

Barriers and Facilitators to PrEP access, uptake and use in young people living in Queensland

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Abstract

Introduction

In January 2021, the Pharmaceutical Benefits Scheme in Australia expanded its eligibility to include people under 18-years for subsidised access to pre-exposure prophylaxis (PrEP). In Australia, there is a limited understanding of the factors that influence PrEP access, uptake and use in young people. This study aimed to understand how intrapersonal, interpersonal, social and structural factors impact access, uptake and use of PrEP among young people in Queensland.

Methods

This qualitative study involved 25 semi-structured interviews with young people (aged 16-24-years) living in Queensland, Australia. Data analysis was undertaken using inductive reflexive thematic analysis.

Results

Participants identified as a range of gender identities (e.g., male, non-binary, trans male, trans female) and sexual identities (e.g., gay, queer, bisexual, asexual, lesbian). Most (80.0%, 20/25) reported having ever had sex, and 18 (72.0%) reported having been previously tested for HIV. Most participants reported awareness of PrEP (72.0%, 18/25). Six participants (24.0%) were currently taking PrEP and 2 (8.0%) had previously taken PrEP.

Thematic analysis identified three themes that describe how intrapersonal, interpersonal, social and structural factors influence PrEP access, uptake and use among young Queenslanders. How these factors cut across these levels are described in the following themes: 1) how a lack of knowledge and awareness of PrEP, which is influenced by information provided by structural institutions and those within them (e.g., schools, healthcare providers), is a barrier to uptake and use; 2) how the attitudes of others (peers, parents, healthcare providers) impact use; and 3) how the healthcare system creates barriers in access for young people in Queensland.

Conclusion

Young people in Queensland face barriers to PrEP access uptake and use that encompass individual-, interpersonal-, sociocultural-, and system-level factors. Without a holistic consideration of these salient issues, young people will be left behind in the race towards the elimination of HIV transmission in Australia.

Keywords: pre-exposure prophylaxis, HIV, young people, prevention, PrEP

SDG keyword(s): Good Health and Wellbeing; Reduced inequalities

Data Availability Statement

The data that support this study cannot be publicly shared due to ethical or privacy reasons.

Conflicts of Interest

The authors have no conflicts of interest to declare.

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Introduction

Despite young people in Australia having low HIV notification rates compared to older populations, 2022 HIV notification data showed a 16.5-fold increase in new diagnoses between young people aged 15-19 (0.2 per 100,000 population) and 20-29 years (3.3 per 100,000 population) [1]. This represents the largest increase in notifications between any age group. This trend indicates an increased HIV acquisition risk linked to age as young people move from adolescence into young adulthood [1]. HIV notifications in Australia are primarily concentrated among men who have sex with men (MSM), placing young MSM as a priority population at greater risk of experiencing this age-related trajectory of HIV risk [2]. However, other subgroups of young people also experience a disproportionate burden, including trans and gender diverse people, people who inject drugs, those engaging in transactional sex, culturally and linguistically diverse and Aboriginal and Torres Strait Islander young peoples [3-5]. Therefore, it is imperative to understand the factors that influence young people's access, uptake and use of HIV prevention in Australia to inform policy and practice and mitigate future HIV risk among young people.

In Australia, some medications are provided at a government-subsidised price through the Pharmaceutical Benefits Scheme (PBS), under the Australian Government National Medicines Policy governed by the National Health Act 1953 (Commonwealth) [6]. This scheme provides Australian citizens, permanent residents and those on reciprocal healthcare agreements with a valid Medicare card, access to PBS sub-subsidised medications, including pre-exposure prophylaxis (PrEP) [7]—antiretroviral medications for HIV prevention [7-9]. In January 2021, the PBS expanded its eligibility for subsidised PrEP to include people under the age of 18 [7]. While being a significant step forward for young people in accessing PrEP, there is limited research examining the uptake/use of PrEP and access to PBS-subsidised PrEP in young people under the age of 18 [10].

Research from Africa, the United States (U.S.) and Brazil have highlighted that even when policies support young people's access to PrEP, various intrapersonal, interpersonal, social and structural factors can impact access uptake and use [11-16]. Certain factors are pervasive across different geographical settings, including stigma, parental barriers, costs, and access to healthcare. However, cultural influences shape these barriers. For example, studies from the U.S. and Africa both identified parents as barriers to access for young people. In the U.S. these barriers related largely to a financial dependence on parents and sexual identity for young MSM not wanting to 'out' themselves to parents [11-13, 17]. Whereas, across African contexts barriers are related to parental misperceptions about PrEP being HIV treatment and engaging in sex before marriage [14, 15, 17]. Cultural and context-specific research is critically needed to better understand young people's access to PrEP. Thus, to identify key factors that impact young people's decision to access and use PrEP in Australia, it is important to investigate the specific perceptions and experiences of young people in Australia.

This study draws on qualitative data from the iPrEPyouQ Study—a multiphase mixed methods doctoral research project investigating barriers and facilitators to PrEP use among young people living in Queensland, Australia—to explore factors influencing PrEP access, uptake and use from the perspective

of young people. These findings will help improve our understanding of how public health policies and promotional efforts can facilitate enhanced access to and maximize the benefits of PrEP for young Australians.

Methods

Study Participants

Eligible participants were young people (aged 16-24), living in Queensland. Based on Australian notification data [2] and priority populations in the 8th National HIV Strategy Australia [18], recruitment primarily focused on young people who self-identified as MSM, trans and gender diverse. Participants were recruited through convenience and snowball sampling using a range of strategies (e.g., online and physical advertisements, dissemination of study information at various Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Intersex, and Asexual plus additional sexual, gender and romantic identities (LGBTQIA+), Pride events, through community partner organisations and media interviews.

Participants submitted an expression of interest via a QR code to an online Qualtrics [45] survey platform with consent to be contact by the research team. To be eligible, participants needed to be aged 16-24 years, living in Queensland, and self-identified as MSM, trans or gender diverse. Young people outside of the age group of interest and those who were living outside of Queensland were excluded. One member of the research team contacted eligible participants to arrange an in person or Zoom interview. Participants were provided a participant information and consent form and short demographics from which were completed and returned via email prior to participation. Participants also provided verbal consent and were given the opportunity to have any questions about the study or their participation answered prior to the interview commencing.

Ethical approval for this study was received from the University of Queensland Human Research Ethics Committee (approval number 2022/HE000560).

Data collection

Semi-structured interviews were completed face-to-face or via Zoom videoconferencing. Interviews were conducted in pairs by three members of the research team (SW and JF/JD) with extensive experience conducting qualitative interviews regarding HIV prevention and sexual and reproductive health. An interview guide was used to facilitate discussions around HIV/PrEP-related knowledge and stigma, awareness/access to PrEP, barriers to healthcare and sexual behaviours. Field notes were taken throughout the interviews to complement data collection and guide the development of preliminary concepts for future exploration. Participants were provided with study information (including research aims and participation requirements) and provided informed consent (written and verbal) prior to interview commencement. Consent to publish was also obtain as part of the participants written informed consent. Interviews were recorded and transcribed verbatim using Sonix. Interviews ranged between 45-75 minutes. Participants received an AUD\$50 gift voucher for their time and contribution.

Data Analysis

Data analysis was conducted using inductive reflexive thematic analysis following the methods described by Braun and Clarke [19]. Data coding was conducted using NVivo12 [20] qualitative analysis software and an initial 14 high-level codes were developed and agreed upon by two authors (SW and JF). Subcodes were developed and data relevant to the research questions were analyzed. Relevant codes were combined to generate themes, and final themes were deliberated by the research team.

Results

A total of 25 semi-structured interviews were conducted with young people (ages 16-24) between December 2022 and May 2024. Participants self-identified within a range of gender identities (e.g., male, non-binary, trans male, trans female) and sexual identities (e.g., gay, queer, bisexual, asexual, lesbian). Ten (40%) were born overseas, with five having lived in Australia for less than 4 years. Most (80.0%, 20) participants reported having previously had sex and 18 (72.0%) reported previous HIV testing. Most participants reported awareness of PrEP (72.0%, 18), six reported currently (24.0%), and two (8.0%) reported previously taking PrEP. No participants in the study identified as living with HIV. The participant characteristics are shown in Table 1.

Thematic analysis identified three themes describing how intrapersonal, interpersonal, social and structural factors influence PrEP access uptake and use among young Queenslanders and how these factors cut across the themes identified. The following section describes each theme in detail. Participant details related to these quotes are provided in Table 2.

“What the fuck is PrEP?” – knowledge and awareness varies

Knowledge and awareness of PrEP varied among participants. Some described HIV and PrEP as something that’s “*not really thought about*”. While others described themselves as “*paranoid*”, and acknowledged they needed more information about PrEP to make informed decisions. Misconceptions also surfaced with one overseas-born participant describing fears of taking PrEP due to there being “*bits of the [HIV] virus in it*”, a common misperception shared among the LGBTQIA+ community in their home region that extended to PrEP access refusal in Australia.

Many had only recently heard about PrEP, including participants who were sexually active and engaging in online social networking and dating applications.

the first time I heard about it was like probably a couple of months ago through, setting up a profile on Grindr; because it has this thing of, like, oh, what's your HIV status? Are you on PrEP? And I was like, what the fuck is PrEP? (ID10)

Many Australian-born participants described low sexual health literacy and limited knowledge of sexual health services to limit PrEP access. Even when aware, some did not access these services due to

perceptions of needing a referral from a general practitioner (GP) or physician. Newly arrived overseas-born participants described limited sexual health knowledge and access to services in their home country made it difficult to access information and services in Australia. Across the cohort, there was very low awareness of the PBS and how this assisted or was related to PrEP access. As one participant described:

you don't really learn about it [the PBS-subsidy] until, um, it's directly applicable to you, you know, when you're getting tested [for HIV] and then you learn about it. It's not like, yeah, not just common knowledge. (ID06)

Participants' knowledge and awareness of HIV informed their perceptions of risk and access to PrEP. Not knowing someone living with HIV created the perception that HIV was not of concern and was seen as just “another condition to manage” implying some knowledge about the success of HIV management. While others saw PrEP as a way to have “unprotected [condomless]” sex with casual partners, and those in open or polyamorous relationships, considered PrEP “the next logical step” to protect their sexual health and that of their partners. Participants described factors such as type/frequency of sexual activity, number of partners, and where partners met (i.e., dating apps) to determine if they were “at enough risk” to warrant PrEP use. For some, PrEP and other safer sex practices were thought to be necessary only for people who are “more promiscuous”

I do have some level of concern [of HIV], but uh, clearly not enough of a concern to particularly be all that safe. (ID10)

Participants described their awareness of PrEP and perceptions of HIV were influenced by information received from various sources (e.g., schools, health organisations, peers). However, this information was not always accurate or consistent. Participants identified that sexuality education in schools reinforced the notion of HIV as “a thing in the 80's” and of little relevance to young people today. One participant, currently in high school, described:

it [HIV] has been brought up at like school and in like a sort of informative context, but it's usually been in the way, like, you know, this was a thing that happened... like it was this massive epidemic, but now it's not a thing anymore. (ID04)

Health organisations were identified as common sources of PrEP knowledge. However, participants described receiving inconsistent information about PrEP from healthcare providers and often felt that their questions/needs were not met. Limited and conflicting knowledge extended to the side effects of PrEP and how to mitigate them. Adverse experiences with other medications (e.g., birth control) created hesitations that PrEP may come with similar side effects, questioning “is it worth it?”

they gave me all the pamphlets, all the all the information, all the websites. I couldn't help but feel, though, that the information they were telling me was different to what I'd heard in other places. Um, I really do feel like there's a lack of organised, like, information on it. (ID01)

Information gained from performers (e.g., drag queens, comedians), YouTube and movies/TV shows were described as effective ways for PrEP information delivery through people sharing their personal story, making them interested to learn more. One participant described watching *RuPaul's Drag Race* where someone shared their HIV journey, introducing the concept of PrEP for HIV prevention:

one of the queens was talking about her experience with HIV, and I'm like, oh my God, you can take medication for that. That's crazy. (ID21)

Is it being “responsible” or “a slut”? : attitudes of others impact use

Some participants described taking PrEP as a responsible sexual health choice, enabling young people to feel both secure and protected exploring their sexual relationships. However, others reported feeling judged and stigmatised if they asked questions about HIV and PrEP, which were often linked to their sexuality. For example, some participants reported that HIV was still being labelled as “a gay disease” or “the gay STI” and that some people believe that only MSM are at risk of acquiring HIV.

when people hear someone has HIV, their first thought tends to go straight to like they must have had, like sex with a man, you know? Or if it's a woman, then their husband must be having sex with men. (ID20)

Negative reactions and judgement of PrEP users were described among peers and potential sexual partners. One participant described experiencing judgement and homophobic comments from potential sexual partners including threatening comments such as “it'll [HIV] get you in one shape or form”. Participants also described stigma and ‘slut-shaming’ commonly associated with STIs impacted sexual healthcare seeking, which further extended to accessing PrEP. This was commonly reported as a deterrent to sharing information about their PrEP use.

Like, [they] must be like sleeping around and stuff, you know, you don't want to associate with that person... Yeah, definitely. Because, you know, no one wants to be around like a slut or something, you know? (ID21)

Perceptions of the use of PrEP was sometimes contradictory. Some participants stated that displaying PrEP use on dating apps was taking responsibility for one’s own health. However, others described it as “TMI [too much information]” and disclosed that seeing this messaging on dating apps altered their perceptions of a sexual partner’s character and level of risk.

oh, so this person like, takes PrEP, like they're responsible for their sexual health. Like they're not a risk, like they take care of themselves. That's the way it should be. And it is some of the times. But then like backhandedly, I'm like, oh, like if this person takes PrEP, it means that they consider themselves to be at a greater risk. And then that means that there's like they're like sleeping around and like that's why they're taking it. (ID07)

Participants reported how parents could impact PrEP access. Supportive parents were important in facilitating access to PrEP and open conversations about sexual health more broadly. However, parents

were not always the preferred people to discuss sexual relationships and practices with or about needing/using PrEP. Some participants reported having “conservative” or “strict” parents making it difficult to discuss sexual health-related matters and access sexual healthcare, particularly for those in school or under age 18. For young people living at home, taking PrEP could result in awkward conversations, as one 20-year-old participant described:

I live at home, and so if I'm, like, taking another random pill in the morning, and then I have to explain to my mum, it's like, well, actually, me and my boyfriend are having threesomes, and that's why I'm having it [PrEP]. Like, that's like conversations we don't need to be having. (ID25)

Young people born overseas described discussing PrEP, sexual identity or sexual health needs with parents/family was further impacted by traditional cultural norms/attitudes. Participants described how “culture stays” even after relocating to Australia, meaning that cultural perceptions/taboo surrounding sexuality and gender that are normative in their country of origin led young people to conceal their identity to prevent intergenerational discord.

it would be really embarrassing, um, for me to, you know, explain. I'm taking this [PrEP] because I want to have sex with other guys. Uh, that's not what Asian families talk about. (ID18)

This concern also extended to health organisations, with one overseas-born participant describing how an interpreter breached their confidentiality following a medical appointment, resulting in bullying by their community about sexual identity. This ultimately led to them avoiding future community interactions and health services.

at [clinic name] and there was a female Interpreter. And then later at another, uh, setting, um, I like I ran into her. She was talking and pointing at me, so I knew she was talking about me. Like she was gossiping behind my back and, like, not keeping the confidentiality. (ID11)

Healthcare providers were identified as having both negative and positive impacts on PrEP access. Some participants described how PrEP was not something they thought about unless a doctor initiated a conversation, suggesting that young people are reliant on doctors recommending PrEP. Encountering cis-heteronormative assumptions made young people of differing gender and sexual identities feel “disconnected” and “uncomfortable” to share their identity and initiate conversations about PrEP, as described by one participant:

the minute I brought up PrEP, um, like, the entire mood changed... he [the provider] didn't make eye contact with me for the rest of the session (ID01)

Nonetheless, when conversations were initiated by supportive healthcare providers, participants reported feeling confident to ask questions about PrEP and other sexual health/HIV-related matters. Part

of what made providers affirming/supportive was the use of queer-friendly language and talking to young people as they would adults.

prescribing PrEP is one of their like main things like they're known for it. So yeah it went very smoothly. I felt like they were able to provide more, uh, detailed sexual health information, which was good as well. (ID11)

Young people also described free peer-delivered HIV/STI testing services that were quick and non-judgemental as easy ways to receive STI/HIV testing and facilitated awareness/access to PrEP. Using services staffed by peers also meant that they did not have to “to chance it with regular GPs” who may not be so supportive.

The system can make you “feel a bit like a number”

Some participants described positive healthcare system experience. However, others described navigating the healthcare system as challenging and felt that they were experiencing additional barriers for trying to make a proactive health choice. Some young people raised concerns about medical appointments and medication use ‘getting back to’ their parents. This stemmed from a lack of understanding about what having their own Medicare card means regarding confidentiality and independently accessing healthcare.

I know that like, once I'm over the age of 14, medical information can't be released to anyone else without my permission. Um, .. a lot of my friends definitely don't, and like... Medicare insurance, that kind of thing that, like, they're not sure about the confidentiality of it. (ID07)

Challenges in accessing healthcare services for sexual health in general were described. These included experiencing delays in appointments due to limited availability of providers and frustration in trying to access their doctor of choice (as some high caseload specialist sexual health/HIV/PrEP providers were not taking on new clients). These experiences made some young people “feel a bit like a number” and, as one participant described, left them having to find a “loophole” to get in to see a PrEP provider.

If you go... for their like HIV testing, technically, then you're on the books. So then you're technically an existing patient and then you can actually technically then book in to see one of the doctors [for PrEP] who has room for existing patients. (ID16)

Despite being subsidised, the broader costs associated with accessing PrEP were described as discouraging. Costs including the PBS co-payment, medical appointments, travel and parking costs to attend appointments were described as salient barriers to accessing PrEP. Financial strain could also influence PrEP use, with one participant describing having 5-months off their medication for ADHD due to financial strain. For young people still living at home, financial dependence on their parents created barriers to access, particularly for those under the age of 18 years. Spending money on prevention medications was described as a low priority, suggesting young people may not choose to use

PrEP unless it was free.

I feel like 30 bucks they would think would be like, um, you know, maybe new clothes or something.. over the, you know, three months of medication. Um, I think as an adult now, it's so easy. That's, like amazing. 30 bucks. It's a great deal. Um, but no, I don't think for 16-year-olds they probably wouldn't choose that option, if it was free perhaps. (ID06)

For overseas-born participants, costs for medical appointments/medications without Medicare and PBS subsidy required seeking free services to access PrEP; otherwise, participants had to pay upfront and claim reimbursements through health insurance (if they had any). These participants described difficulties in understanding insurance coverage and how to use it, and when trying to access information, described feeling like they were being passed around like a “hot potato” directed from website to website.

For more information go to this... oh no, like we actually don't handle this. You have to go to your insurance. Oh you have to go to your GP. Oh you have to go to this foundation. Oh you have to go to the government ... Like no one wants to actually tell you very explicitly, you have to do this, this and this and you qualify if you are this, this and this. (ID07)

Participants also described how PrEP social marketing lacked reflection of young people, creating perceptions that HIV is not something that affects young people. Some described how current social marketing campaigns reinforced perceptions that HIV only affects ‘gay men’. Social marketing and PrEP promotion, which used fearmongering techniques or focused on high sexual activity were described as perpetuating stigma and made participants unsure if they were sexually active enough for PrEP.

Like a lot of times you see PrEP the way it's promoted. It's like, oh, like if you have a lot of like sexual partners or like if you're having sex very frequently, then get them PrEP. So then I guess that's also like... yeah, like I'm not having sex that constantly, so why get it. (ID07)

Participants acknowledged that more universal promotion outside of queer spaces was needed to ensure PrEP messaging adequately reaches all young people. Broader promotion and inclusion of people who may not identify as part of “the community” or groups currently targeted in prevention strategies i.e., “gay men”, was described as a strategy to reinforce that HIV can affect anyone. Making health promotion acceptable, appropriate and targeted to wider groups of young people was seen as a way of removing stigma and facilitating awareness of HIV/PrEP for young people at risk, as well as among peers, parents, and the wider community.

there'll be a lot of people that don't identify as part of the community, but still engage in an activity with people that are part of the community. Um, or, you know, so, um, yeah, I think it's education that should be really available and awareness should be raised among everyone. (ID16)

Discussion

Study findings have provided contemporary insight into the factors influence PrEP access, uptake and use among young people in Queensland, highlighting that policy changes to government-subsidised PrEP are not sufficient to facilitate access for young people without consideration of broader individual, sociocultural and systemic factors that impact the ability to access and adhere to HIV prevention and sexual healthcare. These findings highlight that these factors are often inextricably linked. For example, individual-level factors (e.g., knowledge and awareness) are influenced by system-level structures and individuals who provide information/education to young people (e.g., schools and healthcare providers).

Varying levels of awareness and knowledge of HIV and PrEP identified in this study represent a key access barrier. While not an unexpected finding [17, 21-23], our findings highlight that knowledge, perceived HIV risk and need for PrEP was fuelled largely by misconceptions, inconsistent information and a lack of PrEP promotion targeted to young people in a way that they could identify with/relate to. Young people's PrEP use decisions were also influenced by their often-low HIV risk perceptions. Optimism bias (i.e., perceptions 'it won't happen to me') common in young people [24], is reflected in our sample. Risk perceptions are mutually influenced by optimism biases and inaccurate knowledge of who is at risk, which can influence behaviours/decisions, and perpetuate inaccurate risk perceptions and create barriers to PrEP access [17, 25-27]. Thus, sufficient knowledge and accurate risk perception go hand-in-hand. Reinforcing the need for more education programs on PrEP/HIV risk to support awareness/uptake of PrEP in young populations [25, 28]. As described by many in our sample, programs need to be presented across an array of platforms in an affirming/empowering manner that does not reinforce stigma, misconceptions or use fearmongering techniques.

In Australia, since the onset of the HIV epidemic, prevention has largely been targeted towards gay men [2, 29]. This lack of representation of young people and other gender and sexual identities in HIV prevention and PrEP promotional material may have resulted in the perception among our young cohort that PrEP is 'not for them'. Lack of representation has also been seen to have similar impacts on young people across other contexts (e.g., Africa, U.S.) [13, 14, 17]. Our sample indicated there is a need to move beyond the traditional 'toolbox' promotional platforms. Using a differentiated, multifaceted approach to health promotion, including TV shows, comedians, influencers, dating/networking apps and broadly across queer culture can be effective at reaching/engaging young people [30]. To ensure it meets the needs and preferences of all young people and not those engaged at specific places/times [31, 32], it is important to work with diverse young people in the development and design of PrEP promotion.

Noted among our sample was the influence of stigma relating to perceptions of people taking PrEP. HIV-related and PrEP-related stigma are known barriers to PrEP access/use in young and adult populations [17, 33-35]. PrEP-related stigma is associated with sexual practices and greater sexual partners, which was reflected in attitudes/experiences described by our young cohort—impacting PrEP uptake [17, 34, 36, 37]. Particularly for participants still at school, 'slut shaming' was a notable barrier

to accessing PrEP and sexual health services. However, the benefits and security PrEP offered supported personal agency and facilitated the interest/use of PrEP in our sample. Thus, promotion of PrEP as a positive health choice, as part of broader health education, rather than associating it based solely on sexual practices/risk is vital to normalise PrEP use and reduce stigma [36, 38]. Additionally, there is a need to normalise conversations around sexual health. Engaging young people in such conversations has been shown to lead to positive sexual health decision making (e.g., access to HIV prevention services) [39, 40].

Young people in our study, consistent with international literature [17, 41, 42], described parents as barriers to PrEP use. While parental/family support has been shown to be instrumental in PrEP access and sexual health services, adherence, and reductions in the impacts of stigma for young people [41], our sample describe it as an awkward conversation and one they often avoid, even with supportive parents. This was particularly evident among overseas-born participants, where cultural influences and deep-rooted stigma were described as common factors that affected young people's ability and willingness to discuss sexual health with their family/community [35, 43]. These normative beliefs and stigmas can also impact access to health services and PrEP use. Thus, it is important that within Australia young people from culturally diverse backgrounds are provided support and information regarding accessing these services [44-46]. Additionally, research is needed into the perceptions and experiences of Aboriginal and Torres Strait Islander young peoples to ensure this priority sub-population has equitable and culturally-safe access to PrEP/HIV prevention initiatives.

Confidentiality concerns, particularly for young people living at home, was a barrier to PrEP use in our study and broader literature [14, 17, 47-49]. In Australia, from the age of 14 years, eligible young people can obtain their own Medicare card, allowing independent access to Australia's universal healthcare system without parental consent [50]. However, it appeared that some young people within our study were unaware of this. Allowing young people to enact self-efficacy, personal agency and autonomy have been shown to improve sexual health decision making and interest in HIV prevention [25, 51]. Therefore, there is a need to ensure young people are aware of their rights to independently access confidential medical care and support them in enacting personal agency/autonomy over sexual health decision making.

Lastly, described in our sample and among other populations within Australia and internationally [17, 52-54], the current healthcare system structure created barriers for young people accessing appointments and affirming care. For example, cost, a known barrier to healthcare access reported in literature [17, 52, 55], was identified as a key barrier among our sample. The subsidised cost of PrEP in Australia has been linked to increased PrEP uptake among adults [7, 35, 56, 57]. However, our study highlights that the pervasive impact of broader costs associated with access (medical appointments, travel, paid parking) is a substantial limitation to accessing healthcare and HIV prevention for young people, further compounded for Medicare-ineligible people. Financial constraints among young people, particularly those reliant on parents, need to be addressed in policy and practice to ensure young people can access and adhere to PrEP regimens and broader sexual health services. However, this is not enough. It is also important that the healthcare system and staff are responsive to the needs of all young people

seeking access to PrEP.

Young people in our sample described relying on healthcare providers to recommend or initiate conversations about PrEP. However, this is known to have challenges due to healthcare providers' discomfort/reluctance to discuss sexual practices and PrEP, particularly with young people [23, 58-63] as demonstrated by some study participants. This highlights the need for healthcare provider education/training to support awareness and confidence in providing PrEP for young people, improving healthcare provider comfort in addressing sexual health needs of young people and reducing stigma and judgement [23, 60-64]. Furthermore, it is important that education prepares healthcare providers to be confident and skilled in providing accurate and consistent information about PrEP and HIV prevention to equip young people to make informed decisions.

Strengths and Limitations

A strength of this research was that almost half of the sample were born overseas, providing insight into the impacts of healthcare access and cultural norms on PrEP access in Australia. Whilst not intending to be a representative sample, it should be noted that some groups of young people who may be at risk of HIV including those living in rural and remote regions, and Aboriginal and Torres Strait Islander young peoples were not represented and remain important to engage with to inform more effective HIV prevention strategies. Most of the sample consisted of young people aged 18+ years, limiting insight into the current experiences of people aged <18 years—relying on retrospective experiences and accounts. The sample consisted largely of people from metropolitan regions of southeast Queensland, with a small sample having relocated from regional cities and one participant living regionally, limiting insight into the experiences of young people living in regional areas. It is also important to note that no participants identified as Aboriginal or Torres Strait Islander, indicating the need for future research to include this priority population. Recruitment challenges and incidents with suspected fraudulent participants linked to some of our initial online recruitment methods resulted in the research team being required to ask for valid ID from participants, which may have impacted the recruitment of participants wishing to maintain full anonymity.

Conclusion

This study highlights that young people in Queensland face barriers to access, uptake and use of PrEP. These factors encompass individual, interpersonal, sociocultural and system-level factors which are intertwined in their influence on PrEP access. While many young people in Queensland experience similarities in these influences, factors such as financial dependence, access to Medicare, confidentiality concerns, sociocultural norms, and parental support can further impact access and use. While changes in the PBS prescribing criteria is a step forward to dismantling access barriers for young people under 18 years of age, these individual, sociocultural and structural barriers remain unaddressed. Without a holistic consideration of these factors, our study suggests that young people will be left behind in the race towards the elimination of HIV transmission in Australia.

Authors contributions

All authors contributed to conceptualisation of the study and methodological design. Authors SW, JF and JD were involved in data collection and. Authors SW and JF were involved in data analysis and interpretation. SW was involved in writing of the original draft, and all authors contributed to review and editing of manuscript drafts and final version for publication.

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