



PIONEERING ENHANCEMENT IN PUBLIC MENTAL HEALTH LITERACY AND COMMUNICATION

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ABSTRACT

Excoecaria agallocha a milky mangrove, blind your eye mangrove, or a river poison tree is widely distributed in Indian coastal regions. The present study focuses on evaluation of phenolics and flavanoids present in Excoecaria agallocha. The FTIR analysis of various mangrove extract is also studied. The FTIR analysis showed the presence of flavones, alcohol, arenes, aliphatic functional group. Total phenolic content (TPC) expressed as gallic acid equivalents (GAE) ranged from 6.3 ± 0.4 (whole plant petroleum ether extract) to 10.83 ± 0.7 (stem methanol extract) mg GAE/g dry weight. Total flavonoid content expressed as quercetin equivalents (QE) ranged from 9.2 ± 0.9 (whole plant ethyl acetate extract) to 33.8 ± 0.9 (leaf methanol extract) mg QE/g dry weight. Antioxidant activity determined by DPPH assay is highest ($83.3 \pm 3.2\%$) in methanol extract. Keywords: Excoecaria agallocha, halophyte, TPC, TFC, antioxidant, DPPH assay, FTIR.

KEYWORDS :

Mental illness is a major issue in global public health, contributing to substantial economic and emotional community burden. For example, it has been estimated that up to 45% of the Australian population will experience mental illness at some point during their lifetime (Australian Bureau of Statistics, 2009). Similar data from United States shows, approximately 1 in 5 adults in the U.S.—43.8 million experiences mental illness in a given year and approximately 1 in 5 youth aged 13–18 (21.4%) experiences a severe mental disorder at some point during their life. However, not all individuals who experience symptoms of mental illness receive the same level of care or treatment. This is partly attributable to the general public's beliefs and attitudes surrounding mental illness, often referred to as their mental health literacy. Mental health issues usually start around late childhood and early teen years, so identifying the issues around this time can make a significant impact on the health of the individual, as well as societal effects. It is in this regard that the pioneering work of Dr. Gaurav Jain of Berkshire Medical Center is ushering in great success in creating awareness among the public. Dr. Jain has utilized the internet and the digital tools including smartphones to disseminate health information. For example, "Aid the Mind" (aidthemind.com) is intelligently designed to cut-off the stigma, which is so often associated with mental healthcare and engage the general population in identification of these issues, reaching out to mental health providers and making a difference. Mental health literacy relates to knowledge and beliefs about mental disorders that aid the recognition, management or prevention of these disorders. The key components of mental health literacy include: (a) the ability to recognize and differentiate various types of mental illness and disorders; (b) knowledge of how and where to seek information about risk factors, intervention strategies, and professional help; and (c) attitudes and beliefs that influence a person's ability to identify mental illness and seek appropriate and timely help. Furthermore, an individual's mental health literacy can be influenced by a number of various factors, including age, gender, geographic location of residency, education, socioeconomic status, and personal experience with mental healthcare. Even currently, the public's knowledge on the high prevalence illnesses such as depression, anxiety and psychosis are limited. An individual's mental health literacy, including his or her beliefs and attitudes towards mental illness, therefore may influence or contribute to the formulation of 'lay appraisals'.

Many members of the public cannot recognize specific disorders or different types of psychological distress. They differ from mental health experts in their beliefs about the causes of mental disorders and the most effective treatments. Attitudes which hinder recognition and appropriate help-seeking are quite common. These statements were validated in Dr. Jain's recently published research on Psychology Students' Views Toward Psychiatrists and Psychologists, which showed how a college going students have differences in perceptions between a psychiatrist and psychologist

as well as misconceptions about their roles.¹ Much of the mental health information most readily available to the public can oftentimes be misleading. However, there is some evidence that mental health literacy can be improved. If the public's mental health literacy is not improved, this may hinder public acceptance of evidence-based mental health care. Also, many people with common mental disorders may be denied effective self-help and may not receive appropriate support from others in the community. Depression and anxiety disorders are among the most common mental disorders affecting 18% and 38%, respectively, of young people in the age range of thirteen to seventeen years. Developing these disorders early in life, especially if left untreated, can increase young people's suicide risk and forecast a wide range of psychosocial and vocational impairments, resulting in deleterious long-term sequelae. Although intervention efforts for these disorders continue to progress, a large proportion of the burden of disease is still unavertable even with optimal treatment. There is, hence, an urgent need for an effective, integrated approach to prevent these disorders. As the incidence of depression and anxiety disorders peaks during adolescence, early adolescence is a particularly opportune time to target preventive efforts. Fortunately, evidence to date indicates that depression and anxiety disorders in young people can be prevented. Dr. Jain's crusade in these aspects goes beyond the individual health and has important societal dividends, including futuristic prevention of perpetration of mass violence, should these individuals be left untreated.

Apart from use of the web, Dr. Jain is a vocal advocate of awareness of diverse mental and behavioral health conditions. Dr. Jain's classification of symptoms of delirium is well-known in the psychiatric literature. Dr. Jain has been the leader in development of smartphone applications in the area of health education and empowerment, including Know Delirium and Takeover Pain, meant to popularize these concepts in the general mass. Delirium or acute mental confusion often arises in the elderly admitted patients in the hospital. Non-recognition can lead to cataclysmic outcomes. Dr. Jain's digital health innovations reminds the patients' family regarding this important condition. Dr. Jain is a triple-boarded physician, including in Pain Medicine. Though sounding simple, the elegance of Takeover Pain resonates the different options other than the habit-forming opioid that is widely available for pain management. This is a first and only smartphone app which brings all options of chronic pain treatment directly to an individual, and aims to empower a user in making best choice for their circumstances. Additionally, this is the only panacea for tackling the current epidemic of opioid abuse across the globe.

An important observation for the website "Aid The Mind" is that the design of the web-based components were guided by the Persuasive Systems Design (PSD) model that proposes to purposefully use technology to influence behavior change and has

widely been demonstrated to influence adherence to Web-based interventions. The scientific principles used in the dissemination of mental health information enhances the perceived relevance of the information, and potentially its effects, without requiring the costly involvement of trained professionals, hence increasing potential for scalability and sustainability. This is a simply marvelous way to effectively deal with adolescent depression and anxiety.

The reluctance to seek professional help for mental health issues is problematic because it can lead to loss of life. Treatment might reduce the risk of suicide. Dr. Jain frankly voices his concern for stigma associated with mental care. This straightforwardness empowers the general person. It is apparent that Dr. Jain's leadership is well-respected across the community. He serves on the Board of Advisors of Talk2All Inc. Talk2All can translate several languages in real time, an innovative Android app that is revolutionary in breaking the language barrier. Dr. Jain has proposed in a US patent application that this can effectively communicate a subject's concerns during a mental health crisis, and prevent suicide of non-English speaking populations, a significant section of the society in the United States. In my opinion, Dr. Jain's contributions in mental healthcare communication, including his web-based advocacy of reaching out for access to mental healthcare without a bit of shame, is a landmark in "prevention of sinking of a young soul at the margin of their undone years".

References

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