



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 8, Issue, 9, pp. 20241-20244, September, 2017

**International Journal of
Recent Scientific
Research**

DOI: 10.24327/IJRSR

Research Article

RELATIONSHIP OF OBESITY AND DEPRESSION BETWEEN UNDERGRADUATE STUDENTS OF NON-PROFESSIONAL COLLEGES AND THOSE OF PROFESSIONAL COLLEGES

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DOI: <http://dx.doi.org/10.24327/ijrsr.2017.0809.0856>

ARTICLE INFO

Article History:

Received 18th June, 2017
Received in revised form 10th
July, 2017
Accepted 06th August, 2017
Published online 28th September, 2017

Key Words:

BMI, Depression.

ABSTRACT

Background of the study: Obesity is associated with an increased risk of mental illness however Evidence linking body mass index (BMI)-a measure of overall obesity, to mental illness is inconsistent. The purpose of the study1. To assess the obesity among the students of non-professional and professional colleges (BMI) 2. To assess the level of depression among the students of non professional and colleges in (BDI) 3. To assess the relationship between the obesity and depression among the students of non-professional and professional colleges4. To compare the relationship of obesity and depression among the students of non-professional colleges with that among the students of professional colleges. 5 To associate the depression scores of non professional and professional college students with their selected demographic characteristic. The study was carried out using a descriptive Correlation design. A Non-probability sample 300 was recruited. A self report questionnaire included demographic characteristic, Bio physical measurement. Beck Depression Inventory were used for data collection. There was positive correlation between BMI and BDI of non-professional students ($r = 0.146$, $p = 0.075$). For the professional students($r = 0.130$, $p = 0.113$). There is a difference of 0.016 between correlation coefficients of non professional and professional students.

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INTRODUCTION

Obesity is a global nutritional concern. The prevalence of obesity is high in developed countries and similar trends are being observed in recent years among children from developing countries. School based data on obesity in India shows a prevalence of 5.6-24% among children and adolescents. Obesity appears to be associated with an increased risk of depression, and depression also appears associated with an increased risk of developing obesity. Obese people are more likely to experience stress, worry, anger, sadness, and to be diagnosed with depression than those of normal weight. For example, the depression rate among obese Americans is 23.2 percent, compared to 14.3 percent among individuals of normal weight. Obesity is associated with an increased risk for a number of mental disorders (i.e., depression, bipolar disorder, panic disorder, anxiety, or many others) that have a substantial impact on public health (e.g., associated with great burden of diseases and increased mortality, disability, and reduced quality of life).

Objectives

1. To assess the obesity among the students of non-professional and professional colleges

2. To assess the level of depression among the students of non-professional and professional colleges.
3. To assess the relationship between the obesity and depression among the students of non-professional and professional colleges
4. To compare the relationship of obesity and depression among the students of non-professional colleges with that among the students of professional colleges.
5. To associate the depression scores of non-professional and professional college students with their selected demographic characteristic.

MATERIALS AND METHODS

Research approach and Research design

Comparative correlation approach was adopted for the study

Research Setting

The study was conducted in general education and professional education colleges at Vidharbha region, Maharashtra.

Sampling Technique and Sample Size

Non probability quota sampling technique was used, 300 College students were selected as

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Sample i.e.150 students from general education colleges and 150 students from professional education colleges.

Description of the Tool

The self administered questionnaire consists of three sections, section I, II, and III.

Section I- Consists of demographic characteristics,

Section II consists of bio physiological Measurements in terms of height, weight records.

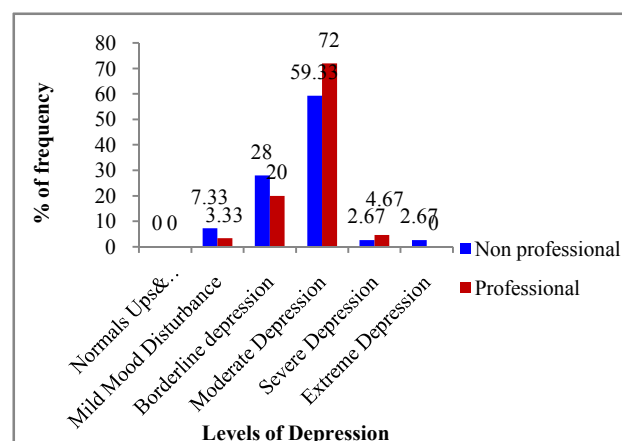
Section III is the standardized Beck Depression Inventory for assessing the levels of depression among the participants.

RESULT

The data collected from 300 professional and non professional college students was tabulated, analyzed and interpreted by using descriptive and inferential statistics based on the objectives.

Section I: Demographic variables of selected professional and non professional college students with regard to their, majority of the non professional students (92) belong to age group 17-19 year where as majority (97) of the professional students belong to age group of 20-21 years. Non-professional students were (76) females whereas 82 professional students were males. Majority of non professional students belonged to 1st year and 3rd year (53 and 52) whereas most professional students belonged to 3rd year and 4th year (71 and 25) of the study course. Most of the non professional students (69) were enrolled for science stream whereas majority of professional students (90) was enrolled for engineering studies. Non professional students (48) had more than 5 members in the family where as 72 professional students had more than 5 members in the family. Non professional students (72) had nuclear families whereas 79 professional students belonged to joint families. Non professional 91 and 110 professional students were Hindu. Mothers of 78 non professional students were unemployed and 51 were self employed as compared to that of 46 professional students were unemployed, 72 were self employed and 28 had private service as well. Professional students' fathers 114 had education up to graduation and above. Professional students' fathers 67 were government employed and another 53 were self employed. Most of the non professional students (141) and professional students (135) were mixed vegetarian. Most of non professional students (84) and professional students (77) take non vegetarian food once a week. Non professional students 92 and 63 professional students take three meals a day. Professional students 75 take 2 meals a day. Non professional 144 and 145 professional students do no consume alcohol. Non professional students 85 and 95 professional students eat junk food twice a week. Non professional students 115 have one party in a week whereas 62 professional students have one party, 48 have two and 25 have three parties in a week. There is no family history of obesity for 119 non professional and 122 professional students. Current residence of the 124 non professional students and 111 professional students is home.

Section II: Assessment of the levels of depression and BMI Scores of selected Subjects.



The mean BDI score for non professional students is 22.13 ± 5.38 whereas that for the professional group is 22.55 ± 3.60 . The mean BMI score for non professional students is 26.74 ± 4.41 as compared to that for professional students is 27.07 ± 1.21 .

Section III: Comparison of relationship between BMI and BDI among non-professional and professional students.

Table 1 Comparison of Correlation between BMI and BDI among the two groups

Group	Group	Freq	Mean	SD	r	P
Non Professional Students						
	BMI	150	27.1400	1.07460	0.146	N.S. p>0.05
	BDI	150	21.2600	3.35871		
Professional Students						
	BMI	150	27.0719	1.20547	0.130	N.S. p>0.05
	BDI	150	22.5467	3.59826		

Table 1 reveals that the Pearson correlation coefficient for non-professional students is 0.146 with 'p' of 0.075 which is slightly higher than the predetermined level of significance $p = 0.05$. The 'r' shows slightly positive correlation between BMI and BDI of non-professional students. For the professional students the 'r' values is 0.130 showing slightly positive correlation between BMI and BDI. But the calculated 'p' is 0.113 which much higher than the predetermined 'p'=0.05. The correlation coefficient for non-professional students is 0.146 and that for professional students is 0.130. There is a difference of 0.016 between the correlation coefficients of non-professional and professional students. This indicates that the non-professional students have more significant correlation between BDI and BMI as compared to the professional students.

Section IV: Association of BMI and BDI Scores with selected demographic variables of the Subjects. BMI of non-professional students is associated with the stream of education, number of non-veg meals per week, and sedentary work hours. BDI of non-professional students is associated with the mother's occupation, father's education, number of non-veg, meals per week, number of junk food per week and number of parties per week. BMI of professional students is associated with father's occupation. BDI of professional students is associated with consumption of alcohol and family history of obesity.

DISCUSSION

In present study researcher found that professional and non professional college students with regard to their, majority of the non professional students (92) belong to age group 17-19 year where as majority (97) of the professional students belong to age group of 20-21 years. Non-professional students were (76) females whereas 82 professional students were males. Majority of non professional students belonged to 1st year and 3rd year (53 and 52) whereas most professional students belonged to 3rd year and 4th year (71 and 25) of the study course. Most of the non professional students (69) were enrolled for science stream whereas majority of professional students (90) was enrolled for engineering studies. Non professional students (48) had more than 5 members in the family where as 72 professional students had more than 5 members in the family.

Non professional students (72) had nuclear families whereas 79 professional students belonged to joint families. Non professional 91 and 110 professional students were Hindu. Mothers of 78 non professional students were unemployed and 51 were self employed as compared to that of 46 professional students were unemployed, 72 were self employed and 28 had private service as well. Professional students' fathers 114 had education up to graduation and above. Professional students' fathers 67 were government employed and another 53 were self employed. Most of the non professional students (141) and professional students (135) were mixed vegetarian. Most of non professional students (84) and professional students (77) take non vegetarian food once a week. Non professional students 92 and 63 professional students take three meals a day. Professional students 75 take 2 meals a day. Non professional 144 and 145 professional students do not consume alcohol. Non professional students 85 and 95 professional students eat junk food twice a week.

Non professional students 115 have one party in a week whereas 62 professional students have one party, 48 have two and 25 have three parties in a week. There is no family history of obesity for 119 non professional and 122 professional students. Current residence of the 124 non professional students and 111 professional students is home.

The mean BDI score for non professional students is 22.13 ± 5.38 whereas that for the professional group is 22.55 ± 3.60 . The mean BMI score for non professional students is 26.74 ± 4.41 as compared to that for professional students is 27.07 ± 1.21 .

Pearson correlation coefficient for non-professional students is 0.146 with 'p' of 0.075 which is slightly higher than the predetermined level of significance $p = 0.05$. The 'r' shows slightly positive correlation between BMI and BDI of non-professional students. For the professional students the 'r' values is 0.130 showing slightly positive correlation between BMI and BDI. But the calculated 'p' is 0.113 which is much higher than the predetermined 'p'=0.05. The correlation coefficient for non-professional students is 0.146 and that for professional students is 0.130. There is a difference of 0.016 between the correlation coefficients of non-professional and professional students. This indicates that the non-professional students have more significant correlation between BDI and BMI as compared to the professional students. to include knowledge

about obesity and depression for students at all levels. Association of BMI and BDI Scores with selected demographic variables of the Subjects. BMI of non-professional students is associated with the stream of education, number of non-veg meals per week, and sedentary work hours. BDI of non-professional students is associated with the mother's occupation, father's education, number of non-veg, meals per week, number of junk food per week and number of parties per week. BMI of professional students is associated with father's occupation. BDI of professional students is associated with consumption of alcohol and family history of obesity.

CONCLUSION

This study aimed at assessing the relationship between obesity and depression among the undergraduate college students. The findings reveal that though there is no statistically significant relationship between the two variables, there exists a positive relationship between obesity and depression among both the study groups. This suggests that there is a need for intervention in terms of creating awareness regarding factors such as sedentary life style, partying frequently, and frequent use of junk food which contributes obesity and in turn depression. The depression increases chances of eating irregularly which in turn results in obesity. On the basis of the findings of the study, it is recommended that the following studies can be conducted-1) A similar study on large sample for generalization of findings; 2) An experimental study to find the improvement obesity and depression levels after an educational program; 3) A prospective study on early school children to assess the relationship between obesity and depression after a prescribed diet and exercise routine for a period of 1-5 years, and 4) A comparative study can be done among male and female.

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How to cite this article:

Ashwini Kishor Vaidya.2017, Relationship of Obesity and Depression between Undergraduate Students of Non-Professional Colleges and Those of Professional Colleges. *Int J Recent Sci Res.* 8(9), pp. 20241-20244.
DOI: <http://dx.doi.org/10.24327/ijrsr.2017.0809.0856>
