

# Child Art Psychotherapy Proposed as Adjunctive Therapy for Adolescents with Type 1 Diabetes Mellitus

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## Letter to Editor

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We wish to draw your attention to the challenges experienced by adolescents with Type 1 Diabetes Mellitus (T1DM) and propose Child Art Psychotherapy (CAP) as an innovative and effective asset to the multidisciplinary team in their endeavour to facilitate optimum glycaemic control in their clients. Type 1 Diabetes is an auto-immune, lifelong condition with a marked impact on the lifestyle of sufferers. It carries the threat of complications, including blindness, kidney and heart disease, amputations, neuropathy, coma and death. Adolescents, in particular struggle to balance the demands of diabetes care tasks with a fulfilling lifestyle, and clinicians endeavor to provide a range of supports that reinforce good management and improve quality of life. It is estimated that 2,750 people under 20 years of have T1DM in Ireland and this number is increasing [1].

## Challenges

Erratic blood glucose levels can increase the risk of related complications. By regularly measuring glycated hemoglobin levels (HbA1c) in those with T1DM clinicians ascertain a picture of average blood glucose levels over preceding weeks and months, with a view to best facilitating practices which reduce this risk. The recommended HbA1c for people with diabetes is 6.5%, with poor control defined as a HbA1c result of >8% over a period of six months [2]. The importance of maintaining optimum HbA1c cannot be underemphasized. A large scale Danish cohort study followed 2004 children and adolescents under 20 years of age, for 24 years, and found that children and adolescents with T1DM had substantially increased mortality (4.8), that a 1% increase in HbA1c was associated with all-cause mortality and that T1DM with

multiple complications was the most common reported cause of death (36.7%) [3]. A 1% decrease in HbA1c dramatically cuts the risk of cataracts, heart failure, kidney disease, amputations and neuropathy in T1DM patients [4].

T1DM sufferers find themselves in a frustrating position; their physical condition and its related issues present implications for their mental wellbeing, while their mental state impacts motivation, treatment adherence, and glycaemic control, leading to a further physical burden and ensuing mental health challenges. The lifelong nature of the condition and the ongoing threat of serious illness or death, the compromise to autonomy posed by the intervention of large multidisciplinary teams and frequent clinic visits place further psychological stress on the individual. It is little wonder that adolescents, at a critical period in their physical and mental development, experience psychological difficulty and decreased adherence to treatment regimes.

A large scale Chilean study found 86% of 13-19 year-old teens with T1DM had poor control [5] and 'incomplete adherence to regimen is so common that it has to be considered normal behavior' [6]. Anxiety, depression and a general decline in mental health are more common in adolescents with T1DM and have been linked to reduced adherence to treatment regimens and poorer outcomes. An estimated half of all people with T1DM have a diagnosable psychiatric disorder at some point in their lives [7]. Of those who do not, 'Diabetes Burnout' can impact their quality of life. Jen Nash [8] states: 'Diabetes burnout occurs when a person feels overwhelmed by diabetes and the frustrating burden of

diabetes self-care. These emotions may be very different to feelings of depression, although they can still be very destructive and have serious implications for care.' Adolescent girls in particular, have poorer metabolic control, and are more likely to develop complications due to their illness [9].

### Interventions to Date

NICE UK recommends that clinicians address these issues related to the psychological burden of diabetes care for their client, most significantly to: "Offer children and young people with Type 1 Diabetes and their family members or careers (as appropriate) timely and ongoing access to mental health professionals with an understanding of diabetes because they may experience psychological problems (such as anxiety, depression, behavioral and conduct disorders and family conflict) or psychosocial difficulties that can impact on the management of diabetes and well being" [10].

Unfortunately, delivery of these recommendations sometimes falls short, and many services do not offer dedicated psychological intervention as standard to their patients.

At present, there is no specific research available on Child Art Psychotherapy (CAP) as an intervention in the treatment of poorly controlled T1DM in adolescents. There are however, positive trends emergent in related areas, and in other demographics within this population. Winkley et al. [11] performed a large scale systematic review of psychological therapies for T1DM, and noted a significant improvement in glycaemic control in 10 studies of children and adolescents, with an associated reduction in HbA1c of 0.5% [11].

Within this, successful interventions included cognitive behavioral therapy, family therapy, skills training and general diabetes education. Multi systemic therapy improved adherence and related outcomes and most notably reduced hospital admissions, with a 0.6% reduction in HbA1c after 7 months [12]. A U.S. randomized trial of Behavioral Family Systems Therapy for Diabetes (BFST-D) focused on the maintenance of effects on diabetes outcomes in adolescence and found that "6 months of exposure to this revised intervention yielded immediate post treatment gains in glycaemic control, treatment adherence, and family communication in families of adolescents with suboptimal diabetes management when compared with a multifamily ES group or standard medical care" [13].

Closest to the proposed study modality of CAP is that of Art Therapy, which has proven a positive intervention for poorly controlled diabetes in patients under 11 years of age. A significant HbA1c reduction of 0.79% was observed in participants of an Israeli study

after individual Art Therapy sessions (Harel et al., 2013) [14]. Psychotherapy and its associated reduction in stress have been observed to improve HbA1c results by 1.2% in adults, but there is a deficit of investigation into its benefits for teens [15].

### Child Art Psychotherapy

As of yet, there is no research available on the impact of CAP as an intervention in poorly controlled T1DM in adolescents. Purported advantages over previously mentioned methods are in the formation of a close therapeutic alliance and the provision of a protected space for the child's expression and exploration of feelings and experiences. The structure of the Vasarhelyi method of CAP and its consistency in a physical, material and time specific context makes it relatively easy to implement in a clinical setting. The method has been used in Child and Adolescent Mental Health Services for many years, is generally considered useful by clinic supervisors [16] and has been used to treat a variety of mental health conditions [17]. CAP sessions are one to one, and take place on a weekly basis, at a fixed time. They comprise 20 minutes of art making, and 30 minutes of therapeutic discussion around the work created. For the child, they provide certainty and predictability, in the experience of a condition that is anything but predictable. The method, although strong on consistency of conditions, is child directed, and does not impose an iconography or interpretive language onto the client's imagery. It offers no solutions, judgment or expectations. It may be the first experience the adolescent has had of freely expressing their feelings about their condition, both conscious and unconscious, without fear of the negative impact this could have on potentially enmeshed or over involved adults. The consistency of setting and session should eventually prove a place in which to leave the anxieties and fears associated with T1DM behind, safely contained and not intruding into daily life. In this context, it is feasible to expect an alleviation in stress, anxiety and related effects which in turn should prove beneficial in day to day T1DM management and ultimately, glycaemic control. In the context of the many expectations placed on adolescents with T1DM, it could provide a welcome respite, and an opportunity to gain an objective view on a potentially overwhelming condition. CAP does not require any level of artistic competence on behalf of the client or incur large costs to the service provider.

The importance of good control has been illustrated previously, most notably in its role in health, and proven effect on mortality. It is thus vital that all avenues are explored in the drive to improve the quality of life and consequently the lifespan of T1DM patients. There can surely be no stronger impetus for the implementation of further research into this area.

## References

1. Hawkes C, Murphy N (2014) Paediatric Type 1 Diabetes in Ireland – Results of the First National Audit, *Irish Medical Journal* 107(4): 102-103.
2. Diabetes.co.uk. (2016) What is HbA1c? Definition, Units, Conversion, Testing & Control.
3. Sandahl K, Nielsen LB, Svensson J, Johannesen J, Pociot F, et al. (2017) Increased mortality in a Danish cohort of young people with Type 1 diabetes mellitus followed for 24 years. *Diabet Med* 34(3): 380-386.
4. Diabetes.co.uk. (2013) Lower HbA1c linked with dramatically reduced risk of diabetes complications.
5. Díaz-Cárdenas, Wong C, Vargas Catalán N (2016) Grado de control metabólico en niños y adolescentes con diabetes mellitus tipo 1. *Revista Chilena de Pediatría* 87(1): 43-47.
6. Harvey J (2015) Psychosocial interventions for the diabetic patient. *Diabetes Metab Syndr Obes* 8: 29-43.
7. Rubin R (2002) Psychotherapy and Counselling in Diabetes Mellitus. *Psychology in Diabetes Care*, pp. 235-263.
8. Nash J (2014) Understanding the psychological impact of diabetes and the role of clinical psychology. *CPD Module* 8(4): 137-142.
9. Samuelsson U, Anderzén J, Gudbjörnsdóttir S, Steineck I, Åkesson K, et al. (2016) Teenage girls with type 1 diabetes have poorer metabolic control than boys and face more complications in early adulthood. *Journal of Diabetes and its Complications* 30(5): 917-922.
10. Nice.org.uk. (2016) Diabetes (type 1 and type 2) in children and young people: diagnosis and management, NICE.
11. Winkley K, Ismail K, Landau S, Eisler I (2006) Psychological interventions to improve glycaemic control in patients with type 1 diabetes: systematic review and meta-analysis of randomised controlled trials. *BMJ* 333(7558): 65-73.
12. Ellis DA, Frey MA, Naar-King S, Templin T, Cunningham P, et al. (2005) Use of Multisystemic Therapy to Improve Regimen Adherence Among Adolescents with Type 1 Diabetes in Chronic Poor Metabolic Control: A randomized controlled trial. *Diabetes Care* 28(7): 1604-1610.
13. Wysocki T, Harris MA, Buckloh LM, Mertlich D, Lochrie AS, et al. (2007) Randomized Trial of Behavioral Family Systems Therapy for Diabetes: Maintenance of effects on diabetes outcomes in adolescents. *Diabetes Care* 30(3): 555-560.
14. Harel S, Yanai L, Brooks R, Bar Y, Bistrizter T, et al. (2013) The contribution of art therapy in poorly controlled youth with type 1 diabetes mellitus. *Journal of Pediatric Endocrinology and Metabolism* 26(7-8): 669-673.
15. Didjurgeit U, Kruse J, Schmitz N, Stückenschneider P, Sawicki P (2002) A time-limited, problem-orientated psychotherapeutic intervention in Type 1 diabetic patients with complications: a randomized controlled trial. *Diabetic Medicine* 19(10): 814-821.
16. McGovern M, Byrne A, McCormack M, Mulligan A (2016) The Vasarhelyi Method of Child Art Psychotherapy in Child and Adolescent Mental Health Services: a stakeholder survey of clinical supervisors. *Irish Journal of Psychological Medicine*.
17. Saba L, Byrne A, Mulligan A (2016) Child art psychotherapy in CAMHS: Which cases are referred and which cases drop out? *Springer plus* 5(1): 1816.