Experiences of young adults with type 1 diabetes while using alcohol and recreational drugs: An interpretative phenomenological analysis (IPA) of semi-structured interviews

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ABSTRACT

Aims: Alcohol and recreational drug use is common in young adults with type 1 diabetes (T1DM) and may account for increased morbidity and mortality. This study explores the motivations and experiences unique to this population while using alcohol and recreational drugs.

Methods: Semi-structured interviews focusing on substance use were performed with 16 young adults aged 18–35 with T1DM who drink alcohol (at least 50 g, 5 Australian standard drinks, in a single session) and/or used recreational drugs. A qualitative interpretative phenomenological analysis (IPA) of the interview data was performed by three clinicians with differing expertise (a psychologist, endocrinologist and addiction medicine specialist).

Results: A range of motivations, experiences and harm reduction strategies regarding substance use were described specific to young adults with T1DM with most aimed at mitigating the risk of hypoglycaemia. Clinicians remained the most trusted resources, however, substance use was rarely discussed at clinical encounters. Currently available information, especially for illicit drugs, was described as inadequate.

Conclusions: This analysis identified experiences unique to young adults with T1DM when using alcohol and other drugs. Understanding these experiences and how these young adults attempt to mitigate the risks of substance use may lead to improved clinical interactions and management strategies.

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1. Introduction

Type 1 diabetes (T1DM) is one of the most common chronic conditions of young adulthood. It is caused by autoimmune destruction of pancreatic β-cells and requires lifelong regular monitoring of blood glucose levels (BGLs) and administration of exogenous insulin [1,2]. Despite improvements in treatment, there remains an excess of mortality in this population related to acute complications of diabetes and an excess of trauma and otherwise unexplained events [3]. As recreational substance use generally peaks between 18 and 35 years, consumer groups, clinicians and researchers have proposed that alcohol and recreational drug use may partially explain this increased mortality [4–6].

There is little published literature studying the influence of alcohol and recreational drug use in T1DM [7–9]. Furthermore, the motivations and experiences of young adults with T1DM who use alcohol and illicit drugs are rarely studied and frequently not considered in guidelines for management [10,11]. Stigma from researchers and health professionals, a perception that any self report of substance use is likely to be inaccurate and a lack of recognition of its impact on blood glucose control all contribute to the lack of formal studies. While drug use is already relatively common in this cohort [12,13], the increasing numbers of jurisdictions worldwide decriminalising and legalising previously illicit drugs means substance use is likely to become of increasing importance to clinicians.

In order to explore the lived experiences of young adults with type 1 diabetes who use alcohol, cannabis, amphetamine type stimulants and other drugs, an interpretative phenomenological analysis of semi-structured face-to-face interviews was performed [14]. This method enables a range of participant narratives to be voiced and explored while simultaneously allowing researcher interpretation of social contexts, potential risks, harm reduction strategies, and how supportive information can be better designed and disseminated.

2. Methods

Participants were recruited from an outpatient tertiary referral clinic for adults with T1DM clinic in inner city Melbourne, Australia. They were identified by a treating clinician or through snowballing, where a previous participant nominates another potential participant. Inclusion criteria comprised being aged 18–35 years, having been diagnosed with T1DM for greater than a year, reporting use of at least 50 g of alcohol (5 Australian standard drinks) on a single occasion in the last three months or any recreational drug use in the previous 12 months. Sampling was purposively employed to ensure a broad range of relevant experiences. At least two interviews with each of the following classes of drug; alcohol, cannabis, ecstasy (MDMA or methylenedioxymethamphetamine) and amphetamine type stimulants including cocaine were ascertained. Within each drug class, there was a male and female, as well as a participant whose frequency of substance use

was less than monthly. The participant group is described in Table 1.

A researcher (AP) trained in qualitative interviewing methods and with no pre-existing relationship to participants performed the one-on-one semi-structured interviews. The interviews were performed from January to October 2017 either in an outpatient T1DM clinic or at a time and place arranged at the participant and researchers' convenience. The duration of the interviews was 30–60 min and they were conducted in a flexible manner following the outline in Table 2.

Interviews were digitally audio-recorded and transcribed verbatim. Analysis proceeded iteratively with two authors (AP, CO) agreeing that data saturation (no new themes emerging) occurred at 16 participants. The interpretative phenomenological approach chosen explores individual participant narratives and allows researchers to interpret motivations and experiences potentially highlighting themes not explicitly stated [14]. In order to bring varying understandings and emphasis to the data, analysis was performed separately by three clinicians from diverse clinical backgrounds (AP-Addiction Medicine, CO – Psychology, JT-Endocrinology). A focus on identifying repeated participant experiences, concerns about substance use and their role in the lives of young adults with type 1 diabetes guided interpretation. Each clinician independently performed line by line coding of each interview transcript and generated themes relevant to multiple cases. These analyses were then shared and major themes, sub-themes and appropriate groupings were arrived at by consensus. NVIVO 11.0 was used to assist in grouping the data by themes, identify organising principles and structure the results.

The project was approved by the St Vincent's Hospital (Melbourne) Human Research Ethics Committee.

3. Results

Findings are presented under four major themes: motivations for substance use, experiences unique to people with T1DM, harm reduction strategies, and information seeking and stigma. Italics indicate direct quotes from the participants.

3.1. Motivations for substance use

"I understand. I accept I'm diabetic but I don't want to be an exception. I want to do what other people are doing"

Motivations for substance use were divided into three sub-themes; motivations that were unrelated to T1DM and apply equally to the general population, T1DM- specific motivations and motivations where there was considerable overlap of the first two sub-themes.

3.1.1. Motivations unrelated to T1DM
For many participants, the desire to use substances was similar to their peer groups, with many of the young adults not mentioning the role of T1DM until specifically prompted.