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# COMPLEMENTARY MEDICINE OPTIONS IN WORK-RELATED STRESS IN MANAGEMENT STAFF—THE CAPABILITIES OF GELSEMIUM SEMPERVIRENS IN HOMEOPATHIC DILUTIONS

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## ABSTRACT

**Introduction:** An often overlooked, yet profoundly affected by psychoemotional stress social group is that of management staff. While presenting as a relatively minor population, the effects of work stressors are magnified in them – thus rendering the related conditions socially significant diseases. This study aims to review complementary treatment options for work-related stress disorders in managerial staff with special attention to *Gelsemium sempervirens* in homeopathic dilutions.

**Materials and Methods:** A literature review was conducted using the online databases Google Scholar, PubMed, Scopus using the keywords and phrases *Gelsemium sempervirens*, *management staff*, *managers*, *stress*, *work*, using different combinations and Boolean operators. A yield of 84 articles was obtained, of which 31 were considered pertinent to the study. Results were also compared with empirical clinical experience.

**Results:** Complementary medicine allows for additional avenues of treatment, often without the negative effects that conventional ones have when it comes to stress-related disorders. In the case of *G. sempervirens* in homeopathic doses in in vivo rodent models, a notable boost in both adaptive capabilities and behavior responses has been noted. In vitro studies of the preparation in human neurocytes have shown the capacity for similar effects, however, large scale documented in vivo studies have yet to be conducted.

**Conclusion:** Aside from psychological consultations or conventional anxiolytic therapy, other avenues of treatment are rapidly demonstrating their merits for the management of professional stress-related disorders in management staff. Complementary medicine, at least as pertains to homeopathic treatment with *G. sempervirens*, shows promise without the significant downsides of conventional therapy.

**Keywords:** *anxiety, depression, homeopathy, primary care, stress, sleep disorders*

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## INTRODUCTION

Anxiety disorders, sleep disorders, and depressive disorders have an ever-increasing presence in the daily lives of contemporary people, who are exposed to different emotional and social stress factors. Anxiety and depressive disorders are a common occurrence and are among the leading causes for seeking medical aid in primary healthcare

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practices (1). Both systematic reviews and guidelines (2) acknowledge the efficiency of antidepressants and psychotropic medicine for specific anxiety and depressive disorders, however, the heterogeneity of individuals is partially the reason for their suboptimal use in mild to moderate cases (3). Psychotropic medicines have significant differences in relation to their mechanism of action, as well as their safety profile, their efficiency and efficiency, and their side effects (4).

Varying social groups present with different stress levels and stress responses, among those one of the most affected by stressors and at the same time least studied is the group of management staff. While the overall “scarcity” of such individuals often puts them outside of the scope of most stress-related research it is worth noting that the effect of such factors is often magnified in them and other individuals are affected by their stress response.

## MATERIALS AND METHODS

A review of available scientific sources via the databases: Google Scholar, PubMed, Scopus was undertaken, using the keywords *Gelsemium sempervirens*, *management staff*, *managers*, *stress*, *work*, in varying combinations. The yield of 84 articles was limited to 31 deemed relevant for the study. It is worth noting that the review is supplemented by the practical clinical work of members of the research staff who act as practicing physicians.

## RESULTS

As per the definition of Canadian endocrinologist Hans Selye (5), stress is „the nonspecific response of the body to any demand made upon it“. The organism does not typically differentiate whether the agent or the situation is pleasurable or not. What matters is not so much the subjective interpretation of the influence, but rather the intensity of the requirement for readjustment and adaptation. Hans Selye would conduct his experiments in animal models, which would initially give rise to controversy whether his results could be extrapolated to humans. His theories would be additionally expanded and developed by human models by R. Lazarus (1966) (6), P. Nixon (1982) (7), H. Laborit (1982) (8), and others. Further developments in the field would lead to the introduction of the terms eustress and

distress, as well as the differentiation of acute and chronic stress; the creation of a classification of etiologies of stress would follow suit by making a division between physical, emotional, psychosocial and psychospiritual stress (9).

As of today, multiple strategies for the management, treatment, and reduction of the impact of stress on the organism have been described in relation to the different subtypes of stress (10). Among them is homeopathic treatment. It can be notably successful in the treatment of the consequences of long-term stress, which manifest with an increase in anxiety, sleep disorders, and depressive conditions.

Homeopathy is a medication-based treatment method, which has the advantage of being devoid of toxic drug-related effects. This is why homeopathic remedies can be used in a wide population of patients, including pregnant women, allergic individuals, and patients with co-morbidities. Homeopathic treatment is applied with significant degrees of success in anxiety, minor depressive disorders, and various types of insomnia, related to chronic stress. The creator of the homeopathic treatment method, the German physician Samuel Hahnemann, is the first recorded physician in contemporary medicine to postulate that psychological conditions are in essence maladies of the body and should be treated with the indicated medicine for the specific individual. He also recommends that: “in all cases of sickness, where our treatment is sought out, the condition of the spirit of the patient should be taken into consideration, along with the sum of the symptoms if we want to present the picture of the disease accurately” (11).

Between 2005 and 2012, in France, a massive pharmaco-epidemiological study, called EPI-3, was conducted. This was a prospective study, which included 825 physicians and 8559 patients, who were monitored during the period 2005–2012. It aimed to compare the results of homeopathic treatment, conventional treatment, and combined treatment (homeopathy + conventional medicine) in the management of three diseases—upper respiratory tract infections, musculoskeletal pain and anxiety, depressive disorders and sleep disorders. In France and Bulgaria as well, homeopathic medicine is prescribed solely by licensed physicians.

In the anxiety-depressive disorder group, a total of 1572 patients were included. Of them 710 were followed up (12). The criteria included: complaint reduction, remission levels of anxiety and depressive disorders, use of psychotropic medicine, and occurrence of complications (traumatism and suicide attempts). The study established that the results in the group using homeopathic medicine were statistically insignificantly better in comparison to the group which was treated via conventional methods, and that the group, which used homeopathy as a method of choice, used 3 times (71%) less psychotropic medicine (antidepressants, anxiolytics, sleep medication) (Fig. 1). This would lead to the avoidance of the side effects of conventional antidepressants. The clinical evolution of the patients, treated by homeopathic physicians, was similar to that of other patients. The frequency of complications (traumatism and suicide attempts) was comparable in all three groups, however, in the homeopathic group it was slightly lower.

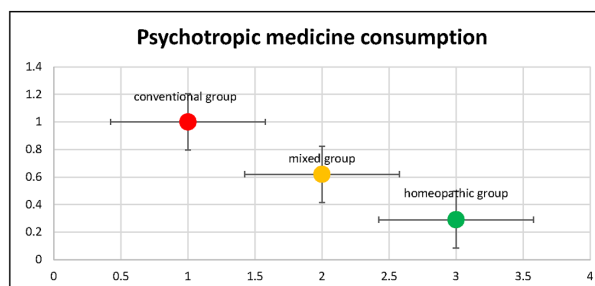


Fig. 1. A graphical representation of the amount of consumed psychotropic medicine by the three groups of the EPI-3 study.

The study also revealed that patients, who chose homeopathic treatment were, on average, more educated and responsible towards their health, usually married and working (13).

Recent years have seen a rise in interest in fundamental studies related to the mechanism of action of homeopathic medicine. One such study (14) compared the effects of homeopathic doses of **Gelsemium sempervirens** and the conventional antidepressant **bupirone** (5 mg/kg) in mouse models. Both drugs were introduced intraperitoneally. In animal models anxiety was studied via the so-

called open-field and light-dark tests. A total of 14 randomized, double-blind repetitions of the protocol were conducted. The conclusions revealed that the anxiolytic effects of *G. sempervirens* in homeopathic dilutions was statistically significant and comparable to that of bupirone. None of the animals from the group that received *G. sempervirens* demonstrated any motor disorders or sedation, while the group treated with bupirone demonstrated slight, but statistically significant, motor disturbances. Another study of *G. sempervirens* examined its anxiolytic effect (15). It established that *G. sempervirens* triggered the production of the neurosteroid allopregnanolone (5 $\alpha$ ,3 $\alpha$ -tetrahydroprogesterone) in the brain. Allopregnanolone exerts a central anxiolytic effect by connecting to GABA-A receptors.

In primary care practices, the medicaments that are most frequently used for the treatment of anxiety-depressive disorders and sleep disorders are *Gelsemium sempervirens*, *Ignatia amara*, *Argentum nitricum*, *Aconitum napellus*, and *Nux vomica*. In contrast to conventional psychotropics, the individual features of the patient and the context of the emergence of the anxiety-depressive syndromes, are considered in the choice.

- ◊ *Gelsemium sempervirens* 15/30 CH is prescribed systemically in all anxiety-depressive disorders due to its stabilizing effect on GABA-A receptors. Individual symptoms, described by patients who would benefit most from the medicine, are “a paralyzing fear of an upcoming event”, “tremor, vertigo, frequent urination and/or diarrhea”, “extreme anxiety, exhaustion and insomnia”. A 3 times per day 5-granule regimen is prescribed.
- ◊ *Ignatia amara* 15/30 CH is prescribed in anxiety-depressive symptoms when an increased nerve excitation, sighing (accompanied by a feeling of insufficient air), hiccups, cough, a feeling of a “ball” in the throat or stomach are leading in the somatic presentation of the condition. Characteristic for the individual reactivity of such patients is the improvement of all symptoms upon distraction. A 3 times per day 5-granule regimen is prescribed.
- ◊ *Argentum nitricum* 15/30 CH is prescribed in anxiety-depressive symptoms when the patient

experiences difficulty in impulse control. These are hurried, excitable individuals, which have a tendency of experiencing motility diarrhea as a somatic manifestation of anxiety. They frequently report phobias (agoraphobia, claustrophobia). Somatically they often suffer from gastritis or gastroduodenitis as a complication of psychological stress or psychogenic cough. A 3 times per day 5-granule regimen is prescribed.

◆ *Aconitum napellus* 15/30 CH is prescribed in panic attacks, following unexpected or brutal stress events in the life of the individual—traffic accidents, natural disasters, sudden onset of dangerous diseases. During the panic attacks patients have palpitations, facial flushing, hypertension. A prescription of 5 granules every hour with a gradual reduction of the intake upon improvement is practiced in such patients.

◆ *Nux vomica* 15/30 CH is prescribed in patients with sleep disorders and anxiety-depressive disorders, which have developed following prolonged chronic stress, most often due to daily worries or overworking. These individuals have systematically poor quality of sleep due to waking up at night, when they ponder upcoming worries and obligations. Somatically they often suffer from irritable bowel syndrome, headache, bad hypertension control, spastic constipation and irritability. A regimen of 5 granules upon waking up and before going to bed is prescribed. If needed the intake can continue during the day.

## CONCLUSION

Contemporary integrative medicine approaches are based on the individual specifics of the patients. As such, no two people are alike, but certain similarities can be observed between social groups. As for management staff, physicians can expect higher levels of education and of work-related stress. Homeopathy should prove an excellent treatment choice in anxiety-depressive and sleep disorders in this group both as part of combined therapy and as standalone therapy. Further conclusions would require specialized studies focusing on homeopathic treatment in this specific group.

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