

Article: 0205

Topic: FC04 - Free Communications 04: Consultation Liaison Psychiatry and Psychosomatics, Personality and Personality Disorders and Suicidology and Suicide Prevention

Lithium Levels in Drinking Water and Risk of Suicide

M.M. Dumitru¹, A.C. Papari¹, N.I. Sava¹, A. Papari¹

¹Psychology, "Andrei Saguna" University, Constanta, Romania

Introduction. Although lithium is one of the oldest drugs in neuropsychopharmacology that can prevent suicide in people with mood disorders, it is uncertain whether lithium in drinking water could also help lower the risk in the general population.

Aim. The potential benefits of low levels of lithium in reducing the risk of suicide have not been widely investigated. The objective of this study is to review the relationship between lithium levels in tap water and suicide rates across different geographical regions.

Method. Was done a literature review on Medline and PubMed using the keywords: lithium, tap (drinking) water, suicide rates and suicide mortality.

Results. The large majority of studies show a negative association between lithium level in tap water and suicide standardised mortality ratio (SMR) averages for 2006–2013. Total diurnal intake of lithium from tap water is lower than the minimum dose used for the treatment of psychiatric disorders. Antisuicidal effectiveness of lithium at very low doses can imply that this effect is distinct from its mood-stabilizing or antidepressant augmenting actions.

Conclusions. These findings suggest that even very low levels of lithium in drinking water may play a role in reducing suicide risk within the general population. Enrichment of drinking water with lithium can provide a valuable help for primary prevention of suicide.