

Assessment of Social Media & Technology as a Tool for Diabetes Lifestyle Education for Youth At Risk or with Type 2 Diabetes (T2D) at Diabetes Grey Bruce (DGB) in Owen Sound, Ontario

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INTRODUCTION

- T2D in children (≤ 18 years old) is a growing concern for health care professionals worldwide. The prevalence of T2D in this population is increasing (1, 2).
- T2D affects a minimum of 1.54 out of 100,000 Canadian children ≤ 18 year old each year, which translates to around 113 new diagnoses per year; 44% of which are of First Nation heritage (3,4).
- T2D has previously been known as an adult chronic disease, with type 1 diabetes (T1D) being more common in children (3,4). As a result, most resources for education are geared towards children living with T1D. Resources for children with T2D are limited.
- Childhood obesity is a leading modifiable risk factor for the development of T2D (1). An estimated 1.6 million Canadian children between 5 to 17 years old are overweight, or obese (5).
- Treatment for youth with T2D varies greatly (4). Currently, best practices for T2D in children ≤ 18 years are limited (2), but include:
 - Ongoing counseling from a multidisciplinary paediatric team (1)
 - Target HbA1c of $\leq 7.0\%$ (1)
 - Diet and lifestyle approach (1)
 - Metformin, glimepiride and/or insulin therapy (1)
- A growing body of evidence supports the use of social media and technology for health promotion/behaviour change within this target population for education on healthy lifestyle practices (6).

RESEARCH OBJECTIVES

- To examine the use of social media & technology for health promotion among children (≤ 18 years) at risk, or with T2D as well as parents attending DGB.
- To determine client interest in social media & technology for the dissemination of diet and lifestyle education within DGB for improved client-centered care within this target population.

METHODOLOGY

- An 8 week qualitative study for improving patient services at DGB.
- Inclusion criteria: Paediatric outpatients (≤ 18 years) of DGB with T2D, or are at risk and their parents/guardian.
- Exclusion criteria: Adult outpatients (> 18 years) at risk or with T2D; outpatients with T1D of all ages.
- Children's survey (16 questions); 9 distributed; 8 surveys were completed.
- Parent's survey (19 questions); 10 were distributed to one parent of each child, 9 completed.
- An informed consent letter was provided along with the surveys.

RESULTS

- The top three preferred methods of learning for children include watching others/videos (100%), hands on learning (75%), and listening/audio (62.5%).
- The top three preferred methods of learning for parents include talking with others (77.8%), hands on learning (66.7%), and reading (55.6%).
- The majority of children (100%) and parents (88.9%) have access to either a smartphone, tablet, or computer.
- Not all children (only 75%) and parents (only 77.8%) have access to internet at home.
- Currently, 66.7% of parents and 50% of children use the *internet* to search for facts on diabetes, healthy eating, or being active.
- Currently, 37.5% of children and 44.4% of parents use *social media* to search for facts on diabetes, healthy eating, or being active.

Table 1: Which of the following social media sites do you use?

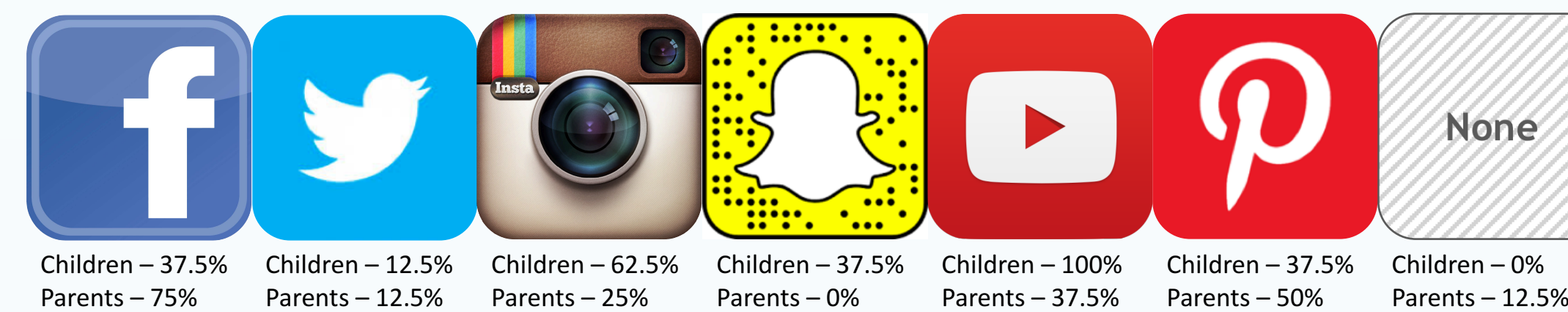


Table 2: Where do you prefer to get information about healthy living?

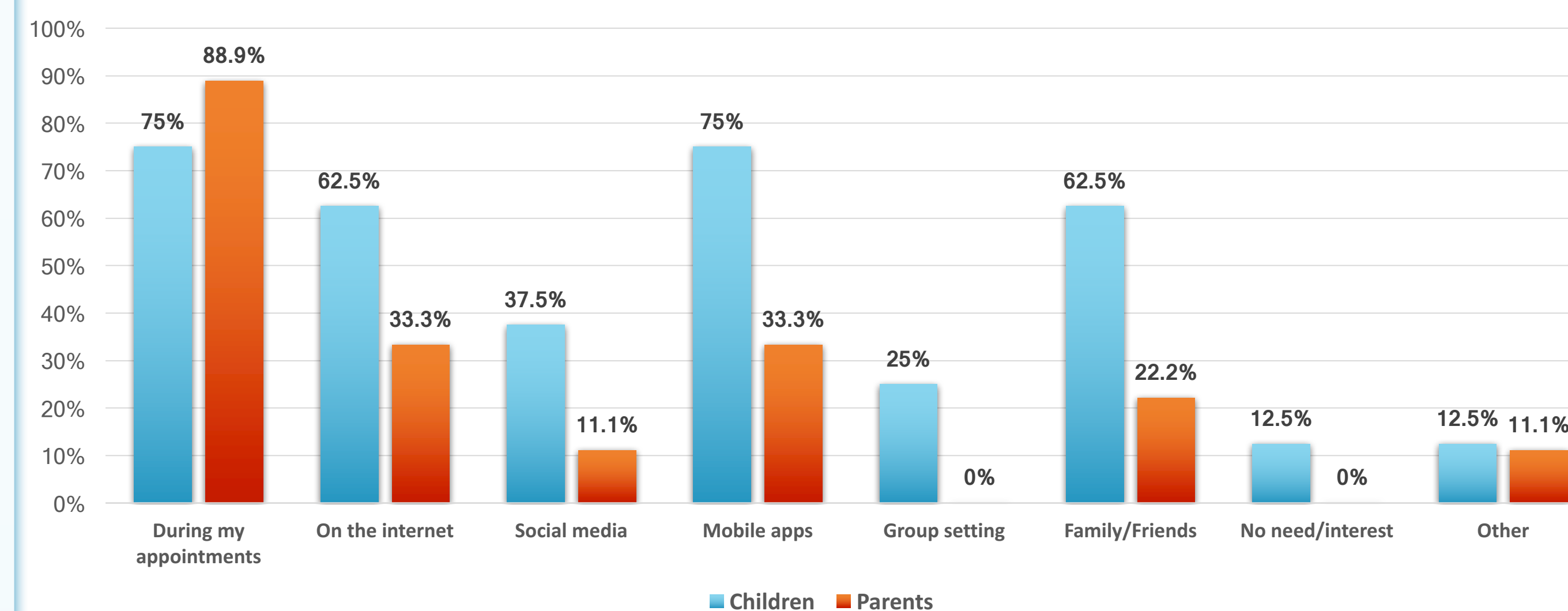


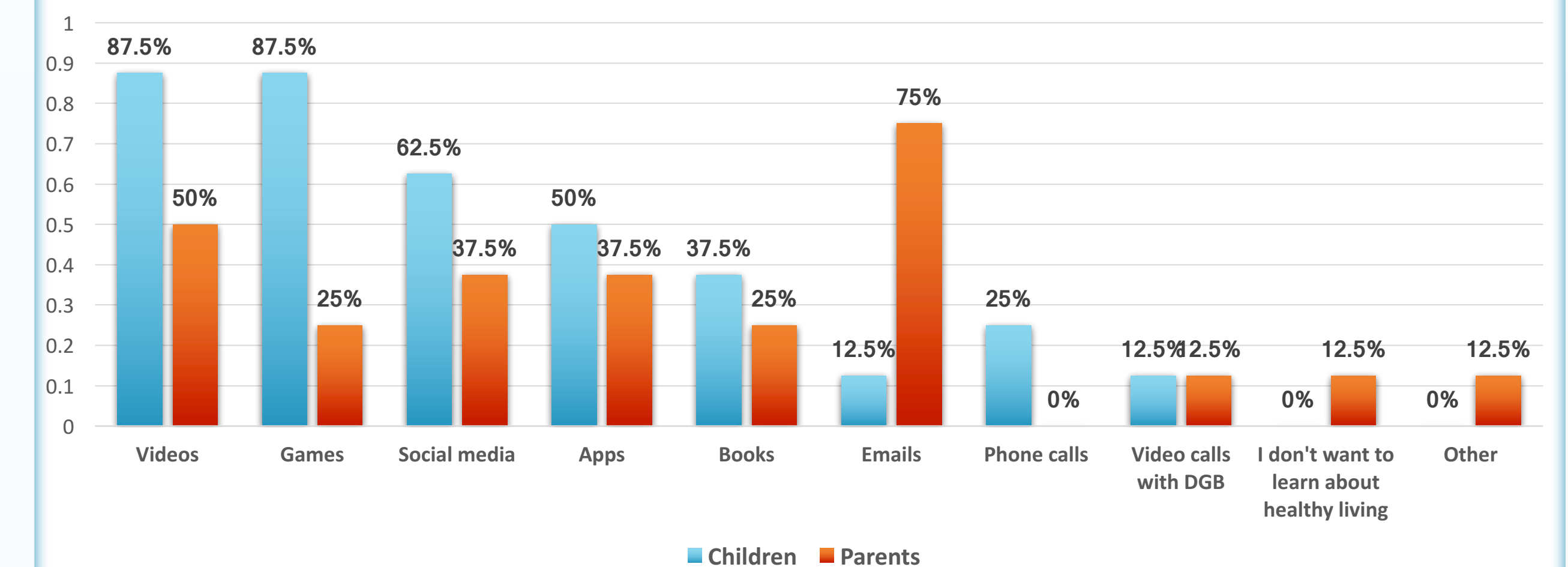
Table 3: Comparison of interest in online/social media platforms for healthy lifestyle information between children and parents

	Children	Parents
Interest in accessing healthy lifestyle information through the DGB website	37.5%	33.3%
Interest in accessing healthy lifestyle information through the GBHS Facebook page	25%	44.4%
Interest in accessing healthy lifestyle information through the GBHS Twitter page	25%	22.2%
Topics of Interest:		
• Learning to cook/cooking Skills	75%	22.2%
• Healthy meals & snack ideas/recipes	50%	88.9%
• Diabetes medication	0%	33.3%
• Ways to feel great	37.5%	22.2%
• Mental health/wellness	--	44.4% *
• Ways to be active & have fun	62.5%	55.6%
• Healthy body weight	50%	33.3%
• None of these	12.5%	0%

*Mental health/wellness was only indicated on the parent version of the survey

RESULTS (cont.)

Table 4: What tools would you like to use to learn about healthy living?



DISCUSSION

- Parents prefer learning through in-person appointments, whereas children prefer learning through technology.
- Children ages 13-18 showed a greater preference for learning through social media, compared to their younger counterpart.
- Family income is a potential barrier to healthy eating for at least 66.6% of families. Income may also be a barrier for access to the internet and ability to purchase electronic devices.
- While a large percentage of children indicated that they would not find any of the hospital sites helpful, 37.5% said that they would find the the DGB website helpful as a source of information.
- The DGB website and GBHS social media sites are accessible to most participants through smartphone, tablet, or computer. This is an opportunity to build on access to information through social media/online platforms.
- Despite differences in learning methods and social media use, 62.5% of children prefer to get information from family/friends, which supports the need to educate parents/guardians as well as children.

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