

A SELECTION OF TEN CURRENT READINGS ON TOPICS RELATED TO CHILDHOOD OBESITY AVAILABLE AS FULL-TEXT, SOME FREE & SOME REQUIRE PAYMENT

Selection of readings made by A/Prof Goh Lee Gan

READING 1 - BMI monitoring

Wake M. Issues in obesity monitoring, screening and subsequent treatment. *Curr Opin Pediatr.* 2009 Dec;21(6):811-6.

URL: <http://www.journals.lww.com/co-pediatrics/pages/articleviewer.aspx?year=2009&issue=12000&article=00019&type=abstract> (Payment required)

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ABSTRACT

PURPOSE OF REVIEW: Despite intense policy, media and research interest, childhood obesity rates continue to rise in most countries. Screening may seem a logical response to a situation in which obesity does not usually resolve spontaneously, yet most obese children do not present for treatment. This article explores recent evidence for and against monitoring and screening of children's BMI. **RECENT FINDINGS:** Whether conducted in primary care or school settings, population screening of children's BMI can be feasible, acceptable and not intrinsically harmful. However, it incurs a substantial cost, and randomized controlled trials do not suggest that it improves BMI outcomes. Population trends in BMI are more complex than a simple rise in obesity; birth cohorts with higher rates of childhood overweight are not inevitably more overweight as young adults. The consequences of a concomitant increase in thinness are uncertain. **SUMMARY:** Systematic monitoring of BMI is essential, but need not be continuous, and could involve representative samples rather than all individuals in a population. In contrast, BMI screening cannot be recommended until more effective management becomes available for overweight and mildly obese children. Research into prevention and intervention should, therefore, be prioritized over population screening at this point in time. PMID: 19770765 [PubMed - indexed for MEDLINE]

READING 2 - Providers' knowledge, practices, perceived barriers

Spivack JG, Swietlik M, Alessandrini E, Faith MS. Primary Care Providers' Knowledge, Practices, and Perceived Barriers to the Treatment and Prevention of Childhood Obesity. Obesity (Silver Spring). 2009 Nov 12. [Epub ahead of print]

URL: <http://www.nature.com/oby/journal/vaop/ncurrent/pdf/oby2009410a.pdf> (free full text)

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ABSTRACT

This study evaluated primary care providers' (PCPs, pediatricians, and nurse practitioners) knowledge, current practices, and perceived barriers to childhood obesity prevention and treatment, with an emphasis on first-year well-child care visits. A questionnaire was distributed to 192 PCPs in the primary care network at The Children's Hospital of Philadelphia (CHOP) addressing (i) knowledge of obesity and American Academy of Pediatrics (AAP) guidelines, (ii) anticipatory guidance practices at well visits regarding nutrition and exercise, and (iii) perceived barriers to childhood obesity treatment and prevention. Eighty pediatricians and seven nurse practitioners responded, and a minority correctly identified the definition (26%) and prevalence (9%) of childhood overweight and AAP guidelines for exercise (39%) and juice consumption (44%). Most PCPs (81%) spent 11-20 min per well visit during the first 2 years, and 79% discussed diet, nutrition, and exercise for ≥ 3 min. Although $>95\%$ of PCPs discussed juice, fruits and vegetables, sippy cups, and finger foods during the first year, over 35% never discussed fast food, TV, or candy, and 55% never discussed exercise. Few rated current resources as adequate to treat or prevent childhood obesity. Over 90% rated the following barriers for obesity prevention and treatment as important or very important: parent is not motivated, child is not motivated, parents are overweight, families often have fast food, watch too much TV, and do not get enough exercise. In conclusion, there is much room to improve PCPs' knowledge of obesity and AAP guidelines. Although PCPs rate fast-food consumption, TV viewing, and lack of exercise as important treatment barriers, many never discussed these topics during the first year. PMID: 19910934 [PubMed - as supplied by publisher]

READING 3 - An effective weight management programme

Edwards NM, Schwarzenberg SJ. Designing and implementing an effective pediatric weight management program. . Rev Endocr Metab Disord. 2009 Sep;10(3):197-203.

URL: <http://www.springerlink.com/content/7646112x20x16214/fulltext.pdf> (free full text)

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ABSTRACT

In order to successfully address the problem of childhood obesity, effective weight management programs must be established by a variety of clinicians to treat the increasing numbers of overweight and obese children and adolescents. An effective program will: 1) identify children and adolescents with health risks related to excess fat, 2) help families make permanent healthy lifestyle changes, and 3) provide ongoing care to optimize long-term health. Building a pediatric weight management program which achieves these goals requires attention to several aspects, including location, personnel, equipment, institutional support, marketing, referral base, focus of the overall approach, and billing & reimbursement. Maintaining the program after it is established can be enhanced by concentrating on team communication, continuing education, continuous quality improvement, and improving adherence. PMID: 19554453 [PubMed - indexed for MEDLINE]

READING 4 - Deficiency of childhood obesity guidelines

Delgado-Noguera M, Tort S, Bonfill X, Gich I, Alonso-Coello P. Quality assessment of clinical practice guidelines for the prevention and treatment of childhood overweight and obesity. Eur J Pediatr. 2009 Jul;168(7):789-99. Epub 2008 Sep 25.

URL: <http://www.springerlink.com/content/w068h9q695854736/fulltext.pdf> (free full text)

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ABSTRACT

BACKGROUND: The prevalence of childhood overweight and obesity is increasing at dramatic rates in children and adolescents worldwide. Clinical practice guidelines (CPGs) are “systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances.” Their objective is to provide explicit recommendations for clinical practice based on current evidence for best practice in the management of diseases. **MATERIALS AND METHODS:** The aim of this study was to identify and assess the quality of CPGs for the prevention and treatment of obesity and overweight in childhood. We developed a search to identify CPGs published between January 1998 and August 2007. We considered for inclusion documents that provided recommendations for clinical practice referring to children and adolescents. Three independent appraisers assessed the quality of the 1 CPGs using the AGREE (Appraisal of Guidelines Research and Evaluation) instrument. We identified 376 references and selected 22 for further assessment. **RESULTS:** The overall agreement among reviewers using the intraclass correlation coefficient was 0.856 (95% confidence interval [CI] 0.731-0.932). Six of the 22 initial guidelines were recommended and a further eight were recommended with conditions or provisos. We concluded that the number of documents with recommendations on the prevention and treatment of childhood obesity published during the 10-year study period was considerable, but only a few of them could be considered as high quality. CPGs were deficient in areas such as applicability, editorial independence and rigor in development. **CONCLUSION:** Due to the increasing burden of obesity among children and the potential for long-term comorbidities, clinicians need to be critical in assessing the rigor of how these are developed and their appropriateness for use in the clinician’s own practice. There is a need to improve the methodology and the quality of CPGs on childhood obesity to help clinicians and other decision-makers to tackle this disease. PMID: 18815809 [PubMed - indexed for MEDLINE]

READING 5 - Positive impact of a school-based education programme

Jan S, Bellman C, Barone J, Jessen L, Arnold M. Shape it up: a school-based education program to promote healthy eating and exercise developed by a health plan in collaboration with a college of pharmacy. J Manag Care Pharm. 2009 Jun;15(5):403-13.

URL: : <http://www.amcp.org/data/jmcp/403-413.pdf> (free full text)

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ABSTRACT

BACKGROUND: Childhood obesity is an intensifying public health problem that affects millions of U.S. children. Obesity leads to the development of health conditions such as hypertension, diabetes, gastroesophageal reflux disease, depression, and hypercholesterolemia. The increasing prevalence of these conditions among U.S. children is reflected in increased use of medical services and medications in both childhood and adulthood. **OBJECTIVE:** To assess the

preliminary results of the effectiveness of Shape It Up, a school-based obesity prevention program developed and implemented by the Ernest Mario School of Pharmacy at Rutgers University in conjunction with Horizon Blue Cross Blue Shield of New Jersey, with the goal of using these results to help improve the program. **METHODS:** Program activities and materials included an interactive workshop, an activity book and family guide, posters, a website, and educational field days. The Shape It Up program not only delivered a positive message about eating healthful food but also modeled fruit and vegetable consumption during the interactive workshops and distributed fruits and vegetables as prizes. During the 2004-2005 and 2005-2006 school years, Shape It Up was delivered to 89,736 children at 257 New Jersey elementary schools. Pre-intervention and post-intervention surveys were administered to a convenience sample of 6,421 students at 49 participating schools. Attitudes were measured using a 6-point Likert-type graphic face scale (smiles positive, frowns negative) and analyzed for statistical significance of pre-intervention to post-intervention change using paired t-tests. **RESULTS:** After exposure to the Shape It Up program, children reported higher levels of knowledge ($P < 0.001$) and positive attitudes ($P < 0.001$) about healthy eating and exercise compared with the baseline survey results. In a question to gauge satisfaction with the program, 54.9% of children surveyed gave the program the highest possible rating, and overall, 91.7% selected 1 of the 3 response categories toward the positive end of the 6-point scale. **CONCLUSION:** Shape It Up appears to have had a positive impact on children's knowledge and attitudes toward exercise and healthy eating. Additional research employing a comparison group is needed to assess the program's impact. PMID: 19496637 [PubMed - indexed for MEDLINE] and other decision-makers to tackle this disease. PMID: 18815809 [PubMed - indexed for MEDLINE]

READING 6 - Use of chronic-disease model in sustaining a childhood obesity reduction programme

Pomietto M, Docter AD, Van Borkulo N, Alfonsi L, Krieger J, Liu LL. Small steps to health: building sustainable partnerships in pediatric obesity care. *Pediatrics*. 2009 Jun;123 Suppl 5:S308-16.

URL: http://pediatrics.aappublications.org/cgi/reprint/123/Supplement_5/S308 (free full text)

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ABSTRACT

BACKGROUND: Given the prevalence of childhood obesity and the limited support for preventing and managing obesity in primary care settings, the Seattle Children's Hospital's Children's Obesity Action Team has partnered with Steps to Health King County to develop a pediatric obesity quality-improvement project. **METHODS:** Primary care clinics joined year-long quality-improvement collaboratives to integrate obesity prevention and management into the clinic setting by using the chronic-disease model. Sustainability was enhanced through integration at multiple levels by emphasizing small, consistent behavior changes and self-regulation of eating/feeding practices with children, teenagers, and families; building local community partnerships; and encouraging broader advocacy and policy change. Cultural competency and attention to disparities were integrated into quality-improvement efforts. **RESULTS:** Participating clinics were able to increase BMI measurement and weight classification; integrate management of overweight/obese children and family and self-management support; and grow community collaborations. Over the course of 4 years, this project grew from a local effort involving 3 clinics to a statewide program recently adopted by the Washington State Department of Health. **CONCLUSIONS:** This model can be used by other states/regions to develop pediatric obesity quality-improvement programs to support the assessment, prevention, and management of childhood obesity. Furthermore, these health care efforts can be integrated into broader community-wide childhood-obesity action plans. PMID: 19470608 [PubMed - indexed for MEDLINE]

READING 7 - Background reading on childhood obesity

Bradford NF. Overweight and obesity in children and adolescents. Prim Care. 2009 Jun;36(2):319-39.

URL: [http://linkinghub.elsevier.com/retrieve/pii/S0095-4543\(09\)00015-3](http://linkinghub.elsevier.com/retrieve/pii/S0095-4543(09)00015-3) (payment required)

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ABSTRACT

Obesity is becoming a leading threat to the health of children and adolescents. Many causes, modifiable and nonmodifiable, have been determined and include, but are not limited to, genetic factors, medical conditions, medications, and environmental factors. Obesity also leads to medical conditions, some of which are specific to obesity in childhood. Treatment begins with diet and exercise but may extend to medical management and, in severe cases, surgical management. PMID: 19501246 [PubMed - indexed for MEDLINE]

READING 8 - Consequences of childhood obesity

Lee YS. Consequences of childhood obesity. Ann Acad Med Singapore. 2009 Jan;38(1):75-7.

URL: <http://www.annals.edu.sg/pdf/38VolNo1Jan2009/V38N1p75.pdf> (free full text)

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ABSTRACT

INTRODUCTION: The incidence of childhood obesity is rising across the globe, and obesity related co-morbidities are increasing concomitantly in the paediatric population. **MATERIALS AND METHODS:** PubMed search for research and review papers on complications of childhood obesity was performed. **RESULTS:** The consequences of childhood obesity can be broadly classified into medical and psychosocial consequences. Medical consequences include metabolic complications such as diabetes mellitus, hypertension, dyslipidaemia and non-alcoholic fatty liver disease, and mechanical problems such as obstructive sleep apnoea syndrome and orthopaedic disorders. Psychological and social consequences are prevalent but often overlooked. Local data on these complications were also discussed. **CONCLUSION:** Childhood obesity is associated with significant morbidities, which not only have immediate impact on the health of the obese children, but also significantly increase the risk of morbidities in adulthood. PMID: 19221674 [PubMed - indexed for MEDLINE]

READING 9 - Cardiovascular risks associated with childhood obesity

Ho TF. Cardiovascular risks associated with obesity in children and adolescents. Ann Acad Med Singapore. 2009 Jan;38(1):48-9.

URL: <http://www.annals.edu.sg/pdf/38VolNo1Jan2009/V38N1p48.pdf> (free full text)

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ABSTRACT

INTRODUCTION: The aim of this paper is to review the cardiovascular (CVS) risks associated with obesity in children and adolescents. Both short-term and long-term CVS consequences, the mechanisms of how these develop

and the measures that can alter or reverse these CVS events are reviewed. **MATERIALS AND METHODS:** Selected publications include original articles and review papers that report on studies of CVS risks and consequences related to childhood obesity. Some papers that contain data from adults studies are also included if the contents help to explain some underlying mechanisms or illustrate the continuation of related CVS changes into adulthood. **RESULTS:** Obese children and adolescents have an increased risk for CVS complications that include elevation of blood pressure, clustering of CVS risk factors (Metabolic Syndrome), changes to arterial wall thickness, elasticity and endothelium, as well as changes in left ventricular structure and function. Some of these cardiovascular problems may be initiated or potentiated by obstructive sleep apnoea that can accompany obesity in children. Many of such changes have been noted to reverse or improve with weight reduction. **CONCLUSIONS:** Early development of CVS risks in obese children and the possible continuation of CVS complications into adulthood have been observed. Obstructive sleep apnoea in obese children can further contribute to such CVS risks. These findings underscore the importance of prevention of childhood obesity as a priority over management of obesity in children. PMID: 19221671 [PubMed - indexed for MEDLINE]

READING 10 - Active school approach in preventing childhood obesity

Naylor PJ, McKay HA, Br J Sports Med. 2009 Jan;43(1):10-3. Epub 2008 Oct 29. Prevention in the first place: schools a setting for action on physical inactivity.

URL: <http://bjsm.bmj.com.libproxy1.nus.edu.sg/content/43/1/10.full.pdf> (free full text)

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ABSTRACT

Promoting physical activity has become a priority because of its role in preventing childhood obesity and chronic disease. Ecological approaches that recognise the interaction between individuals and the settings in which they spend their time are currently at the forefront of public health action. Schools have been identified as a key setting for health promotion. An overview of the literature addressed the promotion of physical activity in schools and showed that school-based strategies (elementary or high school) that utilised classroom-based education only did not increase physical activity levels; one notable exception was screen time interventions. Although evidence is sparse, active school models and environmental strategies (interventions that change policy and practice) appear to promote physical activity in elementary schools effectively. There is also strong evidence to support multicomponent models in high schools, particularly models that incorporate a family and community component. An emerging trend is to involve youth in the development and implementation of interventions. In the context of childhood obesity and sedentary lifestyles, modest increases in physical activity levels in school-based trials are important. School initiatives must be supported and reinforced in other community settings. Health professionals play a key role as champions in the community, based on their influence and credibility. Health professionals can lend support to school-based efforts by asking about and emphasising the importance of physical activity with patients, encouraging family-based activities, supporting local schools to adopt an “active school” approach and advocating for support to sustain evidence-based and promising physical activity models within schools. PMID: 18971250 [PubMed - indexed for MEDLINE]
