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Barriers to Type 2 Diabetes Management in Australian Gay Cisgender Men: First National Study

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Key Messages

- Sexuality is currently not considered a variable that may alter diabetes management, but some areas may challenge this belief.
- Engagement by gay cisgender men with the health-care system and diabetes care may be altered by discomfort.
- Unique issues, such as weight concerns and homophobia seen in sports, may be areas to target in diabetes care for gay cisgender men.

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ABSTRACT

Objectives: The study sought to determine how sexual orientation impacts the experience and management of type 2 diabetes (T2D) because psychosocial factors are known to have a significant impact on clinical outcomes. This was to address the gap in research on how Australian men assigned male at birth who identify as male and gay may influence the management of T2D and improve awareness among health-care providers and gay men living with T2D.

Methods: A sequential mixed-methods design was used to explore the experiences of Australian men assigned male at birth, who identify as male and gay with T2D. Two data collection phases started with an electronic survey of 83 gay men with T2D (7 screening questions and 63 questions covering characteristics and where sexuality and diabetes intersect) and 82 without T2D (5 questions covering thoughts on gay men with T2D), to explore community perceptions, followed by a second phase of 12 in-depth interviews with gay men with T2D.

Results: Descriptive statistics were used to analyze the survey data, and a reflexive thematic analysis, grounded in constructivist assumptions, was used for interview data. Twenty-one percent of participants had not disclosed their sexual orientation to their doctor, indicating a prevalent barrier. Three themes emerged that reduce the ability of gay men to bring their whole selves into health-care consultations, creating a barrier, including 1) discomfort around sexual orientation and diabetes; 2) navigating uncomfortable patient–provider conversations; and 3) sexuality and diabetes: unrecognized connections in lifestyle factors.

Conclusions: These findings underscore the need for tailored interventions by diabetes specialists or educators to address identity-related barriers and potentially reduce diabetes-related complications.

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R É S U M É

Objectifs : La prise en compte des facteurs psychosociaux dans la prise en charge du diabète a un impact significatif sur les résultats cliniques. Peu d'études ont été menées quant à la manière dont les hommes australiens assignés hommes à la naissance et qui s'identifient comme hommes et homosexuels peuvent influencer la prise en charge du diabète de type 2 (DT2), ce qui entraîne un manque de sensibilisation chez les professionnels de santé et les personnes homosexuelles atteintes de diabète. Cette étude a examiné l'impact de l'orientation sexuelle sur l'expérience et la prise en charge du DT2.

Méthodologie : Une méthodologie séquentielle à méthodes mixtes a permis d'explorer les expériences d'hommes australiens assignés hommes à la naissance, s'identifiant comme hommes et homosexuels, atteints de DT2. Deux phases de collecte de données ont été menées : une enquête électronique auprès de 83 hommes homosexuels atteints de DT2 (7 questions de dépistage, 63 questions couvrant les caractéristiques et l'intersection entre sexualité et diabète) et 82 hommes sans DT2 (5 questions couvrant leurs opinions sur les hommes homosexuels atteints de DT2), afin d'explorer les perceptions de la communauté, suivie d'une deuxième phase de 12 entretiens approfondis avec des hommes homosexuels atteints de DT2.

Résultats : Des statistiques descriptives ont été utilisées pour analyser les données d'enquête, et une analyse thématique réflexive, fondée sur des postulats constructivistes, a été utilisée pour les données des entretiens. Vingt-et-un pour cent des participants n'avaient pas révélé leur orientation sexuelle à leur médecin, ce qui représente un obstacle fréquent. Trois thèmes ont émergé, réduisant la capacité des hommes homosexuels à se présenter tels qu'ils sont lors des consultations médicales, créant ainsi un obstacle, notamment : 1) Malaise lié à l'orientation sexuelle et au diabète ; 2) Gestion des conversations délicates entre patient et prestataire de soins ; et 3) Sexualité et diabète, un lien méconnu.

Conclusions : Ces résultats soulignent la nécessité d'interventions adaptées par des spécialistes ou des éducateurs en diabète afin de lever les obstacles liés à l'identité et de réduire potentiellement les complications liées au diabète.

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Introduction

Health care is an integral component of the lived experience of Australian gay men assigned male at birth and identifying as male and gay (gay cisgender [cis] men). However, much of the literature on this group has focussed on sexually transmitted infections and mental health, with chronic diseases receiving little attention. The social adjustments that gay cis men make to manage their exposure to real and perceived homophobic mockery, negativity, and violence are believed to promote behaviours that may inadvertently influence diabetes management. Experiences of homophobia create chronic stress, which can adversely affect health behaviours and outcomes. There is limited research on the intersection between type 2 diabetes (T2D) and sexual orientation that diabetes educators should consider in consultations. In this study we aimed to better understand how sexual orientation impacts the experience and management of T2D. To our knowledge, this is the first study to focus on Australian gay men with T2D. This addresses a gap in Australian research focussing on T2D, which is often conflated with type 1 diabetes, despite distinct psychosocial and pathologic sequelae.

T2D is a chronic, progressive condition that interrupts the routines of people and their significant others as it progresses. In 2023, T2D was the 11th specific cause of chronic disease, equating to 4.7 cases per 1,000 population [1]. Preliminary evidence suggests that rates of some chronic diseases, such as diabetes, may be higher in lesbian, gay, transgender, queer, intersex, asexual, plus (LGBTQIA+) Australians [2]. Previous research has addressed people's lived experiences in the United States and the United Kingdom, but those studies combined many non-heterosexual identities and diabetes types [3,4]. This study is the first to focus on Australian gay men with T2D, which is important because of their unique experiences within Australian culture and health-care systems [5]. The knowledge gained may help health-care practitioners (HCPs) and gay men explore and contextualize new and innovative solutions to diabetes-related problems that are effective and well-received by gay men.

Methods

A sequential mixed-methods design was used [6], including an electronic survey followed by in-depth interviews. The electronic survey of consenting gay men with or without T2D asked participants about their lived experience as gay men and their T2D management. An online survey was chosen because it is economical to administer, easy to distribute, and allows privacy and confidentiality when completed via phone or computer [7]. Gay men without T2D were asked their views of gay men with T2D, allowing for further exploration of community views, known to shape in-group health behaviour [3]. Understanding the attitudes and beliefs within the gay community may shape an individual's management of diabetes. The interviews with Australian gay men diagnosed with T2D allowed for in-depth exploration of issues raised in the survey.

Sample and recruitment

A broad recruitment strategy was used because gay men are known to be difficult to access for research [7]. The research was advertised via 36 national and state-based diabetes support groups, social media platforms, radio and print media, and direct emailing to national gay men's groups. Gay men living with human immunodeficiency virus (HIV) were excluded to avoid confounding, as there is a higher incidence of diabetes associated with HIV [8,9], and there are unique psychosocial issues related to HIV, which may obscure the role of sexual orientation [10].

Data collection

Data were collected over 1 year. The survey was developed by the first author (assigned male at birth who identifies as male and gay, and lived most of their life in Australia) with advice from the third (a nurse). It was piloted before use with 10 people, with no

Table 1

Interview participants (gay men assigned male at birth who identify as male and gay)

Pseudonym	Age (years)	Religion	Relationship status (previous and current)	Years since diagnosis	Highest educational attainment	Weekly wage (median)	Employment status	Area of employment*	Medical issues [‡]	Blood sugar problem (≥2) [†]	Annual doctor visits
Adam	73	Anglican	Single (lives alone)	8	Year 9	\$300–\$399	Unemployed	Other service [‡]	ED, hearing issues	No	2
George	47	Catholic	Single (lives alone), previously married to woman	25	Master's degree	\$200–\$399	Part time	Education and training	BED	No	4
Peter	63	Catholic	Lives with partner	6	Year 11	\$400–\$499	Unemployed	Other service [‡]	Problematic drinking ED	Yes	12
Tom	57	Catholic	Lives with partner	1	Bachelor's degree	\$1,250–\$1,499	Full time	Education and training	Obesity, ED, eye issues, sleep apnea	Yes	4
Harry	59	Catholic	Lives with partner (previously married to woman)	0.5	Bachelor's degree	\$200–\$299	Casual	Other service [‡]	PVD, PN, ED, AN	No	4
Simon	53	Uniting church	Single (lives alone)	1	Certification III or IV	No income	Unemployed	Other service [‡]	Obesity, bloating after food, sleep apnea	BGL not done	1
Trevor	68	Anglican	Single (lives alone)	5	Graduate certificate/diploma	\$600–\$699	Casual	Other service [‡]	Problematic drinking, morbid obesity, PVD, PN	No	2
Michael	51	None	Lives with a partner	13	Diploma/advanced diploma	\$800–\$899	Unemployed	None supplied	Stroke, eye issues, ED, heart attack, chronic foot ulcer	Yes	4
Wayne	52	None	Single (lives alone)	21	Bachelor's degree	\$300–399	Unemployed	Retail trade	Stroke, PVD, PN, ED, kidney issues, eye issues, cancer	Yes	12
Kevin	69	None	Single (lives alone)	13	Bachelor's degree	\$400–499	Unemployed	Health care/social assistance	Obesity, PVD, PN, ED, AN, sleep apnea	Yes	12
David	50	None	Single (lives alone)	2	Master's degree	≥\$2,000	Full time	Professional/scientific/technical services	Problematic drinking, sleep apnea	No BGL done	4
Craig	49	None	Lives with partner (married to man)	1	Year 10	\$1,500–\$1,999	Full time	Other services [‡]	PVD, ED, skin issues	No	2
Mean	57.6		Single lives alone: 7, single lives with others: 0, lives with partner: 5, previous married to women: 2, married to man: 1	8 (median 5.5)							5.25
Range	47–73			0.5–25							1–12

AN, autonomic neuropathy; BED, binge eating disorder; BGL, blood glucose level; ED, erectile dysfunction; PN, peripheral neuropathy; PVD, peripheral vascular disease.

* SEEK.com used to categorize occupation.

[†] Individuals with BGL problems were asked to indicate their average BGL via home measuring device before breakfast, 2 hours postprandially, and before bedtime. Within range was considered 4–8 mmol/L. A problematic BGL was considered when outside the range of 4–8 mmol/L.[‡] Employment not categorized on SEEK.com, such as the Arts.

changes suggested, including 7 screening questions and 63 closed-ended questions, and it provided the opportunity for participants to take part in an in-depth face-to-face interview. The survey was started by 269 participants, but 171 completed it. It was conducted on the Qualtrics platform, which was selected for its security features and support. Questions on the survey requested the following response options: yes, no, or not applicable; a ticked response; a 1–5 numeric response (5-point Likert scale); or limited boxes to provide free text. No validated tools were used. In-depth interviews provided an insider's view with a

particular language and nuance that may not be captured in survey precoded questions, including contradictions [6]. Domains captured in the survey were characteristics of the person, health-care interactions, and where their sexuality intersects with health care. A sample of questions in the survey included: *What is your ethnicity? What is your religion? How old are you?* and *Does your main general practitioner know you are gay?* A sample of paraphrased interview questions with gay men included: *What was the circumstance of your diabetes diagnosis?* and *Discuss significant events in your diabetes journey and your life*

as a gay man. If participants selected, they did not have diabetes, they were asked a separate 5 questions; for example, *What is your opinion of men with diabetes?* These data provided a rich source of information around in-group dynamics (Table 1).

All interviews were conducted face-to-face, digitally audio-recorded, and transcribed verbatim. All participants were given pseudonyms, reviewed the transcripts, and returned an email stating they were happy to use them for analysis—and that it reflected a true and accurate picture of their experiences. They were also invited to clarify their experiences, but none provided additional comments.

Data analysis

Survey questions were analyzed by the first author as part of a doctoral thesis, using simple descriptive statistics (e.g. frequencies and proportions). Discussions were held with the third, fourth, and fifth authors, providing critical feedback and challenging assumptions leading to iterative refinement. A reflexivity journal was maintained to reflect on the interview process and interpretations, and as an insider the interviewer disclosed their identity as gay to facilitate trust. Reflexive thematic analysis was used to analyze the interview transcripts, allowing for the researcher's perspective [11]. The analysis involved 6 stages: compiling (transcribing, reading, familiarizing); disassembling (creating codes); reassembling (creating themes by mapping codes); reviewing themes (how they fit together and tell a story); refining and naming themes (ensuring consistency within the data); and producing the report (choosing quotes that embody the message and answer the study question) [11].

Ethical considerations

This study was approved by Victoria University Human Ethics Research Committee and developed in compliance with the Australian National Health and Medical Research Council Guidelines. Participants were required to tick a box to indicate their consent after reading a brief statement and before proceeding with the online survey. All participants provided written informed consent.

Results

Eighty-three Australian gay men with T2D and 82 gay men without T2D completed the online survey. Initially, 13 men with T2D agreed to be interviewed for the survey; however, only 12 transcripts were analyzed, as 1 participant was lost to follow-up (Table 1).

Three themes were constructed from our analysis of interviews with gay men with T2D: 1) discomfort around sexual orientation and diabetes; 2) navigating uncomfortable patient–provider conversations; and 3) sexual orientation and diabetes: unrecognized connections in lifestyle factors. The 3 themes are discussed in the context of the issues raised by the survey results, and direct quotes from interview participants are presented to illustrate these themes.

Discomfort around sexual orientation and diabetes

Navigating uncomfortable conversations refers to the mutual unease found between gay men with T2D and diabetes educators.

Survey finding: Twenty-one percent of gay men with T2D reported that they were either not “out” (hid their sexual orientation from others), did not know if their doctor knew their sexual orientation, or did not have a regular doctor.

Qualitative findings: Michael was asked if he was out to his doctor and said: “No, I hid it. Always. I found a lot of discrimination in a lot of places [referring to general practices]” (Michael, aged 51, diabetes 13 years). Michael further went on to say the doctor stopped him from talking about his sexual orientation during a consultation, which he interpreted as rejection: “I tried to open up and I got shut down, and I changed doctors. I just didn't feel comfortable. That was the easiest way to solve it was just to change to a new doctor.”

Kevin talked about the reaction of others related to disclosing his sexual orientation and the barriers he felt when he had to see a doctor other his regular one, who was not gay:

I went to see another doctor and I just felt that it was a real waste of time ... He assumed that I was married to a woman, and I said, “No, I'm married to a man,” ... but, all of a sudden ... put up these barriers but I think I did [also] as soon as he thought I was gay. (Kevin, age 69, diabetes 13 years)

Survey finding: Discomfort regarding diabetes comes from the gay community itself.

Negative views expressed by gay men without T2D referred to gay men with T2D as being lazy (54.9%), diabetes as something they should have been able to control (32.9%), and that gay men with T2D lacked self-control (43.9%).

Navigating uncomfortable patient–provider conversations

Qualitative findings: To deal with the discomfort about their sexual orientation and diabetes, some gay men seek out HCPs known to be gay, where personal conversations are possible due to shared life experiences: “... it's ... important ... an acknowledgment that you exist. Your health care, your life, it's not just you. Your family, friends, and support group are around you, and I think that's important” (Craig, age 49, diabetes 1 year). Craig further explained, “Yes [if the doctor was gay, it makes a difference] ... because you don't have to explain it [or] worry about whether they get it. You can just talk about it ... use the language that you're comfortable with” (Craig, age 49, diabetes 1 year).

George lived in a small town where he knew the receptionist socially, so he was never going to come out, but he announced it one day to his doctor on the proviso that he did not write it down:

I just said ... “Look, if you are looking after my health, you should know ... I'm gay,” ... I'd prefer it wasn't written down, but I need you to know. ... [My town] is a small town and I knew all the receptionists at the doctor's socially, so at this stage the plan was ... never come out. (George, age 47, diabetes 25 years)

Adam was happy to tell people he was gay, but only when it mattered. However, he did not routinely bring it up because he did not want to make the other person feel uncomfortable: “... it's not really relevant most times ... I just don't see the point in making people feel uncomfortable when there's no point and purpose to it” (Adam, age 73, diabetes 8 years).

Other gay men did not worry about the sexual orientation of the HCP they visited. Instead, they “navigated the closet,” where they chose to come out as gay in some circumstances but stayed closeted in others. Being closeted may reduce engagement and limit the HCP's ability to understand the nuances that shape gay

men's health journey: "One of the things that have come across, a lot of older gay people, you can take the closet away, but notionally it is still there, and they've been culturized to the closet, and they'll never get out of it" (Trevor, age 68, diabetes 5 years).

Survey findings: Although 79% of gay men were happy to disclose their sexual orientation to doctors, there was a lack of faith among some men that their doctor understood gay cis men's health issues.

Qualitative findings: Discomfort or mistrust caused their care to be fragmented, as gay men with T2D were required to see one doctor specifically for so-called gay cis men's health issues and one for general health care: "I don't have a lot of faith in doctors ... I have an LGBTI doctor that I go to for LGBTI stuff. I haven't told the other one that I've got diabetes yet, but I think I should" (Simon, age 53, diabetes 1 year).

Sexual orientation and diabetes: Unrecognized connections in lifestyle factors

Addressing unhelpful lifestyle practices is often the first target in managing T2D. The gay cis men participants studied had key lifestyle factors that could influence diabetes management.

Qualitative data: The connection between diabetes and their identities as gay cis men was unknown to some gay men. Kevin explained, "I don't see anything to do with the sexuality coming into that at all" (Kevin, age 69, diabetes 13 years). When David was asked if they thought if there were any issues relating to diabetes for gay people, he responded, "Not that I've come across" (David, age 50, diabetes 2 years).

Survey data: Encouraging participation in sports is a significant tool in diabetes management. Of the gay men with T2D, 38.09% (rare, now and then, mostly, and all occasions) reported that they had stopped participating in sports due to fear of homophobia and the stigma associated with diabetes.

Qualitative data: Wayne talked about the shame of having diabetes and the lack of exercise:

If I had been more pro into exercise and living a healthier life I might have been more of a "scene bunny" than I ever was. I think one of the things I've noticed [about] diabetes is that for some reason there is a certain level of shame on their part that they have problems. (Wayne, age 52, diabetes 21 years)

Kevin's weight prevented him from participating in group sports activities: "[I have] never [participated in team sports] because I was such a big kid. I've always been big. I was always a chubby kid in primary school and very heavy in secondary school and I got up to 40" (Kevin, age 69, diabetes 13 years).

Establishing new health routines is the cornerstone of diabetes management, with joining groups as one strategy to reinforce new behaviours. Peter felt psychologically safe in a group of gay men, which motivated him to continually turn up: "If I know that on a particular day/time, I have to be doing some exercise, with somebody, ... who if I don't go will be disenfranchised because I've upset the apple cart. I will always go" (Peter, age 63, diabetes 6 years).

Survey data: Gay men participating in the study had lower rates of obesity (34.9% had a body mass index [BMI] >30) compared with national population data (70% have a BMI >30).

Qualitative data: Weight concerns are significant in the gay community, as raised by Craig:

We have avoided going out in recent years. [We] put on a lot of weight and there [were] accents of, "oh God, I'm going to be judged for being chubby and fat. A bad gay person ...," they'd see a photo on Facebook and say "Jeez, he's porked up" ... and it would find its way back to me ... they were hurtful and frustrating because there's nothing worse than people telling, you look fat, when you know you look fat ... (Craig, age 49, diabetes 1 year)

Discussion

The results indicate being a gay cis male can shape the management of T2D in key areas. These areas include mutual discomfort around disclosing sexual orientation within consultations; coping with discomfort, resulting in various patterns of interacting with the HCP, including being closeted or seeing a gay HCP for all or part of their care related to their sexual orientation; and a lack of acknowledgment or understanding of the connection between being a gay cis male and T2D in lifestyle tools, such as disincentives to exercise and weight concerns.

Minority stress theory refers to the additional stressors that minority groups, such as gay cis men, experience related to societal structures and internal responses [12]. Minority stress theory is applicable here as it provides a link to body image, fear of disclosure in a health-care setting [12], lower health-care use, poor communication, and reduced treatment adherence [13].

Health care consultations can make people feel vulnerable because they are expected to disclose intimate details about themselves. This vulnerability and discomfort can reduce the formation of a therapeutic relationship [14]. When prominent aspects of life are filtered from one's story, it reduces opportunities to explore solutions and build trust. Creating an environment conducive to such conversations can be difficult when HCPs do not know what is happening in the minds of their clients, especially when encounters are infrequent, as often occurs with diabetes educators. Gay men with T2D participating in this study talked about past negative experiences with HCPs, feeling the barriers go up when they disclosed their sexual orientation and, in some cases, getting shut down. Such experiences can cause hypervigilance, where one self-monitors and withdraws from social interaction to keep safe from rejection [15]. Others have framed this experience as rejection sensitivity, where the brain is primed to expect rejection due to past negative experiences [16]. Therefore, in the absence of any negative commentary, gay men can feel discomfort, which has implications for HCPs creating a safe space.

Although much of the focus is often directed toward people external to gay cis men, it is equally important to review the stigma from internal peers. Our study has highlighted how a significant portion of the gay community holds negative views toward people living with T2D and related risk factors such as obesity. This motivational factor may explain why the rates of obesity were lower among gay men in this study compared with the general population of people with diabetes [17]. These negative views on diabetes and obesity are evident in the comments from participants, which are known disincentives to engaging in exercise [18,19] and promote stress eating [20],

influencing what to disclose in health consultations and who to consult for health reviews—consistent with minority stress theory [12,13]. Understanding intergroup stigma is crucial to inform community-based interventions in Australia, as observed in the United States [21], where collaborations between LGBTQIA+ and diabetes groups may form a basis for change [22].

Some gay men shared stories of significant stigma related to weight. Approximately half of the gay men without T2D reported that they believed gay men with T2D were lazy and lacked self-control. Double feelings of stigma related to weight and sexual orientation have previously been reported to impede gay men from reaching out for appropriate support [23].

Some gay men addressed these discomforts by hiding their sexuality or choosing to see a separate HCP for specific gay cis men's care. Although these men may hide their sexual orientation, it does not mean they are necessarily uncomfortable with this decision; instead, a habit (culturized) developed to avoid conflict. However, these avoidances in health consultations may mask important unappreciated factors in decision-making. For example, some gay men avoided team sports because of past experiences of homophobia but may forget this as a barrier to exercise. This avoidance closes off meaningful discussion of strategies around homophobia in sports, such as gay sports teams, with HCPs. Choosing a gay HCP may mean some gay men can use language they are comfortable with, creating a shared understanding, and not having to worry about disclosing their sexual orientation or filtering their conversations to avoid discomfort.

Visiting multiple HCPs to address different aspects of care to reduce discomfort can be beneficial by providing confidentiality and quality assessments, but there may also be disadvantages. The literature suggests that, if each member of a person's health-care team has a different and incomplete picture of their health condition, it can result in duplication, unnecessary visits, and medical mistakes [24]. Therefore, there is a need for all HCPs to be culturally competent in this area as a strategy to reduce the fragmentation in care that can result. Although inclusivity is embedded in the Australian Diabetes Educators Association's constitution, its current emphasis is primarily on cultural and racial diversity. To ensure comprehensive equity, this scope should be broadened to explicitly include LGBTQIA+ people. Partnering with LGBTQIA+ organizations may inform strategies toward achieving this goal.

Experiences of homophobia, and indeed fear of it, become significant causes of chronic stress among gay men from a young age [25]. Chronic stress can promote the development of diabetes in complex ways [26] and have an additive effect on diabetes-related distress, which has widespread implications for diabetes management [27].

Homophobia in sports [28,29] has been widely documented in group exercise and was a shared experience among the participants in this study. The benefits of group membership [30] have been exploited in diabetes education to motivate behaviour such as exercise, and group membership helps establish routines [31]. However, although gay men with diabetes may find their way into gay sports groups, a sensitivity about their weight may prevent this from taking place. Weight discrimination, as identified in this study, is a significant issue within the gay community [32], and it can lead to avoidance of team sports [33].

A key finding from our study is that diabetes education should offer inclusive discussions and health information that acknowledge and embrace each individual's unique lived experiences. This is particularly important considering that many gay cis men will not disclose their sexual orientation but are still entitled to information that meets their needs and engages them appropriately.

Limitations

This study used criterion-based sampling, which limits the generalizability of the findings. All gay men participating in the online survey stated they were Caucasian, probably middle class, and Australian, and therefore the results may be understated. As the sample was self-selected, it may overrepresent negative experiences. The transferability of these findings is limited by the sampling technique, the small sample size, nonresponses, self-selection, and social desirability biases. However, issues around food are common. Despite these limitations, the mixed-methods data collection and triangulation of the data provide trustworthiness of our findings [34].

In conclusion, the findings from this first Australian study show that the conversations around sexuality and diabetes are uncomfortable, leading to navigational practices that may be fragmenting care for gay men with diabetes. Furthermore, a lack of understanding of how diabetes and sexuality intersect, such as with lifestyle factors, may be driving the indifference this topic has received by gay men and community leaders. Therefore, the differences identified comparing heterosexual people to Australian gay cis men require diabetes educators to be upskilled in culturally inclusive care that embraces the nuances that sexuality brings. Such education could include inclusive language, understanding health disparities, creating a safe inclusive environment, embedding LGBTQIA+ standards into policies (rainbow tick standards [35]), and staff training to challenge biases. Our findings mirror those of studies from the United States and United Kingdom; however, the dearth of Australian literature may signal less preparation for community interventions. Ensuring that patients feel comfortable taking in information that is culturally relevant and accessible is the goal. However, larger studies, possibly longitudinal studies, that could clarify these issues in the Australian context are required. Although some features of this study can be generalized to other groups, further studies will need to look at different groups included in sexually and gender-diverse communities, such as lesbians, bisexuals, transgender, intersex, and nonbinary people, as well as intersections of racial groups, including culturally and linguistically diverse communities and First Nations people. Ultimately, our study makes the case that diabetes management does not occur in a vacuum free of identity.

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Author Disclosures

Conflicts of interest: None.

Author Contributions

E.P. Conceptualization, project administration, methodology, investigation (data collection), formal analysis, and writing the original draft. E.P., J.R., T.B., M.M., and G.P. - writing - review/editing. T.B., M.M. and G.P. supervisors (PhD). All authors approved the final version.

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