

Comparison of Children's and Parent's Perspective on Health-Related Quality of Life of Children between 8-12 Years of Age Group

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ABSTRACT

Purpose: Quality of life assessment in children is a useful indicator of overall health because it captures information on the physical and mental health status of the children. The need for such assessment in children is for identification of vulnerable groups with poor health and help them take necessary interventions to improve their situation and prevent more serious consequences

Methods: 702 school going children aged from 8-12 years including both male and female students were assessed. After due permissions, the Pediatric Quality of life Inventory version 4.0 Scale(PedsQL)- child self-report was distributed amongst children in order to identify which category of pediatric quality of life is most affected among children. Detailed explanation about different components and questions of the scale and scoring was given to the children. The parents report was also distributed to analyse if there were any difference in child and parent's perspective regarding the health related quality of life of the child.

Results: The data consisted of 43% females and 57% males. One way ANOVA demonstrated that there was significant difference ($P < 0.01$) between the four components of the scale with the physical functioning aspect being most affected amongst children. Mann Whitney U test was done which demonstrated significant difference ($p < 0.01$) between child and parent's perspective regarding health related quality of life of the child.

Conclusion: The study demonstrates Physical functioning aspect is the most affected among children using pediatric quality of life inventory 4.0- child self-report. There is significant difference between child's perspective and parent's perspective of health-related quality of life of the child.

Keywords: health related quality of life, paediatrics, children.

INTRODUCTION

Quality of life is broad multidimensional concept that usually includes subjective evaluation of both positive and negative aspects of their life.¹⁻² Health related quality of life is a subset of quality of life used to measure individual's perception of health.³ It captures details on various domains of life and provides information about the wellbeing of the person as a whole. Health related Quality of life (HRQOL) assessment is an important

tool not only for adolescent and geriatric population but also for the paediatric age group. Quality of life assessment in children is a useful indicator of overall health because it captures information on the physical and mental health status of the children. The need for such assessment in children is for identification of vulnerable groups with poor health and help them take necessary interventions to improve their situation and prevent more serious consequences.⁴ In case of chronically ill

children, it helps to identify the child's needs, provide proper palliative care focusing on the child's needs and improve their quality of life.⁴ It also provides better understanding of different problems prevalent among school children in society and tackling these problems at earlier stages. A self-reported quality of life assessment by children themselves is an indicator of different areas of concern among school children and those in need of remedial or counselling help. Since children may fail to accurately communicate their feelings verbally to their parents, teachers or to the doctors, thus HRQOL feedback may help in identification of the child's needs and assists in communication.⁵ HRQOL measurement in paediatric healthcare settings can facilitate patient-physician communication, identify hidden morbidities, and assist in clinical decision-making.⁵ Parents are often the primary reporters of symptoms and are the main decision-makers on behalf of their child, their evaluation of child's quality of life is affected by their own circumstances, situation and their emotions. Also parental assessment does not represent the way in which the problems are perceived and experienced by the children themselves.⁶ Moreover many times parents may underestimate or overestimate their child's quality of life while filling child's proxy report, therefore it further establishes the need for health-related quality of life assessment among children.⁶⁻⁷ There are various instruments which are developed with the age, maturity and cognitive development of the subjects in mind for assessing the Quality of life of children.⁸ Paediatric quality of life inventory 4.0 is one such measurement tool used to assess the health-related quality of life among children. It takes into account the developmental stage of the child and is short and easy to use. Pediatric quality of life has two components: child's report and parents report for their child. There are four categories assessed in scale physical functioning, emotional functioning, social functioning and school functioning

Therefore quality of life assessment provides an active and equal participation for both child and the parent. Lack of Physical activity predisposes school children to various health risks like childhood obesity. Childhood obesity increases children's risk for remaining obese in adulthood which in turn raises the risk to a number of chronic diseases including diabetes, cardiovascular diseases, cancer and stroke. Obesity can also set other problems with self-esteem, depression, anxiety and being victim of bullies. Primordial prevention is one of the major step which should be taken as a preventive measure by targeting the children at a young age which can prevent the emergence of such risk factors in future. Assessment of quality of life in paediatrics has become a protocol in clinical settings of many developed countries. PedsQL can also be used as valid measure of assessment of HRQOL in paediatric conditions like asthma, diabetes and cancer. In clinical settings it will help in better planning and mode of treatment by taking the risk factors into consideration. Paediatric quality of life assessment is a more holistic approach for prevention of diseases and health promotion. It helps in measuring, tracking and promoting wellbeing. A higher quality of life is associated with decreased risk of disease, illness, and injury; better immune functioning; speedier recovery; and increased longevity.

MATERIALS AND METHODS

The study was approved by the institutional ethical committee before its commencement. After which the study was carried out on 702 school going children aged from 8-12 years including both male and female students. The school authorities were briefed about the importance of the study in various aspects of a child's life. Consent was taken from principals of the respective schools and parents of the students and assent was taken from the students. Child self-report and parent report for child was distributed among children.

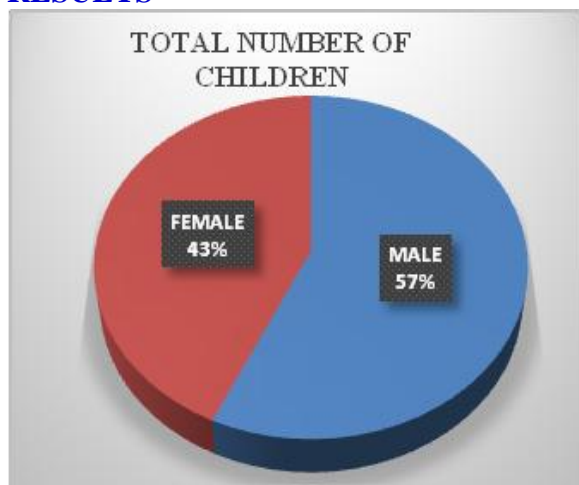
Detailed explanation about different components of the scale and scoring was given to the students. Standardised instructions to fill the demographic data including the name, age and gender in both the reports was given to children and explanation of each question in detail was given. The child self-report was filled and collected immediately. For the parents report children were instructed to get the filled questionnaire from their parents within two days. After which most affected category among child using "child self-report" was identified. Child and parent's perspective about health related quality of life of child was then compared.

STATISTICAL ANALYSIS

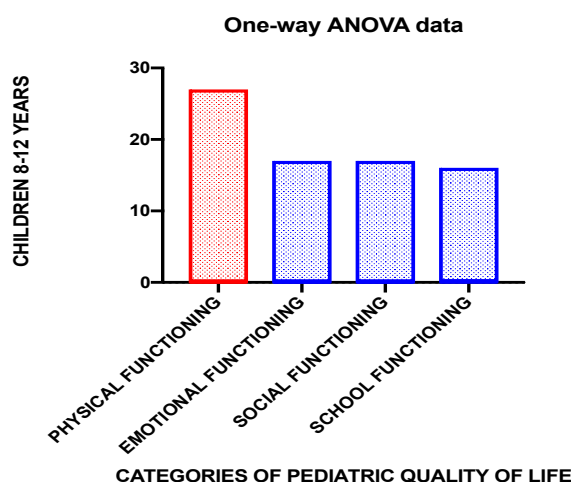
All the data was analysed using Graph pad prism 8 for Windows.

- To compare the four categories of paediatric quality of life (physical functioning, emotional functioning, social functioning and school functioning) One way Anova Test was used and post hoc analysis was used to find which aspect was most affected among children between 8-12 years of age group in school.
- Mann-Whitney U Test was used to find if there was any difference in child and parent's perspective regarding the Health-related quality of life of child.

RESULTS

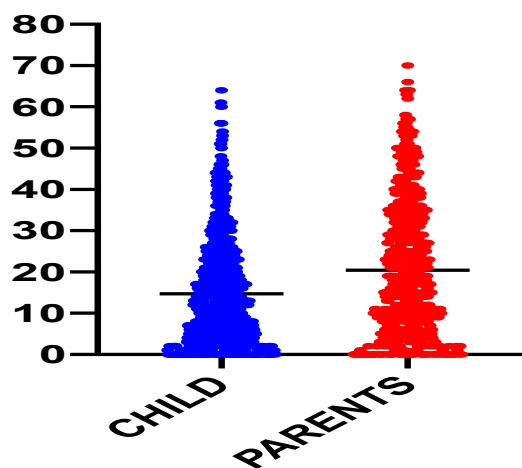


Graph 1: This graph demonstrates the gender distribution of the population.



Graph 2: This graph demonstrates comparison of different categories of Pediatric Quality of Life

Inference: Physical functioning aspect being most affected ($p < 0.0001$) among children using pediatric quality of life inventory 4.0 child self-report.



Graph 3: This graph depicts comparison of parent and child PEDsQL total score

Inference: There was a significant difference found in child and parent's perspective of health-related quality of life ($p < 0.0001$).

Also, similar findings were observed on comparison of different components of the PEDsQL score whereby there was statistically significant difference observed between child self-report and parents report ($p < 0.0001$) in all the four components of the scale.

DISCUSSION

The aim of the study was to find which aspect was most affected among children using Pediatric Quality of Life Inventory 4.0 CHILD SELF REPORT. Physical functioning component was found to be most affected among the school children between the age group of 8- 12 years. Children have reported a higher physical functioning score which corresponds to poor quality of life with regard to the physical functioning domain. Physical inactivity can result in poor functioning of the child and in turn lead to child's poor performance. Lack of physical activity in childhood leads to increased risk of being overweight or obese in adulthood, as well as obesity related health problems. The advent of technology and a sedentary life style predisposes school children to various health related risks like childhood obesity. This study demonstrates the need to inculcate active physical lifestyle among school children. Since primordial prevention is one of the new concepts in trend, targeting these school children at younger age, we may be able to prevent the emergence of such risk factors. Hence, the schools should take necessary steps and physical education should be part and parcel of the curriculum. It should be given due weightage like other subjects. Also the parents' can educate their child to embrace a healthy lifestyle, encouraging them to participate in outdoor games or sport activities. The Second Objective was to find if there was any difference between child's perspective and parent's perspective regarding health related Quality of life of children between 8-12 years of age group in school. The study concludes that there was a significant difference between Child and Parent's perspective of health-related Quality of life. The parents have reported higher total PEDsQL score for their child which corresponds to a poor quality of life of the child. Both child and the parents' are on the same page that physical functioning aspect is most affected among children but there is significant difference in the scoring

pattern of individual categories. Quality of life is highly subjective. It is better to give opportunity to the children to rate their quality of life. This study gives equal and active participation for both the child and parent. There is significant divergence between the child and parent's perception. According to the Parents' the degree of affection of each category of their child's quality of life is much higher than the child self-report. The parents' tend to underestimate and overestimate their child's quality of life. Parents' scoring may be affected by their demographic characteristics (age, level of education, income and marital status) emotional condition, child's capabilities, parental stress and circumstances.¹¹ QOL is clinically relevant, but it should be used in adjunct with the child self-report. Self-assessed health status is also a more powerful predictor of mortality and morbidity than using parental proxy reports.⁹⁻¹⁰ Since parental assessment does not represent the way in which the disease is perceived and experienced by the children themselves, there is a necessity for such assessment tool. These instruments are developed with the age, maturity and cognitive development of the subjects in mind. Hence opinion of the child and the parent both should be considered for clinical decision making to get a bigger picture of the situation.

While the study has demonstrated significant difference in the child and parent's perspective with regard to child's Health-related quality of life but there is a need for further study on using this scale as an assessment protocol in clinical set up. Since the study was performed on healthy school children, such studies can also be done on disease specific paediatric population.

Assessment of Quality of life in paediatric population has become a protocol in clinical settings of many developed countries. Therefore such assessment protocol may be used in our country for identification of vulnerable groups and

prevention of serious consequences. Measuring HRQOL can help determine the burden of preventable disease, injuries, and disabilities. Analysis of quality of life helps as a screening tool to identify different issues faced by children and the child's needs. Primordial prevention can help in tackling such situation at earlier stages and prevent the emergence of such risk factors like obesity and chronic diseases in future. Proper counselling may be provided to such children in schools or in clinical set ups to help children at an early age.

CONCLUSION

The study demonstrates Physical functioning aspect is most affected among children using pediatric quality of life inventory 4.0-CHILD SELF REPORT. There is a significant difference between child's perspective and parent's perspective of health-related quality of life.

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