Evaluation of therapy for overweight children and adolescents in Switzerland: Therapy in multiprofessional group programs[i] – Part 2 of KIDSSTEP[ii], collection and analysis of data, Final report February 12th, 2014, Abstract & Executive Summary

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Abstract

Objective: The aim of this pilot project is to disseminate multiprofessional group programs (MGP) for therapy of the estimated 119'140 overweight/obese children in Switzerland. Family-based behavioral MGPs have been implemented from 2009 to 2013 to determine changes of health and family behaviours, after the intensive phase (T1), at 1 and 2 years after start (T2, T3).

Methods: MGP costs are reimbursed in Switzerland: 1) if 116 sessions are provided by experts in physical activity, nutrition and psychology; 2) if parents are included and if their adherence is higher than 85%. In the nationwide KIDSSTEP study, multiple psychosocial and physical parameters were assessed at T0, T2 and T3[iii]**.** Out of 33 certified centers, 25 were active and only 19 were re-certified in 2013/2014.

Results: Out of 3482 patients referred, only 36% started in MGPs, while 30% were treated for co-morbidities in an individual setting. The return rate for MGP data was 1162 (87.3%), 682 (87.5%) and 354 patients (50.8 %) at T0, T2 and T3, respectively. At baseline, the mean age was 12.2±2.5 years (46 % non-Swiss origin, 54% girls) while the onset of obesity was at 6 years. There were 78.6% of children with extreme obesity (BMI>P.99.5), 16.6% with obesity (97 < P.< 99.5) and 4.6% with overweight (P.90-P.97).

After therapy, the BMI standard deviation score (BMI-SDS) was significantly reduced by -0.23 at T2 and -0.31 at T3, or in 70.5% and 70.2% of participants, respectively. Systolic blood pressure, physical capacities and fitness, family lifestyle and child's eating disorders significantly improved over time. At T0, quality of life was poor and major co-morbidities such as orthopaedic (68%) or mental disorders (45%) were present. All improved during therapy. A better outcome at T2 was predicted by age below 12 years and normal scores for mental health, quality of life or eating disorders. The drop out at T1 was predicted by high BMI-SDS and non-Swiss parents.

Conclusion: Obese children suffer from major co-morbidities and therefore, only one third of referred patients can be treated in MGPs and their beneficial effects on obesity as well as physical and mental health outcomes are sustained over 2 years. There is an urgent need to improve the programs financial support, the regional dissemination, the follow-up phase, and also the quality of care for obese children who cannot participate in group therapy.

Executive Summary

Established Facts

- Childhood obesity represents a critical public health burden, due to the premature development of co-morbidities and association with physical incapacity.
- In Switzerland, approximately 20% of children are overweight and approximately 5% are obese. Early interventions are needed to prevent the progression of the disease into adulthood and the development of multiple health complications.
- For the reasons mentioned below, childhood obesity treatment is not available for the majority of children in Switzerland. Only 1251 obese children out of the 119'140 estimated can have access to multiprofessional group programs, evaluated by KIDSSTEP study.
- It is well-known, that the recruitment of patients for obesity therapy may be difficult; first, this is due to the fact that until 2013, only 2 forms of therapy were available: usual medical care, provided by physicians or, since 2009, the group programs within an evaluation project.
  Second, recruitment is hampered by the presence of contraindications, e.g. invalidity, psychiatric disease, or by the occupation of parents, or insufficient family resources.
- In addition, wide-spread regional availability of specific obesity therapy is limited due to a lack of specialized healthcare personal and centres, a poor coordination between health services, as well as insufficient financial support.
- In Switzerland, childhood obesity care depends essentially of non-governmental organizations (Fachverband Adipositas im Kinder- und Jugendalter akj, Schweizerische Gesellschaft für Pädiatrie SGP, Fondation Sportsmile).

Novel insights

- The establishment of a good quality nationwide network and register is feasible in paediatric obesity care.
- The KIDSSTEP study demonstrates severe impairments in mental health, quality of life and physical capacities in obese children
- The multiprofessional group therapy is effective to reduce the degree of overweight, associated complications, improve physical capacities, as well as preclinical eating disorders. It does not induce side effects.
- Good quality of life and mental health are however prerequisites to maintain healthier weight and lifestyle.
- The effects of therapy are sustained at 2 years in children who benefit from a follow-up phase. Therefore, longer term care should be warranted, similarly to other chronic diseases such as arterial hypertension or diabetes.
- The health status rapidly improves in young obese children

Recommendations

- Group therapy and additional forms of multiprofessional care should be delivered to all obese children in Switzerland. The access to care should be ensured in all regions to decrease the inequality of opportunities.
- Multiprofessional therapy and the maintenance of care at long term should be imbedded into a national tertiary prevention plan for non-transmissible chronic diseases.

- Multiprofessional individual therapy directed by primary care providers appears to be a promising approach to complement the group therapy programs in Switzerland.
- Screening for early onset of childhood obesity, as a precursor of other non-transmissible diseases, is necessary to reduce cases and costs of subsequent co-morbidities.
- The quality of care should be warranted in Switzerland by the establishment of a coordination and information platform, as well as a benchmarking system.
- The accessibility and efficiency of health services should be dramatically improved in order to treat 119'140 obese and overweight children.

Explanations

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ii KIDSSTEP = Kinder-Adipositas in der Schweiz - Studie zur Therapie-Evaluation von Programmen in Gruppen

iii Methods assessed: family origin and eating & activity habits, body mass index standard deviation score (BMI-SDS), waist circumference (WC), blood pressure (BP), physical capacity (Eurofit Test), quality of life (Kidscreen 52), eating disorders (AD-EVA) and mental health problems (SDQ)