

## **EXTENDED SUMMARY**

### **ADVERSE CHILDHOOD EXPERIENCES AND ITS POSSIBLE EFFECT ON EATING DISORDERS**

#### **INTRODUCTION**

It has been widely studied how suffering adverse childhood experiences (ACEs) can affect the way we develop as adults. The pioneer study was made by Felitti et al. in 1998, in which ACEs were proven to increase the risk of an early death, among other threatening outcomes. When it comes to its prevalence, a systematic review by Carlson et al. (2020) affirms that two-thirds of young people in their educational years suffer from ACEs, anywhere in the world. However, less research has been made about ACEs as indicators of Eating Disorders (ED) later in life.

Firstly, based on an extended review, we can precisely affirm that ACEs increase the chance of suffering an ED. In fact, it has been given evidence that this hazard becomes five times more powerful when an adolescent has suffered four or more ACEs (Kovács-Tóth et al., 2022). Nevertheless, it is yet to be confirmed which type of ACEs has the strongest effect in this case. While some claim emotional abuse to be it (Fischer et al., 2010; Guillaume et al., 2016), another suggests that emotional neglect has a more significant role (Brustiengh et al., 2019). Besides, it should also be highlighted that the studies that propose emotional abuse only measured data from women, contrary to the Brustiengh et al. (2019) study, which included men in its sample.

That is the reason why the present study decided to analyze both genders. Furthermore, we would also like to confirm if it is accurate that women tend to have higher levels of ED (Silén y Keski-Rahkonen, 2022). In addition, talking about our sample, we will only be analyzing results of emerging adults (18-30 years) since evidence shows they are more likely to have lower levels of body satisfaction and higher levels of inadequate eating behaviors. (Delinsky y Wilson, 2008; Guillen y Lefkowitz, 2006).

Taking everything into account, we can state that the objective of this project is to investigate how Adverse Childhood Experiences (ACEs) impact having an Eating Disorder (ED) in a population formed by emerging adults. In consequence, the first hypothesis to analyze will be that ACEs increase the risk of suffering ED. Likewise, through a differential approach, it will be significant to prove if emotional abuse is really the most threatening ACE when it comes to ED. Finally, from a gender perspective, it needs to be confirmed if women do have higher levels of ED, as literature has shown.

## **METHOD**

Our sample consisted of 69.84% women and 30.16% men (441 total). Moreover, the average age was 21.84 years, and Standard Deviation was 2.92. Also, 95% of our participants were from Spain.

The first questionnaire used was “**Adverse Childhood Experiences**” (Felitti et al.,1998), translated into Spanish by the authors of this study. Through the answers, we will be able to know how many ACEs each individual has suffered. In total, the ACEs are 10. On the one hand, five of them are about personal experiences: psychical, verbal or sexual abuse and physical or emotional neglect. On the other hand, the five remaining are related to their household: living with a parent with substance use disorder, witnessing domestic violence, sudden separation from a loved one and living with a family member with mental illness.

The second questionnaire was the “**(Eating Attitudes Test) EAT- 26**” (Garner et al. 1982; translated into Spanish by Constain et al. 2017). In this self-report, participants will answer how frequently they engage in these behaviors related to Eating Disorders. This scale is formed by three subscales: diet, bulimia and worry about food, and what others may think. Although it is still unclear how many subscales the questionnaire should have, authors tend to settle on three (Pereira et al, .2008).

Using a cross-sectional design, an anonymous survey was distributed among young people between the ages of 18 and 30. The way of distribution was through Google Forms, where participants found the survey formed by these two questionnaires. Following, a statistical analysis was performed using SPSS 27 program, whose results will be exposed below.

## **RESULTS**

First of all, results of the linear regression analysis show that ACEs do predict Eating Disorders. Furthermore, including EAT-26 subscales in the analysis, the highest significant correlation was between ACEs and bulimia subscale ( $\beta = .269^{***}$ ), even larger than the whole test ( $\beta = .224^{***}$ ). However, all three subscales were statistically significant ( $p < .001$ ).

Secondly, considering all ACEs subscales, only four of them turned out to be statistically significant. These were emotional abuse ( $\beta = .123^*$ ), sexual abuse ( $\beta = .139^{**}$ ), domestic violence ( $\beta = .120^*$ ) and mental illness in household ( $\beta = .102^*$ ). Therefore, sexual abuse is the Adverse Childhood Experience that seems to increase to a greater extent the risk of suffering and ED than other ACEs.

## **DISCUSSION**

To begin with, we can firmly declare that our first hypothesis is correct. Therefore, ACEs increase the threat of suffering an ED. Several authors agree that ACEs produce high levels of stress in victims that also affect fear and reward circuits and executive functions (Trottier et al., 2017; Wiss et al., 2022). At the same time, this mechanism unleashes emotional dysregulation that causes Eating Disorder.

Furthermore, when it comes to our second hypothesis regarding a differential approach, our findings establish sexual abuse as the most powerful ACE. This relation seems to be mediated by bodily shame and poor body image (Tripp & Petrie, 2001). Whereas emotional abuse, the second most significant ACE according to our results, is suggested to be a consequence of low self-esteem and may be an attempt to gain control over some aspects of life (Kent & Waller, 2000).

In addition, another ACEs related to what the individual has seen in their household were found statistically significant (Braddy, 2008). On the one hand, domestic violence may play a role in using ED as a coping mechanism for affective symptoms. On the other hand, having a parent suffer from any mental illness may affect not only our genes but also our environment, since it is also possible to learn from others personality traits (Bould et al., 2015; Lindberg & Hiern, 2003).

Moreover, our third hypothesis is also confirmed, considering women's scores in our EAT-26 results. Empirical studies demonstrate higher levels of body dissatisfaction, which seems to be an outcome of sociocultural aspects that focus on women and especially on their bodies (Lázaro et al., 2016; Calado Otero, 2011).

To conclude, it is important to emphasize our limitations in order to guide following investigations. Our main limitation was data transversality since we only measured the variables once. Therefore, we suggest a longitudinal study able to explore the way ACEs affect the course of ED and also the reactions at different treatments.



# EXPERIENCIAS DE MALTRATO INFANTIL Y SU POSIBLE INFLUENCIA EN TRASTORNOS DE LA CONDUCTA ALIMENTARIA

## Introducción

Las **experiencias adversas en la infancia (ACEs)** según Boullier y Blair (2018) son acontecimientos potenciales a tener un efecto negativo en el bienestar del individuo. Felitti et al. (1998), elaboraron un modelo teórico representado en forma piramidal (Figura 1), para entender cómo diferentes problemas están relacionados, siendo el primer escalón las ACEs. Respecto a su **prevalencia**, la revisión realizada por Carlson et al. (2020) afirma que dos tercios de los jóvenes en edad escolar sufren ACEs.

A continuación, el presente trabajo se centrará en la relación que las ACEs tienen sobre el riesgo de padecer **Trastornos de la Conducta Alimentaria (TCA)**. Se ha demostrado que la probabilidad de tener un TCA se multiplica por más de 5 cuando un adolescente ha sufrido cuatro o más ACEs (Kovács-Tóth et al., 2022).

## Justificación

### • Hombres y mujeres

Investigaciones recogen datos de participantes **exclusivamente mujeres** (Fischer et al., 2010; Guillaume et al., 2016)

### • Adultez emergente 18-30 años

Presentan **bajos niveles de satisfacción corporal** y niveles más altos de comportamientos alimenticios inadecuados (Delinsky y Wilson, 2008; Guillen y Lefkowitz, 2006)

### • ACE específico predictor de TCA

Algunos autores afirman que sería el **abuso emocional** (Fischer et al., 2010; Guillaume et al., 2016; Moulton et al, 2015; Racine y Wildes, 2015;) mientras otros creen que se trata de la **negligencia emocional** (Brustiengh et al., 2019).



Figura 1: Influencia de Experiencias adversas en la infancia a lo largo de la vida en aspectos de salud y bienestar.

## Objetivos

Explorar de qué manera influyen las Experiencias adversas en la infancia (ACEs) en el riesgo de padecer TCA en la adultez emergente

## Hipótesis

- Las experiencias adversas en la infancia aumentan el riesgo de sufrir algún trastorno de la conducta alimentaria.
- El ACE específico más relacionado con TCA es abuso emocional
- Las mujeres obtendrán puntuaciones más altas que los hombres en TCA.

## Método

Estudio transversal retrospectivo a partir de autoinforme a jóvenes entre 18-30 años. Cuestionario anónimo Google Forms      Análisis estadístico SPSS 27

### Participantes:



### Cuestionario "Adverse Childhood Experiences" (Felitti et al., 1998) SUBDIMENSIONES:

- Personales**
- Abuso físico, emocional o sexual
  - Negligencia física o emocional
- Disfunciones del hogar** (algún miembro familiar)
- Divorcio - Separación
  - Violencia doméstica
- CORRECCIÓN:**
- Autoinforme
  - Respuestas dicotómicas
  - Escala tipo Likert de cinco puntos.

### Cuestionario "(Eating Attitudes Test) EAT- 26" (Garner et al. 1982; Ribas et al. 2010).

- SUBDIMENSIONES:**
- Dieta
  - Comportamientos bulímicos
  - Presión social por comer
- CORRECCIÓN:**
- Autoinforme
  - Escala tipo Likert de cinco puntos

## Resultados

Tabla 1  
Regresión Lineal entre ACE y TCA y subescalas

	Dieta			Bulimia			Otros			TCA		
	$\beta$	SE	t	$\beta$	SE	t	$\beta$	SE	t	$\beta$	SE	t
Sexo	.138**	.258	2.974	.138**	.075	3.038	.039	.049	.815	.140**	.342	3.030
ACEs total	.224***	.069	4.170	.269***	.020	5.897	.141**	.013	2.976	.224***	.091	4.869
R <sup>2</sup> ajustado	.056			.093			.018			.071		

Nota: N= 441;  $\beta$ = Coeficientes estandarizados; SE= Error Estándar. \*p<.05, \*\*p<.01, \*\*\*p<.001

Tabla 2  
Regresión Lineal ACE específico para TCA

	$\beta$	SE	t
Sexo	.119*	.347	2.537
Abuso Emocional	.123*	.562	2.034
Abuso Físico	-.016	.528	-.288
Abuso Sexual	.139**	.588	2.939
Negligencia Emocional	-.009	.633	-.160
Negligencia Física	-.024	.930	-.464
Divorcio-Separación	-.016	.393	-.316
Violencia Doméstica	.120*	.791	2.189
Abuso de Sustancias	-.012	.455	-.237
Enfermedad Mental	.102*	.343	2.114
Encarcelamiento	.038	1.109	.786

Nota: N= 441; R<sup>2</sup> ajustado =.085  $\beta$ = Coeficientes estandarizados; SE= Error Estándar. \*p<.05, \*\*p<.01, \*\*\*p<.001

## Discusión



### Limitaciones:

Transversalidad de los datos, uso únicamente de autoinformes, muestra no clínica y dificultad para medir intensidad, frecuencia y duración de ACEs. Futuros estudios podrían utilizar un diseño longitudinal, que permita estudiar como las ACEs afectan en el transcurso de TCA y las respuestas a diferentes tratamientos.



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