ORIGINAL RESEARCH PAPER

Dentistry

RELATIONSHIP BETWEEN SPIRITUAL INTELLIGENCE AND ORAL HEALTH RELATED QUALITY OF LIFE AMONG PATIENTS ATTENDING DENTAL INSTITUTIONS IN BANGALORE CITY- A CROSS SECTIONAL STUDY.

KEY WORDS: Spiritual dimension, OHRQoL, Oral Health

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ABSTRACT

Introduction: Spiritual intelligence (SQ) refers to the capacity to understand and apply spiritual concepts and values to enhance one's life and well-being same way oral health impact profile helps people to know the importance of oral health and its impact. **Aim:** To assess the relationship between spiritual intelligence and oral health related quality of life among patients visiting dental institution. **Materials and Method:** A cross sectional study was conducted among the patients attending dental institutions at Bangalore city. Based on scientific calculation of sample, 172 patients were approached in four dental colleges after taking permissions from the concerned authorities. Data collection was done using questionnaires of spiritual intelligence and oral health impact profile after briefing the research objectives. Statistical analysis was carried out by using descriptive statistics for categorical data and Chi-square for dichotomous data. **Results:** Among 172 study subjects, 34% felt questions related to spiritual intelligence very truly defined them, 26% agreed its completely true, 42% felt that any problem in the teeth will impact their day to day life, 27% felt it often, and the relationship between spiritual intelligence and oral health related quality of life among study participants was found to be highly significant at $p < 0.01$. **Conclusion:** In the present study there was a significant relationship between spiritual intelligence and oral health related quality of life

INTRODUCTION:

Health is "a state of complete physical, mental, and social well-being, not merely the absence of disease and infirmity" as defined by the World Health Organization [1]. Oral health (OH) is an essential indicator of people's general health and is closely associated with overall health and health-related quality of life (HRQoL) [2,3].

HRQoL is an appropriate index for assessing people's overall health and the effect of health conditions on the quality of life [4]. Understanding the health and quality of life leads us to understand the concept of oral health-related quality of life (OHRQoL) [5]. OHRQoL represents the subjective experience of symptoms related to oral conditions that impact the well-being of an individual. The OHRQoL uses patient-centered outcome measures to identify the impact of oral health on aspects of everyday life regarding social, psychological, and functional wellbeing [5,6].

The definition of health is extended to add spiritual health as fourth dimension since ancient time[7] and is measured as spiritual intelligence. Spiritual intelligence is defined as the human capacity to ask questions about the ultimate meaning of life and the integrated relationship between us and the world in which we live[8].

Need for the study: Health being a Holistic concept for which oral health is not an exception, it is important to understand spiritual component and its influence on oral health related quality of life. Available literature reveals no published articles to assess the relationship between spiritual intelligence and oral health related quality of life, hence the present study has been undertaken.

AIM: To assess the relationship between spiritual intelligence and oral health related quality of life among patients visiting dental institution.

MATERIALS AND METHOD:

Design of the study: A cross sectional study was conducted to assess the relationship between spiritual intelligence and oral health related quality of life among patients attending dental institutions in Bangalore city.

METHOD: The proposed study was reviewed by the Ethical committee of Vydehi institute of dental sciences and Research Centre, Bangalore and clearance was obtained. After taking required permissions from the concerned authorities, dental institutions were approached for study subjects. A self-structured proforma, exclusively designed for recording all the data pertaining to Demographic details, Spiritual intelligence and oral health related quality of life was prepared.

DESCRIPTION OF THE SPECIAL PROFORMA:

Demographic details: Name, Age, Gender, Occupation, Education, Income

Spiritual intelligence was assessed using King's spiritual intelligence scale which consists of 24 items that measure spiritual intelligence based on a 5-point Likert scale: "Completely disagree with a score of 0, disagree with a score of 1, have no opinion with a score of 2, agree with a score of 3, and completely agree with a score of 4" (0–4). Its scores range from zero to 96. The higher the score, higher the spiritual intelligence [9].

Oral health related quality of life was assessed using short list of Oral Health Impact profile by Slade and Spencer which consists of 14 items based on a 5 -point Likert scale: "Never with a score of 0, Seldom with a score of 1, Sometimes with a score of 2, Often with a score of 3, Always with a score of 4" (0-4). Its scores range from zero to 56 [10].

Sample size calculation:

A pilot study was conducted on 30 patients attending Vydehi Institute of dental sciences and research centre. Sample size is calculated based on Pilot study using G Power software and it was found to be 172.

Sampling methodology: Bangalore is divided into five zones for administrative purpose namely Central, East, West, South and North, same division was used to select dental institutions for the study by table of random numbers. Vydehi institute of dental sciences and research centre, Vokkaligara sangha dental college, KLE dental college and RV Dental college and hospital got selected through this method.

Source of data: A total of 43 patients from each dental institution was enrolled for the research which constituted a total study sample of 172. After taking written informed consent from the study participants they were selected for the

study with the below mentioned criteria.

Selection criteria:

Inclusion criteria:

1. Patients who gave written informed consent to participate in the study.

Exclusion criteria:

1. Patients who do not believe in spirituality – Atheist.
2. Patients who have visited dental institutions for emergency oral procedures.

Administration of questionnaire:

All the participants were approached near waiting lounge of oral medicine and radiology department. Data was collected by a single investigator. Before administering the Questionnaire, it was checked for its reliability using Cronbach's alpha, and it was found to be 0.08 and face validity was checked with the help of experts and the questionnaire was translated into local language then back in to English language to check the validity of translation by translation experts. Questionnaire was made available in three languages namely English, Kannada and Hindi for better understanding by the study participants in the languages with which they are familiar. After explaining the objectives of the study, questionnaire was distributed by the investigator, and it took 38 minutes for the study subjects to complete.

For analysis purpose spiritual intelligence and oral health related quality of life scores were dichotomized by calculating median. According to the calculation, subjects who scored >48 were considered to have higher level of spiritual intelligence and study participants who scored 48 or <48 will come under lower level of spiritual intelligence same way, study subjects with score >28 were considered to have better oral health related quality of life compared to those who score 28 or <28. In the present study minimum score was 0 and maximum score was 96 for spiritual intelligence and for oral health related quality of life it was 0 and 56. The data obtained was compiled systematically in SPSS version 21.0 Chicago, Illinois, IBM and subjected to statistical analysis. Significance level was fixed at $p \leq 0.05$.

Statistical analysis: Descriptive statistics was used for demographic details, spiritual intelligence and oral health related quality of life and expressed in percentages and frequency. Chi -square test was used to check the relationship between spiritual intelligence and oral health related quality of life.

RESULTS:

Table 1: Distribution of study subjects based on Age and Gender

Age	Frequency/ Percentage	Gender	Frequency/ Percentage
<30 years	54(31)	Male	93(54)
30-60 years	99(58)	Female	79(46)
>60 years	19(11)		

Table 2:Distribution of study subjects based on socioeconomic status

Socioeconomic status	Frequency/ Percentage
Upper	1(1)
Upper middle	19(11)
Lower middle	79(46)
Upper lower	44(25)
Lower	29(17)

Table 3: Spiritual Intelligence among study participants

Spiritual Intelligence	Frequency/ Percentage
0=Not at all true of me	19(11)
1= Not very true of me	22(13)
2= somewhat true of me	27(16)
3=very true of me	58(34)
4=completely true of me	42(26)

Table 4: Oral health Impact profile among study participants

Oral health related quality of life	Frequency/ Percentage
0=Never	15(9)
1=Seldom	17(10)
2=Sometimes	21(12)
3=often	47(27)
4=Always	72(42)

Table 5: Relationship between spiritual intelligence and oral health related quality of life

Spiritual Intelligence	Oral health related Agreed n (%)	quality of life (OHIP) Not agreed n (%)	Total n	Chi-square value (x^2)	p value
Agreed n (%)	83(48)	38(22)	57	11.19	0.01
Not agreed n(%)	32(19)	19(11)	115		
Total n	51	121	172		

The relationship between spiritual intelligence and oral health related quality of life among study participants was found to be highly significant at $p < 0.01$.

DISCUSSION:

Since it is the pioneering study assessing the spiritual intelligence and oral health related quality of life no comparison was made with other studies.

Contributions made towards increasing the state of knowledge in the subject and indication of scope for future work.

Being the pioneering study to assess the relationship between spiritual intelligence and oral health related quality of life, it not only establishes the relation but also paves a new path with the information that those who are aware of the purpose of life definitely give importance for their oral health too and live a better oral health related quality of life. In a country like India where people give more weightage to spirituality, spiritual intelligence will be a promising, holistic method to curb oral diseases at its early stage provided if socioeconomic status is taken care. Being fourth dimension of health as well as oral health, Spiritual intelligence can be the future weapon for oral health related quality of life.

Conflict of interest: NIL

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