# Suicide in Men

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A n interesting and important article, "Low Risk of Male Suicide and Lithium in Drinking Water," is published in this issue of *The Journal of Clinical Psychiatry*.<sup>1</sup> The authors found that lithium levels in drinking water were significantly and inversely associated with male suicide standard mortality ratios (SMRs) but not total or female SMRs. This observation reminds us about the complex issue of gender differences in suicidal behavior.

## PREVALENCE

While women show higher rates of reported nonfatal suicidal behavior, men have a much greater rate of completed suicide.<sup>2-4</sup> Worldwide, men commit suicide 3–10 times more frequently than women.<sup>2,3</sup> Male suicide rates are higher than female rates at all ages. In the United States and Canada, men die from suicide attempts 3 times more often than do women.<sup>3,4</sup> The gender-suicide gap is especially large in some European countries such as Hungary, Lithuania, Latvia, Belarus, and Ukraine.<sup>5</sup>

### **PSYCHOSOCIAL FACTORS**

Multiple psychosocial factors may contribute to the observed gender differences in suicidal behavior. The traditional male gender role is described by characteristics such as independence, aggressiveness, risk-taking behavior, pursuit of power and dominance, competitiveness, success, and control.<sup>2,6-9</sup> The male gender role in Western cultures implies not acknowledging anxiety or depression, which might arise under difficult or threatening conditions.

The susceptibility of many men to suicide is probably related to their relative unwillingness to get help when they are distressed.<sup>2,6–10</sup> A review of help seeking by persons who committed suicide revealed that men had lower overall rates of contact with health care providers compared with women.<sup>10</sup> This study showed that in the year before suicide, 58% of women versus 35% of men sought care from a mental health professional. Men's lack of help seeking may be partially related to a lack of training and responsiveness from some psychiatrists and other clinicians who may not treat depressed, anxious, or suicidal men empathically.<sup>2</sup>

Suicidality in men is considerably affected by socioeconomic aspects such as income, wealth, employment status, and social position.<sup>2,6-9,11</sup> Men's susceptibility to suicide may be increased in periods of unemployment because of gender anticipations that men should support

J Clin Psychiatry 2015;76(3):e371–e372 (doi:10.4088/JCP.14com09554). © Copyright 2015 Physicians Postgraduate Press, Inc. themselves and their families. Also, unemployment is frequently associated with poverty, domestic difficulties, depression, and hopelessness, which all may contribute to suicidality.

Studies have shown that the association between alcohol/drug abuse and suicide is more significant for men, and many more men than women use alcohol/drugs immediately prior to their suicide.<sup>7,9,12</sup> In many societies, alcohol use is associated with masculinity, and this may explain a connection between alcohol use and suicide in men.<sup>7</sup> Alcohol may be consumed by some men to lessen depression or anxiety and as an unhealthy alternative to getting professional help for psychiatric issues.

Marital breakdown leads to many difficulties for men, including the possibility of parental alienation from children.<sup>13,14</sup> Fathers who have lost some or all contact with their children for months or even years following separation or divorce are sometimes in a severe suicidal crisis since the loss of contact or restriction of the relationship between the children and the father is a very traumatic and distressing experience for both the children and the father.

### NEUROBIOLOGY

Neurobiological gender differences may play a substantial role in the differences in suicide rates between men and women. As noted above, an article in this issue of *The Journal of Clinical Psychiatry* suggests that lithium may decrease suicide rates among men but not among women.<sup>1</sup> This finding may indicate that lithium affects men differently than women.

Impulsivity and aggression have been associated with death by suicide and are among the most frequently implicated risk factors for engaging in suicidal behavior.<sup>15,16</sup> It has been observed that lithium administration decreases impulsive aggressive behavior in men.<sup>17</sup> Possibly, higher levels of lithium in the drinking water decrease suicide rates among men by reducing impulsivity and aggression.

Another possible hypothesis is related to a potential role of testosterone in suicidal behavior. We observed that higher testosterone levels were associated with higher suicidality.<sup>18,19</sup> Testosterone levels are much higher in men than in women.<sup>20</sup> An adult male body produces approximately 10 times more testosterone than an adult female body. Several research studies demonstrated that the administration of lithium reduces testosterone levels.<sup>21,22</sup> It is interesting to speculate that lithium reduces suicidality in men by decreasing testosterone levels.

#### CONCLUSION

Suicide is a significant contributor to death in men. We need to develop reliable approaches to diagnose depressed

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and suicidal men and to help them and ourselves to overcome unrealistic male role expectations. There is a need for more research to develop suicide preventive strategies on the basis of reliable knowledge.

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