100 - LIFE QUALITY OF YOUNG MEMBERS OF A OBESITY MULTIPROFESSIONAL PROGRAM

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INTRODUCTION

Excess weight has affected an increasing number of individuals and an increasingly early age, producing a reflex numerous negative effects on quality of life (DALSASSO, 2009). In Brazil, a study conducted in the northeast showed prevalence rates of approximately 17% among school children (Silva et al, 2009), figures which show how obesity has become an epidemic and as such, come meet the quality and quantity of life (SWALLEN et al, 2005).

Excess weight and increases the chances of physical problems also affects the psychological state (BLISMER et al, 2006), this situation tends to become more severe, since obese children and adolescents often have lower self-esteem for to their non-obese, which can affect school performance and relationships, leading to long-term psychological consequences, impairing QoL in general terms (Ozmen et al, 2007, Franklin et al, 2006).

The measurement of the studies related to quality of life (HRQOL) is an important health indicator because it enables information to know about the impact of the clinical condition of patients' lives and can guide actions, such as treatment programs, with the aim of improving QOL of those people.

Many studies have attempted to assess QoL have been conducted, particularly among children and adolescents with overweight / obesity and even eutrophic (Poet et al, 2010; Gordo et al 2009; Gordo et al, 2010, Kunkel et al, 2009) But as far as we know, there is a lack of studies assessing the quality of life of children and adolescents who have the problem of overweight and who are or have been through treatment.

Based on these assumptions, it is necessary to develop research on the quality of life of adolescents participating in treatment programs, providing new subsidies for expansion and creation of more programs directed at adolescents. Considering the above, the purpose of this study was to evaluate the effects of the Multidisciplinary Program for Treatment of Obesity (PTMO) on the QOL of obese adolescents.

METHODS

Cross-sectional study conducted in Maringá, Paraná, Brazil, were included in the study 21 obese participants PMTO during the first and second half of 2010. The program lasted 16 weeks and were used as inclusion criteria: being overweight / obese according to the criteria of Cole and colleagues (Cole et al, 2000), effectively participate in the activities proposed and has more than 80% frequency during the 16 weeks of treatment. The PMTO is based on behavior change. To achieve this goal is structured to provide follow-up of professionals and academics in the areas of Physical Education, Psychology and Nutrition. The physical activity sessions were held three times a week and psychology and nutrition once, always lasting 60 minutes.

For the classification of nutritional status criteria were used by Cole et al. (12) that categorizes the subjects according to gender, age and body mass index (BMI). To calculate BMI, weight and height were measured according to the criteria established by WHO (WHO, 1995). We used 0.1 kg precision scale to measure weight and stadiometer accurate to 0.1 cm in height measurement.

For the assessment of QoL we used the Pediatric Quality of Life Inventory Version 4.0 (PedsQL 4.0), an instrument developed (Varna et al, 2001) and validated for the Brazilian context in order to measure the QOL of adolescents (KLATCHOIAN et al, 2008), The questionnaire comprises 23 questions, divided into four scales: Health and usual activities, feelings about oneself, feelings about other people and school related. Through these scales, it is possible to calculate two other dimensions: psychosocial (average of the sum of social and school scales) and QOL total (average of the sum of all domains). Scores range from 0 (zero) and 100 (one hundred) points that reflect the best and the worst overall health status, respectively.

The data were organized in Microsoft Excel and statistical analysis was performed using SPSS for Windows version 15.0 (SPSS Inc., Chicago, IL, USA). The normality of data was attested by means of the Shapiro-Wilk test. For data sets that was not normal, we applied the Wilcoxon test and were presented as median and interquartile range. For normal data, we used Student's t test for dependent samples and were expressed as mean and standard deviation. We also calculated the percentage difference between the pre and post intervention, calculated by the formula: (final value-baseline value inicial/100 *). We adopted a significance level of 5%.

The study was approved by the Standing Committee on Ethics in research with human beings of UEM (Opinion No 068/08). The term of consent was signed by parents or guardians of all subjects, after having received detailed information about the research.

RESULTS AND DISCUSSION

After 16 weeks of multidisciplinary intervention effectively 21 adolescents completed the program, of these, 11 were male. The anthropometric variables evaluated in the pre and post intervention are shown in Table 1. There were significant differences in all variableswhen comparing the pre and post intervention. These results demonstrate that the program was effective for weight loss and decrease BMI of the participants.

Table 1. Anthropometric parameters and age of adolescents before and after the intervention.

Variables	Pre n=22	Post n=22	*p*
Weight	83,2(18,4)	81,9(18,3)	0,026*
Height	1,60(0,1)	1,62(0,9)	0,000*
BMI	31,9(4,6)	30,9(4,8)	0,000*

Data presented as mean and standard deviation. Student t test for dependent samples. *Level of significance of p

<0.05

In this study, we found that the PMTO promoted significant differences in anthropometric variables of the participants, similar to that observed in other studies (DAO et al, 2004;Singh et al, 2007, Willis et al, 2008, LOFRANO-Padre et al 2009). It is worth mentioning those based on age of participants in just four months was observedevolution of the height and age, all of which occurred independently of the program.

Table 2 presents the results of the QOL of the participants evaluated the PEDS QL 4.0and the test result of comparison. With the exception of the physical and school, all the others have a better percentage after 16 weeks of intervention with significant differences. The results that stood out were the PMTO after the emotional and psychosocial QoL with improvements of 6.67% and 8.51% respectively.

Table 2. Quality of life of adolescents before and after the intervention.

Dimensões (n=22)	**Pre**	**Post**	**Delta %**	***p***
Health	81,2(25)	78,1(18,7)	5,88(17,1)	0,616
Emotional	70(32,5)	85(17,5)	6,67(24,7)	0,004**
Social	85(32,5)	85(25)	0,00(10,57)	0,040**
School*	73,3(19,8)	72,3(21)	-1,00(23,2)	0,778
Psychosocial	75(22,5)	80(18,33)	8,51(12,3)	0,010**
Total*	76,8(75)	80,2(13,5)	5,01(7,0)	0,006**

Parametric data, comparison by Student's t test (mean and standard deviation)

* Data not parametric, comparison by Wilcoxon (median and interquartile range)

** Level of significance of p <0.05

In treatment programs for obesity, assessment of QOL is necessary, mainly due to the strong association between excess weight and low QOL among school children (8-12 years) (Kunkel et al, 2009). In this study, although not verified the existence of such an association, it was observed that the total score of QOL of obese adolescents at the time pre-treatment were lower than those found in normal children (Poet et al, 2009, Williams et al, 2005) However, similar to those children with thalassemia (ISMAIL et al, 2006) and overweight (Kunkel et al, 2009).

The results presented for evaluating the physical dimension showed no significant results, indicating that weight loss occurred through the program does not directly influence the physical dimensions. However, we note that the scores found for adolescents participating in the program in the pre-intervention (81.2) are very similar to those found in another study with non-obese adolescents (81.7) (Kunkel et al, 2009). This probably occurred as a function of adolescents PMTO participants did not consider that their skills and physical abilities, although overweight, limit their practices, justifying the good scores for the physical dimension. It is common sense to relate the excess weight with negative feelings such as anger, sadness, fear, concern, among others.

However, research has found low scores (50) in the emotional domain in obese children and adolescents, featuring in many cases, significant differences when compared to those without obesity (Poet et al, 2009). In this study, we observed good pre-intervention scores (70) and a significant improvement after 16 weeks of PMTO (85). The final scores were even higher than those found in another study of 24 weeks of intervention with obese adolescents (girls 76.5 and boys 80.6) (LOFRANO-Padre et al, 2009). It is believed that this improvement occurred because the teenagers, from the time they propose to participate effectively in a weight loss program has awaken positive feelings about their attitudes towards the problem of excess weight and improve significantly with these attitudes weight loss attributed to the work of multidisciplinary intervention.

Social skills are also affected by the presence of obesity, often this relation is by low body satisfaction and / or low self-esteem, making the teenager who deprives them of social gatherings (White et al, 2006).

In the present study to assess the social field there was a significant difference (p 0.004) between the pre and post intervention, highlighting the importance of the relationship between weight loss through treatment and social relations. Moreover, another aspect that may have generated a direct influence on this area, is the fact that treatment take place in the group. The group consists of individuals with similar characteristics in adolescents can generate feelings of equality and complicity, just then, away from the teen sensations you have in other groups such as social stigmatization, prejudice, shame, among others, leading to feelings of social comfort. Thus underscoring the importance of establishing groups of treatment not only technical actions to help combat the disease, but also seek to structure relationships where the individual is comfortable with the group after the welfare of the process is crucial behavior change.

The public school is equivalent to the quiz questions that guide their performance as a student, as attention in class, memorize the content, monitoring of class work and motives that lead to skipping school (KLATCHOIAN et al, 2008). Studies have shown that school-related QoL is not affected by the problem of overweight in both children and adolescents (Poet et al, 2009). The findings of the study also reinforce this point because there was no significant difference in scores for the school sector, between the pre and post intervention, the values found were very close to that of another study (71.8) (Kunkel et al).

In this study, the social dimension values indicated high scores when compared to overweight individuals (Kunkel et al), rheumatic disease (KLATCHOIN et al, 2008) and even in healthy subjects (ISMAIL et al, 2006). Coming to submit scores similar to normal weight (80) (Poet et al, 2009) after 16 weeks of intervention. These results indicate that the variables involving the psychic perceptions of adolescents participating in the program for treatment of obesity have a significant improvement after PMTO.

It is important to clarify that the data presented here can not be generalized, the study group ultimately presents peculiar features, for being part of a specific PMTO State University of Maringá. Another limitation is that it has not been taken into account the presence of other cultural and social factors that could affect the quality of life.

CONCLUSION

Comparisons with other studies reveal the potential for obesity treatment program for adolescents on the QOL of its members, primarily involving the dimensions in perceptions related to QOL emotional, social, psychosocial and total. Thus, multi-focused programsappear to be an important strategy for obese adolescents, which portrays not only weight loss but the search for improved QOL.

Future studies involving larger numbers of adolescents and conduct longer follow-up and controlled can bring clarity to these issues and to promote the incentive to public initiativesthat seek to solve the problems of obesity and all its consequences.

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LIFE QUALITY OF YOUNG MEMBERS OF A OBESITY MULTIPROFESSIONAL PROGRAM

SUMMARY

Excess weight has affected an increasing number of individuals and an increasingly earlyage, producing as a reflex inumerous negative effects on life quality (QOL). The aim of this study was to evaluate the effects of the Multidisciplinary Treatment of Obesity Program (PMTO) on the life quality of teenagers. The study included 21 teenagers who underwent 16 weeks in PTMO during 2010. To evaluate the QOL instrument was usedPedsQL 4.0, which has six dimensions, physical, emotional, social, educational, psychosocial and total. The cutoff points proposed by Cole et al. were used as reference to characterize obesity in groups. We applied Shapiro-Wilk test to verify the normality of data distribution and applied the Student t test and Wilcoxon test when comparing the preand post intervention, we also calculated the percentage difference between the pre and post intervention by the formula (final value-baseline value inicial/100 *). We adopted a significance level of 5%. The results showed significant improvement in weight and BMI after 16 weeks. We also observed significant differences between the two moments in relation to the dimensions: emotional (p0.004), social (p0.040), psychosocial (p 0.010) and total (p 0.006). It is concluded that the approach and threatment constituted an importantt reatment strategy for obese adolescents, enabling improved overall QOL.

UALITÉ DE VIE DES ADOLESCENTS PARTICIPANT A UN PROGRAMME MULTIPROFESSIONNEL CONTRE L'OBÉSITÉ

RESUME

L'excès de poids touche un nombre croissant d'individus et bien à un âge de plus en plus précoce, produisant en conséquence de nombreux effets négatifs sur leur qualité de vie (QV). L'objectif de cette étude a été d'évaluer les effets du Programme Multiprofessionnel du Traitement de l'Obésité (PMTO) sur la qualité de vie des adolescents. Vingt et un adolescents ont participé à l'étude, ils ont passé seize semaines au PTMO durant l'année 2010. Pour l'évaluation de la QV on a utilisé l'instrument PedsQL 4.0, qui a six dimensions: physique, émotionnelle, sociale et scolaire, psychosociale et totale. Les points de coupure proposés par Cole et al. ont été utilisés comme référence pour caractériser l'obésité dans les groupes. On a appliqué le test de Shapiro Wilk pour vérifier la normalité de la distribution des données et appliqués les tests t de Student et de Wilcoxon dans la comparaison entre les moments précédant et suivant l'intervention, on a également calculé le pourcentage de différence entre les moment précédant et suivant l'intervention, avec la formule (Valeur finale - valeur iniciale/100* valeur iniciale). On a adopté un niveau de signification de 5%. Les résultats ont montré une amélioration significative du poids et IMC après les seize semaines. On a également observé des différences significatives entre les deux moments concernant les dimensions: émotionnelle (p 0,004), sociale (p 0,040), psychosociale (p 0,010) et le totale (p 0.006). On peut conclure que l'approche et le traitement ont constitué une stratégie importante pour les adolescents obèses, permettant l'amélioration générale de la QV.

CALIDAD DE VIDA DE ADOLESCENTES PARTICIPANTES DE UN PROGRAMA MULTIPROFESIONAL DE LA OBESIDAD

RESUMEN

El exceso de peso tiene afectadas un número cada vez mayor de personas presentándose en edades cada vez mas jóvenes, produciendo por reflejo innumerables efectos negativos sobre La calidad de vida (CV).El objetivo de este estudio fue evaluar los efectos del Programa Multiprofesional de Tratamiento de la Obesidad (PMTO) sobre la calidad de vida de adolescentes. Participaron del estudio 21 adolescentes que pasaron por 16 semanas en el PTMO durante el año de 2010.Para evaluar la CV fue utilizado el cuestionario PedsQL 4.0, que posee seis dimensiones; física, emocional, social, escolar, psicosocial y total . Las variables propuestas por Cole et al. fueron utilizadas como referencia para caracterizar la obesidad en los grupos. Fue aplicado El test de Shapiro Wilk para verificar la normalidad de la distribución de los datos y aplicados los tests t de Student y de Wilcoxon en la comparación entre los momentos pré y pós intervención, también fue calculada la diferencia porcentual entre los momentos pré y pós intervención, por la fórmula: (valor final - valor inicial/100* valor inicial). Fue adoptado el nivel de significancia en 5%. Los resultados mostraron mejora significativa en el peso y IMC, después de 16 semanas. También fue observado diferencia significativa entre los dos momentos en relación a las dimensiones: emocional (p 0,004), social (p 0,040), psicosocial (p 0,010) y total (p 0,006). Se concluye que el abordaje y tratamiento constituirían una importante estrategia para adolescentes obesos, posibilitando en general mejoría de la CV.

QUALIDADE DE VIDA DE ADOLESCENTES PARTICIPANTES DE UM PROGRAMA MULTIPROFISSIONAL DA OBESIDADE

RESUMO

O excesso de peso tem acometido um número cada vez maior de indivíduos e numa idade cada vez mais precoce, produzindo por reflexo inúmeros efeitos negativos sobre a qualidade de vida (QV). O objetivo do estudo foi avaliar os efeitos do Programa Multiprofissional de Tratamento da Obesidade (PMTO) sobre a qualidade de vida de adolescentes. Participaram do estudo 21 adolescentes que passaram por 16 semanas no PTMO durante o ano de 2010. Para avaliação da QV foi utilizado o instrumento PedsQL 4.0, que possui seis dimensões; física, emocional, social e escolar, psicosocial e total . Os pontos de corte propostos por Cole et al. foram utilizados como referência para caracterizar a obesidade nos grupos. Foi aplicado teste de Shapiro Wilk para verificar a normalidade da distribuição dos dados e aplicados os testes t de Student e de Wilcoxon na comparação entre os momentos pré e pós intervenção, também foi calculada a diferença percentual entre os momentos pré e pós intervenção, pela fórmula: (valor final- valor inicial/100* valor inicial). Foi adotado o nível de significância em 5%. Os resultados mostraram melhora significativa no peso e IMC, após as 16 semanas. Também foi observado diferença significativa entre os dois momentos em relação às dimensões: emocional (p 0,004), social (p 0,040), psicossocial (p 0,010) e total (p 0,006). Conclui-se que a abordagem e tratamento constituíram uma importante estratégia para adolescentes obesos, possibilitando em geral melhoria da QV.