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Original Research Article

Knowledge and Attitude of Physiotherapist towards Obesity: A Cross-Sectional Study

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ABSTRACT

Aim: To check the knowledge and attitude of physiotherapist towards obesity.
Background: Obesity can be seen as the first wave of a defined cluster of non-communicable diseases called "New World Syndrome."One of the biggest myths about physiotherapy is that it can only help a person to recover from an injury or solve troubles like stiff neck, leg pain. However, physiotherapy is much more than that. Physiotherapy can actually heal you holistically, promote wellbeing and do away with problems which might be coming in your way. While weight management is nothing less than a struggle in healthy individuals or after any injury, regular physiotherapy can go a long way in regulating the extra weight and prevent secondary problem
Methodology: A Study was performed on 150 physiotherapists who have completed their graduation.
A structured questionnaires "Obesity Risk Knowledge questionnaire 10" and "Attitude Towards Obese Person Scale" were filled by the physiotherapist and submitted questionnaire through Google forms and personal interview method
Results: 124 physiotherapists completed the questionnaires. When overall knowledge and attitude was checked: 52% participants scored less than 6/10 (poor knowledge).62% participants had negative attitude towards obesity. From 124 physiotherapists 41 were PGs and 83 were UGs. When knowledge was seen amongst graduates and post graduates, Post graduates had 48.78% and graduates had 54.21% poor knowledge. When attitude was seen amongst graduates and post graduates, 48.78% post graduates and 55.42% graduates had negative attitude.
Conclusion: This study concluded that there is less knowledge and negative attitude towards obesity among physiotherapists.

Keywords: Obesity, Knowledge of physiotherapist, Attitude of physiotherapist, Obesity Risk Knowledge questionnaire, Attitude Towards Obese Person Scale, Post Graduates, Under Graduates.

1. INTRODUCTION

Obesity can be seen as the first wave of a defined cluster of non-communicable diseases called "New World Syndrome." [1] Obesity has been recognized as a public health problem, typically described as an "obesity epidemic" due to dramatic increases in prevalence throughout the globe. [2] Obesity is a global health problem that is spreading at an alarming rate across the world. In India, more than 135 million individuals are affected by obesity. [3]

A fast increase in Obesity over the last 30 years has been caused primarily by cultural and environmental factors. High-calorie diets, heavy meals, low level of physical activity and sedentary lifestyles and nutritional disturbances are major risk factors in development of obesity. [4] Overweight and Obesity was once considered a high-income-country problem. However, it is now on the rise in low and middle-income countries, particularly in urban settings. [5]

The most popular measure of overweight and obesity is Body Mass Index (BMI), calculated by dividing body weight (kg) by squared body height (m²). According to the WHO classification, BMI standard in adults ranges from 18.5 to 24.9 kg/m², overweight is diagnoses at BMI = 25 to 29.9 kg/m², and obesity occurs for BMI ≥ 30 kg/m² [6]

Overweight and obesity are believed to develop as a result of rapid changes in eating patterns and increasingly sedentary lifestyles. Overweight/Obesity is usually associated with some complications that adversely affect the health. These include; metabolic disorders, cardiovascular disorders, respiratory diseases, cancer, leukemia, myeloma, lymphoma, bone and joint conditions (knee joints and hip joints), pain in joints, gastrointestinal diseases, urinary incontinence, fertility disorders (irregular menstrual cycles, infertility, hirsutism, polycystic ovarian syndrome, miscarriages, diabetes, hypertension, pre-eclampsia, fetal abnormalities, and labor disorders), and many other complications, including psychological and social consequences. [7]

People who are obese may be reluctant to seek health care because of concerns about being criticize for their weight; the society is not receptive for obese individuals. It is not unexpected that this pervasive negative attitude is rampant in the general population given the constant messages that being 'slim' is associated with success and beauty. [8]

However, this widespread negative attitudes towards obese people cut across all walks of life, and what is more disturbing is that it is equally prevalent among health care professionals and other obesity specialists. Unfortunately, one would not have expected this negative attitude to exist among health care professionals working in obesity management.[8]

Bias about weight in health care settings and among health care professionals is a major concern. It is important that all health care professionals manage obesity like any other chronic disease-with compassion and a nonjudgmental professional attitude. [9]

There is a concern that the negative belief towards people who are obese among the health care professionals will not only compromise their clinical judgment but also dissuade obese patients from seeking medical assistance. These aspects of stereotypes and weight bias have negative consequences on the psychological well-being and quality of life of the obese. The physical therapists are integral members of the health assessment team that obese patients are referred for further treatment. [10]

Need of the study

As obesity is not just a word but disease spreading worldwide, there are many musculoskeletal and cardiovascular disorders due to obesity. Nowadays there is increase in number of surgeries for obesity in India. So, being a physiotherapist; we are the first to deal with patients with musculoskeletal, cardiovascular conditions. So, we should treat the cause first.

Attitudes and knowledge are 2 variables that can influence practice approaches. Negative attitudes towards obese patients may be a barrier to good practice among healthcare professionals involved in their management.

Hence, obesity management should be our primary goal. For management of obesity, physiotherapist should have knowledge and right attitude towards obesity Understanding physiotherapist own knowledge and attitudes towards obesity could be a first and effective step in devising intervention strategies to promote positive attitudes towards obese people.

Furthermore, information gained in this study could assist in the improvement of training programs for the physiotherapist with specific emphasis on

physiotherapy practice and attitudes towards obese patients.

Therefore, need arise to know about knowledge and attitude of physiotherapist towards obesity.

Aim: To check the knowledge and attitude of physiotherapist towards obesity.

Objectives

1. To check the knowledge of physiotherapist towards obesity.
2. To check the attitude of physiotherapist towards obesity.
3. To observe the knowledge of obesity amongst graduates and post graduates.
4. To observe the attitude of obesity amongst graduates and post graduates.

2. METHODOLOGY

A Study was performed in 150 physiotherapists who have completed their graduation. From this 124 were included and 26 were excluded according to exclusion criteria. A structured questionnaires "Obesity Risk Knowledge questionnaire 10" [11] and "Attitude Towards Obese Person Scale" [12] were filled by the physiotherapist and submitted questionnaire through Google forms and personal interview method

2.1: Inclusion Criteria

1. Therapist who have completed graduation of physiotherapy.
2. Subjects willing to participate.

2.2: Exclusion Criteria

1. Those who did not fill the form completely.

2.3: Outcome Measure

The Obesity Risk Knowledge (ORK-10) scale is a reliable and valid scale designed by Swift, Glazebrook and Macdonald (2006). This 10-item instrument was to assess the knowledge on the health risks associated with obesity.

The score range for this scale ranged from 0-10; higher scores indicate greater knowledge and awareness of the health risks associated with obesity. The ORK-10 scale has good internal consistency (Cronbach's alpha coefficient 0.7) and is acceptable for use. [13]

1. A person with a 'beer-belly' shaped stomach has an increased risk of getting diabetes.
   True (circled)
   Don't know
   False
2. Obesity increases the risk of getting bowel cancer.
   True (circled)
   Don't know
   False
3. An obese person who gets diabetes needs to lose at least 40% of their bodyweight for clear health benefits.
   True
   Don't know
   False (circled)
4. Obese people can expect to live as long as non-obese people
   True
   Don't know
   False (circled)
5. Obesity increases the risk of getting breast cancer after the menopause
   True (circled)
   Don't know
   False
6. Obesity is more of a risk to health for people from South Asia (e.g. India and Pakistan) that it is for white Europeans.
   True (circled)
   Don't know
   False
7. There is no major health benefit if an obese person who gets diabetes loses weight
   True
   Don't know
   False (circled)
8. Obesity does not increase the risk of developing high blood pressure
   True
   Don't know
   False (circled)
9. It is better for a person's health to have fat around the hips and thighs than around the stomach
   True (circled)
   Don't know
   False
10. Obesity increases the risk of getting a food allergy
    True
    Don't know
    False (circled)

Attitudes Toward Obese Persons Scale

Please mark each statement below in the left margin, according to how much you agree or disagree with it. Please do not leave any blank. Use the numbers on the following scale to indicate your response. Be sure to place a minus or plus sign (- or +) beside the number that you choose to show whether you agree or disagree.

-3	-2	-1	+1	+2	+3
I strongly disagree	I moderately disagree	I slightly disagree	I slightly agree	I moderately agree	I strongly agree

1. _____ Obese people are as happy as nonobese people.
2. _____ Most obese people feel that they are not as good as other people.
3. _____ Most obese people are more self-conscious than other people.
4. _____ Obese workers cannot be as successful as other workers.
5. _____ Most nonobese people would not want to marry anyone who is obese.
6. _____ Severely obese people are usually untidy.
7. _____ Obese people are usually sociable.
8. _____ Most obese people are not dissatisfied with themselves.
9. _____ Obese people are just as self-confident as other people.
10. _____ Most people feel uncomfortable when they associate with obese people.
11. _____ Obese people are often less aggressive than nonobese people.
12. _____ Most obese people have different personalities than nonobese people.
13. _____ Very few obese people are ashamed of their weight.
14. _____ Most obese people resent normal weight people.
15. _____ Obese people are more emotional than nonobese people.
16. _____ Obese people should not expect to lead normal lives.
17. _____ Obese people are just as healthy as nonobese people.
18. _____ Obese people are just as sexually attractive as nonobese people.
19. _____ Obese people tend to have family problems.
20. _____ One of the worst things that could happen to a person would be for him to become obese.

Attitudes Toward Obese Persons (ATOP) scale, a 20-item scale developed by Allison, Basile and Yuker (1991). The scale is based on a six-point Likert scale (ranging from: -3= I strongly disagree to +3 = I strongly agree), participants have to indicate the extent to which they agree or disagree with twenty statements regarding obese people. Higher scores on the ATOP scale indicate positive attitudes towards obese people. The lowest score that can be obtained is 0, and the highest is 120, therefore any score above the midpoint (score of 60) indicates that the individual has positive attitudes towards obese persons. Reliability yielded a Cronbach's coefficient alpha of 0.92. [14]

Scoring instructions for the Attitudes toward Obese Persons (ATOP) scale

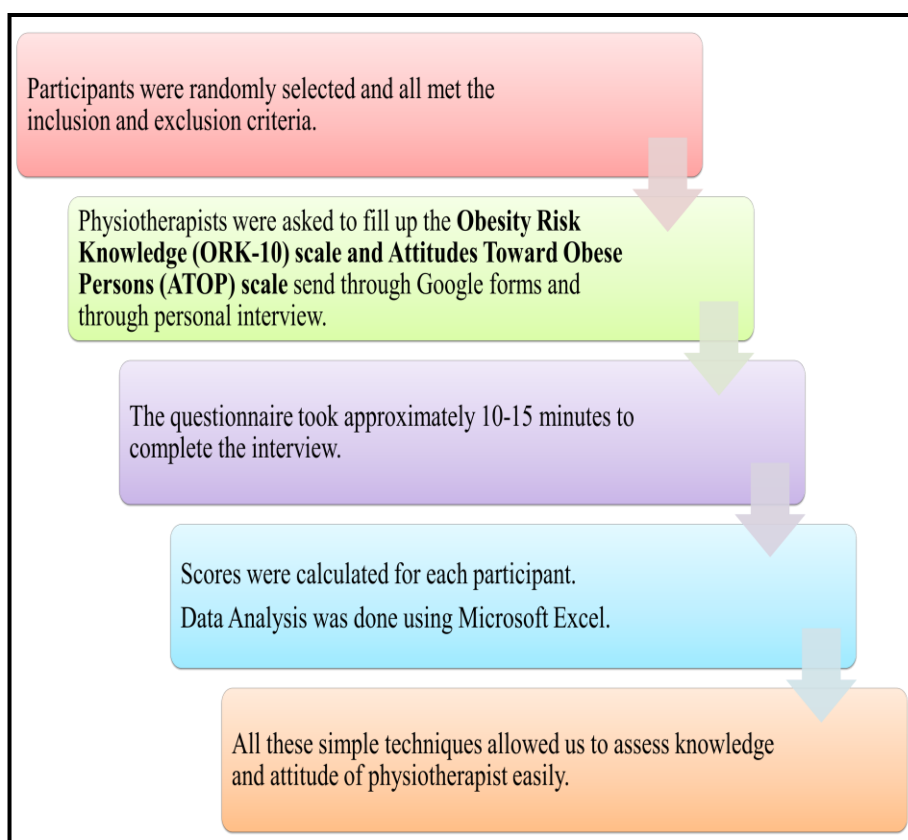
Step 1: Multiply the response to the following items by -1 (i.e., reverse the direction of scoring): Item 2 through Item 6, Item 10 through Item 12, Item 14 through Item 16, Item 19 and Item 20

Step 2: Add up the responses to all items.

Step 3: Add 60 to the value obtained in Step 2. This value is the ATOP score. Higher numbers indicate more positive attitudes (Allison & Baskin, 2009).

Scoring Instructions for the Obesity Risk Knowledge (ORK-10) Scale: Each question that is answered correctly on the ORK-10 scale is equal to one point. As there are ten questions on the questionnaire, the minimum score that can be achieved is zero and the maximum score that can be achieved is 10. If participants get the question wrong, or they select the 'don't know' option they are given zero points for that question (Swift et al. 2006)

2.4 Procedure



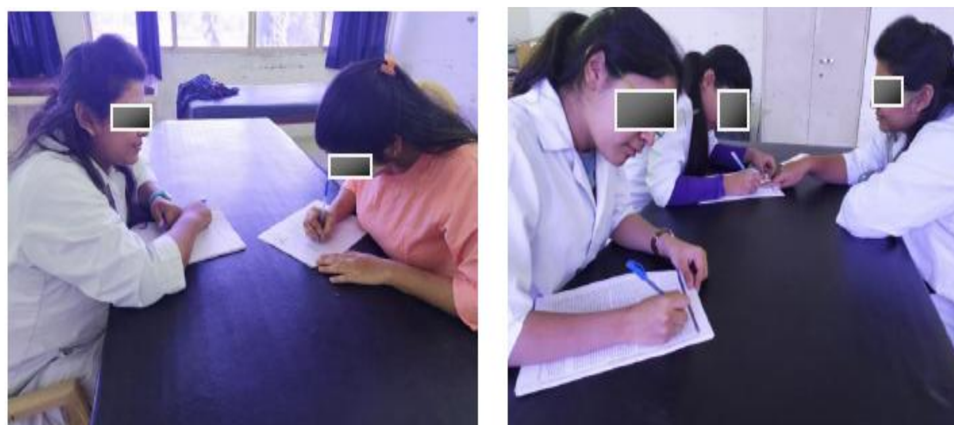
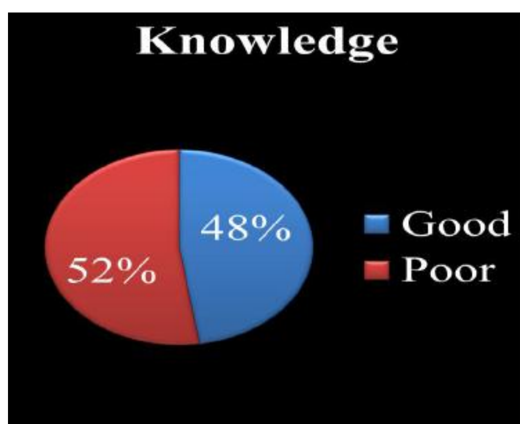


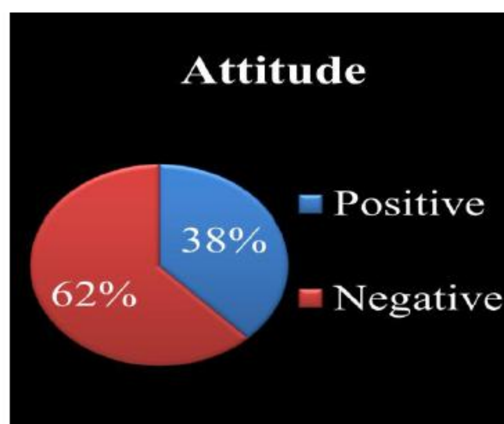
Figure 1: Subjects Filling the Questionnaire

3. RESULT

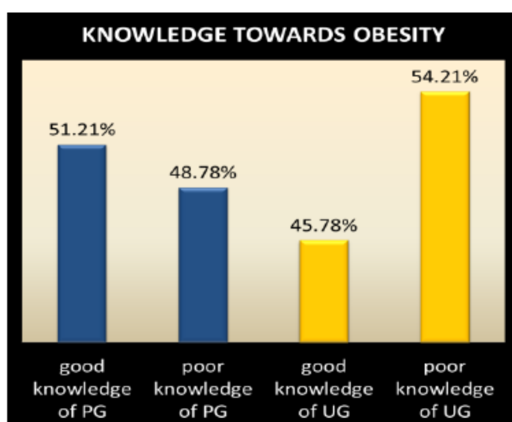
- 124 physiotherapists completed the questionnaires. When overall knowledge and attitude was checked:
- 52% participants scored less than 6/10(poor knowledge).
- 62% participants had negative attitude towards obesity.
- From 124 physiotherapists 41 were PGs and 83 were UGs.
- When knowledge was seen amongst graduates and post graduates, Post graduates had 48.78% and graduates had 54.21% poor knowledge.
- When attitude was seen amongst graduates and post graduates, 48.78% post graduates and 55.42% graduates had negative attitude.



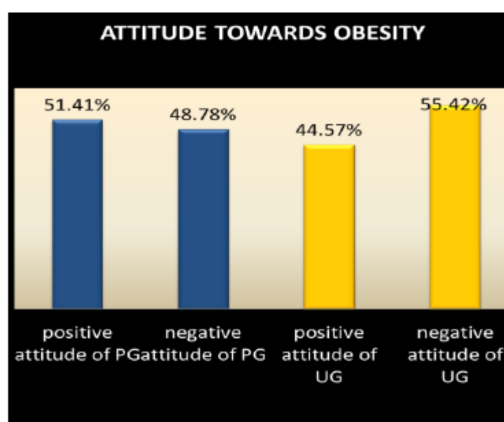
Graph 1 - Overall Knowledge of Physiotherapists



Graph 2- Overall Attitude of Physiotherapists



Graph 3 - Knowledge of Undergraduates and Postgraduates Physiotherapists



Graph 4 -Attitude of Undergraduates and Postgraduates Physiotherapists

4. DISCUSSION

The results of the present study indicate that physiotherapists may not be well equipped to offer advice to obese patients as they do not have adequate knowledge regarding obesity. These findings confirm that a gap in knowledge exists.

A more focused approach regarding the role of physiotherapists in the prevention and management of obesity and its associated conditions from undergraduate to postgraduate levels thus seems warranted to improve students' knowledge. [13]

Post graduates are updated with more recent advances compared to graduates. There are many myths about obesity amongst physiotherapist.

Several studies have concluded that lack of knowledge of the causes of obesity among healthcare professionals is known to mitigate the capacity to effectively intervene or advice (Block et al., 2003). [15]

The difference in attitudes amongst students' can be due to the different methods used to measure attitudes towards obese persons. Nevertheless negative attitudes towards obese persons may be due to the negative connotations associated with obesity in society, these stereotypical assumptions result in negative attitudes and discrimination amongst individuals who are overweight and obese. Therefore it is vital that education on reducing weight related bias is implemented amongst individuals from all weight categories, as negative attitudes have also been reported amongst overweight and obese individuals, not just their thinner counterparts (Latner et al. 2005). [10]

JS Phillips et al. studied on **Knowledge and attitudes of physiotherapy students towards obesity** concluded that the need for a more focused approach to the education of physiotherapy students related to obesity and obesity related conditions, and the management thereof. Education should also emphasise the vital role of physiotherapy in the management and treatment of obese individuals. [11]

AWOTIDEBE ADEDAPO WASIU et al. studied on **knowledge and attitude of physiotherapy students at the University of the Western Cape towards** and concluded that participants view obesity as a behavioral problem and share the broader society's negative attitudes towards obese people. There is an urgent need to improve the physiotherapy training curriculum with regards obesity education. This is vital not only to improve knowledge and skills in obesity management approaches but also to help improve positive attitudes towards obesity and the people who are obese. [10]

To the contrast **Suzanne Sack et al** studied on **Physical Therapists' Attitudes, Knowledge, and Practice Approaches Regarding People Who Are Obese** and concluded that physical therapists have neutral attitudes toward people who are obese. Physical therapists appropriately indicated that lack of physical activity and poor nutritional habits contribute to obesity. Younger respondents, who had recently entered the work force, had higher knowledge scores than respondents who were older and had worked longer. Improvements in physical therapists' referral patterns may assist in the health care team approach to the treatment of obesity. Education to enhance physical therapists' knowledge about obesity should be emphasized. [9]

5. CONCLUSION

This study concluded that there is less knowledge and negative attitude towards obesity among physiotherapists. So proper knowledge and right attitude towards obese person is necessary.

Clinical Implication

- This study has reinforced the need for a more focused approach to the education of physiotherapists related to obesity and obesity related conditions.

- Education should also emphasise the vital role of physiotherapy in the management and treatment of obese individuals.

Limitations

- Sample size was not very adequate to provide the accurate score of knowledge and awareness of physiotherapists.
- Homogeneity is not maintained between graduates, post graduates, clinicians and academic staff.

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