International Journal of Research in Medical Sciences
Telles S et al. Int J Res Med Sci. 2024 Mar;12(3):777-781
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012
DOI: https://dx.doi.org/10.18203/2320-6012.ijrms20240517

Original Research Article

Understanding motivators and barriers for yoga practice in obese and non-obese individuals

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Received: 23 December 2023
Revised: 12 January 2024
Accepted: 24 January 2024

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ABSTRACT

Background: Yoga is a comprehensive lifestyle intervention which has been used for weight management by overweight and obese. Yoga is also used as therapy for various other ailments by both obese and non-obese individuals. However, the motivators and barriers of yoga in obese persons compared to non-obese has not been reported.
Methods: The present cross-sectional comparative control trial included 200 participants of both sexes aged between 13 and 80 years. Of these, 102 were obese and 98 were non-obese. Data were analyzed using Chi-square test.
Results: The most common motivators for yoga were: reducing symptoms of illness (35% for obese versus 21.73% for non-obese), pain relief, (21% for obese versus 10.86% for non-obese) and lifestyle changes (9% for obese versus 10.86% for non-obese). The most common barriers for yoga were: no time (29.54% for obese versus 42.25% for non-obese), physical incapability of practicing yoga (18.18% for obese versus 16.9% for non-obese) and tiredness (15.9%) for obese and no interest/motivation (15.49%) for non-obese.
Conclusions: The motivators to yoga for obese are comparable to non-obese with obese use yoga more frequently for "reducing symptoms of illness". Also, the barriers to yoga are comparable to obese with normal weight for "no time".

Keywords: Obesity, Yoga therapy, Motivation, Barriers, Body mass index

INTRODUCTION

Obesity is associated with decreased quality of life related to changes in physical and mental health as well as an increase in morbidity and mortality.[1] Yoga is a non-pharmacological strategy considered effective and safe for weight loss in the general population as well as specifically for overweight and obese persons.[2] A recent randomized controlled trial demonstrated that when overweight or obese women were randomized to either yoga or a structurally equivalent control for twelve weeks, among those with high initial weight loss, the yoga group lose significantly more weight at twenty-four weeks with greater tolerance for distress, mindfulness, self-compassion and lower negative affect compared to the control.[3]

However, there is inadequate information about what obese persons seek from yoga as an intervention. If obese patients' reasons to seek yoga do not match the yoga offered it would influence their engagement with yoga, as documented elsewhere for other therapeutic interventions.[4] Planning an intervention to include patients' requirements has been shown to improve their participation as they feel part of decision making.[5] Also understanding the barriers preventing obese patients continuing with yoga as an intervention is expected to help clinicians and stakeholders in healthcare develop a plan to introduce yoga for weight regulation in the obese in a way that is sustainable in the long-term, since this already been observed in the case of physical activity programs for obesity.[6]

Hence the present cross-sectional comparative control trial was planned to determine the main reasons seek yoga as well as the barriers they envisage preventing their regular and continued practice.

METHODS

Respondents

Two hundred patients receiving yoga therapy for the management of non-communicable disease (M: F=109:91) aged between 13 and 80 years were recruited from a yoga centre (Patanjali Wellness Centre) located in north India. Data collection of all the participants was done during study period of May 2023 to July 2023. Of these, 102 patients were obese (BMI $\geq$ 25 Kg/m^2) based on the Ministry of Health guidelines.[7] The remaining 98 patients were normal weight. The patients included if they were: having completed 10 years of age since children of 10 years and over could be expected to give an accurate response, and receiving yoga as a therapy.[8] The patients were excluded if they suffering from any psychological problem or were physically unable to fill out the questionnaire.

Study design

The present cross-sectional comparative control trial carried out between May to July 2023 in Yoga and Ayurveda Hospital located in North India (i.e. Patanjali Ayurveda Hospital). Prior permission was obtained from the concerned health authorities, and this cross-sectional comparative control trial was approved by the Institutional Human Ethics Committee (approval number YRD-PRF/YRD/022/026). The sample size of the present study is 200. This was not based on statistical calculations as it is pilot study.

Questionnaire

To our knowledge there is no standardized questionnaire to assess the motivators and barriers of yoga practice in obese individuals. In this pilot study the survey questionnaire was devised by the corresponding author who had over 30 years of clinical and research experience in yoga. The survey was presented in both English and Hindi. The aim of the survey was to compare the motivators and barriers to yoga as a therapy in obese and non-obese persons receiving yoga as a therapy. The survey had two parts: The first part was related to demographics (i.e., age, sex, height and weight (using calibrated instruments)). The second part of the survey had two parent questions with one follow-up question for each parent question. The first parent question "what is the reason you selected yoga" with 18 possible responses. The follow-up question for the parent question was an open-ended question for the respondent who selected "none of the above" as their option. The second parent question "what is the barrier for you to practice yoga after returning home" with 9 possible responses. The follow-up question for the parent question was an open- ended question for the respondent who selected "none of the above" as option.

Data cleaning

All the patients responded to the survey correctly. The data of 200 patients were analyzed and reported here.

Data analyses

Data were analysed using statistical package for the social sciences (SPSS) version 24.0.

Chi square tests were carried out to determine whether motivators and barriers to yoga as a therapy varied according to socio-demographics of the patients.

Cramer's V was calculated in case of Chi square significance to determine the strength of association between obesity and non-obese group with motivators and barriers of yoga practice. Cramer's V>0.10 was selected as the critical value to report moderate association between the variables tested.

RESULTS

Two hundred patients completed the questionnaire satisfactorily. The baseline characteristics of the patients are given in Table 1.

Table 1: Baseline characteristics of the respondents (n=200).

Characteristics	Details
Age (in years)	
Group (mean age±SD)	41.88±16.5
Age range	13-80
Gender	
Male: females	
Actual values	109:91
Percentage values	54.5:45.5
Years of education (%)	
Till schooling	28
Graduate	36.5
Post graduate/professional	35.5
Experience in yoga (%)	
Yoga	57
Non-yoga	43

Motivators

The motivators reported by obese and non-obese differed significantly (Chi square=26.54, df=15, p<0.05, Cramer's V=0.372).

Three most often selected motivators by obese respondents for yoga therapy were: reduce symptoms of illness (35.0%), pain relief (21.0%) and lifestyle changes (9.0%).

Table 2: Percentages of motivators (n=200).

Characteristics	Total sample	What is the reason you selected yoga for treatment?																	
		Possible difficulties																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Age																				
≤30	69	8.7	4.35	0	10.14	10.14	1.45	2.9	2.9	2.9	23.19	0	7.25	8.7	0	1.45	2.9	5.8	1.45	5.8
>30<50	60	11.67	6.67	0	11.67	3.33	1.67	11.67	1.67	1.67	25	1.67	5	1.67	0	3.33	1.67	8.33	0	3.33
≥50	71	25.35	0	0	7.04	0	1.41	9.86	2.82	7.04	33.8	2.82	1.41	2.82	0	0	0	2.82	0	2.82
Gender																				
Male	109	10.09	1.83	0	11.01	2.75	0.92	10.09	4.59	2.75	34.86	2.75	4.59	4.59	0	2.75	0.92	2.75	0.92	1.83
Female	91	21.98	5.49	0	7.69	6.59	2.2	5.49	0	5.49	18.68	0	4.4	4.4	0	0	2.2	8.79	0	6.59
Education																				
Till school	56	30.36	0	0	3.57	1.79	1.79	10.71	0	0	30.36	1.79	5.36	0	0	1.79	1.79	1.79	0	8.93
Graduate	73	10.96	8.22	0	6.85	9.59	0	5.48	6.85	1.37	30.14	1.37	4.11	2.74	0	0	0	8.22	1.37	2.74
Postgraduate/ professional	71	8.45	1.41	0	16.9	1.41	2.82	8.45	0	9.86	22.54	1.41	4.23	9.86	0	2.82	2.82	5.63	0	1.41
Yoga (months)	105	15.24	2.86	0	9.52	4.76	1.9	5.71	3.81	3.81	33.33	0.95	4.76	5.71	0	0.95	0.95	4.76	0	0.95
Non yoga (months)	95	15.79	4.21	0	9.47	4.21	1.05	10.53	1.05	4.21	21.05	2.11	4.21	3.16	0	2.11	2.11	6.32	1.05	7.37

Table 3: Percentages of barriers (n=200).

Characteristics	Total sample	When you return home do you believe will any of below factors will prevent from practicing yoga everyday for your health?									
		Possible difficulties									
		1	2	3	4	5	6	7	8	9	10
Age											
≤30	69	8.7	4.35	0	10.14	10.14	1.45	2.9	2.9	2.9	23.19
>30<50	60	11.67	6.67	0	11.67	3.33	1.67	11.67	1.67	1.67	25
≥50	71	25.35	0	0	7.04	0	1.41	9.86	2.82	7.04	33.8
Gender											
Male	109	10.09	1.83	0	11.01	2.75	0.92	10.09	4.59	2.75	34.86
Female	91	21.98	5.49	0	7.69	6.59	2.2	5.49	0	5.49	18.68
Education											
Till school	56	30.36	0	0	3.57	1.79	1.79	10.71	0	0	30.36
Graduate	73	10.96	8.22	0	6.85	9.59	0	5.48	6.85	1.37	30.14
Postgraduate/ professional	71	8.45	1.41	0	16.9	1.41	2.82	8.45	0	9.86	22.54
Yoga (months)	105	15.24	2.86	0	9.52	4.76	1.9	5.71	3.81	3.81	33.33
Non yoga (months)	95	15.79	4.21	0	9.47	4.21	1.05	10.53	1.05	4.21	21.05

Three most often selected motivators by non-obese respondents for yoga therapy were: reduce symptoms of illness (21.73%), pain relief (10.86%) and lifestyle changes (10.86%). The motivators for yoga reported by patients under the demographic characteristics (i.e. age, gender, years of education and whether the patients having prior experience in yoga or not are presented in Table 2.

Barriers

Three most often barriers reported by obese respondents were: no time (29.54%), physical incapability of practicing yoga (18.18%) and tiredness (15.9%). Three most often barriers reported by non-obese respondents were: no time (42.25%), physical incapability of practicing yoga (16.9%) and no interest/motivation (15.49%). The barriers for yoga reported by patients under the demographic characteristics (i.e. age, gender, years of education and whether the patients having prior experience in yoga or not are presented in Table 3.

DISCUSSION

This survey compared the motivators and barriers for yoga therapy between obese versus non-obese individuals. More obese than non-obese started yoga therapy to reduce symptoms of their illness and for pain relief, though there were comparable numbers of persons in both categories seeking to change their lifestyle with yoga therapy. It is known that the obese are more likely than age and gender matched normal persons to report chronic pain due to altered mobility, postures and increased joint loading in the obese.[9-13] Among barriers to practice yoga more non-obese than obese felt that time would be a challenge, whereas among both categories comparable percentages felt less capable physically of practicing yoga. About 15.9 percentage of obese persons also selected fatigue whereas 15.49 percentage of non-obese listed lack of interest in yoga as barriers to continuing with yoga. These findings demonstrate how important it is that yoga programs for the obese should not increase pain or fatigue in obese persons, but should be designed to promote mobility despite excess weight related limitations. While the motivators and barriers showed differences in percentage of persons involved for different age ranges, gender and levels of education, the first three motivators and barriers were not different.

In summary, obese adults were more likely than non-obese adults to seek yoga therapy for pain relief and for reduction of symptoms of associated chronic illnesses. Both categories of persons reported concerns about time. Yoga practice for obese adults needs to take into account considerations such as physical capability, as well as existing levels of pain and fatigue.

Limitations

The sample size in the present is small as it is a pilot study. No standardized questionnaire was used for the study.

CONCLUSION

With our data, we can conclude that “reducing symptoms of illness” the motivators to yoga for obese are comparable to non-obese with obese use yoga more frequently. Also, the barriers to yoga are comparable to obese with normal weight for “no time”.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Telles S, Gupta SK, Sharma SK. Understanding motivators and barriers for yoga practice in obese and non-obese individuals. Int J Res Med Sci 2024;12:777-81.