

Medscape

May 20, 2019

Early Death in BPD Patients Not Just Because of Suicide

By Batya Swift Yasgur, MA, LSW

Individuals with borderline personality disorder (BPD) are at high risk of premature death not only from suicide but from other causes, including accidents, results of a randomized trial show.

Investigators followed almost 300 individuals with BPD and 72 comparison patients with other personality disorders (PDs) who served as controls. Patients were recruited during an inpatient hospital admission over 24 years, and were evaluated every other year.

During the follow-up period, nearly 6% of BPD patients died by suicide, vs only 1.4% of controls; 14% of BPD patients died by causes other than suicide vs 5.5% of controls.

The most common causes of non-suicide deaths were cardiovascular, followed by substance-related complications, and accidents.

“Our findings suggest that patients with BPD are at an elevated risk of premature death due to all causes at rates similar to other forms of SMI [serious mental illness],” lead author [Christina Temes, PhD](#), clinical and research fellow at [McLean Hospital](#) in Belmont, Massachusetts, and Harvard Medical School in Boston, told Medscape Medical News.

“Although preventing suicide is rightfully often a focus of treatment with these patients, our findings also highlight how other forms of premature mortality are important to consider as adverse outcomes of BPD,” she said.

The study was published online January 22 in the *Journal of Clinical Psychiatry*.

Predicting Premature Deaths

BPD is associated with a higher risk of suicidality, but most studies of risk factors for suicide in this population have focused on suicide attempts rather than completed suicides, the authors note.

The few studies that examined completed suicides in patients with BPD point to several predictors for completed suicide, including prior suicidal behavior, more/longer psychiatric hospitalizations, and psychiatric comorbidities.

However, these studies do not have prospective design; rather, they utilized postmortem reports and/or chart reviews to assess predictors and other patient characteristics.

Additionally, there has been very little research on non-suicide-related mortality in patients with BPD.

“I work on a longitudinal study of a cohort of patients with BPD and a cohort of comparison patients with other personality disorders who were psychiatrically hospitalized and then followed every 2 years for 24 years,” said Temes.

When contacting people for the latter waves of follow-up, the investigators noticed that a number of participants had died, many due to non-suicide causes.

“We wanted to study this issue in a more systematic way, to learn more about trends in mortality over time, causes of death in these patients, and whether we could predict who died prematurely, based on the data we had collected earlier in

these patients' lives," said Temes.

"We also wanted to examine how rates of premature mortality in BPD compare to rates observed in other forms of serious illness," she added.

Large, Longitudinal Study

The McLean Study of Adult Development (MSAD) consisted of all subjects who were initially inpatients at McLean Hospital between June 1992 and December 1995 and then followed every 2 years for 24 years. The study is ongoing and currently in its 26th year.

BPD was diagnosed based on several instruments, including the Background Information Schedule (BIS), the Structured Clinical Interview for DSM-III-R Axis I Disorders, and the Revised Diagnostic Interview for Borderlines (DIB-R).

Patients were required to be between the ages of 18 and 35 years, to have an IQ of 71 or higher, and to have no history of current psychotic conditions (e.g., schizophrenia, schizoaffective disorder, or bipolar I disorder).

Participant deaths were recorded when discovered and, supplemented with death certificate claims, informant reports, news reports, and/or obituaries when available.

"Recovery" was defined as at least one 2-year follow-up period during which patients were concurrently in remission from their primary personality diagnosis, had at least 1 emotionally sustaining relationship with a close friend or life partner/spouse, and were able to go to work or school "consistently, competently, and on a full-time basis."

The study included 290 subjects with BPD and 72 with other personality disorders, including antisocial, narcissistic, paranoid, avoidant, dependent, self-defeating, and passive-aggressive PDs, with the most common being "PD not otherwise specified."

Of the subjects, 77% were female and 87% were white, with a mean (SD) age of 27 (6.3) years and a mean global functioning score of 39.8 (7.8), indicating major impairment in several areas such as work/school, family relations, and mood.

The mean socioeconomic status was 3.3 (1.5), with 1 as the highest and 5 as the lowest measure. A total of 5.9% of borderline patients and 1.4% of comparison subjects died by suicide.

High-Risk Behavior

Despite this significant difference, the between-group difference in time-to-suicide was not deemed significant. However, in contrast to comparison participants, whose suicide rates were "low and stable" over time, the suicide rates of BPD patients were "variable."

The most common methods of suicide were overdose (n=8) and hanging (n=6). The number of prior psychiatric hospitalizations significantly predicted completed suicide (HR=1.62; P=.037).

Of the patients with BPD, 14% died of non-suicide causes, vs 5.5% of comparison subjects died who by non-suicide causes. In this category too, the between-group difference in incidence and time to death was not significant.

The most common causes of non-suicide deaths (aggregated across both categories) were myocardial infarction (11 patients), followed by substance-related complications (e.g., liver cirrhosis, 5 patients), cancer (4 patients), and accidents (4 patients).

Male sex, lower SES, being on government disability, history of drug use disorder, number of psychiatric hospitalizations prior to index hospitalization, number of psychiatric medications, and body mass index (BMI) in the obese range were all

significant predictors of premature non-suicide death (all Ps < 0.05)

Further multivariate analyses found that male sex (HR=3.56; P=.003) and more prior psychiatric hospitalizations (HR = 2.93; P < .001) significantly predicted premature death.

A significantly higher proportion of patients with BPD who died both by suicide and by non-suicide causes had never achieved recovery with good psychosocial functioning and full-time work.

High-risk behaviors likely played a role in the number of premature non-suicide deaths in subjects with BPD, Temes suggested.

“For instance, a large portion of the deaths were caused by the consequences of long-term substance abuse, and substance abuse at baseline was also a predictor of premature death,” she said.

Previous research has shown that BPD patients who do not achieve recovery are likely to report a number of unhealthy lifestyle behaviors and/or other health-related risk factors, such as smoking, lack of exercise, regular alcohol use, and increased BMI—which are also related to outcomes like cardiovascular morbidities, Temes noted.

“The finding that a disproportionate number of those who died never achieved recovery likely reflects this complicated interplay between mental health, physical health, and health-related behaviors,” she added.

Novel Findings

Commenting on the study for Medscape Medical News, Donald W. Black, MD, professor of psychiatry at the University of Iowa’s Carver College of Medicine in Iowa City, said that BPD “has a well-known association with suicide, but this is the first demonstration that BPD is also associated with high death rates from non-suicide causes.”

He was not surprised by the rates of nonsuicidal premature deaths because people with BPD “are often obese, tend to have multiple medical problems, often don’t get good care, and often ignore these medical problems—and these probably contribute to the excess mortality,” suggested Black, who was not involved with the study.

He noted that this research has found high death rates to be common in other groups of psychiatric patients as well, including patients with schizophrenia and major depression.

Also commenting on the study for Medscape Medical News, Mark Zimmerman, MD, professor of psychiatry and human behavior, Brown University, Providence, Rhode Island, described the McLean Study of Adult Development as “a classic in the field, with a follow-up that has now reached nearly a quarter-century.”

Zimmerman, who was not associated with the current research, described the findings as “eye-opening, but not surprising” and said they “highlight the importance of considering BPD amongst the most severe and life-threatening psychiatric disorders.”

The implications are important, said Zimmerman, who is also the director of the outpatient division at the Partial Hospital Program, Rhode Island Hospital.

“The findings call for improving the recognition of the disorder in clinical practice, greater funding into efforts to improve the outcome of the disorder, and its inclusion in the Global Burden of Disease study,” he said.

“Targeting factors found to predict premature death in patients with BPD—e.g., poor health behaviors, number of psychiatric medications, and substance abuse — in treatment may help prevent or delay this outcome [of premature mortality],” Zimmerman added.

The study was supported by the National Institute of Mental Health. Temes and coauthors, Black, and Zimmerman have disclosed no relevant financial relationships.