

# Detection of bulimia nervosa in primary health care consultations

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## Detección de bulimia nerviosa en las consultas de Atención Primaria

### Summary

**Introduction.** To estimate the prevalence of bulimia nervosa and bulimic behavior in women who come to Primary Health Care consultations, using the DSM-IV criteria.

**Design.** Descriptive, observational study

**Setting.** Primary Health Care.

**Participants.** Women over 14 years who come to general medicine consultations. Selection by systematic sampling of 175 women (proportion expected: 4%; confidence index: 95%; accuracy:  $\pm 3\%$ ).

**Main measures.** Examination, by semi-structured interview, of diagnostic criteria of bulimia (recurrent binge eating, compensatory behaviors and excessive concern about weight or body image), socio-demographic variables and variables on morbidity (health problems according to CIPSAP-2-defined).

**Results.** Prevalence of bulimia was 5.3% (95% CI: 2.4-9.7), there being recurrent binge-eating in 23.4%. Among the compensatory behaviors, fasting (13.5%), intense exercise (8.2%) and self-induced vomiting (4.7%) were the most frequent. In women with bulimia, a background of anorexia and establishment of goals to lose weight appeared more frequently ( $p < 0.05$ ). Their average age was significantly lower ( $p < 0.05$ ) ( $31.2 \pm 14.7$  SD). By logistic regression, the associated variables with the presence of bulimia were age (OR: 0.94), existence of previous psychiatric morbidity (OR: 9.0) and having previously set goals to lose weight (OR: 7.3).

**Conclusions.** In the women who came to the Primary Health Care consultations, prevalence of bulimia is greater than that described in the general female population. This disorder is more frequent in younger women and in those who present a background of psychiatric morbidity. Examination of the diagnostic criteria makes its detection easy in Primary Health Care consultations.

**Key words:** Bulimia nervosa. Eating disorders. Primary Health Care.

### Resumen

**Introducción.** Estimar, mediante criterios DSM-IV, la prevalencia de bulimia nerviosa y conductas bulímicas en mujeres que utilizan las consultas de Atención Primaria.

**Métodos.** Estudio observacional descriptivo emplazado en el ámbito de Atención Primaria, cuyas participantes son mujeres mayores de 14 años que acuden a las consultas de medicina general. Selección mediante muestreo sistemático de 175 mujeres (proporción esperada: 4%; intervalo confianza: 95%; precisión:  $\pm 3\%$ ).

**La exploración se hizo mediante entrevista semiestructurada de criterios diagnósticos de bulimia (atracones recurrentes, conductas compensatorias y preocupación excesiva por el peso o la imagen corporal), variables sociodemográficas y variables sobre morbilidad (problemas de salud según CIPSAP-2-definida).**

**Resultados.** La prevalencia de bulimia fue del 5,3% (IC 95%: 2,4-9,7), apareciendo atracones recurrentes en el 23,4%. Entre las conductas compensatorias, el ayuno (13,5%), el ejercicio intenso (8,2%) y los vómitos autoinducidos (4,7%) fueron las más frecuentes. En mujeres con bulimia aparecieron con más frecuencia ( $p < 0,05$ ) antecedentes de anorexia y fijación de metas para adelgazar. Su edad media fue significativamente inferior ( $p < 0,05$ ) ( $31,2 \pm 14,7$  DE). Mediante regresión logística las variables asociadas con la presencia de bulimia fueron la edad (OR: 0,94), la existencia de morbilidad psiquiátrica previa (OR: 9,0) y el haber fijado metas para perder peso con anterioridad (OR: 7,3).

**Conclusiones.** En las mujeres que utilizan las consultas de Atención Primaria la prevalencia de bulimia es superior a la descrita en población general femenina. Dicho trastorno es más frecuente en mujeres de menor edad y en las que presentan antecedente de morbilidad psiquiátrica. La exploración de los criterios diagnósticos permite fácilmente su detección en las consultas de Atención Primaria.

**Palabras clave:** Bulimia nerviosa. Trastornos del comportamiento alimentario. Atención Primaria.

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### INTRODUCTION

Eating is a voluntary process, that is educable and very influenced by social, economic, cultural, psychic and other factors. It could be said that man does not eat well for three reasons: because he/she does not know how,

cannot or does not want to. In the context of eating disorders, bulimia, anorexia and other eating disorders have still not been well defined.

Bulimia is defined as a disorder characterized by the presence of recurrent episodes of binge eating (rapid consumption of large amounts of food in short time spaces), these being associated to compensatory mechanisms to counteract weight gain, such as self-induced vomiting, use and abuse of laxatives and diuretics, hyperactivity, etc., with a minimum frequency of two times per week and for at least 3 months<sup>1</sup>.

Prevalence of bulimia in western countries is found at about 1-3%<sup>2,3</sup> and the man/woman proportion is approximately 1/10<sup>4,5</sup>. Adolescent women and young adults are affected most<sup>6,8</sup>, bulimic symptoms being detected in 10-19% of the university students.

In the present society, the woman is faced with an arduous task: being competent to perform the same intellectual and management tasks as the male, she is not freed from «her obligations as a housewife,» which increases the demand on her as she fulfills different work and family functions. If we add the excessive importance presently given to body image to this, it being possible to give precedence to a slender body over the human or spiritual values, the result is the appearance of a series of diseases among which eating behavior disorders are found.

Primary Health Care consultations make up the ideal setting for the medical or nursing personnel to be able to detect multiple health problems early and where health care education finds its cornerstone. It is here that bulimia and other eating behavior disorders can be identified and initially steered toward their treatment, although the present approach should be multidisciplinary, it being based on nutritional control<sup>9</sup>, cognitive-behavioral therapy<sup>10</sup>, pharmacological antidepressive therapy and orientative intervention in the family surrounding<sup>11-13</sup>.

The objective of the study is to estimate the prevalence of bulimia nervosa and bulimic behaviors in those who use the Primary Health Care consultations by DSM-IV criteria as well as to establish their relationship with the sociodemographic and morbidity variables.

## METHODS

This is a cross-over descriptive observational study carried out in three Primary Health Care consultations belonging to an urban health care center (University Health Care Center Zone IV of Albacete), which includes a population of 22,915 inhabitants and is located in a peripheral area of the city in which low socioeconomic level predominates. The study subjects were women aged 14 years or more who came to these consultations for any reason. Systematic sampling was used to select 175 patients (expected proportion of bulimia nervosa: 4%; confidence index: 95%; accuracy:  $\pm 3\%$ ).

The patients selected were informed of the study purposes and were invited to participate in a semistructured interview to examine the presence of the diagnostic cri-

teria of bulimia (DSM IV): existence and periodicity of recurrent binge eating, excessive concern about weight or body image and compensatory behaviors (performance of physical exercise after eating, establishment of fasting, intake of laxatives or diuretics, use of enemas and self-induction of vomiting). These interviews were carried out by Primary Health Care physicians who had been previously trained. During them, the interviewer decided the presence or absence of each one of the criteria using key questions. Sociodemographic data (age, study level, social category based on occupation) were also included in the questionnaire elaborated for data gathering. Using the clinical records, information was obtained on frequency of visits (visits to physician during the last three months), chronic health problems (CIPSAP-2-defined), psychopharmaceutical consumption and presence of toxic habits.

Regarding the statistical analysis, first, a description of the study variables was performed and after, tests were used to compare proportions (chi-squared and Fisher's exact test) and means (Student's «t» and Mann-Whitney U test) in independent groups. Finally a logistic regression model was made using the existence or not of bulimia nervosa as dependent variable (logistic regression procedure of the SPSS system).

## RESULTS

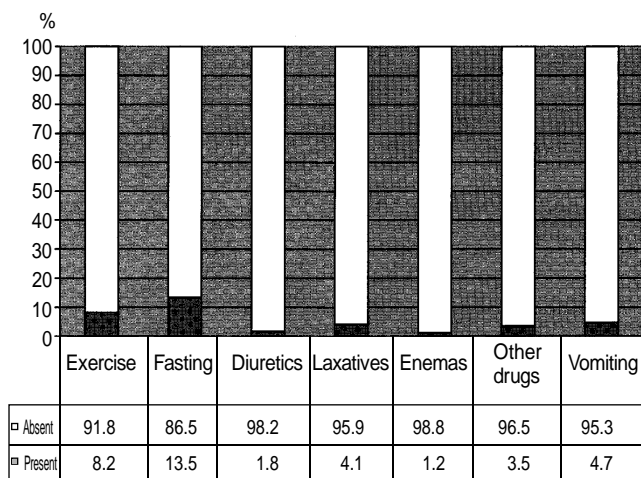
Among the 175 patients selected, the response rate was 97.7%. The sample characteristics are described in [table 1](#). Prevalence of bulimia, following DSM IV criteria, was 5.3% (nine cases) (95% CI: 2.4-9.7). During the interview, recurrent binge eating at least two times per week (intake of food in short time period in large amounts together with the sensation of loss of control on this intake) was reported in 13.5% of the women studied (23 cases), compensatory behaviors at least two times per week were reported in 23.4% (40 cases) and excessive concern about weight and body image was reported by 24.6% (42 cases).

Among the compensatory behaviors, fasting (13.5%), intense physical exercise (8.2%), self-induced vomiting (4.7%), use of laxatives (4.1%) and other drugs (3.5%) were the most frequent ([fig. 1](#)).

Background of anorexia (22.2% compared to 2.5% in

**TABLE 1. Characteristics of the sample**

Mean age	45.9 $\pm$ 20.5 DE
% with incomplete primary studies	30.5
% social category V-VI (unqualified workers)	51.8
Mean number of visits to the physician during 3 previous months	2.4 $\pm$ 1.70 DE
% with chronic health problems	55.0
% with previously diagnosed mental health problems	41.5
% with present consumption of psychopharmaceuticals	28.1
% with daily consumption of alcohol	16.9



**Figure 1.** Prevalence of compensatory behaviors.

women without bulimia) and also establishment of goals to lose weight (77.8% compared to 29.0% in women without bulimia) appeared with a significantly greater frequency ( $p = 0.002$ ) in women with bulimia. Mean age was significantly lower in women with this disorder ( $p = 0.02$ ) ( $31.2 \text{ years} \pm 14.7 \text{ SD}$  compared to  $46.7 \pm 20.5 \text{ SD}$ ) and the mean number of previously diagnosed mental health problems diagnosed ( $0.8 \pm 0.4 \text{ SD}$  compared to  $0.4 \pm 0.6 \text{ SD}$ ) was significantly higher ( $p = 0.04$ ).

By logistic regression, the variables associated with the presence of bulimia were age (OR: 0.9), existence of previous psychiatric morbidity (OR: 9.0) and having previously established a goal to lose weight (OR: 7.3).

## DISCUSSION

Eating behavior disorders are a new problem in a certain population sector such as that of the young adult and adolescent woman. Its early detection and initial treatment largely depend on the Primary Health Care physician. Among the obstacles to approach this disorder, the frequency with which it can go unnoticed and the difficulty to know the real magnitude of the problem can be mentioned, since the results of the studies published differ in regards to the methodology used (representativity of the sample, different diagnostic criteria, self- or heteroapplied questionnaires, screening prior to the interview, confidentiality of the information, tendency of the examined subject to «please» the examiner, real difficulty to be able to observe the amount of food ingested, etc.). In our case, it is possible that the data cannot be generalized for the general population, since the study was performed in Primary Health Care consultation users, which can explain why the 5.3% prevalence obtained is greater than the data published previously<sup>2</sup>.

We have verified how only one of the nine women with clinical criteria of bulimia had been previously diagnosed of the disorder, the rest coming for very different

motives and with no related background in their clinical history. These results show that the underlying problem can be masked in most of the cases and that the woman may consult for apparently unrelated reasons such as persistent constipation or to request a prescription for laxatives or diuretics that they use for compensatory behaviors afterwards.

In our results, establishment of goals to lose weight and alteration in the body image perception among women with criteria of bulimia nervosa appear with a similar frequency to that described in other studies<sup>14,15</sup>. We have also verified that the presence of the disorder is superior in women who present some background of psychiatric morbidity, as in other studies that describe the relationship between bulimia and personal disorders or other psychiatric disorders such as affective problems, drug or alcohol consumption and panic attacks<sup>14,16-19</sup>. Similarly to that described in the bibliography<sup>20,21</sup>, we have observed that overlapping sometimes exists between anorexia and bulimia, since approximately half of the anorexic subjects may finally develop bulimic behaviors.

It is important to distinguish between bulimic behaviors and bulimia strictly speaking, according to the DSM-IV criteria, since the former appears with considerable frequency when an anamnesis aimed at the problem is performed. In this sense, we have observed that more than 13% of the women who come to Primary Health Care consultations declare fasting as a frequent practice after abundant intake of food or that more than 8% perform intense physical exercise for this reason.

Socio-cultural variables may play a fundamental role in the origin of bulimia, it having been verified in the third world that the presence of bulimia is practically non-existent, as there are no socio-cultural pressures to control intake and weight. Thus, the problem is understood as a complex phenomenon that is a product of the interaction of many biological as well as psychosocial factors<sup>22</sup>. In our environment, the need to become familiar with both diagnostic criteria of bulimia nervosa as well as with the communication skills necessary to adequately carry out the clinical interview is proposed to the Primary Health Care physician. Both tools make it possible to easily unmask the cases of bulimia in the population that consults in Primary Health Care. Later studies will make it possible to verify the effectivity of the interventions on these patients in the Primary Health Care score and of its initial management together with the mental health services.

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