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**A comparative study to assess the Health Related Quality of Life (HRQoL) and perception of body image among normal and overweight/obese adolescents in selected English Medium Schools of Udupi District, Karnataka.**

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## "ABSTRACT

A research study titled "A comparative study to assess the Health Related Quality of Life (HRQoL) and perception of body image among normal and overweight/obese adolescents in selected English Medium Schools of Udupi District, Karnataka" was conducted by Mrs Jane J Mathias in partial fulfilment of the requirement for the degree of Masters of Science in Nursing at Manipal College of Nursing, Manipal, Manipal Academy of Higher Education, Karnataka.

The objectives of the study were to identify the normal and overweight/obese adolescents, find their Health Related Quality of Life (HRQoL) and body image perception, assess the relationship between BMI and HRQoL/body image perception and to compare the HRQoL and body image perception among normal and overweight/obese adolescents.

Conceptual model of the study was derived from revised Wilson and Cleary model for HRQoL given by Ferrans, Zerwic, Wilbur and Larson in 2005, which explains the different domains in HRQoL, the biological measures, the physical functioning and general health perceptions and describes the relationship between them.

A quantitative approach with a comparative survey design was adopted for the study. Adolescents studying in 8th, 9th and 10th standard of selected English Medium Schools of Udupi District were selected using cluster sampling and BMI was screened. Adolescents with BMI between 15th to 75th percentile and above 85th percentile in the WHO growth standards were classified as normal and overweight/obese adolescents respectively. Students present during the data collection time, willing to participate in the study and only those who were overweight/obese

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due to nutritional causes were taken for the study. The study was conducted among 440 adolescents (220 each in normal and overweight/obese adolescents group) from December 2017 to January 2018.

The data collection instruments used for the study were a screening tool for BMI to identify the normal and overweight/obese adolescents, background proforma proforma, PedsQLTM questionnaire for assessing the HRQoL and body image perception tool to assess the perception of body image.

The establishment of content validity was done by giving the tool to seven experts and modifications were done accordingly. The pretesting was done among 10 high school adolescents (5 each in normal weight and overweight/obese adolescents group) of a randomly selected school in Udupi District and the items were found to be clear and feasible. The reliability of PedsQLTM 4.0 questionnaire and body image perception tool was done by Cronbach's alpha and was 0.82 and 0.83 respectively. The pilot study was conducted in December 2017 among 30 high school students and the study was found to be feasible.

A total of 1289 students participated in the screening part, among which 220 normal weight and 220 overweight/obese adolescents were selected for the study. Informed consent/assent was obtained from the parents and the adolescents. After getting the informed consent from the parents and fixing the time with the school authorities, overweight/obese and normal weight adolescents who were willing to take part in the study were taken in equal number. The selected students were asked to sit in the front rows of their class and HRQoL and body image perception questionnaire was administered to them.

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The data was analysed using SPSS package version 16.0. The results showed that, out of 1298 adolescents, majority of the students 803 (62%) had a normal BMI, 172 (13%) were overweight, 98 (8%) were obese and 216 (17%) of the students were underweight. In the context of HRQoL, majority 171 (77.8%) of normal weight adolescents and 112 (50.9%) of overweight/obese adolescents had very good quality of life. Among the overweight/obese adolescents, 12 (5.4%) had poor quality of life, whereas none of the normal weight adolescents had poor quality of life. Mean HRQoL was  $81.98 \pm 11.31$  in normal weight adolescents compared to  $71.44 \pm 20.63$  in overweight/obese adolescents. Mean HRQoL was more in social domain, i.e.,  $87.59 \pm 15.20$  in normal weight adolescents and  $75.48 \pm 24.69$  in overweight/obese adolescents.

Most of the normal weight adolescents 155 (70.5%) had mild body image perception and 65 (29.5%) had moderate perception of body image. The mean perception of body image ( $48.61 \pm 16.10$ ) of overweight/obese adolescents was higher than the mean perception of body image ( $38.05 \pm 11.78$ ) among the normal weight adolescents. The study also showed that there was a weak negative correlation ( $r = -0.204$ ,  $p = .002$ ) between BMI and HRQoL and a weak positive correlation ( $r = .236$ ,  $p = .001$ ) between BMI and body image perception among overweight/obese adolescents. The study also revealed that, there was a significant difference in HRQoL and body image perception ( $p < .001$ ) between normal and overweight/obese adolescents.

In addition to these findings, it was also found that, there was a significant association between HRQoL and BMI ( $\chi^2=52.750$ ,  $p < 0.001$ ). Also, there was a

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significant association between body image perception and BMI ( $\chi^2=56.956$ ,  $p=0.001$ ).

The study concluded that the HRQoL is inversely related to the weight of the adolescents, i.e., when BMI increases, the HRQoL decreases or vice-versa, BMI is directly related to the body image of the adolescents, i.e., when the body weight increases, perception of body image also increases or vice-versa. Giving health education on maintenance of healthy weight and a balanced diet can help in improving the HRQoL and body image perception.

Based on the findings, the following recommendations were made:

- The study can be replicated to a larger population as multicentric study from different blocks and setting.
- A comparative study can be conducted between residential and non-residential school students.
- As in the present study, underweight adolescents forms the second largest group after normal weight adolescents, interventions like educational awareness on „balanced diet“ can be conducted and their effectiveness can be checked.
- A similar study can be replicated on adolescents in the four groups; underweight, normal weight, overweight and obese adolescents with different age groups.

- A study that includes both children's view and parents view on the children's quality of life and body image perception can be conducted.
- A study can be conducted to check the effectiveness of the intervention program that is been given to the adolescents."