

Assessment of Knowledge and Attitude among Medical Professionals Regarding the Role of Spirituality in Current Medical Practice in Medical College Hospital of Karimnagar Town.

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Abstract : Background: Spiritual aspect of health is not a new concept and it has been an integral part of health care systems even before evidence based medicine has taken a lead role in the management of health and diseases. However the extent of spiritual component in medical practice in India still remains a mystery. To assess the existing knowledge and attitude regarding role of spirituality in current medical practice among medical professionals; a cross sectional analytical study was conducted among sample 300 medical professionals of various specialties in Prathima Institute of Medical Sciences; Karimnagar. Pre-tested structured questionnaire was sent with self administered envelope among study sample and collected back. Statistical analyses were made using Statistical Products and Service Solutions (SPSS) version 19 software with help of Community Medicine department. Descriptive statistics obtained were percentages, proportions and frequencies. Inferential statistics obtained were tests of significance including chi square test and Fischer's exact test wherever applicable. Out of 300 participants, 200 belonged to clinical, 70 Para clinical and 30 preclinical specialties. In the Study sample 70% were males, 40% of the participants belonged to 4th decade of life and Hinduism (80%) was the most commonly practiced religion. Regarding the assessment of knowledge vast majority of participants of all three specialties (94%, P value=0.00003) were aware of spiritual dimension in medical practice, distinguished spirituality from superstitions and 95% of the participants considered spirituality contributes to beneficial effects of medical treatment. With respect to attitude component, 70% considered meditation as the major spiritual practice, 80% cited social disorders as a possible area where spirituality may be helpful and 69.5% opined in favor of inclusion of spirituality in medical curriculum. **Conclusion:** Medical professionals of clinical, para clinical and preclinical specialties had a good knowledge about spiritual component in medical practice and its impact on health. In spite of this, a comprehensive report on concept and application of spirituality in medical education and health care system is lacking. There is further need to undertake research work in this field before introducing into medical curriculum and also to redefine the role of spirituality in the current medical practice.

INTRODUCTION

The term 'spirituality' lacks a proper definition, although social scientists have defined spirituality as the search for "the sacred," where "the sacred" is broadly defined as that which is set apart from the ordinary and worthy of veneration. The concept of spirituality differs from one person to another depending on social, ethical, religious or cultural background. However the fundamental principles remain common to all spiritual philosophy irrespective of its origin which is restoring brain and bodily imbalances caused by a host of endogenous and exogenous factors^{1,2}. The use of the term "spirituality" has changed throughout the ages. In modern times spirituality is often separated from religion and connotes a blend of humanistic psychology with mystical and esoteric traditions and eastern religions aimed at personal well-being and development. Hippocrates, who is considered as the father of modern medicine, quoted "the greatest error committed by the physicians is that they do not take soul into account for therapy". According to WHO definition of health, it is not just freedom from disease but a positive state in terms of physical, social, psychological, mental and spiritual well being. Going by a comprehensive WHO report in recent past, it is clearly evident that the present treatment strategy is neither successful nor effective in controlling the diseases, particularly Non

Communicable diseases (NCD)^{3,4}. More recently, an opinion poll among American population indicated that a great majority of them believed in spirituality and that their recovery from illness or injury was influenced by spiritual discussions, suggestions and interventions⁵ and America became the first country to introduce teaching and training of spiritual practices in medical curriculum^{6,7}. The present study was undertaken with an objective to assess the extent of awareness and attitude among medical professionals regarding the role of spirituality in current medical practice.

MATERIALS AND METHODS

The present cross sectional analytical study was conducted to evaluate the knowledge and attitude among medical professionals regarding the role of spirituality in current medical practice at Prathima Institute of Medical Sciences, which is a tertiary health care centre located in Karimnagar town of Andhra Pradesh from February 2013 to November 2013. A structured questionnaire was prepared consisting predominantly closed ended questions and a pilot study was conducted. The optimum sample size was calculated on the basis of pilot study result wherein about 25% respondents were aware of at least one component of spirituality.

$$\text{Formula } n = \frac{1.96 \times 1.96 \times p \times q}{d^2}$$

where n is the sample size, p is the prevalence, q = 1 - p and d is the precision was used. With a precision of 5%, sample size was found to be 288. To make up for non responders and incomplete response, 15% was added and the final sample size calculated was 331. After

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making suitable modifications regarding validity and reliability with the help of department of Community Medicine, the questionnaires were self administered among the participants. Participants were briefed about aims and objectives of the study and informed verbal consent was obtained. All the participants who had post graduate qualification or pursuing post graduation in any medical specialties and willing to participate by giving informed verbal consent were included and all those who did not possess post graduate qualification or not pursuing post graduation and not willing to give consent were excluded. The participants who left more than 20% of the questions unanswered were also excluded. In the present study, 20 people were unwilling to participate and 11 participants left more than 20% of questions unanswered. A total of 300 participants were included in the statistical analyses. Among 300 participants, 200 belonged to clinical, 70 Para clinical and 30 preclinical specialties.

The questionnaire was divided into three categories. In the first category socio demographic profile was evaluated which included age, sex, religion and qualification. In the second category knowledge component was assessed by factoring into three parts. 1. Awareness regarding spiritual dimension in medical practice. 2. Effects of spirituality on health. 3. Awareness regarding existing literature on spirituality in scientific journals. In the third category attitude component was evaluated by sectoring it into three parts. 1. Spiritual practices. 2. Impact on quality of life of diseased. 3. Research work in spirituality and its inclusion in medical curriculum. The participants had liberty to attempt some or all questions and also they were free to mark more than one option if so desired. The questionnaires were collected back personally and statistical analyses were made using Statistical Products and Service Solutions (SPSS) version 19 software. Descriptive statistics obtained were percentages, proportions and frequencies. Inferential statistics obtained were tests of significance including chi square test and Fischer's exact test wherever applicable. A p value of less than 0.05 was considered significant and a p value of less than 0.001 was considered highly significant.

Table 1: Socio Demographic Profile of Study Sample.

| Title | Subgroup | Number | Percentage [%] |
|---------------|---------------|--------|----------------|
| Age[in years] | 21-30 | 89 | 29.5 |
| | 31-40 | 120 | 40 |
| | 41-50 | 60 | 20 |
| | >51 | 31 | 10.5 |
| Sex | Male | 210 | 70 |
| | Female | 90 | 30 |
| Religion | Hindu | 240 | 80 |
| | Muslim | 32 | 10.5 |
| | Others | 28 | 9.5 |
| Specialty | Clinical | 200 | 66.67 |
| | Para-clinical | 70 | 23.3 |
| | Pre-clinical | 30 | 10 |

Table 2: Awareness regarding spiritual component of medicine

| Specialty | Awareness regarding spiritual component of medicine | |
|----------------------|---|-----------|
| | Yes | No |
| Clinical (n=200) | 198 (66%) | 2 (0.67%) |
| Para-clinical (n=70) | 65 (21.67%) | 5 (1.67%) |
| Pre-clinical (n=30) | 23 (7.6%) | 7 (2.3%) |

Fischer's exact test (Chi square) = 25.22 P value = 0.0000333 (Highly significant)

Table 3: Knowledge among Medical professionals about the mechanisms involved in spiritual healing

| Mechanism | Clinical | Para-clinical | Pre-clinical |
|-----------------|------------|---------------|--------------|
| Psychological | 22 (7.3%) | 34 (11.3%) | 12 (4%) |
| Neuro endocrine | 168 (56%) | 21 (7%) | 11 (3.67%) |
| Immunological | 10 (3.33%) | 15 (5%) | 7 (2.34%) |

Chi square = 82.02 P value < 0.001 (Highly significant)

Table 4: Activities considered as spiritual by Medical professionals.

| Activity | Number * | Percentage [%] |
|-------------------------------------|----------|----------------|
| Ahimsa[Non violence] | 120 | 40 |
| Regular praying | 120 | 40 |
| Observing Silence | 90 | 30 |
| Fasting | 60 | 20 |
| Protecting animals | 120 | 40 |
| Protecting environment | 90 | 30 |
| Donation to Charities | 90 | 30 |
| Helping poor | 180 | 60 |
| Going to pilgrimage | 60 | 20 |
| Meditation | 210 | 70 |
| Transcendental relaxation technique | 60 | 20 |

* The question was a multiple choice response. Hence totals may not match sample size

Table 5: Disorders which are considered to be benefitted from spiritual practice by Medical professionals

| Disorder | Number * | Percentage [%] |
|------------------------|----------|----------------|
| Psychiatric illness | 180 | 60 |
| Organic diseases | 29 | 9.5 |
| Terminal illness | 180 | 60 |
| Social disorders | 240 | 80 |
| Neurological disorders | 31 | 10.5 |

* The question was a multiple choice response. Hence totals may not match sample size

Table 6: Attitude among Medical professionals regarding Introduction of spirituality in medical curriculum

| Specialty | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|---------------|----------------|--------------|-------------|-----------|-------------------|
| Clinical | 9 (3%) | 133 (44.33%) | 35 (11.67%) | 21 (7%) | 2 (0.67%) |
| Para-clinical | 5 (1.67%) | 38 (12.67%) | 16 (5.34%) | 8 (2.67%) | 3 (1%) |
| Pre-clinical | 6 (2%) | 16 (5.34%) | 3 (1%) | 2 (0.67%) | 3 (1%) |

Fischer's exact test (Chi square) = 15.39 P value < 0.05 (Significant)

RESULTS

In the present study of 300 medical professionals, 200 belonged to clinical, 70 Para clinical and 30 preclinical specialties. Among the study group 210[70%] were males and 90[30%] were females. Majority of the participants belonged to 4th decade [40%] of life followed by 3rd decade [29.5%], 5th decade [20%] and 6th decade [10.5%]. In the study group 80% followed Hinduism, 10.5% followed Islam and 9.5% followed other religions.

On assessing the awareness regarding spiritual component in medical practice, 94% were aware of spiritual dimension in medical practice and distinguished spirituality from superstitions. In the present study 80% of the participants responded that religious philosophy of ancient time is complimentary to present medical treatment for the patients and 92 % of the participants considered spirituality has sound scientific basis in the context of current scientific knowledge, 1 % denied any such connection and 7% remained undecided. In the study group, 95% considered spirituality contributes to beneficial effects of medical treatment. Regarding mechanisms responsible for spiritual healing, 67% attributed it to neuro endocrine, 22% to psychological and 11% to immunological phenomenon. In response to a question on reliability of available literature on spirituality, 50% were of the opinion that published data was trustworthy whereas 30 % expressed doubts on its reliability and 20% felt it as totally unreliable.

In response to the question on what constitute spiritual practices, 70% considered meditation, 60% felt helping the poor and

downtrodden, 40% ahimsa, regular prayer and protection of animals, 30% donation to charities and protection of environment and 20% transcendental relaxation techniques and regular fasting. Only 1% attributed all the activities under this question as forms of spiritual practices. When asked regarding improved longevity but reduced quality of life with present health management, 70% disagreed while 20% agreed and 10% participants remained neutral on this issue. When asked if spirituality deprive the patients from rational therapy 60% of participants denied this, 20% agreed and 20% participants remained non committal. In response to the question on inclusion of spirituality in medical curriculum, 69% opined in favor of it while 13% opined against it and 18% of the participants remained neutral. In response to a question regarding research work on spirituality, 50.5% felt that only social activists should be engaged for such activities, while 29.5% opined that people like spiritual preachers may participate and surprisingly only 20% of the participants responded that doctors should take up spirituality related research. In response to a question on possible areas where spirituality may be helpful, 80% cited social disorders, 60% terminal illness and psychiatric disorders, 10.5% neurological disorders and 9.5% organic diseases as possible targets where spiritual intervention may help.

DISCUSSION

In the present study, 95% of the participants considered spirituality contribute to beneficial effects of medical treatment. Regarding the knowledge of participants about underlying mechanism/s responsible for health benefits from spirituality, 67% [Table-3] participants attributed neuro-endocrine as a major factor, which is consistent with the current literature which states functional alterations in neuro-endocrine and immunological processes are responsible for alleviating human sufferings and restoring good health in a number of chronic and incurable diseases as a result of spiritual interventions^{8, 9, 10}.

The present study showed, in response to the question on what constitute spiritual practices [Table-4], 70% considered meditation, 60% felt helping the poor and downtrodden, 40% considered ahimsa, regular prayer and protection of animals, 30% donation to charities and protection of environment and 20% transcendental relaxation techniques and regular fasting. From this, it is evident that majority of the medical professionals were aware of what really constitute spiritual practices. As a matter of fact, all the activities under the related question were part of spiritual practices but varied in terms of their significance. For instance, activities such as charity, donations, prayers, pilgrimage and reciting mantras are more of rituals rather than spiritual and do not merit health benefits. On the other hand, activities like ahimsa, meditation, protection of animals and environment, regular fasting and transcendental relaxation techniques are truly spiritual as evident from published reports¹¹. Nonetheless expected as the meaning of spirituality is highly debatable subject and there are no clear guidelines as to what constitute spiritual practices. Whatever spiritual insight a medical practitioner acquires is through chance encounters with spiritual gurus, religious preachers, parents, colleagues and friends or from news papers and magazines. This results into lack of consistency and uniformity among medical professionals in adopting, interpreting, analyzing and translating concept of spirituality in health and diseases. There is an urgent need to define spiritual practices and adopt a pragmatic approach in implementing them.

In response to a question on reliability of available literature on spirituality, 50% were of the opinion that published data is trustworthy

whereas 30% expressed doubts on its reliability and 20% felt it as totally unreliable. The reason for this may be two fold. Firstly, as appears from demographic data [Table-1] that almost 70% participants were young medical professionals who may not have enough exposure to scientific data on spirituality because of their proximity to modern medicine and alternative approach of health care is usually sidelined. Secondly, not many qualified and experienced medical professionals are willing to take up research in the field of spiritual medicine. Consequently, there is lack of scientific data on spirituality from India's perspective. It is desired that qualified and experienced medical professionals at academic institutions shall take up concerted research on spirituality to dispel truth about its health benefits or otherwise.

Faith healing is based on the principle that certain people or places have the ability to cure and heal or eliminate disease/ injuries through a close connection to a higher power. Faith healing involves prayer, a visit to a religious shrine, meditation or simply a strong belief in a supreme being. However current scientific evidence does not support claims made for faith healing. The only exception is meditation. In the present study, 80% [Table-5] of the participants considered social disorders are predominantly benefitted from spiritual practice followed by terminal and psychiatric illness [60%], neurological disorders [10%] and organic diseases [9.5%]. Specific spiritual practices have been shown to improve health outcomes. Ten to twenty minutes of meditation twice a day leads to decreased metabolism, decreased heart rate, decreased respiratory rate and slower brain waves. Further, the practice is beneficial for the treatment of chronic pain, insomnia, anxiety, hostility, depression, premenstrual syndrome and infertility. This is called "the relaxation response," and it is said that "To the extent that any disease is caused or made worse by stress, to that extent evoking the relaxation response is effective therapy"¹².

Majority of the participants [69%] favored spirituality should form a part of training and teaching of medical students [Table-6], which is consistent with the present trend of many authors as some of the indexed text books of medicine and physiology have introduced separate chapters on Spiritual medicine in their latest editions^{13,14}. Moreover Association of American Medical Colleges for a Curriculum on Spirituality have made following recommendations regarding the outcome goals, "Students will be aware that spirituality, and cultural beliefs and practices, are important elements of the health and well-being of many patients. They will be aware of the need to incorporate awareness of spirituality, and culture beliefs and practices, into the care of patients in a variety of clinical contexts. They will recognize that their own spirituality, and cultural beliefs and practices, might affect the ways they relate to, and provide care to, patients. Students will be aware of the range of end-of-life care issues and when such issues have or should become a focus for the patient, the patient's family, and members of the health care team involved in the care of the patient. They will be aware of the need to respond not only to the physical needs that occur at the end of life, but also the emotional, socio-cultural, and spiritual needs that occur"¹⁵.

However there is paucity of published reports on religious and spiritual aspects (0.008% of the MEDLINE records)¹⁶, indicating that the increasing acceptance of spirituality by medical professionals is not yet reflected in scientific journals.

CONCLUSION

Medical professionals of clinical, Para clinical and preclinical specialties had a good knowledge about spiritual component in

medical practice and its impact on health .Majority considered spirituality has scientific basis according to current knowledge of science. A large number of study group considered meditation as the chief spiritual practice, cited social disorders are maximally benefitted from spiritual practices and opined in favor of inclusion of spirituality in medical curriculum. In spite of this, a comprehensive report on concept and application of spirituality in medical education and health care system is lacking. There is further need to undertake research work in this field before introducing into medical curriculum and also to redefine the role of spirituality in the current medical practice.

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