Objective In Iran, self-immolation is the third leading cause of years of life lost among women, after disasters and breast cancer. The objective of this study was to investigate pre-existing psychiatric disorders in self-immolation patients.

Methods In a case–control study, 30 consecutive cases of deliberate self-inflicted burns admitted to the regional Burn centre (Imam Khomeini hospital in Kermanshah province, Iran) were compared with 30 controls who were selected from the community and matched by sex, age and living area. Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision (DSM IV-TR) Axis I (clinical disorders) and Axis II (personality and mental retardation) diagnoses were assessed via detailed clinical interview.

Results Descriptive data concerning Axis I disorders revealed that 67% of self-immolation patients had adjustment disorder (all of these patients were female), 10% drug and alcohol abuse/dependence (all of these patients were male), 7% dysthymia, 3% major depression, 3% anorexia nervosa and 3% primary insomnia. 75% of male self-immolation patients were diagnosed with drug and alcohol dependence or abuse. 77% of female self-immolation patients were diagnosed with adjustment disorder. Descriptive review of Axis II disorders revealed that 7% self-immolation patients had Borderline Personality Disorder (50% male), 7% Depressive Personality Disorder (100% female) and 3% Antisocial Personality Disorder. In bivariate comparisons, Adjustment disorders emerged as related to risk of self-immolation (OR 13.00, 95% CI 3.55 to 47.60). The comparisons of other clinical disorders were not statistically significant, although there was a strong trend for higher rates of mental illness among the self-immolation patients compared to the control group.

Conclusion This study suggests that adjustment disorder is a risk factor for self-immolation, overall. More broadly, psychopathology presents an increased risk of self-immolation. In male patients, drug abuse/dependency, antisocial personality disorder and depressive personality disorder increased the risk of self-immolation. Among females, adjustment disorders and depressive disorders increased the risk. As a result, it has been suggested that increasing the education level about problem-solving approaches, and coping skills for females, and drug/behaviour therapy for males of at risk groups are appropriate prevention programs and strategies in Iranian communities.