student teaching practices, considering that this is the first experience of this type at the higher level in the jurisdiction. The proposed activities involve representing and multiplying scenes that pose the students' dilemmas during their teaching practices, requiring adequate management by the workshop coordinator and the work group. This involves dealing with the negative emotions and thoughts generated by the dilemmas, as well as providing mutual support and containment among the participants.

In order to improve participation and meet the established objectives, new actions and strategies were implemented, adapted progressively in each workshop and week, based on the needs communicated and experienced by the students. These initiatives included

creating an atmosphere of trust and respect among participants, encouraging the free and creative expression of emotions and ideas, facilitating the exchange of experiences and opinions among students and internship teachers, and promoting critical reflection on the scenes depicted and the solutions proposed.

To document the process and results of the research, various forms of recording were used, such as open and unstructured observation, participant observation and anecdotal records. These methods included individual and group interviews with participants, observations of both participants and non-participants, content analysis of the scenes acted out and multiplied, and formative and summative evaluations of the workshop. Thanks to these records, it was possible to collect qualitative data on the experiences, learning, changes and challenges faced by the students during their participation in the workshop. In this sense, the methodology and its coherence with the theoretical foundation allowed its analysis and revision during the process, at each stage of the process, and its subsequent readjustment according to the data collection, mediated by the students' protagonism.

Results

A series of theoretical-methodological and practical results have been obtained from the field work.

Prior to the application of the proposed methodology, the initial state of fears in teacher education students was characterized. Difficulties were identified in the management of fear, where advanced students showed anxiety and fear before the imminence of their professional practices. This situation could affect their performance and their ability to establish effective relationships with students. In addition, there was a lack of adequate space to address special situations, such as anxiety and fear that arose when facing the beginning of the internship. These findings highlight the need to develop fundamental skills and competencies in future teachers to meet these challenges (Table 1).

Table 1
Key aspects of the initial situation of fears identified in teacher education students.

Appearance	Description
Difficulties in fear management	Advanced students experience anxiety and fear about the imminence of their internships, which can affect their performance and their ability to establish effective relationships with students.
Lack of adequate space	Current teacher training does not always provide a conducive environment to address and contain special situations such as anxiety and fear that arise when facing the beginning of professional practices.
Development of fundamental skills	The proposed methodology seeks to promote critical reflection on the role of the teacher, the relationship with students and the construction of emotional bonds, strengthening social, emotional and pedagogical skills.

The proposed methodology offers a series of strategies to help students overcome their fears and develop key skills for their teaching career. First, the importance of identifying and expressing specific fears through diagnostic activities at the beginning of the process is

emphasized. This allows students to better understand their own fears and concerns, laying the groundwork for addressing them effectively. The methodology also encourages emotional exploration and the construction of shared meanings through the use of psychoanalytic tools in a collaborative environment. This approach provides students with a conceptual and practical framework for dealing with their emotions and working together to overcome the challenges they face.

Another key aspect of the proposed methodology is the analysis of clinical cases that exemplify situations of fear in the teaching practice. By studying these cases, students can apply the theoretical concepts learned to practical situations, which helps them better understand how to manage their own fears in real contexts. In addition, the periodic feedback provided to each participant allows them to reflect on their progress in managing anxiety and fear, promoting continuous learning and constant improvement of their emotional and pedagogical skills.

The Evolution of Units of Meaning Into Categories

The starting point of this research is shown in Figure 1: Code tree diagram illustrating the complexity inherent in the coding task using ATLAS.ti.

Figure 1
Tree diagram of the codes
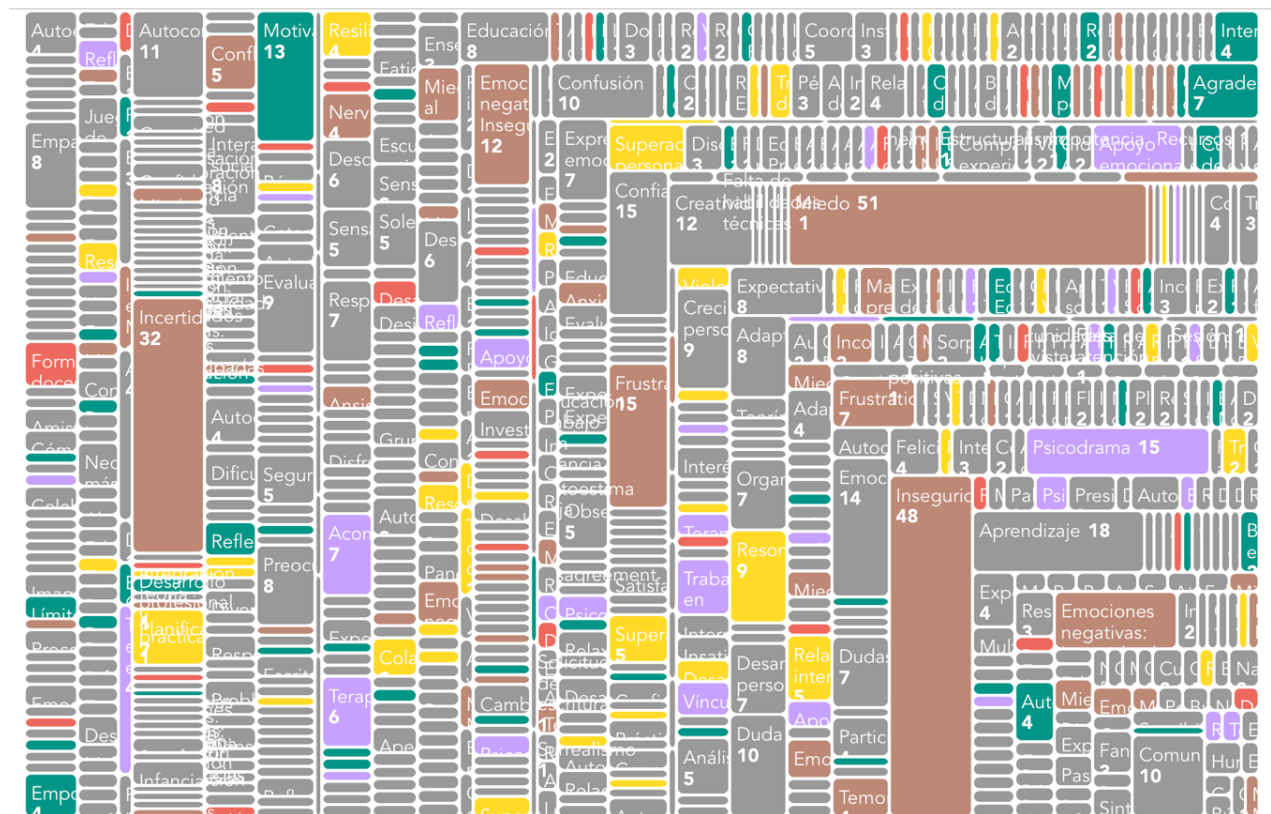
This figure highlights the complexity of coding using artificial intelligence and serves as a starting point. Each rectangle in the diagram represents a code assigned by the researcher, the size of which reflects the frequency of occurrence of the code. This initial visual representation allows us to appreciate the number of codes and citations, as well as the structural complexity that can arise in the analysis process.

When analyzing the information represented in the tree diagram, we address data reduction. This process involves transforming raw data into a more manageable and concentrated form, without losing the essence of the information. It includes identifying and highlighting critical information, extracting meaningful segments, and classifying and categorizing data into themes, topics or emerging patterns.

Once the data have been reduced, we proceed to their coding, which is essential in qualitative research. It consists of categorizing and labeling data segments with tags that represent their meaning and content. This process condenses the data and provides them with a conceptual management, transforming them into analyzable units. It requires attention to detail and knowledge of the context in which the data were collected. In the proposed research, we created codes based on the concerns expressed by students related to fear at the beginning of their professional practices.

Once the labels have been assigned to the data, the categories are formulated. These represent a higher level of abstraction, allowing the grouping of units of meaning around common ideas or concepts. They not only group units of meaning, but reflect a deeper understanding of emerging patterns and themes in the data.

The process of category formulation involves systematically and reflectively analyzing the data to determine the connections and relationships between different units of meaning. A useful approach in this process is to consider the number of codes that each unit of meaning has. In general, meaning units with a larger number of codes may suggest more prevalent or important themes in the data, and thus may constitute more robust categories. This process must be rigorous and thoughtful, taking into account both the quantity and quality of the units of meaning.

Figure 2, presented as the Meaning Unit Bar Chart, represents a crucial step in the process of category evolution. These units of meaning are the result of the refinement of the initial codes and the quotations associated with each of them. In this sense, Figure 2 provides a clear visualization of how the original codes are transformed and grouped into more refined units of meaning, which subsequently serve as the basis for the construction of categories.

Figure 2
Significance unit bar chart
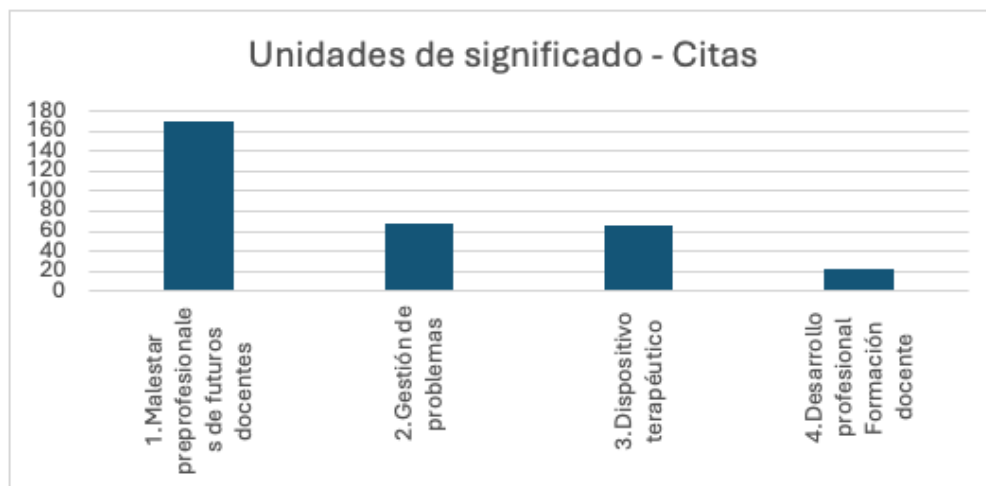
This link between categories and units of meaning highlights the importance of the iterative process of qualitative analysis. As the initial codes are revised and redefined, more precise and contextually rich units of meaning are generated. These units, in turn, are used to identify emerging patterns and common themes, which are translated into the categories that structure and give meaning to the data set analyzed.

Thus, Figure 2 not only shows the resulting categories, but also evidences the thoughtful and rigorous work behind their formulation. Each category represents a deeper understanding of the data, enriched by the iterative analysis process that incorporates both the original codes and the interpretations derived from the meaning units. This process ensures that the final categories are representative and meaningful in relation to the data set and research objectives.

Discussion

The implementation of dramatic free association has represented a significant advance in the exploration of therapeutic techniques applied to teacher training. This proposed methodology is based on the dramatic representation of personal or group conflicts, allowing participants to express their thoughts and emotions through theatrical scenes that represent dilemmatic situations. In the case of the methodological device used, this technique was implemented through a dynamic that facilitated fluidity in the associations and multiplications of scenes, providing a space conducive to the manifestation of subjectivity and interaction among participants.

During the warm-up stage, efforts were made to create an atmosphere of trust and security that would allow participants to feel comfortable to express themselves freely. This initial phase was essential to establish the necessary foundations for the effective development of dramatic free association. Subsequently, in the action stage, the dramatic free association itself took place, where the participants flowed in associations and multiplications of scenes, exploring various situations and conflicts. This phase allowed each individual to express his or her fears and difficulties in an authentic way, without restrictions or value judgments.

Finally, in the reflection stage, a space was provided for the participants to reflect together on the experiences lived during the dynamics. This shared reflection facilitated the identification and work through any fears and difficulties that may have arisen, thus allowing for a meaningful learning process. Together, these stages formed an integral process that made it possible to explore and address the emotions and conflicts present in teacher training.

The main objective of implementing dramatic free association in the methodological device was to provide participants with a space to express themselves freely and manifest their subjectivity. In a context of teacher training, where future educators face numerous challenges and stressful situations, this technique became a valuable tool to identify and work on the fears and difficulties inherent to the teaching profession. By allowing the participants to explore and represent their dilemmas in a creative and non-judgmental way, the development of self-reflection and communication skills that are essential for effective teaching was fostered.

In addition, the dramatic free association promoted interaction among the participants and joint reflection on their experiences. This process of exchange and shared analysis contributed to mutual enrichment and the strengthening of the sense of community within the group. It also allowed participants to feel accompanied in their process of exploration and personal and professional growth.

In summary, the implementation of dramatic free association in the methodological device has represented an effective strategy to address fears and difficulties in teacher training. This technique has provided a safe and structured space for participants to freely express their emotions and reflect on their experiences, thus contributing to the integral development of future educators.

It is also suggested that future research should delve deeper into the long-term effects of this methodological device on the professional development of educators. It would be interesting to examine how this technique influences the teaching practice and emotional well-being of educators throughout their careers, as well as its impact on students' academic and socioemotional performance. Longitudinal studies could provide a more complete understanding of the long-term benefits of this innovative technique in the field of teacher education.

Conclusions

Research on the methodology for managing frightening situations in teacher education offers revealing insights into how to address the emotional and professional challenges faced by future educators. This methodology has proven to be an effective tool to address the fears and difficulties inherent in the teacher training process, presenting an innovative and creative approach that makes a significant difference in educational practice.

The methodology can help prospective teachers develop fundamental skills and competencies for their careers in the following ways:

1. Identification and expression of specific fears: Through diagnostic activities at the beginning of the process, the qualitative methodology allows students to identify

and express the specific fears they face in their professional practices, which helps them to understand and address their fears.

2. Emotional exploration and construction of shared meanings: By applying psychoanalytic tools in a collaborative work process, students can explore their emotions, those of their peers, and construct shared meanings about their fears. This provides them with a conceptual and practical framework to address their fears effectively.

3. Case analysis: The analysis of cases that exemplify situations of fear in the teaching practice allows students to understand the theoretical concepts and their applicability in the management of their own fears, fostering practical and meaningful learning.

4. Periodic feedback: The methodology includes the provision of periodic feedback to each participant, allowing them to perform a metacognitive exercise on their progress in managing anxiety and fear. This feedback contributes to the continuous development of emotional and pedagogical skills necessary for teaching.

This methodological tool provides a safe and structured space where participants can freely explore their emotions and reflect on their experiences. This aspect is fundamental, as it allows future educators to identify and better understand the emotional and professional challenges they face during their training. By providing an environment conducive to authentic expression, this technique facilitates the process of recognizing and coping with fears and difficulties, which contributes significantly to their personal and professional development.

In addition, it fosters the development of essential skills for teaching practice, such as communication, reflection and teamwork. By participating in this technique, future educators have the opportunity to practice and improve their verbal and non-verbal communication skills, allowing them to establish stronger and more meaningful relationships with their students. In addition, shared reflection and teamwork promote collaboration and the exchange of experiences among participants, thus enriching their training process and better preparing them to face the challenges of the teaching profession.

We can assure that the proposed methodology emerges as a valuable and transformative tool in the context of teacher training. Its innovative and creative approach to addressing fears and difficulties in this area provides an effective and sustainable solution to prepare the educators of the future. In addition, its ability to promote the development of fundamental skills for teaching practice highlights its relevance and pertinence in today's educational field.

Therefore, implementation in teacher training programs is strongly recommended as an effective strategy to prepare educators for the challenges of the profession. Its positive impact on the personal and professional development of participants makes it an invaluable tool in the search for educational excellence and the formation of committed and reflective educators.

In addition, it is worth noting the versatility of this methodological tool, as it can be easily adapted to different contexts and specific needs of teacher training programs. Its flexibility and capacity to adapt to different realities allow its application in different educational environments, from rural schools to urban institutions, as well as in different educational levels, from early childhood education to higher education. This further expands its potential impact and relevance in educator training throughout the jurisdiction.

In conclusion, the methodological device represents a significant advance in teacher training, offering an innovative and creative approach to address the fears and difficulties faced by future educators. Its positive impact on the personal and professional development of participants, as well as its potential to adapt to diverse contexts and specific needs, make it an invaluable tool in the pursuit of educational excellence and the training of committed and reflective educators.

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The impact of bilingualism on the communicative development of children with autistic spectrum disorder
El impacto del bilingüismo en el desarrollo comunicativo de niños con trastorno del espectro autista

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	ABSTRACT
Keywords: ASD, bilingualism, FE, language.	Bilingualism is a phenomenon known as the ability to speak two languages fluently for communication. This skill has been shown to bring a number of cognitive benefits, especially in the area of the prefrontal cortex, where executive functions (EF) and language functions are located. However, children diagnosed with autism spectrum disorder (ASD) may have difficulties in using language due to the involvement of these brain areas. Within the ASD spectrum, there are different profiles ranging from mild to very severe impairment, which is why some children with ASD have less impairment in language and cognition, meaning that they could benefit from bilingualism to enhance these skills. Therefore, this study aims to assess whether bilingual children with ASD (ASD-B) have specific cognitive improvements in language use and cognitive skills in comparison with monolingual children with ASD (ASD-M) and typically developing bilingual children (TD-B). The aim is to validate or not the main hypothesis and to propose a research approach on how bilingualism could be beneficial for this population. **Keywords:** ASD, bilingualism, FE, language
	RESUMEN
Palabras clave: TEA, bilingüismo, FE, lenguaje.	El bilingüismo es un fenómeno conocido por la capacidad de una persona para emplear adecuadamente las lenguas vehiculares que conoce de manera indistinta y efectiva. Se ha demostrado que esta habilidad proporciona una serie de beneficios a nivel cognitivo, especialmente en el área de la corteza prefrontal, donde se encuentran las funciones ejecutivas (FE) y del lenguaje. Sin embargo, los niños diagnosticados con trastorno del espectro autista (TEA) pueden tener dificultades en el uso del lenguaje debido a la afectación de estas áreas cerebrales. Dentro del espectro TEA, existen diferentes perfiles que van desde personas con un grado leve hasta un grado muy severo de afectación y es por ello que algunos niños con TEA tienen menor afectación del lenguaje y cognición, lo que significa que podrían beneficiarse del bilingüismo para potenciar estas habilidades. Por lo tanto, este estudio tiene como objetivo evaluar si los niños bilingües con TEA (TEA-B) tienen mejoras cognitivas específicas en el uso del lenguaje y habilidades cognitivas en comparación

con los niños monolingües con TEA (TEA-M) y los niños bilingües con desarrollo típico (DT-B). El objetivo es validar o no la hipótesis principal y proponer un enfoque de investigación sobre cómo el bilingüismo podría ser beneficioso para esta población

122

Introduction

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder of childhood origin characterized by impaired social communication and social interaction, as well as repetitive behaviors and behavioral rigidity. In addition, they present significant difficulties in receptive and/or expressive language, verbal reasoning, verbal memory and cognitive flexibility, among others (Garrido et al., 2021). This population comprises a heterogeneous group of traits with multiple affected areas that allow grouping those affected by the disorder based on 3 symptomatological cores: qualitative relationship disorder, communication and language disturbances, and lack of mental and behavioral flexibility (Rivero, 2019). Behavioral alterations and cognitive deficits have been related to neuroanatomical and neurophysiological alterations located in the frontal part, establishing a connection with the temporal and parietal regions (Padilla and Infante, 2022).

One of the cognitive alterations related to ASD are those affecting executive functions. Executive functions (EF) are characterized as a set of higher-order cognitive skills that are goal-directed and future-oriented (Demetriou et al., 2019), as well as being essential for carrying out effective, creative and socially accepted behavior (Seijas, 2015). Similarly, they are presented as a set of cognitive, affective and motivational processes that aim to exercise conscious control of thinking, thus allowing an anticipation of behavior, setting goals and providing self-regulation of both mental operations and behavior to achieve efficient problem solving (Lepe et al., 2018). Among these mechanisms, working memory, cognitive flexibility, executive and inhibitory control, planning, self-monitoring, decision making, and verbal fluency stand out as the main ones (Tabares, 2022). These skills have been related to the prefrontal area of the brain (Ruiz and Castillo, 2019).

EFs begin to develop around the first year of life and generate significant changes between 2 and 5 years of age, finally stabilizing between 12 and 18 years of age. However, in the case of ASD, each executive function is affected from an early age, which is evident in situations involving social interaction, language, thinking and behavior, which will later influence the ability to acquire adaptive skills (Ruiz and Castillo, 2019).

Working memory (WM) as a component of EF is described as a short-term memory system capable of controlling the processing and temporary storage of information. Similarly, this system plays a crucial role in performing complex activities of high-level cognition, such as language comprehension, long-term learning, reasoning, reading comprehension, mental arithmetic, and problem-solving ability among others (Habib et al., 2019).

Likewise, one of the main impairments observed according to the EF in the ASD population corresponds to working memory, causing an alteration of planning and cognitive flexibility mostly. These difficulties are related to deficits in the prefrontal cortex, an essential area for cognitive development and socio-emotional functioning (Cid et al., J. C.).

Similarly, those diagnosed with ASD present difficulties in planning and organization, i.e., in the ability to integrate, sequence and develop the necessary steps to achieve goals, whether short, medium or long term (Ruiz & Castillo, 2019). There are also difficulties in inhibition that are explained as the inability they possess to delay tendencies to generate impulsive responses and therefore regulate behavior and attention (Diamond, 2012, as cited in Ruiz and Castillo, 2019).

On the other hand, language is a complex structure that possesses several interconnected abilities, such as vocabulary, syntax and learning capacity (Abellán, 2022). In this way, human beings would be able to solve tasks, overcome impulsive acts, plan actions in advance and maintain control over their own behavior (Macías and Alexandra, 2022). Although these abilities are closely related to each other, they are known to be located in different areas of the brain. For this reason, it is important to examine the different elements of language

individually and globally (Abellán, 2022). Several studies have shown that early language development depends on EF processing. Therefore, for their integration it will be necessary to acquire social and pragmatic skills in addition to linguistic skills, which will serve to understand the meaning of the new words (Abellán, 2022).

One of the most frequent characteristics of ASD is the problems they present in social communication and difficulties in integrating verbal and nonverbal communication. However, although social development is one of the main language and speech difficulties in children with ASD, there are other conditions that can also hinder the correct development of speech and language and that may have a greater or lesser impact on it. Developmental language disorder (DLD), apraxia of speech (AS) or low intelligence quotient (IQ) are presented as associated morbidity in ASD and may also influence the acquisition of the aforementioned skills (Vogindroukas et al., 2022).

There are other language disorders commonly associated with children with ASD. Selective mutism and phonological-syntactic syndrome, the latter being the most frequent, which occurs not only in ASD children with language disorder, but also in those who do not have it. Along the same lines, the semantic-pragmatic language disorder is the most distinctive in the ASD population, due to the fact that it is the one that is closely related to alterations in social interaction, influencing the ability to initiate conversations or maintain turns of speech (Cordón and Torrijos, 2021).

Today, bilingualism is a very common condition in the world's population. Many studies show that the acquisition of more than one language has academic, social, emotional and cognitive benefits (Garrido et al., 2021). The acquisition of a second language has been linked to an increase in brain plasticity and neural connections leading to faster and easier learning. Similarly, imitation, adaptability, memorization and communication skills would benefit (Castro and Zuluaga, 2019).

As mentioned, there is evidence that this condition results in various structural and functional brain modifications (see Figure 1). Among them, a greater density of gray matter (GM) in the left inferior parietal cortex in the bilingual population with respect to the monolingual population, thus correlating the increase in GM with the increase in second language proficiency. Likewise, the white matter is also affected in the left parietal and left Heschl's gyrus regions of the temporal lobe. Subcortical structures are shown to be significantly larger in bilateral putamen and thalami, as well as in the right globus pallidus and right caudate nucleus (Rosselli, 2021).

Figure 1

Cortical Brain Areas Associated with Bilingualism in Normative Population
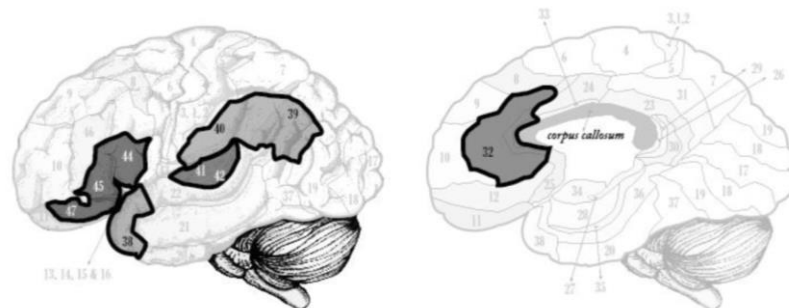
Note. Brain areas in which there is a significant increase in gray matter in normative bilingual population with respect to normative monolingual. It includes Brodmann's areas (BA), anterior cingulate gyrus in both hemispheres (BA 32), inferior frontal gyrus of the left hemisphere (BAs 44, 45 and 47), anterior temporal lobe (BA 38), anterior parietal lobe (BAs 39

and 40) and Heschl's gyrus (BAs 41 and 42). Adapted from Cortical Areas Associated with Bilingualism, by Rosselli, M., 2021. [Figure].

Although bilingualism presents a notorious advantage in executive function tasks, it should be noted that its effect will also depend on the age of the individual, language proficiency, age of acquisition of the second language and exposure to each of them (Esnaola, 2019). Another major impact of bilingualism is associated with inhibition and attentional control. The latter is related to the ability to pay attention to the language being performed at a given moment in relation to the maintenance and control of possible interference from language that is not in use (Castro & Zuluaga, 2019).

On the other hand, it has been recurrently studied whether the acquisition of more than one language in ASD would have a negative impact on their development. Comparative studies between bilingual ASD groups (ASD-B) with another monolingual ASD group (ASD-M) or typically developing bilinguals (TD-B) similar in chronological age have affirmed that ASD-B do not present any additional disadvantage with respect to the ASD-M group (Garrido et al., 2021).

Despite this, there is some concern among bilingual families of children diagnosed with autism spectrum disorder (ASD) about the uncertainty of whether or not to raise their child in a bilingual environment. However, no disadvantages were found in language skills in B-ASD children with respect to M-ASD. On the other hand, ASD-B showed an additional advantage in socialization skills with respect to ASD-M (Hastedt et al., 2023).

However, due to the heterogeneity of the ASD population, there is still no unanimity as to the benefits they may have from bilingualism. Children with ASD have various language deficits and research is unclear as to whether or not bilingualism can lead to an improvement not only in language, but also in other cognitive skills. Therefore, there is a need for further investigation and research on whether ASD-B children show cognitive improvements and better language strategies compared to ASD-M or TD-B children (Garrido et al., 2021).

Accordingly, the general objective of the study is to specify whether ASD-B children have greater cognitive and language abilities than ASD-M and TD-B children. In turn, in order to reach the general objective, the specific objectives are to analyze the different characteristics related to language in ASD children, as well as to study and evaluate other cognitive variables such as MT, cognitive flexibility, organization, planning, inhibition and problem solving.

Method

Participants

It is proposed to work with a sample of approximately 150 participants during the course of approximately 6 months. These will be chosen randomly among the different ASD associations throughout Spain. The age of the participants will range from 3 to 7 years old, since at these ages brain plasticity and language explosion is at its peak. Therefore, it will be more beneficial to work on that age range (Parra, 2022).

Specifically, three groups will be formed among which a group of typically developing bilingual children (TD-B), another group diagnosed with ASD that is monolingual (ASD-M) and finally another bilingual ASD group (ASD-B) will be distinguished.

The inclusion criteria required to participate in the study are differentiated according to the three proposed groups: children between the ages of 3 and 7 years, diagnosed with ASD grade 1 and speaking more than one vehicular language (group TEA-B), children with typical

bilingual development (group DT-B) and children diagnosed with ASD grade 1 monolingual (group TEA-M) will be selected.

Finally, exclusion criteria are specified as being diagnosed with any other mental disorder, as well as having any other medical condition that may affect language development and having intellectual disability or neurological comorbidity.

Measuring Instruments

To know the severity of participants' ASD symptomatology, the ADOS-2 measurement instrument from Lord et al., (2015) and the Spanish version of Luque (2015) with an internal consistency between 0.47 and 0.94 will be used (Neophytou, 2021). Specifically, module 3 will be used since it corresponds to children with fluent language. This instrument consists of a quantitative, standardized, semi-structured assessment with 30 items grouped into five evaluation modules. It examines aspects such as social interaction, verbal/nonverbal communication, play or imaginative use of materials, and restrictive and repetitive behaviors. Regarding response style, most of the items are binary response items, i.e., the presence or absence of specific behaviors of the child during the assessment is evaluated. The application time ranges from 40 to 60 minutes (Luque, 2015).

Next, the Wechsler Intelligence Scale (WPPSI-III) would be applied to children between 2.6 and 7.3 years of age. Depending on the age of the child, the first stage of the test (2.6-3.11 years) or the second stage (4-7.3 years) will be applied. Its use is aimed at measuring the IQ of children through 14 subtests of verbal comprehension, perceptual organization and processing speed. In addition to obtaining information about their working memory (WM) to help establish a baseline between groups. Regarding the response style of the items, most of the subtests are multiple choice, although some include open-ended questions or tasks requiring verbal response or object manipulation. Being its original version and Wechsler (2002) and the adapted Spanish version Corral et al. (2009). This instrument consists of a total of 14 subtests. Likewise, this scale has an internal consistency of around 0.83 (Corral et al., 2009).

Along the same lines, in order to rule out any other language impairment in addition to language assessment, the Illinois Test of Psycholinguistic Aptitudes (ITPA) will be used in its original version by McCarthy and Kirk (1968), with its Spanish adaptation by Ballesteros et al. (1983). Suitable for children aged 3 to 10 years for the evaluation of language difficulties and measurement of psycholinguistic functions involved in communicative ability. It consists of 11 subtests, 5 of which are dedicated to the visuo-motor channel and 6 to the auditory-vocal channel. There are multiple response type items as well as items where subjects must listen and repeat a word or phrase. This test has an internal consistency between 0.70 and 0.95 (Ballesteros et al., 1983).

In the case of bilingual subjects, a semi-structured interview will be conducted with the children and their parents or legal guardians in order to collect information on the level of competence in both languages and the level of use of each language.

The NEPSY-II battery of Korkman et al. (2007) with Spanish adaptation by Centro de Rehabilitación Neurológica-FIVAN and Laboratorio de Diversidad (2016) will be beneficial to perform a comprehensive assessment of neuropsychological functioning across the domains of attention and executive function, language, memory and learning, social perception, visuospatial and sensorimotor processing. Depending on the subtest, the items may have different forms of response, some of them being verbal, motor, multiple choice, object, or construction items. Similarly, items suitable for ages 3 to 7 will be used. This battery has an internal consistency ranging from 0.60 to 0.90 (Korkman et al., 2007).

Procedure

The research project proposal would then be reviewed and approved by an appropriate ethics committee. This would lead to the selection of study participants according to the inclusion and exclusion criteria, respectively. Subsequently, a communiqué would be issued to the ASD associations throughout Spain and to the different bilingual institutions to inform them about the study, its objectives and the criteria to be followed for the selection of the participants.

An information sheet will then be given to each study participant detailing the purpose of the study, the duration of the study, the favorable report of the ethics committee, the voluntary participation, the objectives of the study and the procedure to be followed. In addition, it will detail the possible benefits of participation and the right to revoke consent, the protection of personal data where confidentiality, informed consent and the return of results will be detailed.

Once the groups have been formalized, the study investigators will meet with the participants in specialized centers to properly employ the tests described above.

Results

The present study focuses on comparing each of the variables included in the NEPSY-II scale, such as attention, executive function, memory and learning, in addition to the variables related to language in children diagnosed with bilingual (ASD-B) and monolingual (ASD-M) Autism Spectrum Disorder (ASD-B), as well as comparing them with bilingual children with typical development (TD-B).

The results of each test will be analyzed by means of a Kolmogorov-Smirnov normality analysis to determine whether or not the scores obtained from each test follow a normal distribution. If followed, the ANOVA statistic will be used to evaluate the differences between the results of each group in each of the tests mentioned above. Otherwise, the non-parametric Kruskal-Wallis statistic will be used.

Although the differences between ASD-B and TD-B are smaller or may show smaller differences between them, it is still an indicator that ASD-Bs have better cognitive conditions than ASD-Ms.

This may be a clear indicator that bilingualism is strongly associated with cognitive improvements.

In the present work we will attempt to study this phenomenon by correlating the tests applied within each group to observe the reciprocal relationship between the different variables, i.e., we will analyze whether the different scores of each of the areas evaluated with each test (memory, attention, cognitive flexibility, inhibition, etc.) are different to observe which variable correlates better.

Similarly, this relationship between variables will show whether within bilingualism, improvement in language scores correlates with improvements in any of the other aspects assessed. For this purpose, a multiple regression will be performed between the dependent variable (DV) "language ability due to bilingualism", since, as we have seen above, it helps to improve it, and all the neuropsychological areas analyzed in NEPSI-II in order to analyze which of them correlates. Having as independent variable (VI) all memory components.

In short, the aim is to observe whether being bilingual improves some cognitive condition, such as memory or some subtype of it. Therefore, a multiple regression analysis will be performed, correlating the language scores obtained with each of the variables, resulting in a general improvement or the improvement of a specific area.

Discussion and Conclusions

Finally, the conclusions of the article will be presented in a last section The main objective of the research program is to assess whether or not the ASD-B population possesses greater cognitive and language abilities by evaluating the different aspects of working memory (WM) and language in ASD-B children and comparing them with the ASD-M and TD-B groups.

Confirmation that ASD-B children have advantages compared to ASD-M will show that bilingualism can be an important tool to improve cognitive and linguistic development in children with ASD. We were able to find an increase in working memory in B-ASD children with respect to M-ASD, as well as in their inhibitory cognitive control. Similarly, visual discrimination tests between these groups seem to show that ASD-Bs have faster attention focus (Peristeri et al., 2021).

Based on this, it is expected to be able to generate intervention strategies that would allow offering greater stimulation in relation to another language, letting us see if children with ASD raised in an optimal bilingual environment present improvements in their executive functions or if it will be efficient and effective to implement a second language in the development of a child with ASD (Gonzalez and Nadig, 2018).

In addition to these studies, it would be interesting to also perform neuroimaging studies to analyze whether there are indeed neuroanatomical and functional changes in ASD-B children that could explain these changes in cognitive and language variables (Rosselli, 2021).

Direct exposure to more than one language from infancy to a child diagnosed with autism spectrum disorder (ASD) shows no evidence that it impedes optimal language development in the child (Beauchamp et al., 2020). As well as no deleterious effect on nonverbal cognitive functioning, nor on language abilities (Dai et al., 2018).

However, further research with larger and more varied samples of bilingual and monolingual children with ASD is needed to better understand the effects of bilingualism on language and working memory development in this population (Garrido et al., 2021).

In addition, it is also important to consider additional factors such as the age of second language acquisition, the amount and quality of exposure to the second language, and any other variables that may be influencing performance on these tests (Esnaola, 2019).

Ultimately, although the study suggests that bilingualism does not have a significant negative influence on language skill performance in children with ASD, more research is needed to fully understand the role of bilingualism in the development of specific cognitive skills in this population (Garrido et al., 2021).

The limitations of the study include the difficulty of selecting representative samples due to the inclusion and exclusion criteria established. Therefore, the fact of focusing exclusively on working with children with ASD grade 1 makes it interesting to expand the type of ASD symptomatology in future studies, as well as to widen the age range, since this could be positively or negatively influencing the aspects studied. Similarly, the cultural complexity of the population is present, since language is an aspect rooted in the culture and society from which the individual derives. Therefore, it will be important to keep in mind that the sociocultural contexts in which children acquire language may affect the development of working memory and language, as well as the age of second language acquisition.

In sum, the fact that there are no significant differences between ASD-B and BT-B, but there are significant differences in ASD-B and ASD-M, may indicate that having ASD and being bilingual will generate a significant advantage over monolingualism, to improve not only aspects of language but other neuropsychological aspects, such as working memory (WM), cognitive flexibility or inhibition, among others.

Therefore, given that children with ASD-B present improvements in cognitive and language skills, it would be interesting to investigate how bilingualism could be a tool not only

to improve language but also to improve the rest of the cognitive skills that could represent a better adaptation of the child in his environment.

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