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Psychotherapeutic Intervention Plan to Reduce the Emotional Effects of Empty Nest Syndrome in Older Adults

Plan de intervención psicoterapéutica para reducir los efectos emocionales del Síndrome del nido vacío en adultos mayores

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Abstract

Introduction: Empty nest syndrome is a psychological disorder that carries significant emotional implications for parents when their children leave home. Common experiences include anxiety, depression, lack of coping strategies and family dysfunctionality. Objective: The purpose is to design a psychotherapeutic intervention plan aimed at mitigating the emotional effects of empty nest syndrome in older adults. Material and methods: A descriptive-exploratory study was carried out with a quantitative approach, using a pretest design. The sample, consisting of 100 adults over 65 years of age, was selected by convenience sampling. A questionnaire including demographic variables was designed and tests such as the Mini Mental, Yesavage, Family Apgar, Hamilton-Anxiety and CAE Coping were applied. The data were analyzed with the statistical software SPSS V 22.00 and Stata 17.0. Results: Significant differences were observed in emotional indicators and other sociodemographic variables, particularly in depression, family dysfunction, lack of coping and anxiety (P > 0.05). Likewise, age, sex, residence and marital status were found to exert a significant influence (P > 0.05). Conclusion: The psychotherapeutic intervention plan emphasizes the importance of improving health, lifestyles and family dynamics, as well as promoting the integration of the elderly into society.

Keywords: Empty nest syndrome; emotions; psychotherapy; elderly.

Resumen

Introducción: El síndrome del nido vacío es un trastorno psicológico que conlleva implicaciones emocionales significativas para los progenitores cuando sus hijos dejan el hogar. Entre las experiencias comunes se encuentran la ansiedad, la depresión, la carencia de estrategias de afrontamiento y la disfuncionalidad familiar. Objetivo: El propósito es diseñar un plan de intervención psicoterapéutica destinado a mitigar los efectos emocionales del síndrome del nido vacío en adultos mayores. Material y métodos: Se llevó a cabo un estudio descriptivo-exploratorio con un enfoque cuantitativo, utilizando un diseño pretest. La muestra, constituida por 100 adultos mayores de 65 años, se seleccionó mediante muestreo por conveniencia. Se diseñó un cuestionario que incluía variables demográficas y se aplicaron pruebas como el Mini Mental, Yesavage, Apgar Familiar, Hamilton-Ansiedad y Afrontamiento CAE. Los datos se analizaron con el programa estadístico SPSS V 22.00 y Stata 17.0. Resultados: Se observaron diferencias significativas en indicadores emocionales y otras variables sociodemográficas, particularmente en depresión, disfunción familiar, falta de afrontamiento y ansiedad (p > 0,05). Asimismo, se encontró que la edad, el sexo, la residencia y el estado civil ejercen una influencia significativa (P > 0,05). Conclusión: El plan de intervención psicoterapéutica enfatiza la importancia de mejorar la salud, los estilos de vida y la dinámica familiar, así como fomentar la integración de las personas mayores en la sociedad.

Palabras clave: Síndrome nido vacío; emociones; psicoterapia; adulto mayor.

INTRODUCCIÓN

The transition to the so-called "empty nest" constitutes a significant event that influences the quality of life of parents (Pizadeh et al., 2023). This phenomenon, known as empty nest syndrome (ENS), is characterized by psychological disorders that arise when children leave the family home, generating a range of emotions such as unhappiness, loss, fear, feelings of inadequacy, difficulties in role adaptation and changes in parental relationships (Mahmoudpour et al., 2023). SNV refers to the long-term maladaptive emotional reactions that parents may experience after the departure of their last child, leaving the parents in the older adult or elderly stage. These reactions encompass symptoms of depression, sadness, anxiety, and guilt, as well as emotions of anger, resentment, irritability, frustration, and loneliness (Huang et al., 2019). Additionally, mental manifestations such as a sense of purposelessness, sleep problems, symptoms associated with grief and loss, as well as feelings of inadequacy may arise (Cohen et al., 2023). The presence of VNS in older adults involves a drastic change in their daily routine and the loss of essential elements in a role that is used to define their identity, which can trigger stress and negative emotions (Cohen et al., 2023). Sometimes, maladaptive responses to emotional events can be the starting point for underlying psychological pathologies, such as social comparison, major depressive disorder, anxiety disorders, and even psychotic reactions (Senín-Calderón et al., 2020).

The process of population aging worldwide is envisioned as a highly relevant phenomenon for the 21st century (ECLAC, 2023). Therefore, it becomes imperative to effectively address the emotional effects derived from the Empty Nest Syndrome (ENS) through the implementation of a psychotherapy plan. It is estimated that by the year 2030, approximately 90% of households in the world will experience empty nest status (Huang et al., 2020). In Ecuador, a society that shows a moderate level of aging, about 6.5% of the total population is over 65 years of age, with a considerable percentage of these older adults residing in empty homes (Cevallos, 2023).

Factors such as the migration of adult children lead to changes in the traditional family structure, which has a significant impact on the emotional health of the elderly parents left at home (Sarkar et al., 2023). The situation of older adults facing SNV is of concern, given that it affects both their mental and emotional well-being and their sense of security and quality of life in the home environment (Wang et al., 2019). This has generated an increase in the demand for psychological interventions aimed at this population, with the objective of providing emotional support and psychoeducation in the absence of their children (Drysdale, 2021). Investigaciones previas han revelado que los adultos mayores que experimentan el SNV muestran diferencias significativas en aspectos como la salud mental y emocional, así como en el nivel de apoyo social percibido (Cohen et al., 2023; Itishree Nayak, 2022; Pizadeh et al., 2023). En el contexto asiático, se ha llevado a cabo un considerable número de estudios centrados en el SNV (Gong et al., 2018; Huang et al., 2020; Wang et al., 2019; Xu et al., 2023; Zhao et al., 2021).

In China, the manifestation of emotional indicators of Empty Nest Syndrome (ENS), including depression, sadness, and anxiety, has been examined in a sample of 2,549 adults over 60 years of age. The Mini-Mental State Examination was used to assess cognitive frailty. The results revealed a 10.1 % prevalence of cognitive frailty among older adults experiencing empty nest (Zhao et al., 2021). On the other hand, in Zhejiang, 4,995 elderly recruited by cluster sampling were evaluated, focusing on quality of life (assessed by SF-36) and social determinants. Analyses indicated that the elderly with VNS showed greater worry and worse psychological function (Wang et al., 2010). In research conducted in Shanghai, the determinants of depressive symptoms, frustration, and loneliness were explored in a sample of 4,265 adults over 60 years of age. A prevalence of 8.18 % of depressive symptoms was found among the elderly with VNS (Ma Y et al., 2012). In addition, another study revealed that depressive symptoms in older adults with VNS were associated with sleep quality, economic status, pain, and social support (Gong et al., 2018).

In Spain, it has been found that a significant proportion of people over 65 years of age who experience VNS experience some mental-emotional health problem, and approximately a quarter present some psychological disorder or problem, such as anxiety, mild cognitive impairment, behavioral disturbances, and depression (Flórez & González, 2000).

In New York, a study was conducted on the cultural narrative provided by adult women in their 60s, focusing on factors such as anxiety and the empty nest phenomenon. The study concluded by identifying factors associated with the successful negotiation of the transition to old age in the presence of the empty nest syndrome, noting that 72.5% of the participants did not receive specialized help through psychotherapy (McQuaide, 1998).

In Latin America, specifically in Mexico, some of the emotional and psychological changes experienced by families with elderly members have been examined. However, at critical moments when children must become independent from their parents to start their own lives, a series of psychological problems arise (Montes et al., 2006). In Brazil, where the percentage of the elderly population reaches 24.5%, psychotherapeutic intervention policies have not yet been implemented to address this problem (Dos Santos et al., 2021). In Chile, a study was conducted to intervene with cognitive-behavioral psychotherapy in older adults who presented symptomatology associated with the Empty Nest Syndrome and who, as a result, experienced anxiety, which generated functional impairment. In this context, psychotherapy is positioned as the preferred treatment option (Hall et al., 2016). On the other hand, in Ecuador, research on this topic is scarce, and existing studies lack solid conclusions that have not been published in scientific journals.

The scientific literature on VNS in older adults and the application of cognitive-behavioral psychotherapy shows greater evidence in the Asian continent (Bougea et al., 2019; Gao et al., 2017; Liang & Wu, 2014; Wang et al., 2017). In this regard, this study's proposal to implement a psychotherapeutic plan to reduce the emotional impact of SNV is appropriate (Greenfield & Marks, 2004), as cognitive flexibility, which is a determinant variable in the mental health of the elderly, can play a significant role in adapting to threats and problems that arise. However, in contrast to the strong evidence in the memory domain, the nature of executive deficits in the population with mild cognitive impairment is still uncertain (Guarino et al., 2020). On the other hand, an intervention design for MNS may generate mechanisms to support and develop cognitive-behavioral abilities in older adults (Glashouwer et al., 2020).

Both cognitive-behavioral therapy (CBT) (Hall et al., 2016) and acceptance and commitment therapy (ACT) (Mahmoudpour et al., 2023) have been found to employ emotional self-regulation techniques that can provide positive experiences and help to effectively cope with stressful situations (Pizadeh et al., 2023). Emotional self-regulation is indispensable for components such as coping strategies to have a significant impact on the health and psychological well-being of the elderly; this would be achieved through the implementation of psychological plans (Mitra, 2023).

Likewise, both CBT and ACT represent more effective treatment methods that are grounded in a relational framework theory. A therapeutic design does not seek to eliminate or suppress the natural and unpleasant experiences associated with VNS but rather to manage long-term anxiety and psychological problems that prevent older adults from enjoying a life of meaning, purpose, and happiness (Bar-Tur, 2021).

The use of a therapeutic variable such as CT to encourage older adults to accept, be aware, and observe to move forward emotionally during SNV (Hayes, 2019) is feasible, as, to date, psychotherapeutic interventions regarding older adults have been very limited in the field of Clinical Psychology (Flórez & González, 2000).

The therapeutic plan will include techniques to control the emotional symptomatology caused by VNS, such as breathing and relaxation (Fairburn, 2008; Flórez & González, 2000; Zhao et al., 2021), as well as mindfulness (Stuart-Edwards & MacDonald, 2023). In addition, learning, modeling, behavioral rehearsal, instructions, reinforcement, feedback, habituation, and generalization techniques will be employed (Lega et al., 2017; Zhao et al., 2021), along with the theories of positive aging and positive psychology (Bar-Tur, 2021).

To date, previous studies conducted worldwide have focused on the physical health dimension and mere evidence of the problem. In Ecuador, there is no relevant study, and those that exist lack a therapeutic proposal that addresses the emotional dimension of the elderly with an empty nest. Based on survey data, this study aims to design a psychotherapeutic intervention plan to reduce the emotional effects of empty nest syndrome in older adults.

METHOD

Design and participants

Descriptive-explanatory research that adopted a pre-experimental design with a quantitative approach. The sample, composed of 100 older adults affected by empty nest syndrome (ENS) and aged 65 years or older, was selected using a non-probabilistic convenience sampling method. The participants reside in the town of Ecuador-Riobamba, specifically in the parishes of Cacha, Flores, and Chambo canton, during the year 2023.

Instruments

Mini Mental (Feijoo D, 2016).

This is an assessment of cognitive status in older adults designed to detect cognitive frailty. This assessment comprises three dimensions that examine various mental functions, complemented with exercises to assess motor skills. Its construct validity positions it as a reliable tool, supported by solid psychometric properties that include a Cronbach's alpha coefficient of 0.92, as reported by Feijoo D in 2016.

Yesavage Geriatric Depression Scale (Sheik JI, 1986).

It provides data on depressive symptoms and their manifestations, which include worry, lack of interest, and anxiety in old age. As the total score is linked to cognitive aspects of depression, two distinct factors are identified, one related to mood and the other associated with subjective well-being. This instrument exhibits excellent psychometric quality, with a Cronbach's alpha coefficient of 0.90, as reported by Sheik JI in 1986.

Family APGAR test (Gardner et al., 2001).

La herramienta se compone de tres preguntas de tipo Likert y muestra una fiabilidad interna notable, con un coeficiente alfa de Cronbach de 0.89. Se enfoca en la percepción personal del estado de salud familiar, centrándose particularmente en las percepciones relacionadas con el abandono, según lo informado por Gardner et al. en 2001.

Hamilton Anxiety Scale (Hamilton, 1982) Ecuadorian vision (Arias et al., 2022).

It is a self-administered questionnaire composed of 14 items designed to measure the level of anxiety experienced by the individual. In addition, it can be administered by a clinical professional through an interview. The instrument assesses both psychic and somatic anxiety. A satisfactory internal consistency has been reported, with Cronbach's alpha coefficients ranging from 0.76 to 0.92.

Coping with Stress Questionnaire (CAE) (Sandín B, 2002).

This questionnaire, which explores various styles of coping with stress, consists of forty-two items distributed in 7 dimensions. Although it was initially developed using a sample of young adults, it is considered that the constructs are equally applicable to the older adult population. Among the coping styles it addresses are focus on problem-solving, negative self-criticism, positive reappraisal, open emotional expression, avoidance, seeking social support, and religiosity. High internal consistency has been demonstrated in this instrument, with a Cronbach's alpha coefficient of 0.92 (Sandín, 2002).

Data analysis

The data collected from the forms were processed using SPSS V 22.00 and Stata 17.0 statistical software (Tabachnick & Fidell, 2007). A parametric statistical approach was applied to examine the data and variables collected. A descriptive analysis was used to present the sociodemographic information, which included characteristics such as age, gender, marital status, health, place of residence, disabilities, socioeconomic status, and educational level. Regarding variables related to emotional indicators of empty nest syndrome (ENS), aspects such as depression, family dysfunction, coping strategies, and anxiety were assessed. The Chi-square test was used to determine the significance of these variables. In addition, binomial logistic regression was used to confirm whether the condition of older adults with VNS influenced their current emotional state. Those variables that showed statistical significance ($p < 0.05$) in the between-group analysis were included in the logistic regression model. Likewise, sociodemographic variables were used as controls in the logistic regression analysis. A value of $p < 0.05$ was considered indicative of statistical significance.

RESULTS

The demographic description of the older adults with empty nesting revealed that the entire sample investigated consisted of seniors in this situation (100%), determined by convenience sampling. There was a significant predominance of women among the participants (73% vs. 27%, $p < 0.05$), as well as a majority who were married and residing with their spouse (61% vs. 33% widowed, 4% single and 2% divorced; $p < 0.001$). Regarding age group distribution, a lower proportion of individuals were found to be in the age range between >60 and <70 years (22% vs. 46% who were between >71 and <80 years; only 32.00% were older than 81 years; $p < 0.001$). The vast majority of participants resided in rural areas (98.0% vs. 2%; $p < 0.05$), and a very small proportion had disabilities (98% vs. 2%). In terms of economic stratum, the majority belonged to the low stratum (99% vs. 1%; $p = 0.683$). In addition, there was a considerable proportion of individuals who could not read or write (89% vs. 6%), and significant differences were found in terms of educational levels ($p = 0.002$**), as detailed in Table 1 for a more detailed analysis.

Table 1
Demographic description older adults with empty nest.

	Empty nest Majors N = 100		p-value
Age			**<0.001*** **
>60, <70	22	(22.00%)	
>71, <80	46	(46.00%)	
> 81	32	(32.00%	
Gender			**0.002****
Female	73	(73.00%)	
Male	27	(27.00%)	
Marital Status			**<0.001*** **
Single	4	(4.00%)	
Married	61	(61.00%)	
Divorced	2	(2.00%)	
Widowed	33	(33.00%)	
Residence			**0.386**
Urban	2	(2.00%)	
Rural	98	(98.00%)	
Disability			**0.386**
Yes	2	(2.00%)	
No	98	(98.00%)	

Economic stratum			**0.683**
Medium	1	(1.00%)	
Low	99	(99.00%)	
Education			**0.002****
Cannot read/write	89	(89.00%)	
Can read/write	6	(6.00%)	
Primary	5	(5.00%)	

Source: Santos-Morocho, 2023
Notes: 1) the number of respondents and the weighted percentage of the sample are presented (in parentheses); 2) the chi-square test was used to show significance.
* p<0.05
** p<0.01
*** p<0.001.

During the assessment by psychological testing of emotional symptoms in older adults with empty nest syndrome (ENS), a significantly higher proportion of participants were found to show cognitive impairment to varying degrees, either mild, moderate, or severe (71% vs. 29%, P < 0.05). Also, there was a marked prevalence of diagnosed depression (3% vs. 97%, P < 0.05), as well as severe family dysfunction (92% vs. 8%, P < 0.05) and inadequate coping (97% vs. 3%, P < 0.05). In addition, there was a notable incidence of anxiety, both psychic (42%) and somatic (38%), compared to those without such symptoms (20%, p < 0.05). These findings suggest that the assessed older adults experience significant emotional difficulties (p < 0.05), as detailed in Table 2 for further analysis.

Table 2
Assessment of emotional symptoms in older adults with VNS.

	Empty nest Majors N = 100		p-value
Mini Mental			**<0.001*** **
Normal: 24 points or more	29	(29.00%)	
Mild impairment: between 19 and 23 points	50	(50.00%)	
Moderate impairment: between 14 and 18 points	13	(13.00%)	
Severe impairment: < 14 points	8	(8.00%)	
Yesavage			**<0.001*** **
11-13: Established depression	3	(3.00%)	
0-10: Probable depression	97	(97.00%)	

Family Apgar			**<0.001*** **
Moderate dysfunction: 12-10 points	8	(8.00%)	
Severe dysfunction: less than or equal to 9	92	(92.00%)	
CAE			**<0.001*** **
Inadequate coping (AFN-EVT-BAS)	97	(97%)	
Adequate coping (FSP-REP-EEA_REL)	7	(3%)	
Anxiety			**<0.001*** **
No anxiety	20	(20.00%)	
Psychic anxiety	42	(42.00%)	
Somatic Anxiety	38	(38.00%)	

Source: Santos-Morocho, 2023Notes: 1) the number of respondents and the weighted percentage of the sample are presented (in parentheses); 2) the chi-square test was used to show the significance Sig:
* p<0.05
** p<0.01
*** p<0.001

The results of the binomial logistic regression analysis revealed that older adults with empty nest syndrome (ENS) present significant differences in terms of depression, family dysfunction, lack of coping, and anxiety (P > 0.05), as manifested by emotional indicators and other sociodemographic variables. In addition, variables such as age, gender, residence, and marital status were also found to have a significant influence (P > 0.05) on the persistence of VNS. A detailed summary of these results is provided in Table 3 for reference and further analysis.

Table 3

Binary logistic regression analysis older adults with empty nest.

	1		2		3		4	
	Depresión Probable	**Depresión estableCida**	**Disfunción familiar moderada**	**Disfunción familiar severa**	**Afrontamiento inadecuado**	**Afrontamiento adecuado**	**Ansiedad psíquica**	**Ansiedad somática**
Empty Nest Syndrome								
Ref.: emotional	0.33	0.779	0.882	0.899	-1.887	-2.553	10.207	11.082
	(-0.772)	(-0.844)	(-0.967)	(-1.084)	(-2.651)	(-2.488)	(-5729.69)	(-5729.69)
Participating ages								
>60, <70	0.029	0.08	0.239***	0.438***	-0.542***	-0.574***	0.578**	0.539**
	(-0.066)	(-0.077)	-0.071	(-0.064)	(-0.118)	(-0.097)	(-0.272)	(-0.254)
>71	0.320***	-0.115	0.431***	0.373***	-0.500***	-0.740***	0.772**	0.699*
	(-0.112)	(-0.13)	(-0.109)	(-0.1)	(-0.176)	(-0.132)	(-0.393)	(-0.362)

Gender (Ref.: Female)	0.381*** (-0.069)	0.250*** (-0.08)	0.219*** (-0.076)	-0.518*** (-0.066)	-0.588*** (-0.123)	0.560*** (-0.099)	-2.368*** (-0.321)	-2.301*** (-0.307)
Residence								
Rural	0.600***	-0.384***	0.252**	-0.440***	0.535***	0.163	0.408	0.323
	(-0.081)	(-0.095)	(-0.11)	(-0.156)	(-0.125)	(-0.338)	(-0.313)	(-0.332
Urban	0.294**	0.256	0.510***	0.295**	0.471*	0.314 -	-0.228	-0.617
	(-0.135)	(-0.168)	(-0.164)	(-0.139)	(-0.26)	(-0.26)	(-0.486)	(-0.449)
Marital Status								
Widowed (Ref.: Married)	0.147** (-0.073)	-0.089 (-0.086)	0.118 -0.078	-0.097 -0.07	-6.576*** (-0.367	-3.202*** (-0.294)	0.02 (-0.277)	-7.283*** (-0.277)
Pseudo-R-squared	0.04		0.02		0.02		0.03	

The intervention planning is structured in four phases that can be implemented in both group and individual sessions, carried out exclusively by a Psychotherapist. This program is designed to help older adults cope with their situation, focusing on how they wish to shape their lives after the departure of their children. Through combined techniques, it seeks to provide seniors with tools to develop positive attitudes. At the same time, the therapist encourages them to recognize and take advantage of their resources and strengths.

Each session focuses on the application of specific therapeutic strategies, such as recognizing and actively utilizing individual strengths, exploring meaningful emotions, fostering a positive self-image, and reflecting on daily events. The homework assignments in each session are designed to help maintain a satisfying lifestyle even in an empty nest situation. See Table 4 for more details on the intervention process.

Table 4

Phases of the psychotherapeutic intervention plan for older adults with empty nest.

Phases	Processes	Description
Phase 1 Psychoeducation	Scientific review	Literature on SNV emotions. Proactive step, indicator of willingness and commitment to attend sessions and execute tasks.
Phase 2 Expression Discussion	Educating the patient and reorienting his or her life.	Emotions are socialized. Emotions are expressed.
	Emotions	Aging an opportunity to condition self-acceptance and positive self-image. Who am I at this point in my life?

Phase 3 Acceptance and understanding	Express	Share What does it mean to you to be over 65? Am I stuck in the past and my losses? How to overcome SNV
Phase 4 Consolidation	Plenary	Expressing talents, skills, domains and accomplishments. Where should I go? Expressing past experiences, potentiating aspects of personal strengths and resources.
	Satisfaction	Make sense of existence.
	Self-efficacy	New goals: clear, realistic, and meaningful.

Source: Santos-Morocho,2023
Notes: 1) the phases can be adapted and expanded without losing the proposed psychotherapeutic orientation. 2) the level of understanding of the older adult population may change according to the context.

The psychotherapeutic planning model describes intervention strategies to decrease the effects of negative emotional functioning due to NVS and promote psychological well-being in older adults. It is based on Cognitive Behavioral theory, positive aging theories, acceptance and commitment therapy, and mindfulness. It emphasizes its action on ways to thrive and increase emotional functioning; this plan with techniques to address an emotional problem of the SNV, identified in the psychological assessment see tables (1,2). See (Table 5 for the process).

Table 5
Planning model to intervene emotional effects SNV

Emotional indicators SNV	Theory	Psychotherapy	Objective	Expected results	Sessions and time
Depression	Cognitive Behavioral Acceptance and Commitment Therapy	Psychoeducation No control of the uncontrollable	Explain about the emotions produced by the nest syndrome in order for the patient to acquire self-knowledge.	That the patient knows, recognizes and accepts his current emotional state of his mental health.	6 sessions 45 minutes each
Dysfunction family	Acceptance and Commitment Therapy Cognitive Behavioral	Self-discovery and values clarification dialectical behavioral therapy (DBT)	Develop engagement strategies through network support for the patient and their family system to increase self-understanding.	To be able to use more freely their skills and resources to manage the reality that surrounds them, and thus satisfy their affective and family needs.	6 sessions 45 minutes each

Lack of coping	Acceptance and Commitment Therapy	Augmenting *regulation*	To generate in the older adult acceptance and commitment by regulating the probability of the events to occur again so that he/she is able to face them with freedom in his/her process.	That the patient is able to perceive his reality, his ideas and thoughts, and to question the way in which they harm or influence him.	6 sessions 45 minutes each
	Positive aging theories and positive psychology	Knowledge of strengths.			
Anxiety	Acceptance and Commitment Therapy	Acceptance and normalization of discomfort	To train the consciousness by means of the particular way of orienting the attention, in an open way to predict judgments and evaluations to the present experience.	That the patient understands the phenomena of the environment, as well as psychological events, including thoughts, emotions.	6 sessions 45 minutes each
	The mindfulness	Mindfulness			

Source: Santos-Morocho,2023. Notes: 1) the problems to be intervened can be broken down according to the case and the patient's need. 2) The plan can be expanded.

DISCUSSION

The analysis evidenced that older adults experiencing empty nest syndrome have a higher incidence of depression, family dysfunction, poor coping, and anxiety. Previous research has corroborated that older adults in this situation have an elevated predisposition to develop emotional disorders, as noted in previous relevant studies (Gong et al., 2018; Huang et al., 2020; Wang et al., 2019; Xu et al., 2023; Zhao et al., 2021), which is ratified in our work.

The most frequent emotional problems are mainly identified in the form of anxiety and depression, as noted by Huang et al. (2019). In accordance with these findings, this study proposes a psychotherapeutic intervention plan aimed at mitigating the emotional impacts of empty nest syndrome in older adults, thus confirming the hypothesis put forward.

In this study, it was found that older adults affected by empty nest syndrome exhibit marked cognitive impairment, which is aligned with previous relevant research (Greenfield & Marks, 2004; Guarino et al., 2020; Zhao et al., 2021). Assessment of mental status, using a Mini Test to measure cognitive frailty, revealed a high prevalence of such impairment, reaching 10.1% in adults affected by empty nest syndrome. However, this finding should allow the implementation of therapeutic plans and programs, given the cognitive flexibility present in these cases. The nature of executive deficits in this cognitively impaired population still needs to be fully understood, as supported by the scientific literature (Guarino et al., 2020).

The study by Xu et al. (2023) highlights significant differences among the elderly experiencing empty nest syndrome, underscoring the need to improve both health and lifestyles, coping mechanisms, and family dynamics in this population. It also highlights the importance of implementing psychological treatment plans specifically aimed at older adults. In this context, the present study proposes a comprehensive plan that integrates combined techniques in order to foster positive attitudes through psychotherapy.

On the other hand, the analysis conducted by Itishree Nayak (2022) revealed, through univariate analysis, a significant association between depression and the condition of older adults experiencing the empty nest, with 30% of the sample affected by this disorder. Our study, in a sample of 100 adults with empty nest syndrome, indicates that 3.00% present established

depression and 97.00% evidence probable depression, which reinforces the relevance of our research. These findings are supported by a study conducted in India, where depressive symptoms were found to be prevalent in elders in single empty nest households (43%) compared to those residing in couple households (30%) (Itishree Nayak, 2022).

In contrast, our study reveals that the manifestation of emotional symptoms as a consequence of empty nest syndrome is more prevalent in households with married couples (61%). In comparison, those with parents of single marital status show a lower percentage (4%). This difference could be attributed to cultural and idiosyncratic variations, where couple households attach greater importance to child-rearing, as evidenced in our population.

Two investigations have concurred that variables such as gender, socioeconomic status, coping, family stability, and place of residence play a key role in the experience of depression in the elderly (Greenfield & Marks, 2004; Itishree Nayak, 2022). In addition, the results of a study conducted in Riobamba suggest that gender, residence, health status, disability, socioeconomic status, and educational level may be related to overall emotional and psychological health and well-being.

Regarding the study on emotional self-regulation of the elderly with empty nest syndrome conducted by Mahmoudpour et al., a significant difference was observed in patients who participated in psychotherapeutic intervention with acceptance and commitment therapy (ACT), resulting in increased cognitive flexibility and emotional self-regulation of older adults with VNS ($p < 0.05$) (Mahmoudpour et al., 2023). These findings support the need to implement a psychotherapeutic intervention plan for adults with VNS in Riobamba, Ecuador, as it could significantly improve their ability to self-regulate their emotions. A significant contribution of this study lies in the proposal of an intervention plan that recognizes the importance of finding new meanings and roles to fill the void left by the departure of children from home during the empty nest syndrome, suggesting that psychotherapy could be an effective tool to achieve this goal. In addition, this therapeutic approach has the advantage of being adaptable to address a variety of emotional indicators in this population.

Inherent limitations of this plan relate to its potential greater suitability for individuals with a higher level of functioning in the community, as compared to those experiencing cognitive impairment and being of advanced age. Furthermore, an additional limitation lies in the fact that, to date, this proposed plan has yet to be subjected to methodological evaluation, nor has it been implemented. A comprehensive evaluation of this treatment plan needs to be conducted and tested in the population of older adults with empty nest syndrome (ENS). However, it is challenging to determine the feasibility of implementing this strategy, as it is subject to governmental institutional decisions. Nevertheless, this plan could be implemented immediately in the private practice setting.

CONCLUSIONS

In this research, significant emotional markers were identified in older adults experiencing empty nest syndrome, such as depression, family dysfunction, lack of coping strategies, and anxiety. However, analysis using binomial logistic regression revealed a significant association ($p < 0.05$) between these emotional markers and sociodemographic variables such as age, sex, place of residence, and marital status.

The proposed psychotherapeutic intervention plan to mitigate the emotional effects of empty nest syndrome (ENS) in older adults highlights the importance of improving the health, lifestyles, and family dynamics of this population, as well as fostering their integration into society. The strategies outlined focus on promoting well-being and improving the overall functioning of the elderly. Techniques designed to more effectively address their needs may be crucial in generating additional positive coping strategies.

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COMPETING INTERESTS

The authors declare under oath that they have no conflict of interest in the preparation of this article.

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