

Mental Health of Both Child and Parents Play A Larger Role in Health Related Quality of Life of Obese and Overweight Children

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Introduction and Objectives :

Pediatric obesity is a chronic condition associated with increased risk of cardiometabolic complications. In addition to negative clinical consequences, poor self esteem, body image concerns, low developmental adaptation, psychological stress, weight-related teasing, social stigma, symptoms of depression and anxiety seem to be particularly common in obese and overweight (OB/OW) children. One of the other important consequences of childhood obesity is the direct impact on health-related quality of life (HRQOL). A decrease in health-related quality of life (HRQOL) measures among OB/OW children has been shown in several studies, but knowledge about variables affecting HRQOL impairments is missing. Weight status, weight related comorbidities, socioeconomic status, social support from peers, peer victimization, parent-related factors (e.g., parental distress), and mental health have been identified as important determinants of HRQOL in previous pediatric obesity studies. However, the number of studies investigating the impact of both obesity-related metabolic problems and psychosocial factors on QOL are very limited. The aim of this study was to evaluate the relationship between HRQOL and sociodemographic characteristics, anthropometric measurements, metabolic parameters, mental symptoms and parental attitudes in the sample of OB/OW children.

METHODS:

Eighty six OB/OW children between the ages of 9-17 years and their parents were recruited.

We performed sociodemographic questioning of the participants. All children underwent physical examinations by a pediatric endocrinologist including anthropometric measurements and laboratory evaluation. Children completed independently questionnaire of Pediatric Quality of Life Inventory (PedsQL), The Children Depression Inventory (CDI) and Screen for Child Anxiety Related Disorders (SCARED). Mother participating in the study were requested to complete Parental Attitude Research Instrument (PARI).

RESULTS:

Fifty seven (66.3%) of the children in the study group were female and twenty nine (33.7%) were male. The mean age of all children was 13.2 ± 2.5 years.

A statistically significant relationship was found between total scores of CDI and SCARED answered by children and the total and subscale scores of PedsQ. Scores of total quality of life subscale, physical functionality and emotional functionality subscales were significantly lower in children with family history of mental illness.

No relationship was found between PedsQL subscales, anthropometric and metabolic parameters.

The relationship between PedsQL subscales, CDI, SCARED and Parental Attitude Research Instrument (PARI) subdimensions

PedsQL subscales	Physical functionality	Emotional functionality	Social functionality	School functionality	Total PedsQL score
CDI	-0.536*	-0.584*	-0.405*	-0.508*	-0.666*
SCARED	-0.450*	-0.578*	-0.434*	-0.468*	-0.592*
PARI 1	-0.179	0.150	0.165	-0.022	0.068
PARI 2	0.067	-0.010	-0.052	-0.016	-0.012
PARI 3	-0.071	0.149	0.195	-0.048	0.051
PARI 4	0.001	-0.097	0.019	-0.122	-0.050
PARI 5	-0.181	0.198	0.138	-0.009	-0.018

Pearson correlation test

*p<0,000

CDI: The Children's Depression Inventory, SCARED: Screen for Child Anxiety Related Disorders

PARI 1: over-parenting, PARI 2: democratic attitude and recognition of equality,

PARI 3: attitude of hostility and rejection, PARI 4: marital discordance, PARI 5: authoritarian attitude

References:

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Final models of the variables affecting quality of life in children reduced with multilinear regression				
PedsQL subscales		B	Std B	p
Total PedsQL score ^a	Constant	92.736		0.000
	CDI total score	-0.998	-0.485	0.001
	SCARED total score	-0.347	-0.310	0.002
	R ² =0.507; p<0.0001			
Physical Functionality ^b	Constant	91.272		0.000
	CDI total score	-1.090	-0.417	0.001
	R ² =0.312; p<0.0001			
Emotional Functionality ^c	Constant	95.979		0.000
	CDI total score	-1.148	-0.369	0.001
	SCARED total score	-0.603	-0.354	0.001
	R ² =0.420; p<0.0001			
Social Functionality ^d	Constant	100.208		0.000
	CDI total score	-1.041	-0.451	0.001
	Age	1.784	0.303	0.002
	R ² =0.254; p<0.0001			
School Functionality ^e	Constant	87.864		0.000
	CDI total score	-0.963	-0.356	0.003
	SCARED total score	-0.379	-0.256	0.031
	R ² =0.300; p<0.010			

Variables included in the model

^aFamily history of mental illness, CDI score, SCARED score

^bFamily history of mental illness, CDI score, SCARED score

^cFamily history of mental illness, CDI score, SCARED score

^dAge, CDI score, SCARED score

^eCDI score, SCARED score

CONCLUSION

The findings of this study revealed that the mental health of both child and parents played a larger role in all PedsQL subscales functioning of OB/OW children, compared to anthropometric measurements, metabolic parameters and parental attitudes.

Therefore, emotional problems, especially anxiety and depression symptoms and parental psychological distress are important factors that need to be considered in models of HRQOL when assessing and managing this population.