Targeting adolescents for mental health literacy via NIMHANS life skill education model

Sir,

Interventions to increase awareness and educate people about mental illness have included adolescents as they are a promising group to intervene.[1-3] Adolescence is a distinct period in the development of attitudes towards mental illness, and developing stereotypes about a group of people is not developed until adolescence.[4] Norman and Malla found that giving importance to psychosocial aspects of mental illness, or projecting medical aspects of mental illness in a way that supports positive social attitudes towards the mentally ill, would promote acceptance of the mentally ill.[5] Schulze and colleagues, in their intervention with adolescents clarified that adolescent’s attitudes about schizophrenia could be changed.[3] Adolescence is a crucial period of development where crises may lead to suicidal behavior or substance use; a phase during which development of chronic and disabling psychiatric illnesses such as schizophrenia or obsessive-compulsive disorder can have an onset.

In India, the training of teachers is an important component of the District Mental Health Program (DMHP). In the previous edition of this journal, Bharath and Kumar illustrated the successful promotion of children and adolescents’ health based on the NIMHANS model of life-skills education (LSE).[5] Aspects relevant to teenagers and adolescents as they experience transition from childhood to being a youth were conveyed: motivation, anger management, preventing drug use, sex education, career development, etc. The LSE program could include a mental health literacy component on increasing awareness and promoting positive attitudes about mental illness. Inclusion of a mental health literacy component targeted at adolescents could have the following implications. First, mental health awareness is poor in India, and interventions to improve mental health literacy are largely inadequate. By improving awareness about mental illnesses among adolescents, they could serve as agents of change and spread awareness among others. In a study conducted in Rawalpindi, in Pakistan, Rehman and colleagues evaluated school children on aspects of mental health.[6] It was observed that knowledge, attitudes, and beliefs about mental health issues improved among children and was extended to their friends, relatives, and neighbors. Children were chosen in this study as they were an important source of information to the rural and illiterate community. Adolescents, being slightly older than school children, could serve as an important source of information to others especially in rural, illiterate parts of India. Second, educating adolescents about disorders related to their own developmental phase would empower them with knowledge of common psychological conditions related to their age group. It is hoped that with intervention, they may take measures to prevent the onset of such conditions and spread awareness among their peers. Third, since there is an ongoing attempt to promote their well-being through a life skills approach, it would be useful to incorporate mental health literacy component and utilize this segment as a target audience for improving and spreading awareness about mental health literacy. This could save time, manpower, and resources in a country drained of manpower and resources. Lastly, by targeting adolescents when their attitudes are still developing, it is hoped that positive attitudes that are instilled, prevent the development of stereotypes or prejudice towards the mentally ill. This can possibly reduce stigma and discrimination and prevent possible human rights violations that are associated with people suffering from mental illness.

It would be useful to test the efficacy of such an intervention with a randomized-controlled trial before introducing it into the existing program. Intervention with adolescents alone as a target audience cannot completely address the lack of awareness on mental health issues in India or any other developing country. There is a need for a comprehensive, long-term mental health literacy program that targets many more segments and addresses a larger proportion of the community. This is an example suggested among many innovative and cost-effective strategies in a setting with a limited budget, manpower, and resources.

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Sir,

Some case reports have proposed the antidepressant role of the non-steroidal anti-inflammatory drugs. These effects might reflect the activation syndrome [1] induced by these agents.

We describe three patients of bipolar mood disorder currently in remission as per the DSM-IV criterion who were on treatment with mood stabilizers (lithium carbonate/sodium valproate). Patients experienced pain due to neuromuscular conditions and were advised treatment with NSAIDs (nimesulide/etoricoxib/celecoxib). While on treatment, they developed symptoms of hypomania. The symptoms were seen within 3 days of the administration of the agent and remitted when the NSAIDs were stopped. Symptoms reappeared with the drug rechallenge and disappeared within 2 days of drug discontinuation. All patients stabilized after that and did not restart the NSAID.

Can NSAIDs induce transient reproducible hypomanic symptoms in certain vulnerable patients with history of mood disorders?

Another possible explanation for the phenomenon could be the effect of NSAIDs on substance P (SP), which has a proven role in anxiety and nociception and acts through the activation of NK1R [2] (neurokinin 1 receptor).

SP and NK1R might play an important role in the modulation of stress-related, affective and/or anxious behavior as they are expressed in brain regions that are involved in stress, fear, and affective responses. The SP content in these areas is affected by stressful stimuli and can thus alter these states. [2]

Monoaminergic neurons of the locus coeruleus receive SP innervations and possess NK1R and are in close apposition to NK(1)-containing cells in the dorsal raphe nucleus. The action of NK1R antagonists may result from the modulation of such brain function. [3] Antagonism or the genetic inactivation of the NK1R causes alterations in serotonin and norepinephrine neuronal transmission. [2]

The systemic administration of NK1R antagonists enhances the firing rate of dopaminergic, noradrenergic, and serotonergic neurons, thereby suggesting a predominating inhibitory role of SP upon monoaminergic neurons. [3] NSAIDs and Cox-2 inhibitors are known to decrease the levels of SP and thus modulate the monoaminergic system indirectly, thereby causing an increase in monoamine levels and disinhibition. Another effect of SP could be mediated through abnormalities in the signal transduction pathways and CREB (cyclic adenosine monophosphate (cAMP) response element binding proteins). These changes have been identified in patients with mood disorders. [4]

Systematic clinical studies are needed to explain the clinical manifestations of SP and NK1 R antagonists in the mediation of mood symptoms.

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