

ROLE OF SPIRITUALITY AS A WAY OF COPING FROM BURNOUT IN MEDICAL STUDENTS OF A TERTIARY CARE INSTITUTE IN INDIA

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ABSTRACT

BACKGROUND

Medical students are exposed to various stressful conditions in their journey towards becoming a successful doctor leading to burnout. Adoption of faulty coping mechanisms increases the risk further. Spirituality as a way of coping can help to reduce burnout in these students.

MATERIALS & METHODS

We decided to conduct a study with aims to assess the prevalence of burnout in medical students, to study their socio-demographic profile and to understand the role of spirituality as a way of coping from burnout. Ethics Committee approval was obtained. It was a cross-sectional study wherein random 100 medical students studying in MBBS were selected. A semi-structured questionnaire to obtain details about socio-demographic profile, Burnout Measure-Short Version Scale and Spiritual attitude inventory were administered.

RESULTS

The present study shows prevalence of burnout as 64%. According to socio-demographic profile, there was no association of burnout with age. Burnout was significantly more in females (n=48; 75%), hostellers (n=51; 79.69%) and students studying in final year (n=22; 34.37%) or in internship (n=28; 43.75%). There was no significant difference in burnout and non-burnout Group with respect to rural or urban background and socioeconomic class.

On comparing spirituality, it was found that students without burnout were more spiritual when compared to students with burnout, also severity of burnout was negatively correlated with spirituality in all four domains i.e religious spiritual practice, negative religious coping, sense of purpose/connection and sense of hope/control. Thus spirituality as a way of coping acts as a buffer and prevents from burnout.

KEYWORDS

Burnout, Spirituality, Medical students.

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INTRODUCTION: Burnout in health care professionals has gained significant attention over the last several years. Burnout among medical students is a common serious entity with devastating personal and professional consequences. Medical students are continuously exposed to psychosocial stressors that, if persistent, can lead to Burnout Syndrome.¹

Burnout was defined for the first time by Herbert Freudenberger as a condition of fatigue or frustration produced by dedication to a cause expected to give positive results that conflicts with a reality that does not correspond to the professional's expectations.² Two 'dimensions' have been derived to explain burnout by Demerouti, et al. 'disengagement', which relates to an overall distancing of oneself from work, work-related objects, and coworkers

and 'exhaustion', which elaborates the feelings of emptiness and physical exhaustion experienced by individuals³ Burnout has been described as a syndrome in which emotional depletion and maladaptive detachment develop in response to prolonged occupational stress.⁴

We now know that burnout in medical students can have serious consequences. However, there are a number of students every year who walk the halls of medical schools and do not suffer burnout. Coping mechanisms adopted by students help them in preventing burnout. Healthy coping thus serves as a buffer from everyday stressors. Religion and spirituality may serve as protective factors against burnout in medical students.⁵ Research has shown that these factors have been effective at limiting the negative impact of burnout among healthcare workers.

Spirituality, an essential aspect of health care, is often not adequately addressed in modern-day medical practice.⁶ World Health Organization has already realized the need of the 4th dimension of health, i.e. the spiritual health to be considered as an important element of health. The special group of the WHO Executive Board (1998) proposed that the Preamble of the Constitution should be amended as follows:

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"Health is a dynamic state of complete physical, mental, spiritual and social well-being and not merely the absence of disease or infirmity."⁷

Spirituality is defined as "the aspect of humanity that refers to the way individuals seek and express meaning and purpose and the way they experience their connectedness to the moment, to self, to others, to nature, and to the significant or sacred."⁸ Religiosity and spirituality have the common objective of reaching the "higher power", or God, or something that is "sacred". Spirituality is viewed as an individual quest while religiosity is a group phenomenon with other objectives such as developing an identity, and providing social support and feelings of security.⁹ People who appreciate spiritual well-being tend to feel alive, purposeful, and satisfied.¹⁰

Spiritual beliefs can provide a unique framework for understanding and coping with illness,¹¹ particularly when other sources of support are not readily available (e.g., decreased social support). Positive spiritual coping involves cognitive strategies such as seeking comfort and strength from God or believing that God is strengthening the individual in the situation. Positive spiritual coping is associated with lower emotional distress in youth. Positive spiritual coping may also be associated with lower levels of depression by promoting an optimistic attribution style, whereby patients appraise negative events as external, unstable, and specific.^{12,13} Individuals who are burnout feel psychologically drained or emotionally exhausted. They feel that their coping resources are being severely taxed and that they are "at the end of their rope." Physicians have been using religion and spirituality as a wellness-promotion practice for their own wellbeing.¹⁴ Daily spiritual practices might help mitigate physical, cognitive and emotional forms of burnout in medical and mental health practitioners.¹⁵

One study conducted by Kim and Seidlitz with Korean university students showed that spirituality moderated the effect of stress on negative affect, and this buffer function was stronger for students with a religious affiliation.¹⁶ There is a strong association between spirituality and coping with medical disease, willingness to live, reducing anxiety and depression,¹⁷ and improving quality of life.¹⁸ A literature study by Koenig showed that spirituality and religion can be an asset while coping with stress, depression, suicide, anxiety and substance abuse.¹⁹

In a cross-sectional study on "Spirituality and health: a knowledge, attitude and practice study among doctors of North India", found that 65.65% had a strong or very strong belief in the spiritual dimension of health; 55.22% believed in the preventive role of spirituality; 80% believed in the curative role of spirituality and a similar proportion held the view that spirituality has an important role in day-to-day patient care. The most significant finding was that 93.48% of the doctors believe that a spiritual person deals better with stress.²⁰

The main reason for including spirituality, according to the Association of American Medical Colleges, is to better understand the role that spirituality plays in patient care, acknowledge the place that it plays in providing

compassionate care, and appreciate the interaction between bio psychosocial factors and spiritual aspects of patients' lives.²¹

Despite the early research suggesting that burnout can have serious consequences for medical students and that spirituality could help in prevention of burnout, there have been very few studies on potential relationship between spirituality and burnout among medical students. Therefore, we decided to conduct a study with aims to assess the prevalence of burnout in medical students, to study their socio-demographic profile and to understand the role of spirituality as a way of coping from burnout.

MATERIALS AND METHODS:

Study Design: This was a cross-sectional study done at a tertiary care hospital. Institutional Ethics Committee approval was obtained.

Study Population and Sample Characteristics: Cases were medical students studying in MBBS at the tertiary care hospital and teaching institute. 100 students were randomly selected for the study after taking written informed consent. Classroom visits were made and only those students who would volunteer and were devoid of any diagnosed psychiatric illness were selected.

Procedure of Study: Students were administered a semi-structured questionnaire to obtain details about socio-demographic profile. The following scales were administered:

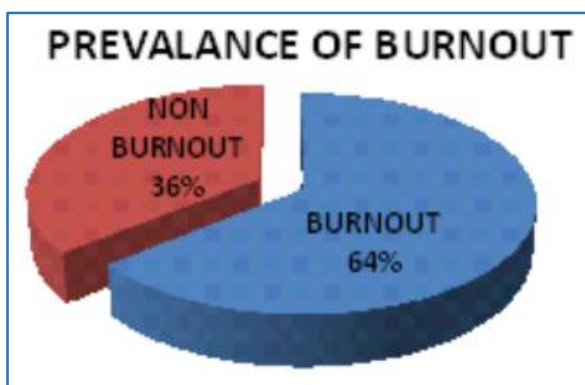
- 1. Burnout Measure-Short Version:** Burnout measure-short version²² is a briefer version of the longer 21 item Burnout Scale. It is a 10-item, 7 point Likert scale that focuses on assessing career burnout with higher scores indicating greater burnout. This scale has been validated across a number of populations including healthcare workers. It has acceptable internal consistency of 0.88 in a population of health care workers, and high stability with a 3-month test-retest reliability of 0.74. It also has strong validity across cultures and concurrent validity with other, more time intensive, burnout measures.²³
- 2. Spiritual Attitude Inventory:** The 28-item Spiritual Attitude Inventory (SAI)²⁴ was developed by combining four currently validated measures of religion and spirituality. It was developed by the U.S. Army Center for Health Promotion and Preventive Medicine in consultation with Dr. Harold Koenig at the Duke University Center for Spirituality, Theology and Health. It was approved for public release; distribution unlimited through their technical guide TG 323 March 2009. It addresses the following areas: Religious spiritual practice was measured by the Duke Religion Index (DUREL). Higher scores indicate higher levels of religiosity. Religious/spiritual belief was measured by the negative religious coping (NRCOPE) scale, higher scores on NRCOPE indicate lower levels of negative religious coping. Sense of purpose/connection was measured by the Existential well-being scale (EWBS), with higher

scores on EWBS indicate greater existential well-being. Sense of hope/control is measured by the internal/external subscale of the Multiple Health Locus of Control Scale (MHLC), higher scores on MHLC indicate greater internal locus of control. The total score of all subscales gives the score on SAI. Higher scores on SAI indicate greater spirituality.

Statistical Analysis: Statistical analysis was done by using statistical package for social science (SPSS) version 16.0 for Windows. SPSS Inc. Released 2007. SPSS for Windows, Version 16.0. Chicago, SPSS Inc. All frequency distribution tables were made using appropriate statistical methods. Chi-square test, Mann-Whitney test, and Spearman's coefficient of correlation test were administered.

RESULTS:

Prevalence of Burnout: As mentioned in Figure 1, there was high prevalence of burnout i.e. 64 out of 100 medical students had burnout. (n=64; 64%).



Sociodemographic Profile:

1. We found no association of burnout with age.
2. As shown in table 1, burnout was more in females (n=48; 75%) as against males (n=16; 25%) and this difference was statistically significant. [$\chi^2=26.0461$, $p < 0.05$].
3. In our study with respect to current residence, burnout was seen significantly more in hostellers (n=51; 79.69%) as compared to day scholars (n=13; 20.31%). [$\chi^2=28.7109$, $p < 0.05$].
4. There was no significant difference in burnout and non-burnout group with respect to rural or urban background in our study [$\chi^2=0.1122$, $p=0.7376$].
5. According to modified Kuppuswamy's socio-economic status scale, students belonged to either upper class or upper middle class. However, there was no significant difference in two groups with respect to socioeconomic class [$\chi^2= 0.007$, $p=0.93325$].
6. Also of the burnout medical students, most were studying in final year (n=22; 34.37%) or were in internship (n=28; 43.75%) and the difference was statistically significant. [$\chi^2=14.8936$. $p < 0.05$].

		Burnout	Non Burnout	
Gender	Male	16	28	$\chi^2=26.046$ $P=0.00003$
	Female	48	8	
Current Residence	Hosteller	51	9	$\chi^2=28.7109$ $P=0.000$
	Day scholar	13	27	
Native parental Residence	Rural	28	17	$\chi^2=0.1122$ $P=0.7376$
	Urban	36	19	
Socio-economic Status	Upper class	29	16	$\chi^2= 0.007$ $P=0.93325$
	Upper Middle Class	35	20	
Educational Year	First year	4	12	$\chi^2=14.894$ $P=0.0049$
	Second year	4	6	
	Third year	6	4	
	Final year	22	6	
	Internship	28	8	
Total		64	36	

Table 1

Spirituality and Burnout: Students with burnout had less mean rank as compared to students without burnout on all the domains of spirituality as seen in table 2. Thus, those without burnout had significantly higher scores on the DUREL Scale, EWBS and MHLC scale and lower scores on the NRCOPE scale. ($p < 0.05$).

Sai Score	Total patients	Mean Rank	Sum of Ranks	Mann-Whitney U
DUREL	Burnout	34.91	2234.0	$P=.000$; $U=154.0$
	Non burnout	78.22	2816.0	
EWBS	Burnout	35.09	2246.0	$P=.000$; $U=166.0$
	Non burnout	77.89	2804.0	
NRCOPE	Burnout	35.84	2294.0	$P=.000$; $U=214.0$
	Non burnout	76.56	2756.0	
MHLC	Burnout	20.22	728.0	$P=.000$; $U=62.0$
	Non burnout	67.53	4322.0	

Table 2

Correlation of Burnout with Spirituality: As per table 3, on administering Spearman's correlation severity of burnout was negatively correlated with all the four domains of spirituality, i.e. more the burnout less the spirituality.

		SAI DUREL	SAI EWBS	SAI NRCOPE	SAI MHLC
Burnout Score	Correlation Coefficient	-0.557	-0.663	-0.648	-0.677
	Sig. (2-tailed)	.000	.000	.000	.000

Table 3

DISCUSSION: Medical education is a long process where burnout among students is a common serious entity. Prevention of burnout among students is therefore essential. Effective interventions to address burnout should be developed at both the individual and institutional levels.

In the present study, the prevalence of burnout was found to be 64%. According to study by Lloyd S et al²⁵ and Spickard A et al²⁶ Burnout affects 30% to 78% of physicians and residents.

Regarding sociodemographic profile, we found no association with age, unlike some studies that have reported a higher prevalence in younger students.^{27,28}

As shown in table 1, burnout was significantly more in females as against male students [$\chi^2=26.0461$, $p < 0.05$]. Similar findings were seen in study by Martínez IMM & Pinto AM,²⁹ also of the burnout medical students, most were studying in final year or were in internship [$\chi^2=14.8936$, $p < 0.05$], most were hostellers as compared to day scholars [$\chi^2=28.7109$, $p < 0.05$].

There was no significant difference between rural or urban residential background [$\chi^2=0.1122$, $p=0.7376$] or socioeconomic class among the sample population. [$\chi^2=0.007$, $p=0.93325$]

Spirituality and Burnout: Spirituality has received attention in the health and mental health research literature in the past few years as a protective construct. The word 'spirituality' comes from the Latin 'spiritualitas' ("breath").³⁰ Spirituality has been found to be associated with feelings of hope, lower levels of depression, and improved social interaction, well-being, and quality of life.³¹ Interface of spirituality and mental health is fascinating and sublime. Spirituality is thus an important determinant of physical, emotional, and social health.³²

In this study, as per Spiritual Attitude Inventory [Table 2], students with burnout had less mean rank as compared to students without burnout on all the domains of spirituality. Thus on comparing spirituality as a way of coping between medical students with burnout and students without burnout, it was found that students with burnout were less spiritually inclined while students without burnout were more spiritual and used spirituality as a way of coping towards stressful situation. Also as per table 3, on administering Spearman's correlation severity of burnout was negatively correlated with all the four domains of spirituality, i.e. more the burnout less the spirituality.

Benjamin R. Doolittle in his study on, 'Correlation of burnout syndrome with specific coping strategies, behaviours, and spiritual attitudes among interns at Yale University, New Haven, USA'³³ also concluded that 'Acceptance, active coping, and spirituality were correlated

with less burnout'. According to Koenig HG⁵, Religion and spirituality may serve as protective factors against burnout in medical students.

Also as per study by Amy Wachholtz and MaiLan Rogoff.³⁴ Students having higher levels of spiritual well-being and daily spiritual experiences described themselves as more satisfied with their life in general, while students with low scores on spiritual well-being and daily spiritual experiences had higher levels of psychological distress and burnout.

CONCLUSION: To conclude, there was a high prevalence of burnout in medical students [64%]. Students without burnout were more spiritual while in students with burnout spirituality as a way of coping was less used.

Early detection of Burnout Syndrome is needed to encourage the adoption of preventive measures. Being more spiritually inclined has been found to be associated with less burnout. Newer methods need to be implemented to facilitate existing spirituality and to achieve it further.

According to study by Rasinski et al.³⁵ on training of physicians in religion it was found that physicians had received training from many sources such as a book, CME literature, one's religious tradition, and from other miscellaneous sources. They, however, denied having received any formal spiritual training in their medical schools.

Methods of imparting spiritual knowledge and experience need to be developed. Students should be able to understand the connection between spirituality and health. Ongoing research in medical education and curriculum design points towards the inclusion of competence, communication and training in spirituality. Within this context, most US and UK medical schools have already included spirituality and health content in their curricula.^{36,37}

However, such interventions if at all, are working at a snail's pace in India. For the benefit of the students, patients and the community at large we hope that further research in this area would definitely help us in the long run.

LIMITATIONS: This study was conducted at a tertiary care hospital, which may not be representative of the general population. It was a cross sectional study and not a longitudinal one and the sample size was small.

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