CONFERENCE ABSTRACT

Childhood Obesity Prevention program for disadvantaged minorities in Sweden highlights both challenges and successes of an innovative integrated care model

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Background: Obesity is one of the leading causes of ill health and avoidable care costs worldwide, with children of particular concern. While public health campaigns have had some success, worldwide prevalence is increasing. Several risk factors including overweight parents and socioeconomic factors (education, income, living areas) influence childhood obesity prevalence.

There is evidence that early preventive measures targeting children at high risk of becoming obese are effective. However, ethnic minorities are often difficult to include in such preventive measures, due to access constraints and cultural barriers. This imposes a pressing challenge for preventive public health interventions and is an unsolved driver of inequalities in health.

We developed a family-oriented partly telephone-based intervention for disadvantaged families with children at risk of obesity. Our objective was to reduce weight, improve diet, and reduce obesity prevalence in children.

The intervention was co-created with both participants, (many of Somali and Arabic origin), and integrated with local community partners including NGOs, healthcare providers, day-care and employers.

Methods: This community based identification included high-risk families including socioeconomically disadvantaged, and Somali/Arabic immigrant families with limited literacy and Swedish knowledge. Overweight women (BMI ≥25) attending priority maternity clinics in Stockholm were referred after consent.

Based on a personalised plan, a health coach provided culturally adapted education and motivational coaching in Somali, Arabic, English or Swedish. The support consisted of increasing knowledge and enabling behaviour change to increase physical activity and exercise, and improve diet.
The study was initiated by the county council of Stockholm, Sweden in 2012 and compared participating clinics with matched control clinics.

**Results:** At one-year follow-up of our 500 families, over 80% had increased their respective self-reported physical activity level by 30-40% and 60-70% of families now meet the 1h/week exercise target (30% at baseline). We also saw a significant increase in the self-reported improvement of diet. 90% of the families reported increased consumption of vegetables, 65% reported a reduction in sweet drinks served. Pregnancy weight gain was on average 8.2kg (25-30% less than national average). Parents’ mean weight reduction was 6.7kg. Also, our preliminary results indicate a reduced prevalence of childhood obesity in the intervention group compared to control clinics, with final evaluation forecast for 2017.

**Conclusion:** The health coaches offer unique possibilities to support behavioural change across socio-cultural groups. Providing cultural-language adapted support and co-operation with NGOs can engage groups that normally do not participate in health promotion. We have been able to achieve improvements in diet and exercise in mothers, with preliminary indications this has led to reduced prevalence of obesity in children.

Co-creation and engagement creates a demand for the health coach offer, where families actively seek out to participate, contribute and mobilize their family members.

The benefits of the program are also to be seen long term. By addressing the obesity epidemic, we will be able to enjoy better health both directly for individuals affected, but also indirectly due to reduced pressure on the health system caused by obesity related illnesses.

**Keywords:** obesity; prevention; case management; family; minorities