

Correlation Between Spirituality and Quality of Life in People With Musculoskeletal Disorders: A Cross-Sectional Study

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Abstract

Background

The prevalence of musculoskeletal disorders (MSKDs) is increasing day by day in industrially growing countries like India. Spirituality forms the roots of Indian culture, and according to the World Health Organization (WHO), it is one of the important factors affecting health. Many studies have concluded the correlation between spirituality and quality of life (QoL), but when works of literature were searched on PubMed, Scopus, and Web of Science, no such study was conducted in India on people with MSKDs. Hence, the aim of this study is to find out the correlation between spirituality and QoL in patients with MSKDs.

Methods

In this cross-sectional study, 161 patients with MSKDs coming to Dhiraj General Hospital, Vadodara, India, from October 2023 to December 2023, fulfilling the inclusion and exclusion criteria, were included. The demographic data and the site of pain were recorded. The severity of pain was assessed using the Numerical Pain Rating Scale (NPRS). The Daily Spiritual Experience Scale (DSES) and RAND 36-Item Health Survey (Version 1.0) were used to assess spirituality and QoL.

Results

DSES was found to have a fair correlation with NPRS with a p-value of 0.015. Among the eight components of RAND-36, energy, emotional well-being, social function, pain, and general health were found to have a positive correlation with DSES with p-values of 0.008, 0.001, 0.009, 0.032, and <0.001, respectively, whereas no correlation was found between DSES and other components of RAND-36.

Conclusion

This study provides empirical data about how spirituality is positively related to different aspects of QoL. This can be further useful in planning integrated healthcare approaches based on spirituality for better QoL in patients with MSKDs.

Categories: Physical Medicine & Rehabilitation, Orthopedics, Therapeutics

Keywords: daily spiritual experience scale, musculoskeletal disorders, pain, quality of life, spirituality

Introduction

Musculoskeletal disorders (MSKDs) are becoming one of the major issues due to the increase in their prevalence in developing countries like India [1,2]. The quality of life (QoL) of people with MSKDs like low back pain, knee pain, neck pain, etc. gets affected as they have decreased mobility, an increase in pain, and additional hospital expenses, which increase their dependency on others [3].

Spirituality forms the roots of Indian culture and has been identified as an important factor affecting QoL and health by the World Health Organization (WHO) [4,5]. Spirituality is basically defined as "the way people connect to their own self, to the present, to others, to nature and to the divine" [6]. According to Indian philosophy, spirituality is the union of individual consciousness (own self) with the universal consciousness (divine) [4]. A spiritual person learns to manage a stressful event by constantly adapting his behavior and thinking toward such negative events, which is termed "spiritual coping." This improves bodily, mental, and social well-being, which helps in self-realization [7,8]. Spiritual coping also inculcates hope in patients, which helps the patients to deal with their bodily aches and pains in a better way. Patients who are highly spiritual use tactics such as finding logical solutions to problems, moving away from negativity, positive feedback, self-discipline, and accepting help from others, which aids in improving their QoL [9,10].

Many studies have concluded the correlation between spirituality and QoL, but to the best of our knowledge, no such study is available on PubMed, Scopus, or Web of Science that has been conducted in India on people with MSKDs. Hence, the aim of this study is to find out the correlation between spirituality and QoL in patients with MSKDs.

This article was previously presented as a poster at the Ninth International Conference of Physical Therapy (INCPT) All India Institute of Medical Sciences (AIIMS) 2023 on December 23 and 24, 2023.

Materials And Methods

This study was approved by the Sumandeep Vidyapeeth Institutional Ethics Committee, Sumandeep Vidyapeeth (Deemed to Be University), Vadodara, India, on October 16, 2023, with the approval number SVIEC/ON/Phys/RP/OC/123/4. The above study has also been registered in the Clinical Trials Registry India (CTRI), and the CTRI number is CTRI/2024/03/064123.

Study design

This cross-sectional study was conducted for a time-bound period of three months from October 2023 to December 2023 at the Outdoor Physiotherapy Department (OPD) of Dhiraj General Hospital (DGH), Vadodara, India. The sample size was calculated with the following formula:

$$n = \left(\frac{Z_{\alpha/2}^2 \cdot P(1 - P)}{d^2} \right)$$

where prevalence (P) was found to be 42% and an allowable error (d) of 8%, and due to non-response the obtained sample size was increased by 10%. Hence, the calculated sample size was found to be 161, and the method of sampling was convenient. Patients diagnosed with any MSKD by a physiotherapist or an orthopedic surgeon were included in the study based on the inclusion and exclusion criteria.

Inclusion criteria

Patients aged 18 or older, diagnosed with any MSKD for at least three months, and those who can read and understand Hindi, Gujarati, or English, were included in the study.

Exclusion criteria

Patients with any major musculoskeletal, traumatic, or congenital orthopedic conditions; cardiopulmonary, neurological, psychosomatic, or cognitive impairments; or a recent history of any surgery within three months were excluded.

Procedure

All the subjects diagnosed with any MSKD by an orthopedic surgeon or physiotherapist willing to participate

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in the study were included based on the inclusion and exclusion criteria. The subjects were explained about the study and asked to sign the consent form. A thorough physiotherapy examination was done, and the following outcome measures were taken: The Daily Spiritual Experience Scale (DSES) and RAND-36 Version 1.0.

Variables and instruments

The DSES was used to assess spirituality. The permission to use and translate this scale was taken from the original author. It is a 16-item self-administered questionnaire developed for use in healthcare, and it assesses the daily spiritual experiences of an individual [11]. The items in the questionnaire referred to both spirituality and religiosity. Most of the items in DSES were theistic, but some of the items in it were also designed to measure the spiritual experiences of those who had an atheistic view. This scale has been used in over 70 published studies [12]. This scale is originally available in English and Hindi. Considering cross-cultural adaptation, this scale was translated into Gujarati by language experts, and face validation was conducted by 10 experts.

The QoL was assessed using the RAND 36-Item Health Survey (Version 1.0), which consists of eight components: physical function, pain, role limitation due to physical health problems, role limitation due to emotional problems, emotional well-being, social functioning, energy/fatigue, and general health. This scale is available in English and Gujarati and is found to have good reliability and validity [13,14]. Due to the unavailability of RAND-36 in Hindi, it was translated into Hindi by language experts, and face validation was done by 10 experts.

IBM SPSS Statistics for Windows, Version 20 (Released 2011; IBM Corp., Armonk, New York, United States) was used for the statistical analysis. The baseline data was analyzed using the Kolmogorov-Smirnov test, and the correlation was checked using Spearman's rank correlation coefficient.

Results

A total of 170 patients diagnosed with any MSKD by an orthopedic surgeon or physiotherapist referred to the OPD of DGH, Vadodara, India, were screened. Out of these, 161 patients willing to participate were included based on the inclusion and exclusion criteria. Three patients had withdrawn because of time constraints. The flow diagram representing the data collection is shown in Figure 1.

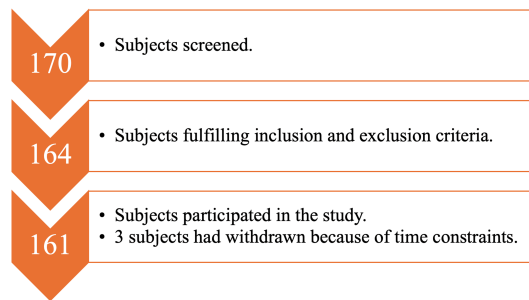


FIGURE 1: Flow diagram representing data collection

The normality was checked using the Kolmogorov-Smirnov test for the baseline data, age, and the p-value at a 95% confidence interval is depicted in Table 1. There was no statistically significant difference in the baseline data of the subjects, and the data followed the normal distribution curve.

Variable	Mean±SD	p-value	Kolmogorov-Smirnov statistic (D)
Age	40.73±15.58	0.01845	0.1195

TABLE 1: Baseline characteristics

SD: standard deviation; p: probability; D: distance

The demographic data regarding the percentage distribution of females:males and the joints affected is shown in Table 2.

Demographic data	Variable	Percentage (%)
Gender distribution	Female	64
	Male	36
Joint affection	Lower back	43
	Knee	20
	Upper back	12
	Neck	11
	Shoulder	7
	Ankle	2
	Feet	2
	Wrist	1
	Hip	1
Elbow	1	

TABLE 2: Demographic data

The correlation between DSES and different components of RAND-36 and the Numerical Pain Rating Scale (NPRS) was calculated using Spearman's rank correlation coefficient, and the p-value at a 95% confidence interval is given in Table 3.

Variable	Correlation with DSES	
	R (rho)	p-value
RAND-36 physical function	0.025	0.757
RAND-36 role limitation due to physical health	-0.099	0.212
RAND-36 role limitation due to emotional problem	-0.131	0.096
RAND-36 energy	-0.208	0.008
RAND-36 emotional well-being	-0.248	0.001
RAND-36 social function	-0.206	0.009
RAND-36 pain	-0.168	0.033
RAND-36 general health	-0.272	<0.001
NPRS	-0.196	0.013

TABLE 3: Correlation between DSES, NPRS, and QoL

DSES: Daily Spiritual Experience Scale; NPRS: Numerical Pain Rating Scale; p: probability; QoL: quality of life

The lower value of DSES indicates higher spirituality and higher values of RAND-36 indicate better QoL, hence negative correlation was found between DSES and five components of RAND-36, that is energy, emotional well-being, social function, pain, and general health with a p-value of less than 0.05, whereas no correlation was found with physical function, role limitation due to physical health and emotional problems. A negative correlation was found between DSES and NPRS with a p-value of less than 0.05.

The scatter diagram indicating the negative correlation between DSES and five components of RAND-36, that is energy, emotional well-being, social function, pain, and general health and NPRS is depicted in Figure 2. This describes that as the spirituality increases, the QoL improves and as the value of DSES decreases, the value of NPRS increases.



FIGURE 2: Correlation of DSES with different components of RAND-36 and NPRS

DSES: Daily Spiritual Experience Scale; NPRS: Numerical Pain Rating Scale; EWB: emotional well-being; SF: social function; GH: general health

Discussion

In the present study, the correlation between spirituality and QoL was studied. Spirituality was assessed using DSES. Underwood, in the year 2011, developed and studied the psychometric properties of this scale and concluded that this scale had good reliability and validity [12]. This scale has also been used in more than 70 published studies [11]. Hence, DSES was used to assess spirituality.

RAND-36 is one of the commonly used scales to assess QoL. VanderZee et al. studied the psychometric properties of the RAND-36-Item Health Survey 1.0 on 1063 participants in the year 1996. This study concluded that RAND-36 had good reliability and validity [13]. Hence, it was used to assess the QoL.

The results concluded that a negative correlation was found between DSES and five components of RAND-36, that is, energy, emotional well-being, social function, pain, and general health. The lower the score of DSES, the higher the level of spirituality; because of this, the emotional aspects and general health improve, which increases the score of RAND-36. Therefore, the correlation value was found to be negative.

Bai et al. studied the relationship between spirituality and QoL in 102 Black patients with cancer pain and concluded that spirituality is associated with decreased pain and improves the overall QoL, specifically social, emotional, and functional domains, which supports our study [15].

No correlation was found between DSES and other components of RAND-36, that is, physical function, role limitation due to physical health, and emotional problems.

Aloush et al. studied the relationship between religiosity, spirituality, and physical and mental outcomes in 55 patients with fibromyalgia, where they concluded that spirituality was negatively correlated with role limitation due to physical health and emotional problems, which supports our study [16].

A negative correlation was found between DSES and NPRS. Moreira-Almeida and Koenig in the year 2006 studied the relationship of religiousness and spirituality in chronic pain patients and concluded that religious variables are not usually associated with pain variables, which supports our study [17].

Most elderly people in India are inclined toward spirituality, and due to the physiological aging process, their pain levels were found to be high. This can also be one of the reasons for the negative correlation.

The present study concludes that spirituality, which is the independent variable, was found to have a positive correlation with the dependent variable, which is QoL. However, the results derived from this study are difficult to generalize to the whole population, as the data were collected from a single hospital, and the method of sampling was convenient. Other confounding factors affecting the QoL, like occupation, socio-economic status, working hours, etc., were not taken into consideration. Furthermore, only the daily spiritual experiences were measured, which included the overlapping parts of spirituality and religiosity; both parts were not assessed differently.

Conclusions

MSKDs are one of the most common conditions prevalent in all occupations and are also becoming a major economic concern for developing countries like India. Spirituality forms the roots of Indian culture, and it has been found that spirituality highly influences the QoL of patients with MSKDs in a positive way. The current study also concluded that spirituality had a positive correlation with different components of QoL. This data can be further used to plan integrated health care approaches, including spirituality, to improve the QoL of patients with MSKDs. Hence, studies like this can prove to be beneficial in decreasing the disease burden and the economic losses incurred as a result of the disease.

Appendices

Appendix A

	Many times a day	Every day	Most days	Some days	Once in a while	Never or almost never
1 I feel God's presence.						
2 I experience a connection to all of life.						
3 During worship, or at other times when connecting with God, I feel joy which lifts me out of my daily concerns.						
4 I find strength in my religion or spirituality.						
5 I find comfort in my religion or spirituality.						
6 I feel deep inner peace or harmony.						
7 I ask for God's help in the midst of daily activities.						
8 I feel guided by God in the midst of daily activities.						
9 I feel God's love for me directly.						
10 I feel God's love for me through others						
11 I am spiritually touched by the beauty of creation.						
12 I feel thankful for my blessings.						
13 I feel a selfless caring for others.						
14 I accept others even when they do things I think are wrong.						
15 I desire to be closer to God or in union with the divine.						
	Not close	Somewhat close	Very close	As close as possible		
16 In general, how close do you feel to God?						

TABLE 4: Daily Spiritual Experience Scale (DSES) - English version

Source: The original author Lynn G. Underwood was approached and the English questionnaire was obtained by mail.

Permission to reproduce this questionnaire has been obtained.

Questionnaire:

The list that follows includes items you may or may not experience. Please consider how often you directly have this experience, and try to disregard whether you feel you should or should not have these experiences. A number of items use the word "God." If this word is not a comfortable one for you, please substitute another word that calls to mind the divine or holy for you.

Put a tick in front of the option which seems appropriate to you in the following sentences.

Appendix B

	दिन मेंकई बार	हर रोज	ज्यादातरदिन	कुछदिन	कभीकभार	कभी नहीं
1	मैं ईश्वर की उपस्थिति महसूस करता/ करती हूँ।					
2	मैं अनुभव करता/ करती हूँ कि मैं सभी जीवन से जुड़ा / जुड़ी हूँ।					
3	प्रार्थना के दौरान या अन्य समय मैं ईश्वर से जुड़ते हुए मैं आनंद अनुभव करता / करती हूँ जोह मुझे मेरी दैनिक चिंताओं से बहार निकलता है।					
4	मैं अपने धर्म या अध्यात्म में शक्ति पाता/ पाती हूँ।					
5	मैं अपने धर्म या अध्यात्म में आराम महसूस करता/ करती हूँ।					
6	मुझे आंतरिक शांति या सुकून महसूसहोता है।					
7	मैं दैनिक कार्यों के बीच ईश्वर से सहायता मांगता/ मांगती हूँ।					
8	मैं दैनिक कार्यों के बीच ईश्वर का मार्गदर्शन हुआ महसूस होता है।					
9	मुझे ईश्वर के प्रेम की सीढ़ी अनुभूति होती है।					
10	मैं अन्य लोगों के माध्यम से अपने प्रतिईश्वर का प्रेम को महसूस करता हूँ।					
11	सृष्टि की सुंदरता ने मुझे आध्यात्मिक रूप से स्पर्श किया है।					
12	मुझे मिले आशीर्वादों के लिए मैं आभारमहसूस करता/ करती हूँ।					
13	मुझे अन्य लोगों के प्रति निःस्वार्थदिव्यभाव की भावना महसूस करता/ करती हूँ।					
14	मैं औरों को तब भी स्वीकार करता/ करती हूँ, जब वे मेरे विचार से गलत कार्य करते हैं।					
15	मेरी इच्छा है कि मैं ईश्वर के और निकट आ जाऊँ या दिव्यता में एकाकार हो जाऊँ।					
		बिलकुल नहीं	कुछ निकट	बहुत निकट	यथासंभव निकट (जितना हो सके उतना)	
16	सामान्य रूप में, आप ईश्वर के कितना निकट महसूस करते हैं?					

TABLE 5: Daily Spiritual Experience Scale (DSES) - Hindi

Translation by Vibhuti Gupta and Lynn G. Underwood

Draft Hindi translation February 2012

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Reference: [11]

Source: The original author Lynn G. Underwood was approached and the Hindi questionnaire was obtained.

Permission to reproduce this questionnaire has been obtained.

Questionnaire:

नीचे दी गई सूची (list) में ऐसी बातें शामिल हैं जिनका आप अनुभव करते हैं या न करते हैं। कृपया विचार कीजिये की आप प्रायः कितनी बारऐसे सीधा अनुभव करते हैं तथा इस पर ध्यान न दें की आपको यह अनुभव होना चाहिए या नहीं। कई बातों में "ईश्वर" शब्द का उपयोग कियागया

निम्नलिखित वाक्यों में से जो विकल्प आपको उचित लगे उस के आगे () का प्रयोग करें।

Appendix C

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TABLE 6: Daily Spiritual Experience Scale (DSES) - Gujarati

Source: The original author Lynn G. Underwood was approached and permission was taken to translate the scale into Gujarati. The original author Lynn G. Underwood also took part in the back translation stage.

Permission to reproduce this questionnaire has been obtained.

Questionnaire:

.....
.....
.....
.....
.....

Appendix D

RAND 36-Item Health Survey 1.0 Questionnaire Items (English Version)

Source: The scale was downloaded from the original website
https://www.rand.org/content/dam/rand/www/external/health/surveys_tools/mos/mos_core_36item_survey.pdf

Permission to reproduce this questionnaire has been obtained.

Questionnaire:

Choose one option for each questionnaire item.

1. In general, would you say your health is:

- 1 - Excellent
- 2 - Very good
- 3 - Good
- 4 - Fair
- 5 - Poor

2. Compared to one year ago, how would you rate your health in general now?

- 1 - Much better now than one year ago
- 2 - Somewhat better now than one year ago
- 3 - About the same

4 - Somewhat worse now than one year ago

5 - Much worse now than one year ago

The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much? (Table 7)

		Yes, limited a lot 1	Yes, limited a little 2	No, not limited at all 3
3	Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports			
4	Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf			
5	Lifting or carrying groceries			
6	Climbing several flights of stairs			
7	Climbing one flight of stairs			
8	Bending, kneeling, or stooping			
9	Walking more than a mile			
10	Walking several blocks			
11	Walking one block			
12	Bathing or dressing yourself			

TABLE 7: RAND 36 - Item Health Survey 1.0 Questionnaire items

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health? (Table 8)

		Yes 1	No 2
13	Cut down the amount of time you spent on work or other activities		
14	Accomplished less than you would like		
15	Were limited in the kind of work or other activities		
16	Had difficulty performing the work or other activities (for example, it took extra effort)		

TABLE 8: RAND 36 - Item Health Survey 1.0 Questionnaire items

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)? (Table 9)

		Yes 1	No 2
17	Cut down the amount of time you spent on work or other activities		
18	Accomplished less than you would like		
19	Didn't do work or other activities as carefully as usual		

TABLE 9: RAND 36 - Item Health Survey 1.0 Questionnaire items

20. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

1 - Not at all

2 - Slightly

3 - Moderately

4 - Quite a bit

5 - Extremely

21. How much bodily pain have you had during the past 4 weeks?

1 - None

2 - Very mild

3 - Mild

4 - Moderate

5 - Severe

6 - Very severe

22. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

1 - Not at all

2 - A little bit

3 - Moderately

4 - Quite a bit

5 - Extremely

These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling.

How much of the time during the past 4 weeks... (Table 10)

	All of the time 1	Most of the time 2	A good bit of time 3	Some of the time 4	A little of the time 5	None of the time 6
23 Did you feel full of pep?						
24 Have you been a very nervous person?						
25 Have you felt so down in the dumps that nothing could cheer you up?						
26 Have you felt calm and peaceful?						
27 Did you have a lot of energy?						
28 Have you felt downhearted and blue?						
29 Did you feel worn out?						
30 Have you been a happy person?						
31 Did you feel tired?						

TABLE 10: RAND 36 - Item Health Survey 1.0 Questionnaire items

32. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

1 - All of the time

2 - Most of the time

3 - Some of the time

4 - A little of the time

5 - None of the time

How TRUE or FALSE is each of the following statements for you.

	Definitely true 1	Mostly true 2	Don't know 3	Mostly false 4	Definitely false 5
33 Did you feel full of pep?					
34 Have you been a very nervous person?					
35 Have you felt so down in the dumps that nothing could cheer you up?					
36 Have you felt calm and peaceful?					

TABLE 11: RAND 36 - Item Health Survey 1.0 Questionnaire items

Appendix E

RAND 36-Item Health Survey 1.0 Questionnaire Items (Hindi Version)

Source: This original scale which was available in English was translated into Hindi by language experts and expert opinion was taken from 10 experts.

Permission to reproduce this questionnaire has been obtained.

Questionnaire: (Tables 12-17)

१. सामान्य तौर पर, क्या आप कहेंगे कि आपका स्वास्थ्य ऐसा है:	
उत्तम	१
बहुत अच्छा	२
अच्छा	३
ठीक ठाक	४
कमज़ोर	५
२. एक साल पहले की तुलना में अब आप अपने स्वास्थ्य को सामान्य रूप से कैसे मूल्यांकन करेंगे?	
एक साल पहले की तुलना में अब काफी बेहतर है	१
एक साल पहले की तुलना में अब कुछ बेहतर है	२
लगभग एक ही	३
एक साल पहले की तुलना में अब स्थिति कुछ हद तक खराब है	४
एक साल पहले की तुलना में अब काफी खराब स्थिति है	५

TABLE 12: RAND 36 - Item Health Survey (Hindi)

निम्नलिखित आइटम उन प्रवृत्तियों के बारे में हैं जो आप एक सामान्य दिन के दौरान कर सकते हैं। क्या आपका स्वास्थ्य अब आपको इन प्रवृत्तियों में सीमित करता है? यदि हाँ, तो कितना?

(प्रत्येक पंक्ति पर एक अंक का गोला बनाएँ)

	हाँ, बहुत मर्यादित	हाँ, थोड़ा मर्यादित	ना, बिल्कुल मर्यादित नहीं
३. जोशीले प्रवृत्तियों, जैसे दौड़ना, भारी वस्तुएं उठाना, कठिन खेल-कूद में भाग लेना	१	२	३
४. मध्यम प्रवृत्तियों, जैसे मेज़ डिलाना, बैक्यूम क्लीनरको धकेलना, गेंदबाजी करना, या गोल्फ खेलना	१	२	३
५. किराने का सामान उठाना या ले जाना	१	२	३
६. कई सीढ़ियाँ चढ़ना	१	२	३
७. सीढ़ि-यों का एक समूह चढ़ना	१	२	३
८. झुकना, घुटने टेकना या घुटना मोड़ के झुकना	१	२	३
९. एक मील से ज्यादा चलना	१	२	३
१०. कई ब्लॉक चलना	१	२	३
११. एक ब्लॉक चलना	१	२	३
१२. नहाना या स्वयं कपड़े पहनना	१	२	३

TABLE 13: RAND 36 - Item Health Survey (Hindi)

पिछले ४ सप्ताहों के दौरान, क्या आपको अपने काम या अन्य नियमित दैनिक कार्यों में आपके शारीरिक स्वास्थ्य के परिणाम स्वरूप निम्नलिखित में से कोई समस्या हुई है?

(प्रत्येक पंक्ति पर एक अंक का गोला बनाएं)

	हां	ना
१३. आपने काम या अन्य प्रवृत्तियों पर खर्च होने वाले समय में कटौती किया है	१	२
१४. आपने जितना चाहें उससे कम पूरा हुआ	१	२
१५. काम या अन्य प्रकार के प्रवृत्तियों में सीमित है	१	२
१६. कार्य या अन्य प्रवृत्तियों करने में कठिनाई होती है (उदाहरण के लिए, अतिरिक्त प्रयासकरना)	१	२

TABLE 14: RAND 36 - Item Health Survey (Hindi)

पिछले ४ सप्ताहों के दौरान, क्या आपको अपने काम या अन्य नियमित दैनिक कार्यों में अपने भावनात्मक समस्याओं (जैसे उदास या चिंतित महसूसकरना) के कारण कोई समस्या हुई है?

(प्रत्येक पंक्ति पर एक अंक का गोला बनाएं)

	हां	ना
१७. काम या अन्य प्रवृत्तियों पर खर्च होने वाले समय में कटौती करते हैं	१	२
१८. आपने जितना चाहें उससे कम पूरा हुआ	१	२
१९. काम या अन्य प्रवृत्तियों हमेशा की तरह सावधानी से नहीं की	१	२

TABLE 15: RAND 36 - Item Health Survey (Hindi)

२०.

पिछले ४ हफ्तों के दौरान आपके शारीरिक स्वास्थ्य या भावनात्मक समस्याओं ने किस हद तक आपकी सामान्य सामाजिक परिवार, दोस्तों, पड़ोसियों या समूहों के साथ के प्रवृत्तियों में हस्तक्षेप किया है ?

(एक नंबर पर गोला लगाएं)

बिल्कुल नहीं १

थोड़ा २

मध्यम ३

बहुत थोड़ा ४

अत्यंत ५

२१. पिछले ४ सप्ताह के दौरान आपको कितना शारीरिक दर्द हुआ है?

(एक नंबर पर गोला लगाएं)

बिल्कुल नहीं १

बहुत हल्का २

हल्का ३

मध्यम ४

गंभीर ५

बहुत गंभीर ६

२२. पिछले ४ सप्ताहों के दौरान, दर्द ने आपके सामान्य कार्य (घर से बाहर और घर का काम दोनों कार्यों सहित) में कितना हस्तक्षेप किया ?

(एक नंबर पर गोला लगाएं)

बिल्कुल नहीं १

थोड़ा २

मध्यम ३

बहुत थोड़ा ४

अत्यंत ५

SVIEC/ON/Phys/RP/OC/123/4. The study is registered in the Clinical Trials Registry India (CTRI) under the number CTRI/2024/05/064123. **Animal subjects:** All authors have confirmed that this study did not involve animal subjects or tissue. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Intellectual property info:** The copyright for the Hindi translation of RAND 36-Item Health Survey Version 1.0 has been granted (L-147981/2024), while the copyright for the Gujarati translation of the Daily Spiritual Experience Scale (DSES) is still under review. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

References

1. Pradeepkumar H, Sakthivel G, Shankar S: Prevalence of work related musculoskeletal disorders among occupational bus drivers of Karnataka, South India. *Work*. 2020, 66:73-84. [10.3233/WOR-205152](#)
2. Suganthirababu P, Parveen A, Mohan Krishna P, et al.: Prevalence of work-related musculoskeletal disorders among health care professionals: a systematic review. *Work*. 2023, 74:455-67. [10.3233/WOR-211041](#)
3. Beaudart C, Biver E, Bruyère O, Cooper C, Al-Daghri N, Reginster JY, Rizzoli R: Quality of life assessment in musculo-skeletal health. *Aging Clin Exp Res*. 2018, 50:413-18. [10.1007/s40520-017-0794-8](#)
4. Inbadas H: Indian philosophical foundations of spirituality at the end of life . *Mortality (Abingdon)*. 2018, 23:320-33. [10.1080/13576275.2017.1351956](#)
5. Chattopadhyay S: Religion, spirituality, health and medicine: why should Indian physicians care? . *J Postgrad Med*. 2007, 53:262-6. [10.4103/0022-3859.33967](#)
6. Puchalski C, Ferrell B, Virani R, et al.: Improving the quality of spiritual care as a dimension of palliative care: the report of the Consensus Conference. *J Palliat Med*. 2009, 12:885-904. [10.1089/jpm.2009.0142](#)
7. Dunn KS, Robinson-Lane SG: A philosophical analysis of spiritual coping. *ANS Adv Nurs Sci*. 2020, 43:239-50. [10.1097/ANS.0000000000000523](#)
8. Chong AS, Ahmad MB, Alias H, Iqbal Hussain RB, Lateh AB, Chan CM: Spiritual coping among families of children with cancer: a qualitative study. *Asia Pac J Public Health*. 2023, 35:408-12. [10.1177/10105595231190830](#)
9. Qi W, Deng J, Guo W, Chen F, Liu X, Zhang Y, Cui J: Spiritual coping in family caregivers of patients with advanced cancer: a cross-sectional study. *J Pain Symptom Manage*. 2024, 67:e177-84. [10.1016/j.jpainsymman.2023.11.022](#)
10. Atlas M, Hart TL: Appraisals of cancer, religious/spiritual coping, and hope in patients with colorectal cancer. *J Psychosoc Oncol*. 2023, 41:337-54. [10.1080/07347332.2022.2108745](#)
11. Underwood LG: Ordinary spiritual experience: qualitative research, interpretive guidelines, and population distribution for the daily spiritual experience scale. *Arch Psychol Relig*. 2006, 28:181-218. [10.1163/00846720677832562](#)
12. Underwood LG: The daily spiritual experience scale: overview and results . *Religions*. 2011, 2:29-50. [10.3390/rel2010029](#)
13. VanderZee KI, Sanderman R, Heyink JW, de Haes H: Psychometric qualities of the RAND 36-Item Health Survey 1.0: a multidimensional measure of general health status. *Int J Behav Med*. 1996, 3:104-22. [10.1207/s15327558ijbm0302_2](#)
14. Jani H, Dhruva G, Sorani D, Dave Y: The RAND-36 health survey 1.0: translation, reliability, cross-cultural adaptation and validation of the gujarati version. *Int J Sci Health Res*. 2021, 6:52-6. [10.52405/ijshr.20211008](#)
15. Bai J, Brubaker A, Meghani SH, Bruner DW, Yeager KA: Spirituality and quality of life in black patients with cancer pain. *J Pain Symptom Manage*. 2018, 56:390-8. [10.1016/j.jpainsymman.2018.05.020](#)
16. Aloush V, Gurevich-Shapiro A, Hazan E, Furer V, Elkayam O, Ablin JN: Relationship between religiosity, spirituality and physical and mental outcomes in fibromyalgia patients. *Clin Exp Rheumatol*. 2021, 39 Suppl 130:48-53. [10.55563/clinexp Rheumatol/xcsigf](#)
17. Moreira-Almeida A, Koenig HG: Religiousness and spirituality in fibromyalgia and chronic pain patients . *Curr Pain Headache Rep*. 2008, 12:327-32. [10.1007/s11916-008-0055-9](#)