

OM THERAPEUTIC EFFECTS ON PSYCHOSOMATIC DISORDERS IN WOMEN (30 TO 50 YEARS AGE)

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Abstract

Everything from psychosomatic medicine has evolved. Psychosomatic symptoms were more common in women. There are many variables that contribute to an individual's risk of developing any form of illness, but current research has focused on the following: (30 to 50 years age) Middle-aged female participants were tracked for examine the probable link between mental stress and psychosomatic symptoms, socioeconomic level, lifestyle, and death rates. In recent decades, psychosomatic research has progressed in dealing with complicated biosocial phenomena and may bring new effective treatment options for patients.

Keywords -- Psychosomatic Medicine, Mental Stress, Physical Symptoms, Self-Identification, Behavioral

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INTRODUCTION

When Heinrich first coined the word "psychosomatic," it wasn't until the 1930s that modern psychosomatic medicine was developed. Holism and psychogenesis of illness, two notions with a long history in Western thinking and medicine, were brought together to form it. During the first half of the 20th century, the notion of psychogenesis shaped the development of psychosomatic medicine. Psychosomatic disease is a mental illness that manifests itself in the form of physical symptoms. Excessive thoughts, sentiments, or worries about the symptoms may interfere with a person's ability to carry out daily tasks. Somatic symptom disorder, somatic symptoms, or somatic pain are all terms for psychosomatic disorder.

LITERATURE REVIEW

Giovanni A. Fava (2017) In recent decades, psychosomatic research has evolved in dealing with complicated biosocial phenomena and may provide new effective treatment options for patients. Stress (allostatic load/overload) has emerged as one of the most important psychosocial factors influencing individual susceptibility, course, and outcome of any medical condition. It is important to use the Diagnostic Criteria for Psychosomatic Research (DCPDR) while conducting assessments. Allostatic overload, type A behavior, alexithymia, the spectrum of maladaptive disease behavior, demoralization, irritable mood, and physical symptoms due to a mental diagnosis are described here in an updated form based on findings from previous research. Microanalysis is a useful method for figuring out how one's biological and social characteristics relate to one's particular medical needs. Integrating medical and psychological therapy in all stages of sickness is part of the individualized and holistic approach to patient care. New psychotherapeutic method Well-Being Therapy is promising in this regard. To get over artificial borders, the rise of subspecialties like psycho-oncology and psychodermatology encourages a more interdisciplinary approach to health treatment. The health care demands of the population have changed dramatically during the last several decades. There are many new ideas and trends in psychosomatic medicine, which is a place of novel hypotheses and trends. The purpose of this critical review is to highlight the existing and prospective therapeutic uses of psychosomatic approaches.

Hao Wang (2020) About one in every 2,500 girls will be diagnosed with Turner syndrome (TS). Previous studies have shown that females with TS suffer from both physical and mental health difficulties. According to a study published in the journal

Pediatrics, there is currently no evidence that hormone replacement therapy (HRT) and psychosomatic mutual aid treatment (PMAT) can improve the physical and psychological self-identification of girls or women with TS so that psychological problems such as anxiety and depression are alleviated. Therefore, the goal of this study was to examine the effectiveness of PMAT in the treatment of anxiety and depression in TS girls and women. Women and girls ages 11 to 29 with TS were recruited for the study. The Hamilton Anxiety Rating Scale (HAMA) and the Zung Self-Rating Depression Scale (SDS) questionnaires were used to measure anxiety and depression, respectively. Prior to the start of PMAT, and again in January 2020, surveys were administered to the 26 TS patients to assess their levels of anxiety and sadness. A second group of 20 healthy women between the ages of 16 and 39 (23.1 ± 5.7 years) served as a control and completed the survey.

Salzano A (2018) KS, the most common chromosomal defect in boys, is linked to hypergonadotropic hypogonadism and an increased risk of cardiovascular disease (CVD). The processes that contribute to an increased risk of cardiovascular morbidity and death remain a mystery. Future research and attempts to minimize mortality in this high-risk group would benefit from an awareness of the complicated link between metabolic syndrome and cardiovascular risk, as summarized in this review. Although hypogonadism has been linked to insulin resistance, metabolic syndrome, and type 2 diabetes more commonly in KS than in the general population, the role of hypogonadism in these conditions remains a contentious debate. KS patients may have a higher risk of cardiovascular disease because of this risky mix of risk factors. As a result, testosterone replacement treatment has only a little effect on cardiovascular disease.

Lin Sun (2019) One of the most frequent female chromosomal diseases is Turner syndrome (TS). A single X chromosome may be completely or partially lost, resulting in the disease. Diabetes mellitus is a common ailment among adults with TS (DM). It seems that this group has a hereditary predisposition to abnormal glucose metabolism. DM in individuals with TS may not be caused primarily by the usual risk factors seen in the general population. TS has been linked to anomalies in glucose metabolism, which is the topic of this study. These people have a higher risk of

developing type 2 diabetes because of factors such as obesity, autoimmunity, lifestyle and growth hormone replacement medication. When it comes to female development, Turner syndrome (TS) is one of the most frequent chromosomal diseases. The estimated prevalence of TS is between 25 and 50 per 1,000 females, according to the Centers for Disease Control and Prevention. All or some of the somatic cells have an X chromosomal deletion, which is the underlying cause of the disease. The karyotype analysis of peripheral blood cells is used to make the diagnosis. The haplotype 45, X, is found in around half of the patients, whereas about 20–30 percent of those with chromosomal abnormalities are affected. Webbed neck, low hairline at the back of neck, low-set ears, high FSH levels, chronic otitis media (OM), lymphedema of the limbs, a tiny mandible, and many pigmented nevi are among the most common TS symptoms. Other co-morbidities, including autoimmune diseases (AD), hypothyroidism, renal dysfunction, loss of ovarian function, neurological or ophthalmological abnormalities, bone loss, diabetes mellitus, dyslipidemia, hypertension and heart disease, are common in patients with TS.

CAUSES OF PSYCHOSOMATIC ILLNESS

There are many different types of stress, and some of them may even be helpful. It's euphoria that keeps life exciting and energizing. Getting out of bed in the morning and feeling excited about the day ahead is a motivating factor. You've encountered "good" stress if you've ever taken a roller coaster ride or completed an assignment and felt a feeling of accomplishment. For those who have gone through trauma, significant life changes, or other pressures in their lives, they know what "bad" stress feels like.

While good stress has a boosting impact on the body, the negative consequences of poor stress may be felt in the mind as well. Stress and sadness may be represented in bodily discomfort and sickness, even if the processes are not fully understood. If you're looking for an analogy, here it is: Pressure cookers are a good analogy for your body. It is more efficient if it can exhaust its steam. The pressure builds until the lid blows off if it can't vent the steam. If the cooker is already pressurized, apply more pressure to hold the lid on. When the container's weakest point can no longer hold in any more pressure, it will break. Emotional exhaustion is inevitable for those people who are unable to "vent" their feelings or who try to "hold it all in." For example, it may cause physical symptoms or a serious depressive episode. In hindsight, you may recognize that there were some "clues" or "warning signals" that such a split was imminent, particularly in terms of the physical symptoms you experienced. The ache in your neck can grow when you're

stressed if that's been a weakness of yours for a long time. Stress may cause back discomfort, stomach problems, and headaches, among other symptoms.

Psychosomatic Illness Diagnosis

First, your doctor will likely try to find a medical reason for any problems you bring up. Finding a diagnosis and a course of therapy might be difficult if there is no evident physical reason that can be readily tested for. Often, patients are left with the impression that their doctor doesn't take their symptoms seriously, or that they're "all in their mind." If your doctor is unable to pinpoint the source of your discomfort (such as an injury or illness), they may inquire as to how you are feeling psychologically. It is hoped that a stressor may be identified and handled (just as you would get treated for an injury or illness). A doctor does not intend to suggest that your discomfort isn't genuine when they inquire about your stress level. Stress-induced symptoms are genuine, but they are triggered by a different mechanism than, instance, breaking a bone.

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Using key phrases such as "Klinefelter syndrome" and "insulin resistance" and other related terms such as "metabolic syndrome" or "diabetes mellitus" or "cardiovascular disease" or "testosterone," we searched PubMed, Web of Science, and Scopus for previously published publications. Collecting, studying, and discussing relevant manuscripts was done as needed.

For the Global Burden of Diseases, Injuries, and Risk Factors Study, we estimated the prevalence of mental disorders, years lived with disability (YLDs), and disability-adjusted life years (DALYs) caused by these disorders in all states of India from, using data from several sources. There was a wide variation in the prevalence of mental diseases across India's various states. SDI is a composite measure of per capita income, mean education, and fertility rate among women younger than 25 years. We classified states based on the SDI. Major mental illnesses have been examined in relation to suicide fatalities. A 95 percent confidence interval (CCI) was constructed for the point estimations.

Table 1: Parameters Involved

Parameter	Control group (n=20)	Intervention group (n=20)	P value
Age (years)	53.44±2.60	54.11±3.72	0.643027
Height (cm)	153.66±6.53	154.11±43.36	0.777340
Weight (kilograms)	70.22±5.97	72.55±5.61	0.386837
Systolic Blood Pressure (mmHg)	150±7.4	153.77±6.79	0.319856
Diastolic Blood Pressure (mmHg)	91.77±4.32	93.33±6.78	0.555468
Pulse rate (beats/per minute)	88.88±6.77	89.44±9.18	0.779185
Depression score	23.6±3.53	25.5±3.1	0.155097
Anxiety score	16.4±2.91	17.3±3.0	0.361551
Stress Score	21.7±4.54	21.0±3.23	0.515174
MMSE score	22.88±2.31	23.22±1.98	0.693800

RESEARCH METHODOLOGY

There was an usage of the Mini Mental State Examination Orientation, registration, attention and calculation, recollection and language are all tested in this 11-question assessment. The highest possible score is 30. Cognitive impairment is indicated by a score of 23 or below on the standardized test. The MMSE is quick and easy to administer, so it may be used again and regularly. Mean SD was used to represent the findings. SPSS 20.0 was used to analyze the data. The results of the paired t-test were compared between the groups.

Data Analysis

Stress and blood pressure were not statistically different between groups prior to the intervention. Om chanting, however, reduced systolic and diastolic pressure, pulse rate and depression, anxiety and stress greatly after six months of practice om chanting had a substantial impact on MMSE scores. Yoga mantras and prayers have been proven to have a positive

effect on a wide range of bodily systems. Om chanting is an essential exhalation exercise, which dramatically improves pulmonary functioning in healthy subjects. Om meditation resulted in a significant reduction in heart rate, according to 23 participants.

Om meditation has been shown to reduce blood pressure and pulse rate in previous research, and our findings are consistent with these findings. It is possible that this reduction is related to the influence of Om meditation on autonomic functions, which induces psychophysiological calm. Depression, anxiety, and stress levels have decreased significantly. Om meditation's calming impact may be to blame. The practice of singing the Vedas improves one's memory and focus. Vedic chanting may have stimulated brain cells, which may have resulted in this. Improved memory and learning may be achieved by singing Vedic mantra MMSE ratings rose significantly after Om chanting, in agreement with previous findings.

Table 2: Effect of Om Chanting on Brain

Brain region**	X	Y	Z	T	FWE-p*
Right amygdala	24	-10	-08	5.2	<0.001
Left anterior cingulate gyrus	-02	45	-02	10.2	<0.001
Right anterior cingulate gyrus	12	49	-01	9.8	<0.001
Left hippocampus	-32	-18	-11	6.5	<0.001
Right hippocampus	30	-31	-05	4.6	<0.001
Left insula	-28	19	-06	6.5	<0.001
Right insula	38	15	-06	4.9	<0.001
Left orbitofrontal cortex	-28	29	-08	6.6	<0.001
Right orbitofrontal cortex	30	29	-08	7.3	<0.001
Left parahippocampal gyrus	-30	-20	-21	5.1	<0.001
Right parahippocampal gyrus	32	-28	-22	5.0	<0.001
Left thalamus	-14	-05	13	6.6	<0.001
Right thalamus	16	-07	11	6.2	<0.001

There were considerable deactivations in the orbito-frontal and anterior cingulate regions during 'OM' chanting as compared to the resting brain state. In addition, there was considerable deactivation in the right amygdala. There was no substantial response to chanting 'OM'. The 'ssss' condition, on the other hand, resulted in neither activation nor deactivation of these brain areas.

The effect of chanting 'OM' on brain hemodynamic responses has never been documented before, however a prior work by Kraus et al. looked at the effects of transcutaneous VNS on BOLD alterations using fMRI instead. We compared our findings with those from earlier research to see whether there was any consistency in the vagus involvement. There was a considerable deactivation of brain areas such as the amygdala, the parahippocampal and the hippocampus in our research results, which is consistent with findings from a prior study. Auricular branches of the vagus nerves may be involved in the neurophysiological effects of 'OM' chanting. Other studies found decreased blood flow in the hippocampus, amygdala, and cingulate gyri bilaterally after left cervical VNS in epileptic patients using a different approach. By using single photon emission computed tomography (SPCT), VNS therapy in

depressive individuals decreased regional cerebral blood flow in the amygdala, left hippocampus, left sub-genual cingulate cortex, the left and right ventral anterior cingulum, the right thalamus, and the brain stem. Intriguingly, individuals with depression who get VNS treatment have hyperactivity in these areas. We have only made early findings to support our notion that VNS is the mechanism behind reciting the sacred OM mantra.

CONCLUSION

There are several basic issues regarding health and illness that psychosomatic medicine has attempted to answer during the last 60 years. Psychosomatic symptoms were more common in women who reported mental stress than those who did not. Smoking and not working outside of the house were more closely linked to greater levels of stress than poor socioeconomic status. A person's perception of elevated stress was not linked to an increased risk of death in this study. As data emerges from psychosomatic medicine, it may be time to reevaluate the evidence-based medicine approach, which is out of step with clinical reality and contemporary health care demands.

REFERENCES

1. Giovanni A. Fava et al (2017) "Current Psychosomatic Practice" *Psychotherapy Psychoses* 2017; 86:13–30 DOI: 10.1159/000448856
2. Wang H, Zhu H, Zhu W, Xu Y, Wang N, Han B, et al. Bioinformatics analysis identifies potential key genes in the pathogenesis of Turner syndrome. *Front Endocrinol.* (2020) 11:104. 10.3389/fendo.2020.00104
3. Salzano A, D' Assante R, Heaney LM, Monaco F, Rengo G, Valente P, et al. Klinefelter syndrome, insulin resistance, metabolic syndrome, and diabetes: review of literature and clinical perspectives. (2018) 61:194–203. doi: 10.1007/s12020-018-1584-6
4. Sun L, Wang Y, Zhou T, Zhao X, Wang Y, Wang G and Gang X (2019) Glucose Metabolism in Turner Syndrome. *Front. Endocrinol.* 10:49. doi: 10.3389/fendo.2019.00049
5. Hamer M, Endrighi R, Venuraju SM, Lahiri A, Steptoe A. Cortisol responses to mental stress and the progression of coronary artery calcification in healthy men and women. *PLoS One.* 2012;7(2): e31356.
6. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Washington: American Psychiatric Association; 2013.
7. GBD 2015 Disease and Injury Incidence and Prevalence Collaborators, and others. Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*, 388: 10053.
8. Thabrew H, de Sylva S, Romans SE: Evaluating childhood adversity. *Adv Psychosom Med* 2012; 32:35–57.
9. McEwen BS, Bowles NP, Gray JD, Hill MN, Hunter RG, Karatsoreos IN, Nasca C: Mechanisms of stress in the brain. *Nat Neurosci* 2015; 18:1353–1363
10. Angermeyer MC, Holzinger A, Carta MG, Schomerus G. Biogenetic explanations and public acceptance of mental illness: systematic review of population studies. *Br J Psychiatry.* 2011; 199:367–72.
11. Katon WJ. Epidemiology and treatment of depression in patients with chronic medical illness. *Dialogues Clin Neurosci* 2011; 13:7–23.
12. Suárez AL, Feramisco JD, Koo J, Steinhoff M. Psychoneuroimmunology of psychological stress and atopic dermatitis: Path physiologic and therapeutic updates. *Act Derm Venereol* 2012; 92:7–15.
13. Diniz, B. S., Butters, M. A., Albert, S. M., Dew, M. A., & Reynolds, C. F., III. (2013). Late-life depression and risk of vascular dementia and Alzheimer's disease: Systematic review and meta-analysis of community-based cohort studies. *British Journal of Psychiatry*, 202(5), 329–335. doi: 10.1192/bjp.bp.112.118307
14. Arnsberg, F. K., Linton, S. J., Hultcrantz, M., Heintz, E., & Jonsson, U. (2014). Internet-delivered psychological treatments for mood and anxiety disorders: A systematic review of their efficacy, safety, and cost-effectiveness. *PLoS ONE*, 9(5), e98118. doi: 10.1371/journal.pone.0098118
15. Wustmann T, Preuss UW. Turner-syndrome and psychosis: a case report and brief review of the literature. *Psychiatr Praxis.* (2009) 36:243. 10.1055/s-2008-1067547 [PubMed] [CrossRef] [Google Scholar].