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ORIGINAL RESEARCH

Teen Clinic — An integrated primary healthcare model that improves access for young people in rural communities

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Abstract

Background: Young people in rural Australia have limited access to health care and are at increased risk of poor health outcomes. The Teen Clinic model was developed to increase access to health care for young people, particularly school-aged young people (12–18 years) living in small rural towns (<5000 people).

Objectives: To determine the extent the Teen Clinic model meets its accessibility objective and to determine the barriers and enablers to sustainable delivery of the Teen Clinic service.

Design: A multimethod case study approach was used to assess access (multi-dimensional framework for patient-centred access) and determine the barriers and enablers to sustainable delivery. Data collection included a survey of young people in the included rural communities and key stakeholder interviews.

Findings: The survey of young people indicated Teen Clinic model was accessible across multiple dimensions. From a practice perspective, accessibility was achieved by varying from usual care to a nurse-led, young person-centred drop-in model. This required skilled nurses working at the top of their scope; however, unpredictable demand and patient complexity made accounting for the time and therefore funding somewhat complex.

Discussion: The Teen Clinic model meets its objective of increasing healthcare access for young rural people. Relational and cultural factors were more important facilitators of practice integration than organisational processes. A key challenge to the ongoing provision of Teen Clinic was dedicated sustainable funding.

Conclusion: Teen Clinic is an integrated primary healthcare model that increases access for young people in small rural communities. Sustainable implementation would benefit from dedicated funding.

KEYWORDS
access, care coordination, early intervention, integrated care, rural health

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1 | INTRODUCTION

Young people in rural Australia have limited access to health care and face an increased risk of poor health outcomes including mental health issues, overweight and obesity, and sexually transmitted infection.[1]

When considering access, if we move beyond the concept of service use, there are multiple dimensions by which services make themselves accessible to a given service user population.[2] These dimensions in line with a person-centred care approach are approachability, acceptability, availability and accommodation, affordability and appropriateness.[3] There are spatial and aspatial parts of access, with rural communities having distinct spatial limitations in terms of the variety of health care available to the local population in place and generally poorer health outcomes.[4]

A recent analysis linking the Modified Monash Model (MMM) with socio-economic indices and granular data at the national level has highlighted the significant disadvantage of many residents in small rural towns (MM5).[5] Moreover, small rural towns rely heavily upon primary care and are the most underserved remoteness category in terms of primary care workforce per 100000 residents, across general practitioners, nurses and allied health professionals.[6]

Rural young people face a number of barriers to accessing health care, including personal attitudes (self-reliance and embarrassment), cost, transport and a perception of local service unavailability.[7] Young people reported that they desire respect, empathy, confidentiality, accessibility, friendliness, helpfulness, sincerity and credibility from healthcare providers.[7,8] General practice is identified as the most appropriate setting for preventive health care and care coordination for young people.[9] Kang and colleagues identified that having a regular GP was associated with positive attitudes and fewer barriers to health system navigation. They recommend that 'strategies are needed to increase the proportion of young people who have a regular GP'.[9]

Our multimethod case study examines the effectiveness of the Teen Clinic integrated primary care model in increasing access to primary health care for a poorly served population: young people of high school age (12–18 years) in small rural towns (<5000 people). The purpose of the case study was to explore whether Teen Clinic was meeting its objectives.

The overarching research questions are:

1. Does Teen Clinic meet its objective of increasing access to health care for young people?
    a. Access is considered multidimensionally across approachability, acceptability, availability and accommodation, affordability and appropriateness.
2. What are the barriers and enablers to sustainable delivery of the Teen Clinic service?
    a. These are considered at the micro (individual), meso (place), and macro (policy) levels.

What is already known

- Small rural towns are disproportionately impacted by low primary care workforce numbers per capita, and extended wait times for appointments are common.
- Young people are reluctant to access health care, but those who access GPs report positive attitudes and fewer barriers to healthcare navigation.
- Specialist healthcare models for young people are not viable in small rural towns; thus, there is a need for different and sustainable ways to support care access for rural young people.

What this paper adds

- Teen Clinic is an evidence-informed, nurse-led, integrated primary healthcare model for young people living in small rural towns. It has clear processes, procedures and support material, with a whole-of-practice approach.
- Young people using Teen Clinic perceive it to be accessible, approachable, available, affordable and appropriate.
- Teen Clinic practice nurses report satisfaction of working at the top of their scope, but the flexible nature of care delivery can make accounting for costs somewhat uncertain.

2 | METHODS

2.1 | Research setting

The Teen Clinic model of primary care was established and implemented in 2015 by staff in a general practice located in a small rural town situated on the far south coast of New South Wales. The model of care was created in response to a number of suicide deaths among young community members. There was a recognition that connections between young people, schools and healthcare services were poor and there were barriers for young people to seek help in primary care, including the sometimes-frightening transition of seeking care without adult support for issues they may wish to keep confidential. The model of care matured, with policies, processes and resources developed

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at the original general practice. Author 3 is the principal GP of the original general practice and one of the original architects of the model. The model was then taken up by three other general practices in rural NSW and one in Victoria, and in 2021 in the Australian Capital Territory.

2.2 | Description of care practice

The Teen Clinic provides locally available nurse-led integrated care for high-school-aged young people living in small rural towns. The care model is evidence-informed and emphasises confidentiality, friendliness and no-cost drop-in service. Young people can directly seek support from the Teen Clinic nurse, be assessed and offered support, or be referred to the general practitioner (GP) or allied health professional as appropriate, also at no charge (i.e. Australian Medicare Bulk-billing rates applied, no cost to consumer). Access to the GP is prioritised by having some scheduled time set aside on Teen Clinic days for young people. The Teen Clinic nurse also plays a care coordination role, following up on screening and reviews using the practice's recall systems. Policies are in place to ensure young people at risk receive appropriate follow-up. The care model is intended to support nurses to work at the top of their scope. The nurses have a health education role and have training across a range of topics relevant to the care they provide. These include sexual health, mental health, suicide prevention and LGBTI health.

Another aspect of the care model is community engagement, to ensure that young people and potential referrers are aware of the service, and trust and value it. This involves engagement with young people, school staff and the broader community. Teen Clinic nurses attend local youth events, high schools and community events to raise awareness and build relationships to promote engagement. Whilst Teen Clinic targets high school students, it is open to any young person who wishes to attend. The broader engagement activities and word of mouth in small rural communities help with engaging young people not engaged with high school or those beyond high school age. Teen Clinic welcomes young people who identify with practice staff as 'here for Teen Clinic'.

2.3 | Case study evaluation

2.3.1 | Ethics

Approval for this multimethod study came in two phases. Approval for the survey of young people in the Teen Clinic catchment areas was obtained from the University of Newcastle Human Research Ethics Committee (Ref H-2021-0412). Participants were provided with an information sheet, and participation in the survey was implied consent as noted in the information sheet. Approval for the qualitative interviews was obtained from the University of New England Human Research Ethics Committee (Ref HE20-222). Participants were provided with an information sheet and gave written informed consent.

2.3.2 | Participants and data collection

This study took a multimethod approach, and data were collected between February and May 2022 from six rural sites where Teen Clinics operated. Quantitative data for the evaluation came from the community survey for young people (Table S1), with descriptive data including sociodemographic data and a range of questions regarding accessibility of the Teen Clinic service.

Qualitative data were obtained via interviews with key stakeholders across three groups (1) Teen Clinic practice nurses (TCPNs), (2) other medical practice staff (OMPS) and (3) community stakeholders (CS), (see Table S2 for the associated interview guides). The sample was obtained via a mix of purposive and snowball sampling with Teen Clinic founder (Author 3) identifying and contacting TCPNs and relevant OMPS staff inviting them to participate. Interested practice nurses were then directly contacted by Author 2, and those that participated and supported recruitment were compensated with a $100 gift voucher for their time. Participating TCPNs were asked to further identify key OMPS and CS. Participant interviews were conducted by an experienced female qualitative researcher, Author 2; notes were taken during interview; and the interviews were recorded using ZOOM and transcribed using Otter.ai and then checked for accuracy by Author 2. Author 2 had no prior relationships with the participants.

2.3.3 | Data analysis

Quantitative data for this study were categorised as follows:

1. Demographics (age and sex)
2. Multidimensional assessment of accessibility[3] of Teen Clinic
3. Experience of care at Teen Clinic.

Qualitative data analysis: deidentified interview data were subjected to a combination of inductive and deductive thematic analysis to identify codes and themes.[10] Top-level themes were first identified deductively relating to

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the main objectives of the project. Within these, codes were developed from the transcripts and interview notes and organised into lower-level themes. NVivo software was used to support the qualitative analysis and manage the interview data. The coding tree was reviewed, and the manuscripts spot-checked for consistency by Author 1. Given that no conflicts or uncertainties arose, another reviewer was not sought. To safeguard participant confidentiality, the transcripts were not shared with Author 3 who knew or employed participants. Author 3's role in writing this paper and an earlier in-confidence report was to review drafts and provide important sense-checking and understanding of context. This earlier in-confidence report was also an opportunity for the participant TCPNS, OMPS and CS to provide feedback and corrections. A selection of verbatim quotes has been used for key thematic points in the authentic voices of the participants themselves. Reporting adheres to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines.

3 | RESULTS

3.1 | Perceptions of Teen Clinic by rural young people

3.1.1 | Survey demographics

There were 53 survey respondents within the six target areas and population (14–25 years). Of these, 70% recorded their gender as female, 24% as male and 6% as other. The average respondent age was 18.

3.1.2 | Awareness/approachability and access of Teen Clinic

Nearly all respondents were familiar with Teen Clinic (96%), whilst 38% ($n=20$) had accessed the service. The original and longest operating clinic was the most recognised (66%) and used (45% of those who had used a Teen Clinic). For those who had used the service, most (85%) had done so on multiple occasions, 55% had two to five visits and 30% more than five visits. Teen Clinic was perceived to be easy to access by 85% of users.

3.1.3 | Acceptability and appropriateness

There was a high level of satisfaction with the service at Teen Clinics, with 75% of users reporting 'satisfied' or 'very satisfied'. Free text response reported reasons for satisfaction included convenience, feeling safe and accepted, nonjudgemental, listened to, and getting the help that was sought out. Approximately 5% reported dissatisfaction, two respondents noting difficulties with staff. Specifically, 90% reported feeling welcome and listened to, and 95% reported getting the help they needed.

Another proxy for service acceptability is that for those that were familiar but had yet to use Teen Clinic ($n=33$), 55% would consider using it in the future and a further 30% reported maybe. Reasons included that Teen Clinic was welcoming (48%), free (45%) and 'I will be listened to' (42%). Of those not considering future Teen Clinic use, two reported being happy to visit their GP via a normal appointment.

For those aware of Teen Clinic, there was a high reported consideration of recommending to a friend or other young person, with 73% responding yes, and a further 23% indicating maybe. The top cited reasons chosen were that Teen Clinic was safe and accepting (84%), welcoming (76%), in a convenient location (51%).

3.1.4 | Availability and accommodation and affordability

For respondents that had used the service, 75% reported that the location was convenient, and 90% reported that the operating hours were convenient. The convenience of access was echoed in the free text reasons offered by those who were satisfied with the Teen Clinic service.

The Teen Clinic model deliberately has no cost to consumer, thus addressing the affordability domain of access. We note that for respondents who would consider using Teen Clinic in the future ($n=33$) or those who would consider recommending Teen Clinic to a friend or young person ($n=51$), the fact that the service was free was a consideration factor for 39% and 45%, respectively.

3.2 | Stakeholder perspectives Teen Clinic implementation and impact

3.2.1 | Stakeholder interviewee characteristics

Nine interviews were conducted ranging between 20- and 60-min duration. The participants included five TCPNs, two OMPS and two CS. Key themes related to implementation and perceptions of impact on improving access to

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integrated primary health care for young people are described below.

3.2.2 | Awareness/approachability and access

Interviewees identified a number of ways that Teen Clinic increased awareness of the service, thereby increasing its approachability. These included community outreach activities and brokering access and referral pathways.

In terms of outreach, more established services do more, but all TCPNs give talks at the local high school(s) and disseminate materials there, COVID-19 pandemic restrictions notwithstanding.

> We've always gone into schools just to introduce ourselves, talk to assemblies and that sort of thing. Everything went pear-shaped during COVID in terms of whether you're allowed in schools
>
> (TCPN, 5)

> We've actually gone to a P-12 meeting, [as] that would mean [meeting all] the staff at the school. We've explained the service and what Teen Clinics are able to offer... every single day on the student bulletin, it's got the Teen Clinic hours at the bottom. It's a continuous reminder that that service is available to them.
>
> (TCPN, 3)

> The nurses have done a lot of work going to the schools, public speaking to the large groups of children there, they've gone to festivals and things, set up tables with free condoms and free pens and bits and bobs that the kids like. They've put a lot of work into spreading the word if you like.
>
> (OMPS, 2)

Most Teen Clinic patients are high school students who access the clinic directly, some are referred by their school.

> The system we had was that the kids would come from the school via their form coordinator, and they would often come in pairs, young girls together... just turn up and we would allocate that time to them.
>
> (OMPS, 2)

3.2.3 | Acceptability

Respecting confidentiality and sensitivity increased the acceptability of the service for young people. Established processes maximise this throughout the whole access and referral experience. Reception staff are the first point of contact and are fully trained in these aspects of care. They refer attendees quickly to a TCPN or provide a private area in which they can wait.

> We would see them straightaway, because I don't want them sitting in the waiting room for ages in a small town with 10 other patients ... to the teens, it's like oh, they know that I've had unprotected sex or meltdown, or I'm having a panic attack.
>
> (TCPN, 4)

Creating an informal, friendly approach within the Teen Clinic was identified as important for increasing acceptability. This approach included direct interactions, the printed and online information about Teen Clinic and ways of engaging at high schools.

> I would say that it's definitely in the language ... in the student bulletin, free confidential service, come and see us for anything if you just want to chat ... it's very youth-friendly language, and it's just a very easy conversation to have with young people and people in the community.
>
> (TCPN, 3)

3.2.4 | Availability and accommodation

In terms of availability and accommodation, Teen Clinics offered dedicated operating times and were generally permissive for teens to drop in at any time convenient for them, prioritising access over general capacity considerations.

> It's just so accessible for the teenagers to access help when they need it. They're not on a waiting list. They're not trying to get in with a doctor 2 weeks down the track. They know that as soon as they make that decision to talk to someone, [that] they can come and it can be dealt with.
>
> (OMPS, 1)

3.2.5 | Affordability

Interviewees identified readily accessible and free health care as a beneficial component.

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> To be able to have free medical care, and I think pretty good quality medical care, across the road from the school is pretty good. It's a real bonus for the kids for sure.
>
> (TCPN, 4)

> I think being that it's free as well is a big thing for the young ones that don't often have access to ready money
>
> (OMPS, 1)

3.2.6 | Appropriateness

Participants noted several factors that contributed to the appropriateness of the service, including early intervention, maintaining confidentiality and providing equitable access to care.

Several participants stressed that by providing early intervention, Teen Clinics help to reduce numbers of unwanted pregnancies, STIs, cases of self-harm and even suicides among young people in their communities.

> When we started off, we have kids with massive problems – they were being abused, they had housing issues and mental health issues. They were practicing unsafe sex, and this would all be like one person. It would be absolutely everything in one kid. I think what we're seeing now is we're getting kids earlier in that journey. We're seeing them before the wheels really fall off.
>
> (TCPN, 5)

> We've had some girls that were self-harming and it appears that they're not doing that anymore, so that's good.
>
> (TCPN, 4)

> We've managed to stop them getting pregnant, which makes a massive difference to their long-term outcomes, coming out the other side, and getting a job or going to university.
>
> (TCPN, 5)

The ability of young people being able to talk to Teen Clinic nurses in complete confidence was particularly valued in small rural communities where there is little anonymity.

> I think just being able to come and talk to someone about really private, STD matters, or that they just feel like they haven't got anyone else in the community that they can talk to if their family is not available or willing.
>
> (OMPS, 1)

A community stakeholder highlighted that Teen Clinic improved equity of access to health care for young people living in rural or isolated communities, particularly in low socio-economic groups.

> It so effectively equalises health and well-being service access for young people living remotely in isolated community with real diversity in the community, and it does an amazing job at meeting people's needs, and yes, equalising the experience of young people living rurally to the ease of access that young people living in urban contexts have.
>
> (CS, 1)

3.2.7 | Teen Clinic differs from business as usual

Practice nurses reflected that in many respects Teen Clinic was similar to the way they worked with other patient groups, particularly in the frame of an outreach/no wrong door approach.

> I feel like it is very similar in a way to our other work because we are already working in lots of those outreach kind of models. We've got a few different outreach clinics that we run for different things.
>
> (TCPN, 1)

Practice nurses identified three key differences from usual practice in that the Teen Clinic is: (1) nurse-led enabling them to work at the top of their scope and (2) unpredictable given the 'drop-in' nature of the clinic and that (3) it has a teen focus, with a range of reasons for seeking help, primarily reproductive/sexual health and mental health concerns.

> I think because its nurse-led, not many things are truly nurse-led anymore, so that's really rare and really exciting to be able to work like that … we're able to work at an advanced level and really work to the top

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> of our scope, which is disappointingly very rare.
>
> (TCPN, 1)

> With Teen Clinic, it's drop in, so you've no idea whether people are coming or when they're coming. Sometimes you're absolutely overwhelmed, other times you might have two patients in the afternoon.
>
> (TCPN, 5)

> With Teen Clinic, I'd say there's much more mental health stuff and there's also much more sexual health stuff.
>
> (TCPN, 5)

3.2.8 | Barriers and facilitators to operation and impact

Participants reflected on barriers and facilitators of Teen Clinic implementation, impact and sustainability, these have been presented at micro, meso and macro levels.

Micro level—Young people

Use of Teen Clinic by young people is an essential pre-condition for its sustainability. Participants reflected that school referrals, peer recommendation and word of mouth were key for Teen Clinic access.

> What often happens is you get one person that maybe the school really encouraged to come and their friends would come, so that word of mouth sort of communication.
>
> (CS, 2)

Meso level—High schools

Participants acknowledged the key role of schools, for awareness and referral; thus, the relationship between Teen Clinic and the local high school(s) is a key sustainability factor.

> We get a lot of referrals from the high school. They'll call us up, and we'll pop these kids in, and they ask us to come up and do presentations to certain new groups. We've got a really good relationship with them, and I think that's really important for the Teen Clinic branches to have a strong relationship with their local high school.
>
> (OMPS, 1)

Since most Teen Clinic patients are high school students, rules and policies implemented regarding Teen Clinic and/or student ability to leave school for confidential clinic attendance are a critical influencing factor.

> The head principal, the new principal at the high school has decided that the children cannot leave the school without parent's permission. This is the difficulty because a lot of these teens just want to come and talk to us privately without their parents' knowledge. It's virtually [put a] stop to our way of running it because the kids aren't coming anymore.
>
> (OMPS, 2)

School nurses also play a key complementary role, treating the students they can and referring on as needed.

> The school nurses have been really key ... we work really well together, and we do different things. The school nurses that are in schools can't do any actual procedures or screening ...
>
> (TCPN, 1)

> I can only explain in complementary terms. It is actually fantastic. It's a great pathway, so for young people if they present with something at the school that it's not the right timing, or I can help them and they need additional support, I can actually ask them to go to Teen Clinic
>
> (TCPN, 3)

Meso level—Healthcare professionals

The role of champions within practices was emphasised both in the establishment and maintenance of the clinic. This included support from GPs, practice managers and the Teen Clinic nurses, staff changes were risk points.

> I think for some practices, any staff changes would affect their ongoing commitment to a Teen Clinic ... Some of the GPs might change ownership, and we've noticed that they've often haven't got the same attitude about why a Teen Clinic might be operating within that practice. It could be a financial decision, or they're just not seeing the benefit of it.
>
> (OMPS, 1)

Teen Clinic function depends on the clinical and communication skills and expertise of the individual Teen Clinic

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practice nurses, and their ability to flexibly manage their workload.

> I think one of my fears is not being able to get nurses with the right skill set, or who are prepared to do the additional training they need to do, so succession planning would be an issue there.
>
> (TCPN, 5)

> I worry about burnout. There's a lot of pressure on the Teen Clinic nurses … I worry sometimes that when demand on them is quite high, that it's difficult maybe for the staff to distribute the pressures of their work evenly, because what they do is so important, and there's not always a huge amount of Teen Clinic staff there waiting to take the load.
>
> (CS, 1)

> It's really hard to promote Teen Clinic...I'm okay with it, I know the other two nurses I work with, they are terrified of having to stand out in front of school students and do a talk or anything like that... If you had representatives of Teen Clinic that were happy to...go out and promote it on our behalf, that would work a lot better... because I can't prioritise the time to go out and do it when there's so much else in my role other than Teen Clinic at this clinic.
>
> (TCPN, 6)

Macro level—Government funding and healthcare policy

Participants reflected that funding challenges constrain their community outreach activities and provision of training for Teen Clinic nurses.

> Because the nurses' role in Teen Clinic isn't funded... It's just not possible to go out and promote Teen Clinic to the broader community. Whenever we do it, it's out of the goodness of the GPs willingness to do that...
>
> (TCPN, 6)

> Some sort of government funding would be awesome to be able to pay for some of that nurse training, to get them set up and then the ongoing costs, the practices would just wear themselves.
>
> (OMPS, 1)

The role of rural healthcare policy, within which funding and staffing recommendations were made, was raised as a moderator of Teen Clinic sustainability by community stakeholders.

> At the policy level … what is the overall plan around regional and rural health in general? [to] make that sustainable and equitable.
>
> (CS, 2)

> From a government level, the challenge is, it shouldn't be a political thing, and it should be something that we can really just rely on as a permanent funded service in the community … I personally think that investing in the health and wellbeing of young people is the most important thing that you can do to avoid a whole lot of other expensive outcomes down the track, but it'd be great if the government kind of saw that and prioritise funding for services that are demonstratively working
>
> (CS, 1)

4 | DISCUSSION

We have presented a case study Teen Clinic integrated healthcare model operating in six rural general practices, which enables practice nurses to flexibly work at the top of their scope and is accessible to young people. However, the lack of dedicated funding presents challenges for uptake and sustainability.

Task-shifting activities to practice nurses enabled a drop-in service and other youth-friendly adjustments, increasing access for young people. The activities include initial assessment, health education, care coordination, follow-up, and community engagement. A Cochrane review on task-shifting in primary health care found that patients found it most acceptable for nurses to deliver preventive care and follow-up, whilst doctors valued the reduced workload.[11] Doctor support and nurse training were key enablers for task-shifting, which was echoed by this study's participants.

The Teen Clinic offers equitable access to primary health care for a small but important cohort of people living in small rural communities. Young people reported using the service multiple times and appreciated its accessibility, confidentiality, friendliness, lack of stigma and no cost; these factors align with previous studies.[7,9] The model is likely to also work in non-rural settings, as evidenced by the recent opening of a clinic in an urban area.

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The Teen Clinic's nurses reported satisfaction with working at the top of their scope, but the model's flexibility sometimes made it difficult to predict workload and time allocation. With so much of Australian primary care funded through fee-for-service arrangements such as Medicare Benefits Scheme (MBS) payments, the lack of a dedicated MBS item for the nurse-led assessment as well as the time needed for community engagement and training are significant barriers to Teen Clinic's long-term sustainability. The community engagement is essential for addressing the critical approachability/awareness domain of access. The Strengthening Medicare Taskforce report is seeking new care models suitable for rural and remote communities and aspires to provide equitable health care, with healthcare professionals working at the top of their scope and more free-to-user health care.[12] The current Medicare review presents an opportunity to sustainably invest in the Teen Clinic model to address the significant healthcare access issues experienced by young people living in small rural towns (MM5).

4.1 | Limitations

This was a small study with two recruitment challenges. Some practices running Teen Clinic were not consistently engaged due to the impacts of the COVID-19, and two practices ceased running Teen Clinic. We were unable to capture the reflections from these practices despite invitations to participate. The majority of participants were Teen Clinic Practice Nurses ($n=5/9$), which might be considered a biased sample; however, these participants were the best placed to reflect on how Teen Clinic works in each practice since they deliver the care model. The community survey for young people sample had a 1.3% response rate with 53 respondents from an estimated population target of 4200 young people, resulting in a 13.8% margin of error for representation. Participants may have been biased towards those predisposed to give positive feedback, though a financial prize incentive was offered, and we note only 4% of respondents were unfamiliar with Teen Clinic.

AUTHOR CONTRIBUTIONS

Hazel Dalton: Conceptualization; data curation; formal analysis; investigation; methodology; project administration; writing – original draft; writing – review and editing. **Catherine Cosgrave:** Conceptualization; data curation; formal analysis; funding acquisition; investigation; methodology; project administration; writing – review and editing. **Duncan MacKinnon:** Conceptualization; funding acquisition; validation; writing – review and editing.

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CONFLICT OF INTEREST STATEMENT

HD and CC declare no conflict of interest. DMK is the care model architect and currently runs a Teen Clinic; thus, he was partitioned from primary data collection and analysis, which was conducted by HD and CC.

ETHICAL STATEMENT

Approval for the survey of young people in the Teen Clinic catchment areas was obtained from the University of Newcastle Human Research Ethics Committee (Ref H-2021-0412). Approval for the qualitative interviews was obtained from the University of New England Human Research Ethics Committee (Ref HE20-222).

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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