# INFLUENCE OF FAMILY RELATIONSHIPS ON THE PRESENCE OF CLINICAL SYMPTOMS DURING EMERGING ADULTHOOD

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#### Abstract

The relationship between family and mental health has been one of the cornerstones of research into emerging adulthood over the last decade. In the present study, we analyze the relationship between variables linked to family functioning and the presence of clinical symptoms of depression, anxiety and stress during emerging adulthood in Spain. The study had a cross-sectional design and the sample comprised 1,502 students aged 18-29 years (M= 20,32, DT= 2,13) from two Spanish universities. Participants completed questionnaires in pencil-and-paper format. The results indicate that high levels of parental involvement, warmth and autonomy support are associated with a lower presence of clinical symptoms, whereas psychological control is associated with a higher level of said symptoms. These findings demonstrate the relationship between family functioning and the presence of clinical symptoms, as well as the protective -or risk enhancing- role played by family relationships during this life stage.

Key words: emerging adulthood, family relationships, psychological control, mental health.

#### Resumen

La relación entre familia y salud mental ha sido uno de los focos de estudio clave en las investigaciones sobre adultez emergente de la última década. En el presente estudio se analizó la relación entre variables de funcionamiento familiar y la presencia de síntomas clínicos de depresión, ansiedad y estrés durante la adultez emergente en España. Este estudio contó con un diseño transversal y una muestra de 1502 estudiantes de 18-29 años (M= 20,32; DT= 2,13) de dos universidades españolas, que fueron evaluados a través de cuestionarios en papel. Los resultados indican que altos niveles de implicación, cariño y apoyo parental se relacionan con una menor sintomatología clínica, mientras que el control psicológico se relaciona con una mayor sintomatología. Estos hallazgos demuestran la relación que existe

This work is part of the project La Transición a la Adultez en España: Estudio Sobre las Claves del Ajuste Psicosocial y Fundamentos para su Intervención Preventiva (EDU2013-45687-R), founded by the Ministry of Economy and Competitiveness of the Government of Spain, Agency Research Institute, and the project Estudio Longitudinal Secuencial Sobre la Transición a la Adultez en España (TAE-II; RTI2018-097405-B-I00), founded by the Ministry of Science, Innovation and Universities, State Research Agency, and the European Regional Development Fund (ERDF).

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entre el funcionamiento familiar y la presencia de síntomas clínicos, así como el papel protector -o de riesgo- que siguen teniendo las relaciones familiares durante esta etapa.

PALABRAS CLAVE: adultez emergente, relaciones familiares, control psicológico, salud mental.

#### Introduction

Many studies have demonstrated the connection between family interactions and mental health (Barrett & Turner, 2005; Horwitz-Campos, 1985; Robinson et al., 2008), particularly during childhood and adolescence (Nieto Casado et al., 2022; Speyer et al., 2022). Nevertheless, due to a recent increase in the attention paid to a new life stage, emerging adulthood (Arnett, 2000), which is located between adolescence and adulthood, new questions are now being asked about the role played by the family in the mental health of young people in the third decade of life.

Most of the mental problems or disorders that are diagnosed among young people and adults develop during the early stages of life. Indeed, over 50% of these disorders begin to manifest during middle to late adolescence, although they are not normally detected or treated until many years later (Kessler et al., 2007). If not treated in an adequate and timely manner, disorders that present during adolescence often become chronic and continue without remission into adulthood, when their severity increases due to the stress generated by more demanding environments. This is often the case when young people start to study, work or assume the responsibilities inherent to the transition to adulthood (Balanza et al., 2009; Cardona-Arias et al., 2015; Kessler et al., 2007).

Scientific advancement, globalisation, the development of new technologies and recent socioeconomic and political changes have given rise to a significant transformation in the life trajectories of young people in the 21st century (Arnett, 2000, 2014). These transformations have led to the identification of a new life stage: emerging adulthood, a developmental stage encompassing young people aged between 18 and 29 years that has a specific set of characteristics that set it apart from other stages, turning it into something more than a mere transitional phase in the journey towards adulthood (Arnett, 2000, 2014; Bosh, 2015; Sánchez-Queija et al., 2020).

One of the principal characteristics of emerging adulthood is a delay in the acquisition of adult roles and, consequently, in the moment at which young people leave the family home (Arnett, 2000, 2014). Spain is one of the countries in Europe in which young people become financially independent latest in life, as reflected in the data published by Eurostat (2020), which indicate that the mean age at which young Spanish adults leave the family home is 29.5 years, with young women tending to leave home earlier than their male counterparts (28.7 years and 30.3 years, respectively). This unprecedented situation, in which children continue to live in the family household during the third decade of their lives, generates new parent-child dynamics to which parents and children must adapt in order to foster healthy development adapted to the new challenges posed by emerging adulthood (García-

Mendoza et al., 2017; 2019). One such challenge is the need for parents to accept their child's adult role and to establish more symmetrical relationships in the family environment (Aquilino, 2006).

Another context in which many emerging adults are immersed is the university environment. While stimulating growth, this context also generates a large number of personal, social, and labour-related difficulties due to the many demands and challenges it poses (Pedrelli et al., 2015). These demands may result in maladjustment and/or give rise to clinical symptoms among emerging adults who lack the support or resources they need to cope effectively with them. This is often the case when the young person in question is in the process of separating and individuating themselves from their family of origin (Pedrelli et al., 2015; Storrie et al., 2010), either due to the fact that they are studying in a different city or because they spend a large amount of their time in the university environment. Several studies have found a significant presence of symptoms of depression, anxiety and stress (DAS) among the university population, with presence rates ranging between 26% and 58% (Balanza et al., 2009; Cardona-Arias et al., 2015).

This new situation points to the need to analyse the role of the family in the mental health of emerging adults (Oliveira et al., 2020), particularly in relation to university students. However, the vast majority of the studies carried out to date on the impact of family relations during this stage were conducted with samples from North America and Central Europe, with few seeking to analyse this relationship in samples from Southern Europe in general, and Spain in particular. Although studies with Spanish samples are scarce, their results indicate that the quality of family dynamics has a significant impact on the mental health of emerging adults (Parra, Oliva & Reina, 2015; Rodríguez & Rodrigo, 2011).

Variables such as parental involvement, autonomy support and psychological control have been found to predict children's development (Grolnick at al., 1991, Oliva, 2006: Parra & Oliva, 2006). Although no consensus has vet been reached regarding the definition of parental involvement (Henderson & Mapp, 2002), there is general agreement regarding the fact that this concept encompasses parental behaviours oriented towards spending quality time with their children and becoming emotionally and actively involved in their lives (Grolnick et al., 1991). For its part, parental warmth reflects the emotional dimension of the parent-child relationship and refers to parents' understanding of and sensitivity to their children's needs (Grolnick et al., 1991). Autonomy support comprises parental behaviours designed to promote children's autonomy and initiative in decision-making and the development of a stable sense of self (Grolnick et al., 1991). Finally, psychological control refers to all those practices through which parents seek to punish their children's behaviour when it fails to live up to their expectations. It encompasses efforts to foster children's control of their emotions and behaviour through strategies such as guilt induction and the withdrawal of affection (the most commonly-used strategies) (Oliva, 2006; Parra & Oliva, 2006) and has been linked to poor internal adjustment among children (Abaied & Emond, 2013).

Previous studies have found that high levels of parental involvement, warmth and support are associated with better perceptions of parent-child relations and higher levels of wellbeing (Crespo et al., 2011; Kerr & Stattin, 2000). In contrast, the

lower the levels of involvement and warmth, the higher the incidence of depression (Butterfield et al., 2020; Iglesias & Romero, 2009; Inguglia et al., 2015), anxiety (Butterfield et al., 2020; Rork & Morris, 2009; Wolfradt et al., 2003) and stress (Parra, Oliva & Sánchez-Queija, 2015; Siddiqui, 2011). Autonomy support also correlates negatively with anxiety (Vrolijk et al., 2020), stress (Pedersen, 2017) and depression (Inguglia et al., 2015; Van der Giessen et al., 2014; Vrolijk et al, 2020), whereas psychological control is positively associated with all three types of symptoms (Abaied & Emond, 2013; Padilla-Walker & Nelson, 2012; Pinheiro & Mena, 2014; Wijsbroek et al., 2011). However, the majority of these results were found with adolescent samples, which is why it is necessary to continue exploring the relationship between family and mental health during emerging adulthood.

In this sense, it is important to highlight the gender differences that exist in the distribution of clinical symptoms among emerging adults, with higher incidence rate of stress, anxiety and depression being found among women than among men (Barrera-Herrera et al., 2019). Similarly, gender differences have also been observed in young people's perceptions of their relationship with their parents, with women maintaining closer, warmer and more affectionate contact with their parents during emerging adulthood (Kenny & Donaldson, 1991; Parra, Oliva & Reina, 2015). Consequently, it is important to take the differences which exist between men and women into account when studying the associations between family relations and mental health.

The present study aims to determine the association between the presence of clinical symptoms of DAS and levels of perceived parental involvement, warmth, autonomy support and psychological control among a sample of Spanish undergraduate students. The specific aims of the present study were a) to identify the presence of clinical symptoms of DAS among Spanish university students; b) to determine the relationship between parental involvement, warmth, and autonomy support and DAS symptoms; and c) to determine the relationship between psychological control approximate the presence of clinical symptoms of DAS.

The hypotheses formulated in relation to each aim were as follows: 1) consistently with that reported previously in the literature, between 25% and 50% of university students will have clinical symptoms of DAS; 2) young people with clinical symptoms will perceive lower levels of parental involvement, warmth, and autonomy support; and 3) young people with clinical symptoms of DAS will perceive higher levels of psychological control.

#### Method

### Participants

The sample comprised 1502 young university undergraduate students at two universities of Spain, aged between 18 and 29 years (M= 20.32, SD= 2.13). The distribution of the sociodemographic and clinical variables of the sample is shown in Table 1.

Sociodemographic and clinical variables	n	%
Gender		
Men	599	39.9
Women	903	60.1
Knowledge area		
Arts and Humanities	127	8.5
Social and Legal Sciences	483	32.2
Health Sciences	439	29.2
Pure Sciences	100	6.7
Engineering and Architecture	352	23.4
Academic year		
First	500	34.8
Second	468	32.5
Third	296	20.6
Fourth	174	12.1
Perceived family income		
Low family income	237	15.8
Medium family income	1050	70.1
High family income	211	14.1
University at which participants were studying		
University of Seville	755	50.3
University of the Basque Country	747	49.7
Symptoms of depression		
Non-clinical	1103	73.9
Clinical	390	26.1
Symptoms of anxiety		
Non-clinical	1093	73.3
Clinical	399	26.7
Symptoms of stress		
Non-clinical	1064	71.5
Clinical	425	28.5
Total	1502	100

#### Table 1

Descriptive statistics of the sociodemographic and clinical variables of the sample

## Instruments

- a) Ad hoc Sociodemographic Questionnaire. All participants stated their gender, age, socioeconomic level, academic year, and the university at which they were studying their degree.
- b) Perceptions of Parents Scale College Student Version (POPS; Robbins, 1994). This scale was used to measure participants' perceptions of their family relations. The POPS measures young people's perceptions of their parents through three sub-scales: Parental involvement (e.g., 'My parents put time and energy into helping me') with  $\alpha$ = .83; Parental warmth (e.g., 'My parents clearly convey their love for me') with  $\alpha$ = .81; and Parental autonomy support (e.g., 'My parents allow me to decide things for myself') with  $\alpha$ = .83. Similar reliability indices have

been found in other studies: *Parental involvement* with  $\alpha$  between 0.80 and 0.85; *Parental warmth* with  $\alpha$  between 0.86 and 0.89, and *Parental autonomy support* with  $\alpha$  between 0.85 and 0.87 (Padilla-Walker & Nelson, 2012). The scale comprises 20 items rated on a 7-point Likert-type response scale (1= *Completely false* a 7= *Totally true*). The means of the scores of the items of each subscale are calculated to obtain a general score of each subscale. The higher the subscale score, the higher the perceived level of parental involvement, warmth, or autonomy support.

- c) Parenting Styles Scale (Oliva et al., 2007). This scale evaluates the parenting styles of mothers and fathers based on how their children perceive them. It has a total of 41 items that are divided into 6 subscales: Affection and communication, Promotion of autonomy, Behavioral control, Psychological control, Revelation, and Humor. In this study, only the Psychological control subscale was used. It comprises 8 items (e.g., 'He/she makes me feel guilty when I don't do what he/she wants') rated on a 6-point Likert-type scale (1= Strongly disagree a 6= Strongly agree). The reliability of the scale was  $\alpha$ = 0.91 in this study and  $\alpha$ = 0.80 in previous studies (Oliva et al., 2007).
- d) Depression Anxiety Stress Scales (DASS-21) by Bados et al. (2005), which in turn was adapted from the original scale published by Lovibond and Lovibond (1995a). The scale is divided into three subscales: depression ( $\alpha$ = .79), anxiety  $(\alpha = .76)$  and stress  $(\alpha = .78)$  and comprises 21 items rated on a 4-point Likerttype response scale (1= Nothing applicable to me a 4= Very applicable to me. or applicable most of the time). The overall score for each subscale is calculated by summing the scores of the items that are part of said subscale. The higher the score, the greater the presence and severity of clinical symptoms. The original authors of the instrument classified the severity of the symptoms detected into five categories (Lovibond & Lovibond, 1995b): Normal. Mild. Moderate, Severe and Very Severe. Based on these categories, a cut-off point was established to divide our sample into two groups: clinical (corresponding to the Moderate, Severe and Very Severe categories) and non-clinical (Normal and Mild categories). This cut-off point was based on the one established by Román et al. (2016), who used a similar scoring system to distinguish between clinical and non-clinical samples.

## Procedure

We contacted faculty at the universities to explain the aim of the study and request the participation of students aged between 18 and 29 years. Once faculty had given their consent, the data were collected during class hours. The members of the research team distributed the pencil-and-paper questionnaires to students and explained the aims of the study. Students completed the questionnaires in a totally anonymous and voluntary manner, being fully aware that they could withdraw from the study at any moment. The study was approved by the Andalusian Biomedical Research Ethical Coordination Committee. Data analysis The data were processed and the analyses conducted using the IBM SPSS statistical program v. 26. A basic descriptive analysis was conducted of all the family variables pertaining to the sample, and a single-factor ANOVA and Binary Logistic Regression analysis were performed to determine the association between family variables and DAS symptom presence rates.

#### Results

26.7% of students reported moderate to very severe symptoms of anxiety, 26.1% reported moderate to very severe symptoms of depression and 28.3% reported moderate to very severe symptoms of stress. The means, standard deviations and ranges of the family variables are summarised in Table 2. The results also revealed that, on average, young people reported high levels (between 5 and 6 points) of perceived parental involvement, warmth and autonomy support, and medium-low levels (under 3 points) of psychological control.

Family variables	M (SD)	Range
Parental involvement	5.55 (1.14)	1 - 7
Parental warmth	6.04 (0.96)	1 - 7
Autonomy support	5.52 (0.98)	1 - 7
Psychological control	2.12 (1.00)	1 - 6

 Table 2

 Means, standard deviations and range of family variables

To respond to the second and third aims of the study, family variable scores were compared in accordance with the presence or absence of clinical DAS symptoms. The results are presented in Table 3.

These results revealed a similar pattern for all three types of symptoms: students with clinical symptoms reported lower levels of perceived parental involvement, warmth and autonomy support than their counterparts in the non-clinical group (p < .001). Moreover, students with clinical symptoms scored significantly higher on the psychological control scale than their non-clinical counterparts (p < .001).

#### Table 3

Non-clinical Clinical symptom F Variables symptom group M group M (SD) (SD) Depression 5.73 (1.02) 5.07 (1.28) 101.642\*\*\* Parental involvement 109.744\*\*\* Parental warmth 6.19 (0.84) 5.62 (1.13) 100.208\*\*\* 5.67 (0.90) 5.12 (1.07) Autonomy support Psychological control 1.98 (0.92) 2.51 (1.11) 85.335\*\*\* Anxiety Parental involvement 5.68 (1.06) 5.21 (1.26) 52.832\*\*\* 54.057\*\*\* Parental warmth 6.15 (0.87) 5.75 (1.11) Autonomy support 5.65 (0.89) 5.19 (1.11) 67.165\*\*\* 2.47 (1.09) 70.117\*\*\* Psychological control 1.99 (0.93) Stress Parental involvement 5.66 (1.07) 5.29 (1.23) 34 105\*\*\* 41.784\*\*\* 6.14 (0.87) 5.79 (1.11) Parental warmth 5.64 (0.90) 5.26 (1.11) 45.728\*\*\* Autonomy support Psychological control 1.98 (0.90) 2.49 (1.14) 84.306\*\*\*

Differences between students with clinical and students with non-clinical symptoms in terms of mean scores for family variables

Note: \*p < .05; \*\*p < .01; \*\*\*p < .001.

Next, three binary logistic regression models were calculated with DAS symptoms as dependent variables and participants' gender and family variables as independent variables (see Table 4).

All three regression models were statistically significant: a) depression ( $\chi^2$ = 127.55, p<.001), b) anxiety ( $\chi^2$ = 84.27, p<.001) and c) stress ( $\chi^2$ = 103.74, p<.001). According to Nagelkerke's R<sup>2</sup>, these models explain 9.7%, 8% and 12% of the variance observed in the dependent variables, respectively. Of the five predictor variables included in the anxiety and depression models, gender, parental involvement and psychological control were found to be significant, whereas in the stress model, only gender and psychological control reached significance level. Being a woman emerged as a risk factor in the models. In other words, women were found to be at greater risk of having clinical symptoms than men, OR= 1.386, 95% CI (1.077, 1.783) for depression, OR= 1.308, 95% CI (1.023, 1.671) for anxiety, and OR= 1.807, 95% CI (1.411, 2.314) for stress.

Table 4

Regression models for predicting clinical/non-clinical symptoms in accordance with gender and perceived parental involvement, warmth, autonomy support and psychological control

		Depression	ission			Anxiety	ety			Stress	SS	
Model		OR	959	95% CI		OR	959	95% CI		OR	65% (	6 CI
	۵	Exp(B)	Lower	Higher	۵	Exp(B)	Lower	Higher	в	Exp(B)	Lower	Higher
Step 1												
Gender	.189	1.208	0.952	1.535	.180	1.198	0.945	1.518	.500	1.648***	1.299	2.091
Step 2												
Gender	.340	1.405**	1.093	1.807	.286	1.331*	1.042	1.699	.605	1.830***	1.433	2.338
Parental involvement	234	234 0.792**	0.680	0.921	160	0.852*	0.734	0.989	105	0.900	0.776	1.045
Parental warmth	222	0.801*	0.649	0.987	046	0.955	0.777	1.174	120	0.887	0.723	1.089
Autonomy support	233	0.792*	0.658	0.953	311	0.733**	0.611	0.878	235	0.791**	0.661	0.946
Step 3												
Gender	.326	1.386*	1.077	1.783	.270	1.308*	1.023	1.671	.592	1.807***	1.411	2.314
Parental involvement	235	0.791**	0.679	0.921	161	0.852*	0.733	066.0	104	0.901	0.775	1.048
Parental warmth	201	0.818	0.663	1.010	020	0.981	0.797	1.207	082	0.921	0.748	1.134
Autonomy support	085	0.919	0.745	1.134	134	0.875	0.712	1.075	.047	1.048	0.852	1.289
Psychological control	.236	1.266**	1.082	1.482	.282	1.326***	1.137	1.547	.446	1.563***	1.338	1.825
Note *n< 05 **n< 01 ***n< 001	* n< 001											

°p< .001. \*p< .01; Note: \*p< .05; '

### Discussion

The aim of the present study was to analyse the association between family relations and the presence of clinical symptoms of DAS among a sample of university students in Spain. The specific aims were: 1) to identify the presence of clinical symptoms of DAS among Spanish university students; 2) to determine the relationship between parental involvement, warmth, and autonomy support and DAS symptoms; and 3) to determine the relationship between psychological control and the presence of clinical symptoms of DAS.

The results regarding the presence of clinical symptoms, which correspond to the first aim, indicate that at least one out of every four students suffer from DAS. This is within the range reported by previous studies (Balanza et al., 2009; Beiter et al., 2015; Cardona-Arias et al., 2015; Eisenberg et al., 2007; Marthoenis et al., 2018) and highlights the need to analyse the factors that contribute to generating (or serve to exacerbate) these symptoms, as well as those that may protect against them.

In terms of the second and third aims, the results confirm that those with clinical symptoms of DAS perceive lower levels of parental involvement, autonomy support and warmth from their parents. In contrast, scores for perceived psychological control were higher in this group, indicating that these emerging adults feel more controlled, invaded, and emotionally distanced from their parents than their non-clinical counterparts, something that has a negative impact on their internal adjustment (Crespo et al., 2011; Inguglia et al., 2015; Parra, Oliva & Sánchez-Queija, 2015).

This may be due to the fact that parents who demonstrate less involvement. warmth, and autonomy support and make more use of psychological control tactics generate a series of unhealthy relational dynamics. These dynamics do nothing to foster children's security and fail to provide them with the tools they need for healthy development. Family relations of this kind would have only a weak protective effect (or no protective effect at all) against the difficulties posed by the new challenges young people face during this life stage (Oliveira et al., 2020). Indeed, they may even, in themselves, be a risk factor for the development of clinical symptoms, as reflected in other studies (Inguglia et al., 2015; Luciano, 2009; Lamborn & Groh, 2009). It is also possible that the presence of clinical symptoms may affect the way in which young people perceive, interpret and value their family relations. The presence of clinical symptoms or distress may have a negative impact on how emerging adults assess their day-to-day family relationships, prompting them to perceive their parents as more distant or less involved, as well as more controlling and intrusive (Tanner, 2016). These aspects require further exploration using longitudinal studies seeking to analyse how family variables are linked to the presence of clinical symptoms of DAS over time, in order to enable the development of interventions designed to improve family relations and help prevent the onset of these symptoms.

In relation to the second and third aims of the study, the logistic regression analysis shed light on three fundamental aspects. First, during emerging adulthood, family relations can be a double-edged sword. High parental involvement plays a protective role against the development of symptoms of anxiety and depression among children, whereas low parental involvement is a risk factor for the development of these same clinical symptoms. These results are consistent with those reported by Inguglia et al. (2015), and Lamborn and Groh (2009), who found that a lack of family involvement led to a greater likelihood of children suffering symptoms of depression, anxiety, and stress. These authors also found that a lack of parental warmth and autonomy support increased the likelihood of children developing these symptoms. Although our results reveal an association between parental warmth and autonomy support and the absence of DAS symptoms in the regression equation, parental involvement was the only variable of the three that emerged as explaining depression and anxiety, although not stress. Whereas anxiety is defined as an individual's emotional reaction to a (real or imaginary) threat to their physical, emotional or social integrity that is, moreover, persistent over time (Sierra et al., 2003), and depression is defined as an ongoing state of sadness that interferes with the individual's normal life (Burton, 2008), and is also persistent over time. stress is defined as a temporary reaction to an over-saturation of demands from an individual's environment for which they do not have sufficient coping resources (Sierra et al., 2003). This reaction disappears as soon as these demands are resolved. In other words, anxiety and depression are problems of an internal, emotional origin and are stable over time, which may explain why family involvement is a significant factor in the development of these emotional pathologies. Stress, on the other hand, is a temporary response that can be resolved by proper management of external demands and the search for more specific support (time, organisation, money, etc.). which may explain why family involvement has a weaker influence on the presence of this pathology than it has on anxiety and/or depression. In relation to parental warmth, given the developmental stage in which the emerging adults in our sample found themselves (mean age, 20 years), they may have been less in need of explicit demonstrations of parental warmth and love, which may explain why this variable was not maintained in the regression equation. It may also be that higher levels of autonomy support, coupled with participants' youth, rendered parental warmth less important. To our mind, these results highlight the importance for the mental health of young people feeling close to their parents and knowing that they are involved in their lives.

A second conclusion that can be drawn from the results of the logistic regression analysis is the role played by psychological control in the development of clinical DAS symptoms. Indeed, this variable is the one that makes the most uniform contribution to explaining these symptoms. Tactics of this kind may generate difficulties linked to parent-child understanding and bonding, may decrease parents' ability to understand their children's feelings and needs and may generate conflictive bonds characterised by low levels of sensitivity that may cause children distress (Renk & Smith, 2007; Rodríguez & Rodrigo, 2011).

Finally, it is important to examine the role of gender in mental health. The regression model revealed a slight predisposition among emerging adult women to develop clinical symptoms, with the female participants in our study being between 1.3 and 1.8 times as likely to suffer from depression, anxiety, and stress than their male counterparts. This is consistent with that reported by other studies (Dalgard et

al., 2006) and underscores the need to continue working to improve young people's mental health.

The present study has several limitations, one of the main ones being the use of a sample comprised exclusively of university students with a low mean age (very close to the lower age limit of emerging adulthood). Furthermore, due to the crosssectional nature of the design, no causal relationships can be inferred. Future research should seek to overcome these limitations by using longitudinal designs and broadening the spectrum of the sample groups to include non-university-going young people also.

Despite the aforementioned limitations, the present study helps improve our understanding of how the quality of family relations influences the development of clinical DAS symptoms among emerging adults in Spain. Although the study design precludes the establishment of causal relations, the results indicate a very harmful effect of psychological control, which was found to be positively associated with the presence of DAS symptoms, and a protective effect of parental involvement, which was associated with a lower presence of depression and anxiety. Our results therefore highlight the importance of working with families and providing them with the instruments they need to offer optimal contexts for development during their children's emerging adulthood, a stage in which the family continues to play a key role in forming the adults of tomorrow. Studies such as these are vital to understanding the factors that threaten and protect the mental health of young men and women, and serve as a basis for developing evidence-based interventions designed to promote health and wellbeing.

In conclusion, the results of this study show that out of every 4 emerging adults from the university context present clinical symptoms of anxiety, depression and stress. High parental involvement, affection and support for autonomy are a protective factor against the presence of these symptoms, unlike psychological control, which constitutes a risk factor for the development of clinical symptoms. In addition, gender differences are observed in the development of clinical symptoms during emerging adulthood: women are more prone than men to develop anxiety, depressive and stress symptoms.

### References

- Abaied, J. L., & Emond, C. (2013). Parent psychological control and responses to interpersonal stress in emerging adulthood: Moderating effects of behavioral inhibition and behavioral activation. *Emerging Adulthood*, 1(4), 258-270. doi: 10.1177/2167696813485737
- Aquilino, W. S. (2006). Family relationships and support systems in emerging adulthood. In J. J. Arnett, & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 193-217). American Psychological Association.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*, 469-480. doi: 10.1037/0003-066X.55.5.469
- Arnett, J. J. (2014). *Emerging adulthood: The winding road from the late teens through the twenties* (2<sup>nd</sup> Ed.). Oxford University Press.

- Bados, A., Solanas, A., & Andrés, R. (2005). Psychometric properties of the Spanish version of Depression, Anxiety and Stress Scales (DASS). *Psicothema*, *17*, 679-683. doi: 10.1016/S2007-4719(16)30053-9
- Balanza, S., Morales, I., & Guerrero, J. (2009). Prevalencia de ansiedad y depresión en una población de estudiantes universitarios: Factores académicos y sociofamiliares asociados [Prevalence of Anxiety and Depressive Disorders in University Students: Associated Academic and Socio-Family Factors]. *Clínica y Salud*, 20(2), 177-187. doi: 10.6018/edumed.470371
- Barrera-Herrera, A., Neira-Cofré, M., Raipán-Gómez, P., Riquelme-Lobos, P., & Escobar, B. (2019). Apoyo social percibido y factores sociodemográficos en relación con los síntomas de ansiedad, depresión y estrés en universitarios chilenos [Perceived social support and socio-demographic factors in relation to symptoms of anxiety, depression and stress in Chilean university students]. *Revista de Psicopatología y Psicología Clínica*, 24(2). doi: 10.5944/rppc.23676
- Barrett, A. E., & Turner, R. J. (2005). Family structure and mental health: The mediating effects of socioeconomic status, family process, and social stress. *Journal of health and social behavior*, *4*6(2), 156-169. doi: 10.1177/002214650504600203
- Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of affective disorders*, 173, 90-96. doi: 10.1016/j.jad.2014.10.054
- Bosh, J. (2015). La transición residencial de la juventud europea y el Estado de bienestar: Un estudio comparado desde las políticas de vivienda y empleo [The residential transition of youth Europe and the welfare state: A comparative study from housing and employment policies]. *Revista de Servicios Sociales*, *59*, 107-125. doi: 10.5569/1134-7147.59.07
- Burton, R. (2008). Basic concepts of depression. *Dialogues in Clinical Neuroscience*, *10*, 279-289. doi: 10.31887/DCNS.2008.10.3/espaykel
- Butterfield, R. D., Silk, J. S., Lee, K. H., Siegle, G. S., Dahl, R. E., Forbes, E. E., Ryan, N. D., Hooley, J. M., & Ladouceur, C. D. (2021). Parents still matter! Parental warmth predicts adolescent brain function and anxiety and depressive symptoms 2 years later. *Development* and psychopathology, 33(1), 226-239. doi: 10.1017/S0954579419001718
- Cardona-Arias, J. A., Perez-Restrepo, D., Rivera-Ocampo, S., & Gómez-Martínez, J. (2015). Prevalencia de ansiedad en estudiantes universitarios [Prevalence of anxiety in university students]. *Diversitas*, *11*(1), 79-89. doi: 10.15332/s1794-9998.2015.0001.05
- Crespo, C., Kielpikowski, M., Pryor, J., & Jose, P. E. (2011). Family rituals in New Zealand families: Links to family cohesion and adolescents' well-being. *Journal of Family Psychology, 25*(2), 184-193. doi: 10.1037/a002311
- Dalgard, O. S., Dowrick, C., Lehtinen, V., Vazquez-Barquero, J. L., Casey, P., Wilkinson, G., Ayuso Mateos, J. L., Page, H., & Dunn, G. (2006). Negative life events, social support and gender difference in depression. *Social psychiatry and psychiatric epidemiology*, 41(6), 444-451.
- Eisenberg, D., Gollust, S. E., Golberstein, E., & Hefner, J. L. (2007). Prevalence and correlates of depression, anxiety, and suicidality among university students. *American journal of orthopsychiatry*, 77(4), 534-542. doi: 10.1037/0002-9432.77.4.534
- Eurostat (2020). Estimated average age of young people leaving the parental household by sex. Europa: *Eurostat Publishing*. http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do
- García-Mendoza, M. D. C., Parra Jiménez, Á., & Sánchez Queija, M. I. (2017). Relaciones familiares y ajuste psicológico en adultos emergentes universitarios españoles

universitarios [Family relationships and psychological adjustment in Spanish university emerging adults]. *Behavioral Psychology/Psicología Conductual, 25*(2), 405-417.

- García-Mendoza, M. D. C., Sanchez-Queija, I., & Parra, Á. (2019). The role of parents in emerging adults' psychological well-being: A person-oriented approach. *Family Process*, *58*(4), 954-971. doi: 10.1111/famp.12388
- Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). Inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of Educational Psychology*, 83(4), 508. doi: 10.1037/0022-0663.83.4.508
- Henderson, A., & Mapp, K. L. (2002). A new wave of evidence: The impact of school, family, and community connections on student achievement. Annual Synthesis. Southwest Educational Development Lab.
- Horwitz-Campos, N., Florenzano-Urzúa, R., & Ringeling-Polanco, I. (1985). Familia y salud familiar. Un enfoque para la atención primaria [Family and family health. An approach to primary care]. *Boletín de la Oficina Sanitaria Panamericana (OSP)*, 98(2), 144-55.
- Iglesias, B., & Romero Triñanes, E. (2009). Estilos parentales percibidos, psicopatología y personalidad en la adolescencia [Perceived parenting styles, psychopathology and personality in adolescence]. *Revista de Psicopatología y Psicología Clínica*, 14(2), 63-77.
- Inguglia, C., Ingoglia, S., Liga, F., Lo Coco, A., & Lo Cricchio, M. G. (2015). Autonomy and relatedness in adolescence and emerging adulthood: Relationships with parental support and psychological distress. *Journal of Adult Development*, *22*, 1-13. doi: 10.1007/s10804-014-9196-8
- Kenny, G. A., & Donaldson, M. E. (1991). Contributions of parental attachment and family structure to the social and psychological functioning of first-year college students. Journal of Counseling Psychology, 38, 479-486. doi: 10.1037/0022-0167.38.4.479
- Kerr, M., & Stattin, H. (2000). What parents know, how they know it, and several forms of adolescent adjustment: Further support for a reinterpretation of monitoring. *Developmental Psychology*, 36(3), 366. doi: 10.1037/0012-1649.36.3.366
- Kessler, R., Angermeyer, M., Anthony, J., De Graaf, R., Demyttenaere, K., Gasquet, I., de Girolamo, G., Guzman, S., Gureje, O., Haro, J. M., Kawakami, N., Karam, A., Levinson, D., Medina-Mora, M. E., Oakley-Browne, M. A., Posada-Villa, J., Stein, D. J., Adley-Tsang, C. H., Aguilar-Gaxiola, S., ... Bedirhan-Üstün, T. (2007). Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. *World psychiatry*, 6(3), 168-176.
- Lamborn, S., & Groh, K. (2009). A four-part model of autonomy during emerging adolescence: Relations with adjustment. *International Journal of Behavioral Development*, 33, 393-401. doi: 10.1177/0165025409338440
- Lovibond, P. F., & Lovibond, S. H. (1995a). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, *33*(3), 335-343. doi: 10.1016/0005-7967(94)00075-U.
- Lovibond, S. H., & Lovibond, P. F. (1995b). *Manual for the Depression Anxiety Stress Scales* (2<sup>nd</sup> Ed.). Psychology Foundation.
- Luciano, M. M. (2009). Autonomy and relatedness reconsidered: Learning from the Inuit. *Culture and Psychology*, *15*, 451-462. doi: 10.1177/1354067X09345603
- Marthoenis, M., Meutia, I., Fathiariani, L., & Sofyan, H. (2018). Prevalence of depression and anxiety among college students living in a disaster-prone region. *Alexandria Journal of Medicine*, *54*(4), 337-340. doi: 10.1016/j.ajme.2018.07.002
- Nieto-Casado, F. J., Antolín-Suárez, L., Rodríguez-Meirinhos, A., & Oliva, A. (2022). Effect of parental competences on anxious-depressive symptoms and suicidal ideation in adolescents: Exploring the mediating role of mindfulness. *Children and Youth Services Review*, 138, 106526. doi: 10.1016/j.childyouth.2022.106526

- Oliva, A. (2006). Relaciones familiares y desarrollo adolescente [Family relationships and adolescent development]. *Anuario de Psicología*, *37*(3), 209-223. doi: 10.1344/%25x
- Oliva, A., Parra, A., Sánchez-Queija, I., & López, F. (2007). Estilos educativos materno y paterno: Evaluación y relación con el ajuste adolescente [Maternal and paternal parenting styles: Evaluation and relationships with adolescent adjustment]. *Anuario de Psicología*, *23*, 49-56. doi: 10.6018/analesps
- Oliveira, C., Fonseca, G., Sotero, L., Crespo, C., & Relvas, A. P. (2020). Family dynamics during emerging adulthood: Reviewing, integrating, and challenging the field. *Journal of Family Theory & Review*, *12*(3), 350-367. doi: 10.1111/jftr.12386
- Padilla-Walker, L. M., & Nelson, L. J. (2012). Black hawk down? Establishing helicopter parenting as a distinct construct from other forms of parental control during emerging adulthood. *Journal of Adolescence*, 35(5), 1177-1190. doi: 10.1016/j.adolescence.2012.03.007
- Parra, Á., & Oliva, A. (2006). Un análisis longitudinal sobre las dimensiones relevantes del estilo parental durante la adolescencia [A longitudinal analysis of the relevant dimensions of parenting style during adolescence]. *Infancia y Aprendizaje*, 29(4), 453-470. doi: 10.1174/021037006778849594
- Parra, A., Oliva, A., & Reina, M. C. (2015). Family relationships from adolescence to emerging adulthood: A longitudinal study. *Journal of Family Issues*, 36(14), 2002-2020. doi: 10.1177/0192513X13507570
- Parra, A., Oliva, A., & Sánchez-Queija, I. (2015). Development of emotional autonomy from adolescence to young adulthood in Spain. *Journal of Adolescence*, *38*, 57-67. doi: 10.1016/j.adolescence.2014.11.003
- Pedersen, D. E. (2017). Parental autonomy support and college student academic outcomes. *Journal of Child and Family Studies*, *26*(9), 2589-2601. doi: 10.1007/s10826-017-0750-4
- Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2015). College students: Mental health problems and treatment considerations. *Academic psychiatry*, *39*(5), 503-511. doi: 10.1007/s40596-014-0205-9
- Pinheiro, C., & Mena, P. (2014). Parental relationships, self-esteem and depressive symptoms in young adults. Implications of interparental conflicts, coalition and triangulation. *Universitas Psychologica*, *13*(3), 907-921.
- Renk, K., & Smith, T. (2007). Predictors of academic-related stress in college students: An examination of coping, social support, parenting, and anxiety. *Naspa Journal*, 44(3), 405-431. doi: 10.2202/1949-6605.1829
- Robbins, R. J. (1994). An assessment of perceptions of parental autonomy support and control: Child and parent correlates [Unpublished doctoral dissertation], Department of Psychology, University of Rochester.
- Robinson, E., Rodgers, B., & Butterworth, P. (2008). Family relationships and mental illness: Impacts and service responses. *Australian Family Relationships Clearinghouse*, *4*, 1-19.
- Rodríguez, B., & Rodrigo, M. J. (2011). El "nido repleto": La resolución de conflictos familiares cuando los hijos mayores se quedan en el hogar [The "full nest": Resolving family conflicts when older children stay at home]. *Cultura y Educación, 23*, 89-104. doi: 10.1174/113564011794728551
- Román, F., Santibáñez, P., & Vinet, E. V. (2016). Uso de las Escalas de depresión ansiedad estrés (DASS-21) como instrumento de tamizaje en jóvenes con problemas clínicos [Use of the Depression Anxiety Stress Scales (DASS-21) as a screening tool for young people with clinical problems]. Acta de Investigación Psicológica, 6(1), 2325-2336. doi: 10.1016/S2007-4719(16)30053-9

- Rork, K. E., & Morris, T. L. (2009). Influence of parenting factors on childhood social anxiety: Direct observation of parental warmth and control. *Child & Family Behavior Therapy*, *31*(3), 220-235. doi: 10.1080/07317100903099274
- Sánchez-Queija, I., Parra, Á., Camacho, C., & Arnett, J. (2020). Spanish version of the Inventory of the Dimensions of Emerging Adulthood (IDEA-S). *Emerging Adulthood*, 8(3), 237-244. doi: 10.1177/2167696818804938
- Siddiqui, I. J. (2011). Lack of parental involvement: Stress prone children. *International Journal* of Education & Allied Sciences, 3(2), 43-48.
- Sierra, J. C., Ortega, V., & Zubeidat, I. (2003). Ansiedad, angustia y estrés: Tres conceptos a diferenciar [Anxiety, anguish and stress: Three concepts to differentiate]. *Revista malestar e subjetividade*, *3*(1), 10-59.
- Speyer, L. G., Hall, H. A., Hang, Y., Hughes, C., & Murray, A. L. (2022). Within-family relations of mental health problems across childhood and adolescence. *Journal of Child Psychology and Psychiatry*. doi: 10.1111/jcpp.13572
- Storrie, K., Ahern, K., & Tuckett, A. (2010). A systematic review: Students with mental health problems—a growing problem. *International journal of nursing practice*, 16(1), 1-6. doi: 10.1111/j.1440-172X.2009.01813.x
- Tanner, J. L. (2016). Mental health in emerging adulthood. In J. J. Arnett (Ed.), *The Oxford handbook of emerging adulthood* (pp. 499-520). Oxford Academic.
- Van der Giessen, D., Branje, S., & Meeus, W. (2014). Perceived autonomy support from parents and best friends: Longitudinal associations with adolescents' depressive symptoms. *Social Development*, *23*(3), 537-555. doi: 10.1111/sode.12061
- Vrolijk, P., Van Lissa, C. J., Branje, S. J., Meeus, W. H., & Keizer, R. (2020). Longitudinal linkages between father and mother autonomy support and adolescent problem behaviors: Between-family differences and within-family effects. *Journal of youth and adolescence*, 49(11), 2372-2387. doi: 10.1007/s10964-020-01309-8
- Wijsbroek, S. A., Hale, W. W., Raaijmakers, Q. A., & Meeus, W. H. (2011). The direction of effects between perceived parental behavioral control and psychological control and adolescents' self-reported GAD and SAD symptoms. *European Child & Adolescent Psychiatry*, 20(7), 361-371. doi: 10.1007/s00787-011-0183-3
- Wolfradt, U., Hempel, S., & Miles, J. N. (2003). Perceived parenting styles, depersonalisation, anxiety and coping behaviour in adolescents. *Personality and Individual Differences*, 34(3), 521-532. doi: 10.1016/S0191-8869(02)00092-2
- Wong, M. M. (2008). Perceptions of parental involvement and autonomy support: Their relations with self-regulation, academic performance, substance use and resilience among adolescents. *North American Journal of Psychology*, *10*(3), 497-518.

RECEIVED: MAY 23, 2022 ACCEPTED: SEPTEMBER 12, 2022