



## CAN YOU CONTROL YOUR EATING? A STUDY ON BINGE EATING IN TEENAGERS

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### YOUNG REVIEWERS:



JORDAN

AGE: 10



PALLAV

AGE: 11

We all eat too many of our favorite snacks from time to time, but when does that become harmful? Eating lots uncontrollably, which is called binge eating, may cause feelings of shame afterwards. Binge eating involves both eating a lot within a short time *and* not being able to stop eating although you want to. Binge eating may result in eating disorders, which often develop in adolescence. Are some symptoms of binge eating more common than others? Why do some teenagers develop them while others do not? We discovered that 12.6% of teenagers experienced binge eating symptoms, with loss-of-control eating being the most common symptom. We found that teenagers who reported binge eating symptoms were also more likely to have

more emotional and behavioral problems, be more dissatisfied with their bodies, eat more in response to negative emotions, eat less because of their weight, and have a higher body weight.

## BINGE EATING

The consumption of large quantities of food in a short period of time, combined with a feeling that you cannot stop eating.

## OVEREATING

Eating more food than an average person would do within a short period of time.

## LOSS-OF-CONTROL EATING

To continue eating even after feeling full, and the feeling of not being able to stop eating.

### Figure 1

Binge eating involves the presence of two symptoms: loss-of-control eating, which is continuing eating because one feels unable to stop; and overeating, which is eating a lot of food within a short period of time.

## EATING DISORDERS

Mental health conditions that involve severe disturbances in eating behaviors and related thoughts and emotions, for a long time.

## BINGE EATING DISORDER

Experience binge eating episodes at least once per week for 3 months or more, in which the binges are often followed by feelings of guilt or distress.

## WHAT IS BINGE EATING?

Have you ever continued eating even after you felt full up? Or have you eaten a lot of your favorite snack without being hungry in the first place? Maybe you even ended up with a belly ache because you ate too much. Most of us overeat from time to time. But when does this behavior become harmful? Some of us might eat lots of food when feeling alone and down. Afterwards, we may feel ashamed about how much we ate and try to keep it a secret. These behaviors and feelings could be signs of what is called **binge eating**.

When researchers and mental health practitioners talk about binge eating, two key symptoms must be present. The first symptom of binge eating is **overeating**. Overeating describes people's tendencies to eat a lot of food within a very short time. For example, someone might eat everything they can find in the fridge or eat until they feel sick. Also, at times people can feel like they could not stop eating even if they wanted to. When someone continues eating because they cannot stop, this is called **loss-of-control eating**, and it is the second symptom that constitutes binge eating (Figure 1).

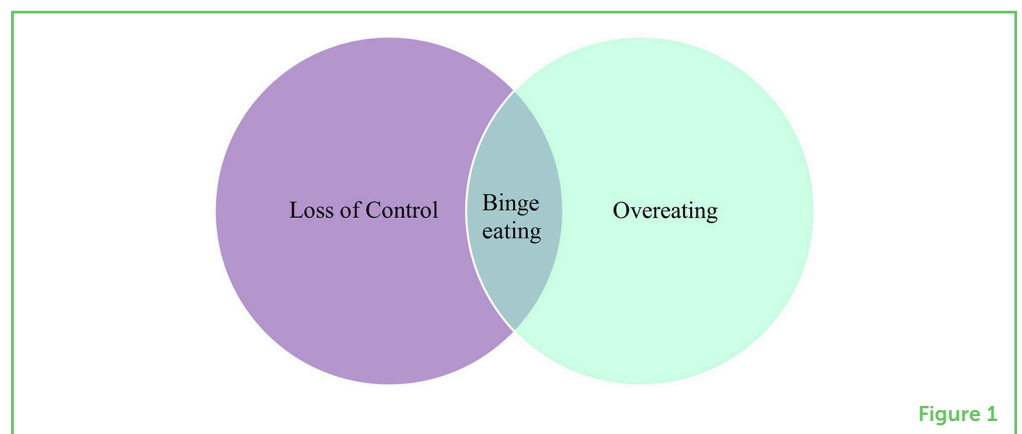


Figure 1

A binge eating episode is the experience of overeating and loss-of-control eating at the same time. Binge eating episodes are experienced at least weekly in people with **eating disorders**, such as **binge eating disorder** or **bulimia nervosa** [1]. Yet, binge eating can also occur from time to time in people without an eating disorder, and some people might only experience overeating or loss-of-control eating separately. For instance, you might feel like you cannot stop eating while you actually only eat a limited amount of food.

## BULIMIA NERVOSA

An eating disorder in which someone experiences binge eating episodes and then tries to get rid of the food in unhealthy ways, like vomiting, at least once per week for 3 months or more.

## PREVALENCE

The measure of how common a certain symptom, disease, or condition is in a specific group of people at a given time.

## WHY IS IT IMPORTANT TO STUDY BINGE EATING?

Binge eating is a common characteristic of eating disorders. Eating disorders mostly develop during adolescence and often go hand in hand with other mental health problems such as depression and anxiety [2, 3]. In addition, regular binge eating can lead to a higher weight [3]. Because eating disorders are persistent and difficult to treat, it is important to stop them as soon as (or before) the symptoms appear. Also, if scientists and doctors could limit the risk of binge eating, that would save a lot of people from future health and emotional problems. But how can we do that? We can start by looking carefully into binge eating. For example, if we discover how common binge eating is and what factors may play a role in this behavior, we could better recognize teenagers who are at risk and offer help early. This way, we could ultimately reduce the risk of eating disorders. That is why, in our study, we investigated the **prevalence** (meaning the number of teenagers that reported these symptoms over a three-month period) of binge eating, overeating, and loss-of-control eating in teenagers. Also, we tried to find out if some adolescents are more likely than others to engage in these behaviors.

## HOW CAN WE MEASURE BINGE EATING?

To discover more about binge eating symptoms, we used information from a very large group of teenagers (3,595 of them!) who were asked to fill out a questionnaire between 2016 and 2019. For our study, we measured teenagers' binge eating symptoms by asking them to answer some questions in a questionnaire about their eating. For example, we asked teenagers how often they ate a lot of food or felt they could not stop eating during the last 3 months (Table 1). We also asked teenagers and their parents about other factors we thought might be related to their eating habits, for example eating when feeling sad or getting into trouble at school.

We divided teenagers into four groups based on their answers to the questionnaire. The first group of teenagers reported no binge eating symptoms in the past 3 months. The second group only reported that they experienced overeating without feeling loss of control in the past 3 months, while the third group answered that they experienced loss-of-control eating in the past 3 months without overeating. The fourth group of teenagers indicated that they overate *and* felt like they lost control, meaning that they experienced both binge eating symptoms in the past 3 months.

## HOW COMMON IS BINGE EATING AMONG TEENAGERS?

Can you try to guess the percentage of binge eating symptoms? And which symptom is most common? We discovered that 12.6% of 14-year-old teenagers reported experiencing one or more binge

**Table 1**

Questions measuring overeating and loss of control eating.

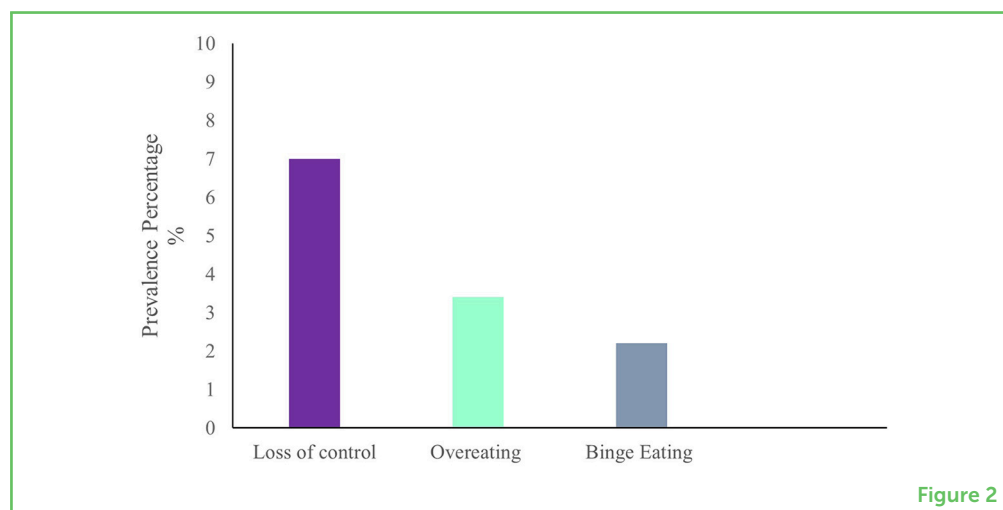
Question	What the question measures
1. Sometimes people eat a very large amount of food in a very short time. For example, they may open the fridge and eat as much as they can find, eating and eating until they feel physically ill. This usually happens when people are by themselves. Does this happen to you? a. Yes b. No 2. If yes, how often did this happen in the past 3 months? a. <i>Did not happen</i> b. <i>Less than once per month</i> c. <i>Once or more per month</i> d. <i>Once or more per week</i>	Overeating
3. In the last 3 months, has there been a time when you were eating and you felt like you could not stop? During which you just kept eating and eating and could not stop even if you wanted to? a. Yes b. No 4. If yes, how often did this happen in the past 3 months? a. <i>Did not happen</i> b. <i>Less than once per month</i> c. <i>Once or more per month</i> d. <i>Once or more per week</i>	Loss of control eating

**Table 1**

eating symptoms over a period of 3 months. Of those who reported binge eating symptoms, 38.5% were boys and 61.5% were girls. This means that binge eating is common among teenagers and occurs in both boys and girls. Most teenagers reported experiencing loss-of-control eating only (7.0%), so they could not stop eating even if they wanted to. A smaller percentage of teenagers experienced eating a large amount of food within a short time (3.4%), meaning they overate. Last, 2.2% of teenagers reported both losing control and eating excessively (binge eating; [Figure 2](#)).

**Figure 2**

Prevalence (%) of Loss-of-control eating, Overeating, and Binge eating. You can see that among teenagers who experience Binge eating symptoms, most experienced Loss of control eating, while less teenagers reported Overeating or both symptoms (Binge eating).

**Figure 2**



## WHO IS MOST LIKELY TO EXPERIENCE BINGE EATING?

All teenagers might show binge eating symptoms from time to time, but are some teenagers more likely to develop binge eating symptoms than others? In our study, we examined which factors may put teenagers at risk of binge eating symptoms. We found that teenagers who experience more emotional problems, such as feeling sad or unhappy, were more likely to experience binge eating symptoms. In addition, behavioral problems, such as being aggressive, having frequent arguments with parents, or disobeying at school increased the chances of binge eating.

Some eating behaviors were also related to binge eating symptoms in teenagers. Teenagers who ate to calm down when they were experiencing negative feelings were also more likely to engage in binge eating. Usually, when we smell delicious food after a good meal, we feel full and have no desire to eat more. However, some people might not be able to control their urge to eat. In our study, teenagers who had more difficulty controlling this urge seemed to be more likely to develop binge eating symptoms. We also found that teenagers who wanted to be thinner, were eating less because of their weight, and who closely watched what they ate were also at greater risk of binge eating. Lastly, teenagers with higher body weight were more likely to develop binge eating symptoms.

Now that we have an idea of who is most likely to develop binge eating symptoms overall, let us zoom in on the different symptoms. Our findings showed that the factors mentioned above are more important for teenagers who experienced loss-of-control eating or experienced binge eating. This highlights that the experience of losing control might be more important than the actual amount of food that was eaten.

## WHAT DO OUR FINDINGS MEAN?

We discovered that binge eating symptoms are common in 14-year-old teenagers. Loss of control eating was more common than overeating and binge eating. Our study also showed that factors such as emotional problems, behavioral problems, eating to reduce negative feelings, and wanting to be thinner may put teenagers at risk for developing binge eating symptoms. Not being in control of one's eating, eating less because of their weight, and having a high body weight may also increase the risk of developing binge eating symptoms.

These findings are very important because they can help us understand which teenagers are most at risk for developing binge eating. This information might help us prevent this problematic eating behavior.

For example, we can now better identify teenagers who are at a higher risk of developing harmful eating patterns and offer them help before their eating actually becomes a problem.

## ACKNOWLEDGMENTS

The general design of Generation R Study was made possible by financial support from the Erasmus Medical Center and the Erasmus University Rotterdam, the Netherlands Organization for Health Research and Development (ZonMW), the Netherlands Organisation for Scientific Research (NWO), the Ministry of Health, Welfare and Sport and the Ministry of Youth and Families. The current article was made possible by a grant from the Netherlands Organization for Health Research and Development (Mental Health Care Research Program - Fellowship 636320005 to PJ).

## ORIGINAL SOURCE ARTICLE

Derks, I. P. M., Harris, H. A., Staats, S., Gaillard, R., Dieleman, G. C., Llewellyn, C. H., et al. 2022. Subclinical binge eating symptoms in early adolescence and its preceding and concurrent factors: a population-based study. *J. Eat Disord.* 10:180. doi: 10.1186/s40337-022-00688-6

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**SUBMITTED:** 24 July 2023; **ACCEPTED:** 13 August 2024;

**PUBLISHED ONLINE:** 09 October 2024.

**EDITOR:** Anna Alkozei, University of Arizona, United States

**SCIENCE MENTORS:** Sowmyashree Mayur Kaku and Pat Levitt

**CITATION:** Savvopoulou F, Hackmack M, Jansen PW and Derks IPM (2024) Can You Control Your Eating? A Study on Binge Eating in Teenagers. *Front. Young Minds* 12:1266072. doi: 10.3389/frym.2024.1266072

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## YOUNG REVIEWERS



### JORDAN, AGE: 10

I am in 5th grade and LOVE California history. I also love to explore my family history, as well as sea life like turtles, seals, and starfish. My favorite game to play with my family is King Rummy. My favorite thing to do to pass the time is draw. I know how to roller skate and I like to ride my bike with my sister Molly and my Papa. When I am older, I want to be a photographer.



### PALLAV, AGE: 11

I am Pallav. I am learning karate and swimming. I love excavators, cars, and other automobiles and read a lot about them. I love sports including badminton and basketball. I go to parks with my brother. I am also an astronomy enthusiast. Reading books are one of my most favorite past times and I read Roald Dahl, Sudha Murthy, Ruskin bond books along with some mystery novels.

## AUTHORS



### FAY SAVVOPOULOU

Fay is an academic teacher at the Department of Psychology, Education and Child Studies at Erasmus University Rotterdam. She completed her specialization in clinical psychology and is interested in research on anxiety and eating disorders. In the past, she conducted research on fear and anxiety, to map how anxiety and stress-related disorders develop in adults. Recently, she has tried to combine anxiety related to eating disorders. Investigating young populations such as teenagers and young adults can help with identifying people who are at risk and improve the existing treatments of eating disorders.



### MARIKE HACKMACK

Marike is a psychologist and psychotherapy trainee. She graduated from the clinical psychology program of the Department of Psychology, Education and Child Studies at Erasmus University Rotterdam. She is currently working in psychiatric care and undergoing training to become a licensed psychotherapist. In her practice, she frequently encounters young adults with eating disorders,

most commonly displaying symptoms of binge eating and bulimia nervosa. She is particularly interested in the co-occurrence of personality disorders and disordered eating.



**PAULINE W. JANSEN**

Pauline is a professor of developmental psychopathology at the Department of Psychology, Education and Child Studies, Erasmus University Rotterdam, and at the Department of Child and Adolescent Psychiatry/Psychology at the Erasmus Medical Center Rotterdam, the Netherlands. She is interested in the development of both normal and abnormal eating patterns across childhood and adolescence and is interested in questions like: Why do some children develop a poor body image or have poor control over what they eat while others do not? Answers to these questions will provide opportunities to prevent and treat obesity and eating disorders at an early stage.



**IVONNE P. M. DERKS**

Ivonne is a postdoctoral research fellow at the Department of Behavioural Science and Health at University College London in the United Kingdom, and she was a postdoctoral researcher at the Department of Psychology, Education and Child Studies at the Erasmus University Rotterdam, the Netherlands, when most of this work was conducted. She is investigating the development of eating disorders among children and adolescents, in particular binge eating, and is interested in the role of body weight, appetite, and mental health, among others. \*[i.derks@ucl.ac.uk](mailto:i.derks@ucl.ac.uk)