School nurse-led, clinical trial to evaluate the effectiveness of an educational program in the prevention of T2DM among adolescents with elevated HbA1c in Kuwait (Protocol)

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Introduction

- Type 2 Diabetes Mellitus (T2DM) is becoming an increasingly common and significant health problem in children and adolescents worldwide.⁽¹⁾
- The increasing incidence of childhood is related to the global rise in the prevalence of overweight and obesity (2)
- In Kuwait, 50% of the diagnosed children have a positive family history of T2DM.(3)
- Over 50% of Kuwaiti adolescents aged 10 to 19 were considered overweight or obese based. With, 46.8% girls and 55.8% boys as overweight or obese in Kuwaiti children and adolescents. (4)

Methods

Phase 1 (Recruitment)

- Risk assessment tool for children and adolescents with T2DM or prediabetes
- Written consent from participant or parent/guardian

Phase 2 (Recruitment)

- Detailed explanation of clinical trial
- Baseline assessment of BMI, BP, FBG, and HbA1c to determine the level of T2DM risk
- Using ADA guideline, moderate and high T2DM risk

Phase 3 (Intervention)

- •A low intensity educational program (6 group discussions, 1 hour per session over 6 weeks).
- Each educational session will cover a few aspects of Lets Go 5-2-1-0 program
- School nurses will deliver the educational program

All eligible participants at risk of T2DM with elevated HbA1c and meet the selection criteria will be randomised and allocated to the school nurse-led intervention group and to the control group.

Objectives

- To identify prediabetes and T2DM among adolescents
- To evaluate the effectiveness of school nurse-led educational program in preventing T2DM among adolescents
- To compare outcomes measurements (HbA1c, FBG, BP, BMI, waist circumference) between genders

Discussion and Conclusions

- Schools play a vital role to deliver the early educational intervention, at this is where children and adolescents can be reached.
- Enable school nurses to prevent T2DM in children and adolescents
- No current clinical trial specifically identified children and adolescents at high risk of T2DM by using the American Diabetes Association's screening guidelines and testing the Let's Go "5-2-1-0" program as an intervention for the prevention of T2DM.

References

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