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Bioactive Compounds in Health and Disease

Saffron and depression

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EDITORIAL

Throughout the centuries, people have used the dried stigma of *Crocus sativus* that is known as "saffron" for medicinal and nutritional purposes [1]. Studies have shown that not only is saffron well worth the money, but also, its bioactive compounds (including crocin, precrocin, and safranal that are responsible for color, taste and fragrance respectively) play a crucial role in the central nervous system to positively affect conditions such as anxiety and depression [2-5]. Saffron compounds are also neuroprotective and anxiolytic and can benefit learning and memory impairments [6].

Nowadays, people who experience a low standard of living suffer from depression which is the most widespread psychiatric malady around the world. The most popular antidepressants that are prescribed by physicians are tricyclics antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), and selective serotonin noradrenaline reuptake inhibitors (SSNRIs). Their primary mechanism works by enhancing the accessibility of serotonin, a special neurotransmitter [7]. Epidemiological evidence implies that there is a close relationship between diet quality and mental health among demographic and age groups. Therefore, dietary habits that contain saffron extract has become an inspiring and aspirational part of subsequent investigations [8]. Identification agents and famous medications such as second-generation antipsychotics, levothyroxine, and other drugs are substantial ways for increasing the capability of the currently available antidepressants (ADs) as nutraceuticals and over the counter (OTC) drugs in modern psychopharmacology [9]. To clarify this point,

in many clinical trials, the therapeutic effect of saffron, with its essential components was equal to antidepressants, (fluoxetine, imipramine, and citalopram) [10-12]. Moreover, information from other interventional studies indicated that saffron is even more impressive compared to placebo and synthetic antidepressant drugs, especially when accompanied by antioxidants, anti-inflammatory, and serotonergic compounds etc. That means saffron could be an appropriate alternative to remedies for mild to moderate depression, with fewer reported side effects, compared to standard drugs [11, 13-14]. As mentioned earlier, both saffron and sertraline have potential in treatments for depression, but saffron appears more powerful in adults, especially those with premenstrual syndrome, those in post-menopause, and those who experience hot flashes. Usually, these individuals would consume fluoxetine and Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) [15-17].

It is frequently asserted that *C. sativus* and its constituents help to treat depression through multiple mechanisms of raising glutamate and dopamine levels in the brain in a dose-dependent manner and also by interacting with the opioid system to alleviate withdrawal syndrome [18-20].

Health authorities need to increase public awareness about this valuable herbal as an adjuvant supplement for the pharmaceutical industry and as a golden and fragrant spice in households which can fight off moderate depression in every person and is recommended for stress-induced obesity [21-22].

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