



# **THEORY OF MIND IN BULIMIA NERVOSA**

THEORY OF MIND, PSY277

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## 1. What is bulimia nervosa?

Bulimia nervosa was first defined as a clinical syndrome in 1979 (Kendler et al. 1991). In Europe there is about 1.1 % of girls and 0.2 % of boys between 12 and 20 years of age suffering from bulimia. It is characterised by binge eating (eating enormous quantity of food). After loss of control and binge eating bad feelings of guilt come and they are accompanied by compensation behaviour. It can be taking laxatives, vomiting or excessive physical exercising. This process can be followed by strict dieting but the person is going to lose control again. That is main difference between anorexia which is excessive control and bulimia which is loss of control. We can say that a person suffers from bulimia nervosa when he repeats this behaviour twice a week during at least three months. It started most often between 15 and 18 years of age and its connected to physical and psychological changes of that period of life. Youngsters could have problems with acceptance of their “new matured body” or they can be affected by media and ideal of beauty. Whole problem is also strongly connected to self-esteem of adolescents which is much complicated in that period of life. These people often report high levels of shyness during adolescence, they have limited social networks, fewer supportive relationships in adulthood and make negative social comparisons with others and feel inferior to them. Bulimia also causes serious health consequences such as dehydration, hormone disorders, mineral deficits or organ damage. Moreover changing the periods of dieting and binge eating can cause a fluctuation of weight which is as well a serious problem for patient’s health (Cannard, 2010).

All these mental and social problems described above are often connected with absence or less developed theory of mind. That is why I am a bit surprised there is not more researches dedicated to that topic. There are many studies dealing with theory of mind and other eating disorders mainly anorexia nervosa but there is a huge gap in a field of connection of bulimia and theory of mind which was partly filled this year with following study.

## 2. Theory of mind and bulimia nervosa

The only research about this topic which I was successful to find is British study published this year and made by MSc. Martha Kenyon et al. This study investigates people with bulimia nervosa and their ability to attribute mental states such as beliefs, desires, knowledge and emotions to oneself and others, these are essential parts of theory of mind. Authors of the research reported about other study where participants with bulimia were supposed to recognise emotions but there were not found any significant differences between them and healthy population. They thought that the reason could be insufficient complexity of the task. In that study participants should name an

emotion which they “saw” on a picture of eyes - Reading the Mind in the Eyes task (RME). They thought that if the task had been more complex they could identify the difference between people with bulimia and healthy population and they decided to use Reading the Mind in the Films task (RMF).

## 2.1 Method

There was 82 adult participants 48 of them with bulimia nervosa (BN) and 34 with eating disorder not otherwise specified (EDNOS BN). BN were defined as I wrote above repetitive binge eating and compensation behavior at least twice a week during three months. EDNOS BN differed from BN in that it required at least six binge eating episodes in the last 28 days. In a control group there were 72 participants. Healthy participants had no history of bulimia nervosa or any other eating disorder. Twelve of them were excluded from analyses because of their small body mass index (BMI < 18.5) or and three of them did not complete the tasks. Thus, 57 healthy control participants were included in analyses.

For measuring there were used both tests RME and RMF. RME consists of 36 black and white photos of the eye region of faces were and participants were supposed to choose from four words describing complex mental states or emotions the word that best describes how the person in the photograph is thinking or feeling. In RMF task there were presented 22 brief film clips of social scenes were presented. Again participants were asked to choose which of four words best described how a person in a clip was feeling at the end of the scene. There were also calculated three valence subscales in both RME and RMF tasks. In RME there were 13 positive, 15 negative and 8 neutral items and in RMF there were 3 positive, 17 negative and 2 neutral items.

## 2.2 Results

The final sample consisted of 139 participants 57 HC, 48 BN, and 34 EDNOS-BN. In RME there was found no significant difference between HC, BN or EDNOS-BN. Even when RME items were separated by valence still there was found no significant main effect of group for ability to recognize positive, negative, or neutral emotional states.

In RMF task there were no significant group differences on the positive or negative valence subscales, though the mean scores suggest there was a trend toward HC participants performing better than participants with BN on the positive subscale, however there was found a significant

difference in negative emotion recognition. Participants with bulimia nervosa scored significantly better than healthy ones.

### 2.3 Discussion

Hypothesis of this study where not confirmed. People suffering from bulimia nervosa do not have worse developed theory of mind. Even if they broke the task down by valence unhealthy participants were not worse in any of them moreover they were better in the negative one. The study also revealed a fact that reading mind in the films could be really more complex activity and can show us better a difference between specific groups than reading mind in the eyes task (Kennyon et al., 2012).

Results from research studying people suffering from anorexia nervosa are not that clear. Their results show that there is a difference between healthy people and people with anorexia in theory of mind (Harrison, Sullivan, Tchanturia, & Treasure, 2010), which means that we cannot generalize theory of mind difficulties across all eating disorders. Because of that it could be helpful to differ more between people with anorexia and bulimia during the treatment.

This study shows that interpersonal difficulties of people suffering from bulimia nervosa are not caused by their lacks in theory of mind. Alternative solutions for problems with real life social functioning need to be explored. People with bulima are often more shy and more aware of what others think about them than healthy population. They are sensitive to others thoughts, expectations and evaluations. This can be a key why there is a difference on negative valence of research (Kennyon, 2012).

One of limitations of this study is lack of items in positive (3) and neutral (2) subscales in RMF task. More items could prove better a difference between groups. Also a time limit could be helpful in revealing a capability of bulimic people to differ between emotional states as real life social interactions require a person to rapidly recognize the changing mental states of others and responding under time pressure (Kennyon, 2012).

### 3. Conclusion

According to this study it appears probable that there is no significant connection between those two concepts but there is a need to make some other studies which could confirm results of this research. It is also possible that if limitations such as time limit and a number of positive and neutral clips were improved results would be different.

Bulimia nervosa is a serious problem of today's world and any other research about it could be helpful to make a treatment and a therapy more effective. Of course there is a need to focus in research mainly on prevention and these data should be updated as often as possible. Today we cannot rely on older data especially if they refer to problem like this which is strongly connected to society and aspects of society are nowadays changing really fast.

Literature:

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