

Nutritional Supplements/Herbal Medicines 10/21/11

Statement of the Problem

To determine the efficacy of nutritional supplements/herbal medicines in the treatment and prevention of suicide, and other closely related mental conditions, including, depression, anxiety, and risk-taking behaviors.

Summary of the relevant literature

Limited empirical research has been done on nutritional supplements/herbal medicines and their relation to suicide, depression, anxiety and risk taking behaviors. A few supplements have been studied but evidence for or against is very limited.

Saffron

Saffron is a spice that was used in ancient cultures to relieve numerous ailments. Saffron is usually seen in two forms, stigma and petal (Dwyer et al., 2011). Findings of six studies have reported positive results for its use as a treatment for mild to moderate depression in both forms (Dwyer et al., 2011).

Side Effects: The side effects reported in these studies are minimal.

Gaps in the literature

There have been no studies on the effects of Saffron on suicide, anxiety or risk behaviors.

Lavender

Lavender has a long history of being used to help with the nervous system (Dwyer et al., 2011). One study has been conducted on the effects of lavender on depression. The study did find that lavender was effective in reducing depressive symptoms (Akhondzadeh, 2003). Lavender has also been studied as a treatment for anxiety disorders. Three randomized, double-blind clinical trials were identified using Silexan, an oral form of lavender oil. Silexan was found to decrease anxiety when compared to placebo and its effects were comparable to lorazepam (Kasper et al., 2010).

Side Effects: The side effects reported from these studies were minimal (mild headaches).

Gaps in the Literature

More studies looking at lavender oil as a treatment for anxiety and depression need to be conducted in order to draw a conclusion. There have been no studies looking at lavender's effects on suicide or risk-taking behaviors.

Echium

Echium is an herb native to Iran and is most commonly ingested as a beverage (Dwyer et al., 2011). One study has been conducted looking at the effect of Echium on depression. When compared to a placebo, Echium reduced depressive symptoms (Sayyah, Sayyah, & Kamalinejab, 2006).

Side Effects: Echium was found to be tolerable in this study.

Gaps in the Literature

More evidence is needed to support the use of Echium as a treatment for depression. No research has been conducted on Echium's effects on suicide, risky behaviors or anxiety.

Rhodiola

For several centuries Rhodiola has been used for multiple ailments including depression and fatigue (Brow, Gerbarg & Ramozanowv, 2002). One study was conducted and found that Rhodiola reduced depressive symptoms (Darbinyan, Aslyanyan, & Amroyan, 2007). There have also been studies on Rhodiola's effects on anxiety but a review of the literature revealed that the findings are contradictory and more research is needed (Blomkvist, 2009).

Side Effects: Rhodiola appears to be well-tolerated.

Gaps in the Literature

No studies have been conducted on the effects of Rhodiola on suicide or risk taking behaviors.

Passionflower

Passionflower has a long history of use as an anxiolytic agent in different cultures throughout the world (Dhawan, Kumar, Kumar, & Sharma, 2001). Three empirical studies with humans have been conducted to test the efficacy of Passionflower as a treatment for anxiety and anxiety-related conditions (Akhondez et al., 2001; Movafeg et al., 2008; Bourin et al., 1997). All three studies, which used a double-blind, RCT design, showed statistically significant reductions in anxiety scores in the Passionflower group, when compared to placebo or Oxazepam. Passionflower has not been indicated or researched in relation to suicide prevention, depression or risk-taking.

Side Effects: Mild adverse events were reported in one study (dizziness, confusion, drowsiness), but no AEs were reported in the other studies.

Gaps in the literature

Research on the efficacy of Passionflower as a treatment for anxiety-related disorders shows initial promise, but needs more research to support its use in treatment.

Lysine

The nutritional supplement Lysine acts as a partial serotonin receptor antagonist, and has been shown to decrease cortisol levels in the blood (Smriga et al., 2003). To date, two studies have been conducted to test the anxiolytic efficacy of lysine supplements in humans. Both studies showed statistically significant decreases in anxiety scores on the Lysine group when compared to the placebo group (Jezova et al., 2004; Smriga et al., 2003).

Side Effects: No side effects were reported in these studies.

Gaps in the Literature

While the initial findings from these two RCTs are promising, more research is needed to test the use of Lysine to treat anxiety-related disorders. No research has been conducted with Lysine in relation to suicide prevention, depression, or risk-taking.

Magnesium

Magnesium is a positively charged ion that has been linked to anxiety-related disorders (Durlach et al., 2004). To date, three RCTs have tested the effects of magnesium in combination therapies when compared to placebo. All three studies showed statistically significant decreases in anxiety symptoms in the magnesium group when compared to the placebo (Carroll et al., 2000; De Souza et al., 2000; Hanus et al., 2004).

Side Effects: Magnesium supplements are generally well-tolerated.

Gaps in Literature

Although initial findings are positive for magnesium as a treatment for anxiety-related disorders, more studies, especially with magnesium as a monotherapy treatment are needed. Information on potential interactions between these supplements and commonly prescribed medications for the treatment of depression and anxiety is needed in order to assess the safety of combined use.

Recommendations

Overall, the best evidence for use of these supplements is in the reduction of anxiety symptoms. However, sufficient evidence to recommend any of these supplements as first line treatments for depression is lacking. Due to the complete lack of research examining these supplements directly as a suicide prevention agent, use for this purpose cannot be recommended at this time.

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Jessica Hanson, M.A. and James Pease, MSW

Approved by: Peter M. Gutierrez, Ph.D. and Thomas Joiner, Ph.D.