

## **Abstract**

### **Background**

Mortality was shown to be elevated in different psychiatric illnesses. However, the last analysis for mortality in patients suffering from personality disorders for all-cause mortality was performed nearly 20 years ago. An up-to-date analysis is needed in this group of vulnerable patients.

### **Objectives**

The aims of this systematic review and meta-analysis were to summarise the all-cause mortality, natural mortality, unnatural mortality and suicide mortality in patients with personality disorders compared to those without personality disorders, and to examine the moderators of mortality in patients with personality disorders.

### **Methods**

The MEDLINE, PsycINFO, EMBASE and Dissertations and Theses A&I were searched from inception to 31st March, 2015. Backward reference search was employed on all included studies and reviews, while forward search was employed on all included studies. Studies were pooled with random-effects model. Effect sizes were presented by risk ratio. Moderator analysis was performed on gender, length of follow-up and year of study being conducted.

## **Results**

Twenty-seven studies were included in the meta-analysis. Patients with personality disorders had a significantly higher all-cause mortality, natural mortality, unnatural mortality and suicide mortality. The unnatural mortality after excluding suicide was still significantly elevated. Other natural causes of death, such as those related to cardiovascular, respiratory, gastrointestinal and nervous system, were also significantly elevated. Females had a higher unnatural mortality ratio and suicide mortality ratio. Studies with shorter length of follow-up had a higher suicide mortality ratio. An increased all-cause mortality ratio was found in studies conducted more recently.

## **Conclusion**

This study showed that the mortality ratios for different mortality outcomes were increased in patients with personality disorders compared to those without personality disorders. Gender, length of follow-up and year of study being conducted were moderators of mortality outcomes.