

**PS1048 – Trabajo de Fin de Grado****PROPOSAL OF AN INTEGRATIVE MODEL FOR BINGE EATING DISORDER****INTRODUCTION**

Binge Eating Disorder (BED) is characterized by recurrent episodes of excessive eating in a short period of time, accompanied by a sense of loss of control and significant discomfort (APA, 2013). This disorder has multifactorial causes, which makes it difficult to understand its etiology. Its prevalence is between 3.32-4.45% (Hoek, 2016) and is associated with greater impairment of quality of life and health (APA, 2013). Escandon-Nagel and Garrido-Rubilar (2020) include obesity, emotional dysregulation, negative affect, lack of adaptive coping strategies, body dissatisfaction and factors referred to social norms such as media exposure or weight-related stereotypes as risk factors for BED. Davis et al. (2020) add to these the experience of stressful life events and gender, with women being more likely to develop the disorder. The biopsychosocial perspective provides an adequate theoretical framework for its approach, as it integrates biological, psychological and social factors. This approach allows a holistic assessment of the person, considering both clinical aspects and the social context and individual experiences that may influence the development and perpetuation of the disorder (Engel, 1997). Thus, it is necessary to improve the existing models that allow the integration of the predictors of BED, thus contributing not only to enrich academic knowledge, but also to improve prevention and intervention strategies for this pathology.

**General objective:**

- To propose an integrative model of BED.

**Specific objectives:**

- To analyze the association with the risk of BED of the different variables under study (personality, BMI, stressful events, cultural influences, emotional dysregulation and coping strategies).
- To analyze the existence of significant differences between the clinical population, the population at risk for the disorder and the control group in the predictor variables included in the model.

**Hypothesis:**

- **H1:** There will be significant differences between the three population groups in the variables studied, with people with BED having the highest scores, followed by the risk group and the control group.
- **H2:** Neuroticism, BMI, social pressure, emotional dysregulation and negative coping strategies will predict the risk of BED.

**METHOD****Sample**

The sample consisted of 122 persons, of whom 22 (18%) were from the clinical population with a diagnosis of BED, and 100 (82%) were from the general population. Taking into account the risk of BED (according to scores on the Binge Eating Scale), the nonclinical sample was divided into two. Therefore, the sample was divided into three groups: Clinical Group (n=22), Risk Group (n=29) and Control Group (n=71). The total sample was composed of 91 (77%) women and 31 (23%) men and the age range was between 18 and 71 years, the mean age being 43.29 (SD=12.83). There were differences between the groups in the frequency of men and women, with the Clinical and Risk groups consisting of 95.5% and 96.6% women, respectively, compared to 60.6% in the Control group ( $\chi^2=20.197$ ,  $p<.001$ ). There was no difference between the three groups in mean age ( $F=.449$ ).

**Instruments**

The assessment protocol consisted of the following measures: Binge Eating Scale (BES; J.Gormally et al., 1982), Neuroticism Scale of the Eysenck Personality Questionnaire-Revised (EPQ-RS; Eysenck & Eysenck, 1997), *Cuestionario de Influencias sobre el Modelo Estético Corporal* (CIMEC-26; Toro, Salamero & Martinez, 1994), Difficulties in Emotional Regulation Scale (DERS; Gratz & Roemer, 2004), Coping Orientation to Problems Experienced (COPE-28; Carver, 1997).

**Procedure**

To obtain the general population, a Google Forms form was distributed in social networks. The clinical population was obtained from the Eating Disorders Unit of the Provincial Hospital of Castellón and answered the questionnaires in person during their stay at the Day Hospital. Participation was anonymous, voluntary and with explicit consent for the use of data.

## Statistical analysis

An ANOVA (with Tukey post-hoc) was used to compare the three groups. Structural Equations (SEM) were used to evaluate the possible causal relationships between the variables. The data were analyzed in SPSS and Mplus.

## RESULTS

The three groups differed significantly in BMI ( $F=43.79$ ,  $p<.001$ ), Neuroticism ( $F=19.74$ ,  $p<.001$ ), Social Pressure ( $F=46.36$ ,  $p<.001$ ), Stressful Life Events ( $F=52.08$ ,  $p<.001$ ), Emotional Regulation ( $F=19.98$ ,  $p<.001$ ), Maladaptive Coping Strategies ( $F=4.05$ ,  $p<.05$ ), Life Satisfaction ( $F=18.35$ ,  $p<.001$ ), Meaningfulness of Life ( $F=66.77$ ,  $p<.001$ ), BED Symptoms ( $F=179.97$ ,  $p<.001$ ) and BED Cognitions ( $F=114.34$ ,  $p<.001$ ). For most measures, the lowest scores corresponded to the control group, followed by the risk group, while the highest scores were observed in the clinical group. No significant differences were observed in the use of adaptive Coping Strategies ( $F=2.70$ ,  $p=.071$ ).

All pathways of the SEM model were significant, indicating that the proximal antecedent of BED symptoms is low use of adaptive coping strategies ( $R^2=-.39$ ), whereas the proximal antecedents of BED cognitions are negative coping strategies ( $R^2=.85$ ) and emotional dysregulation ( $R^2=-.23$ ). More distal factors of the disorder are sex, BMI, neuroticism, and social pressure. It is observed that sex is directly related to BED symptoms ( $R^2=-.17$ ), and Neuroticism to BED cognitions or thoughts ( $R^2=.30$ ). The fit indices revealed a good fit, SRMR=.000, RMSEA=.000, CFI=1.000, TLI=1.000. In addition, the correlations shown between the model variables were significant, moderate to strong, ranging from .30 to -.67.

## CONCLUSIONS

Our model is in line with previous studies (Davis et al., 2020; Escandón-Nagel and Garrido-Rubilar, 2020), indicating that sex, BMI, negative affect and social pressure influence BED symptoms and cognitions, these influences being moderated by variables such as coping style and emotional dysregulation. Furthermore, the presence of differences between the three groups can be considered evidence for the causal role of these variables in the development of BED. However, unlike previous research, no relationship was found between sex and neuroticism (Garaigordobil et al., 2009). Finally, it is required to include in the model other factors that influence BED, as indicated by Giner-Lladós (2011), which may be family history of obesity, experience of stressful life events or depressive symptomatology.

Limitations: Although the sample size ( $n > 100$ ) has allowed us to obtain a valid predictive model, a larger sample is required to obtain more robust results and, at the same time, to include other variables that influence TA.

Future lines: Increasing the sample and carrying out prevention talks in high schools.

### 1. INTRODUCCIÓN

El **Trastorno por Atracón** (TA) se caracteriza por episodios de ingesta excesiva en un corto período de tiempo, junto a una sensación de pérdida de control (APA, 2013).

**Factores de riesgo:** El sexo, la obesidad, la experiencia de eventos estresantes, la desregulación emocional, el afecto negativo, la ausencia de estrategias de afrontamiento adaptativas, la insatisfacción corporal y factores socioculturales (Davis et al., 2020; Escandón-Nagel y Garrido-Rubilar, 2020).

**Perspectiva biopsicosocial:** Permite una evaluación holística de la persona, al considerar los aspectos clínicos, el contexto social y las experiencias individuales que pueden influir en el desarrollo y mantenimiento del trastorno (Engel, 1997).

**OBJETIVO** → Proponer un modelo integrador del TA

**HIPÓTESIS** → **H1:** Existirán diferencias significativas entre los tres grupos poblacionales en las variables estudiadas.

**H2:** El neuroticismo, el IMC, la presión social, la desregulación emocional y las estrategias de afrontamiento negativas predecirán el riesgo de TA.

### 2. METODOLOGÍA

#### INSTRUMENTOS

- EPQ-RS (Subescala de Neuroticismo)
- BES (Trastorno por Atracón)
- CIMEC-26 (Influencias socioculturales)
- DERS (Regulación emocional)
- COPE-28 (Estilo de afrontamiento)

#### ANÁLISIS

- SPSS Descriptivos ANOVA (Tukey post hoc)
- MPlus Modelo de Ecuaciones Estructurales (SEM)

**PROCEDIMIENTO:** Recogida de muestra híbrida:

**Online:** Población **general**. Formulario Google Forms en redes sociales.

**Presencial:** Población **clínica**. Pacientes de la Unidad de Trastornos de la Conducta Alimentaria del Hospital Provincial de Castellón.

**MUESTRA (N=122)**  
 $\chi^2=20.197$   
 $p<.001$

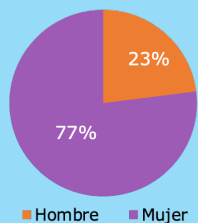
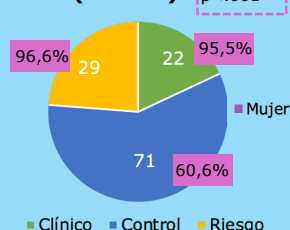
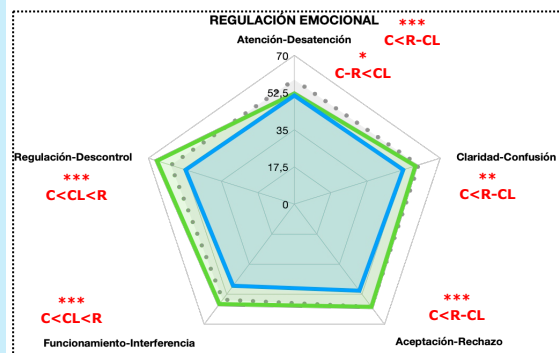
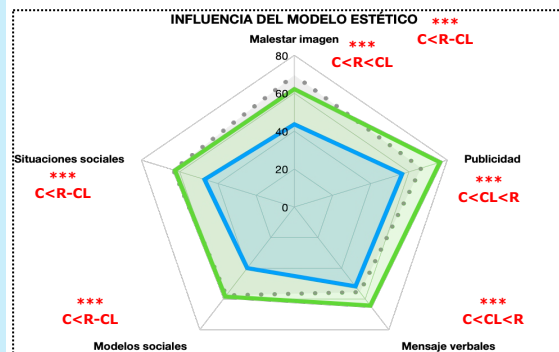
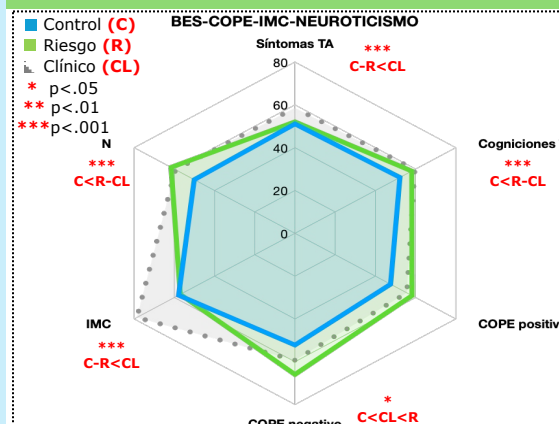
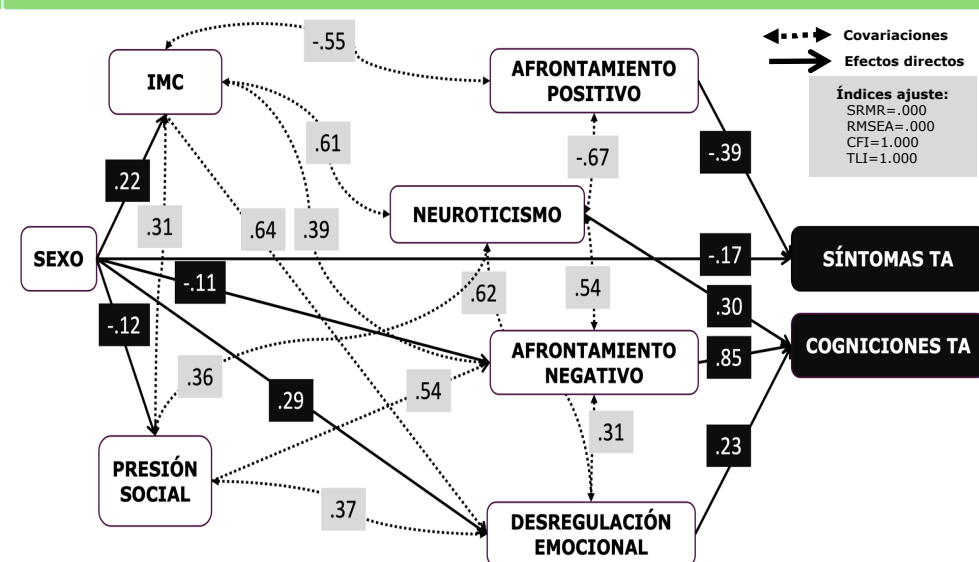


Figura 1: ANOVA (puntuaciones T)



### 3. RESULTADOS

Figura 2: Modelo predictor del TA (SEM)



Se acepta H1 → Existen **diferencias significativas** entre los tres grupos.

Se acepta H2 → **Factores proximales:** Afrontamiento negativo y desregulación emocional (riesgo). Afrontamiento positivo (protector). **Factores distales:** Sexo, IMC, presión social y neuroticismo.

### 4. DISCUSIÓN

Las diferencias entre los tres grupos pueden considerarse una evidencia del **papel causal** de dichas variables. Nuestro modelo estructural está en consonancia con estudios anteriores (Davis et al., 2020; Escandón-Nagel y Garrido-Rubilar, 2020).

A diferencia de investigaciones previas, no se encontró relación entre el sexo y el neuroticismo (Garaigordobil et al., 2009). Se requiere incluir otras variables influyentes, como los antecedentes de obesidad familiar, la experiencia de acontecimientos vitales estresantes o la sintomatología depresiva (Giner-Lladós, 2011).

**Limitaciones:** El **tamaño de la muestra** (n>100) ha permitido obtener un modelo predictivo válido, pero se requiere una muestra mayor para obtener resultados más robustos e incluir otras variables que influyen en el TA.

**Propuestas futuras:** Aumento de la muestra y valorar eficacia en la reducción del riesgo de TA de charlas de prevención en adolescentes.

**BIBLIOGRAPHIC REFERENCES**

- American Psychiatric Association, DSM-5 Task Force. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5™* (5th ed.). American Psychiatric Publishing, Inc.
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, 4, 92-100.
- Davis, H. A., Graham, A. K. & Wildes, J. E. (2020). Overview of Binge Eating Disorder. *Current Cardiovascular Risk Reports*, 14(12).
- Engel, G. L. (1977). The Need for a New Medical Model: A Challenge for Biomedicine. *Science*, 196(4286), 129-136.
- Escandon-Nagel, N. & Garrido-Rubilar, G. (2020). Trastorno por Atracón: una mirada integral a los factores psicosociales implicados en su desarrollo. *Nutrición Clínica y Dietética Hospitalaria*, 40(4), 108-115.
- Eysenck, H. J. & Eysenck S. B. G. (1997). *Cuestionario revisado de personalidad de Eysenck (EPQ-R)*. Madrid: TEA Ediciones.
- Garaigordobil, M., Aliri, J. & Fontaneda, I. (2009). Bienestar psicológico subjetivo: diferencias de sexo, relaciones con dimensiones de personalidad y variables predictoras. *Psicología conductual*, 17(3), 543-559.
- Giner-Lladós, M. (2011). *Personalidad y psicopatología en el Trastorno por atracón* (Publicación No. B.37535) [Tesis doctoral, Universitat Internacional de Catalunya]. TDX, Tesis Doctorals en Xarxa.
- Gormally, J., Black, S., Daston, S. & Rardin, D. (1982). The assessment of binge eating severity among obese persons. *Addictive Behaviors*, 7(1), 47-55.
- Gratz, K. L. & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, 26(1), 41-54.
- Hoek, H. W. (2016). Review of the worldwide epidemiology of eating disorders. *Current Opinion In Psychiatry*, 29(6), 336-339.
- Toro, J., Salamero, M. & Martinez, E. (1994). Assessment of sociocultural influences on the aesthetic body shape model in anorexia nervosa. *Acta Psychiatrica Scandinavica*, 89(3), 147-151.