How has the COVID-19 pandemic influenced patient-centred care?

Analysis of a qualitative collective case study by high-performing practice teams

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Background and objective
The COVID-19 pandemic has significantly affected primary healthcare systems throughout the world. The aim of this article is to present the analysis of the perspectives and experiences of patient-centred care (PCC) during the pandemic by high-functioning general practice teams in Australia.

Methods
A qualitative descriptive approach and collective case study method was employed. Participants, who undertook a semi-structured interview, were representatives of high-functioning general practice teams. Reflective thematic analysis was applied to all interview data (meta-synthesis) using a constant comparison approach.

Results
Five clinic representatives were interviewed. Six themes developed, highlighting that despite the pandemic creating new challenges to delivering PCC, general practice teams maintained a focus on PCC. General practice teams adapted to deliver PCC through strategies not used prior to the pandemic.

Discussion
This study identified new approaches to PCC that can guide other general practices and progress the health system towards policy-based PCC objectives.

PATIENT-CENTRED CARE (PCC) is a priority for primary healthcare clinicians, researchers and policymakers.[1–3] In Australia, general practitioners (GPs) and patient advocates have defined PCC to contain six interrelated components: 1) understanding the whole person, 2) finding common ground, 3) experiencing time, 4) aiming for positive outcomes, 5) considering the system and collaborating in care and 6) optimising the general practice environment.[3] The concept of PCC is integral to the Australian primary care system, and practice-based research plays a part in supporting PCC.

The COVID-19 pandemic has affected healthcare systems across the world. In Australia, social distancing regulations and government-enforced lockdowns have affected the availability of general practice staff and influenced the way patients access and interact with general practice services.[4] Initially, fewer patients attended general practice services for routine care.[4,5] Then the number of telehealth consultations delivered by GPs increased, despite information and communication technologies (ie telehealth) historically being used predominately to provide care across geographic, time, social and cultural barriers.[6] After the onset of the pandemic, the scope of funding for telehealth within the Medicare Benefits Schedule (MBS) was expanded, and this also contributed to an increased number of telehealth consultations.[5] Primary Health Networks across Australia collaborated with general practices to roll out and administer COVID-19 vaccinations to the nation.

The impact of the pandemic on PCC is worth attention given the priority of PCC in general practice. High-functioning general practice teams are committed to quality, safety and PCC.[7] The aim of this study was to explore attitudes towards, experiences of and perceptions of PCC by Australian high-functioning general practice teams.

Methods

Methodological overview and study design

A detailed description of methodology and methods has been published.[8] Briefly, this study used a social constructivist philosophical position[9] and qualitative descriptive methodological approach.[10] A collective case study method[11] was used to ascertain various perspectives of PCC throughout the pandemic and describe PCC initiatives. Brickley and colleagues' map of PCC[3] informed a foundational descriptive theory that guided data collection and analysis of this study. Semi-structured interviews were conducted to identify the experiences and perspectives of PCC within high-functioning general practice teams throughout the pandemic. Ethics approval was obtained from the Griffith University Human Research Ethics Committee (No. 2021/132).

Sample and recruitment

Eligible general practices were those that had been: 1) awarded 'General Practice of the Year' by The Royal Australian College of General Practitioners (RACGP), 2) awarded 'General Practice of the Year' by Australian General Practice Accreditation Limited (AGPAL) and Quality Innovation Performance Limited (QIP) or 3) highly commended in the 'General Practice of the Year' award by AGPAL and QIP. The identification of high-performing practices has been completed similarly elsewhere.[12] A total of 10 practices were identified from a publicly available list of the respective award winners dating back to 2016, with the most recent award provided in 2020. Recruitment occurred via email, and potential participants were provided with a study flyer and study information sheet. The interviews were subsequently scheduled and conducted independently by the lead researcher over phone or videoconference (Microsoft Teams).

Data collection

Descriptive practice data collected were practice name, location (postcode), number of employed full-time equivalent GPs and business model type. The occupation of the practice representative was recorded. Social demographic, cultural and epidemiological characteristics of the practice catchment area were collected. Semi-structured interview questions adhered to an interview guide.[8] Questions began with broad inquiry about PCC, and the interview duration aimed to be a maximum of 30 minutes. Interviews were audio-recorded using a dictaphone or electronically using Microsoft Teams software, and audio recordings were subsequently transcribed verbatim. All practice representatives provided verbal consent prior to their interviews. Verbal consent was obtained for participating practices to be named in the dissemination of findings. All participants were contacted via email and invited to verify the accuracy of their transcript prior to data analysis.

Data analysis

Data were analysed using constant comparison and reflexive thematic analysis,[13] and this commenced simultaneously with data collection, which allowed for initial codes and themes to be explored in subsequent interviews. Field notes, ongoing reflection and debriefing within the research team supported the dependability and credibility of the analytical process.[14] Interview data were analysed independently by two experienced qualitative researchers. Data were analysed across the whole sample, which allowed for case comparisons and the meta-synthesis of all qualitative data to inform main themes. Findings were then discussed between the two researchers until a consensus was reached. Practice location (postcode) was analysed by their Accessibility/Remoteness Index of Australia (ARIA) classification.[15] The number of employed full-time equivalent GPs was used to categorise practice size: 1–3 (small), 4–7 (medium), >7 (large). Other contextual data (eg median age of population base) assisted to explain many of the unique PCC strategies and perceptions at each practice.

Results

Participants and their practices

Five of the 10 invited general practice teams participated in this study between April and May 2021: Saunders Street Medical Practice (SSMP), Hawkins Medical Clinic (HMC), Inala Primary Care (IPC), Hunters Hill Medical Practice (HHMP) and Atticus Health Medical Clinic (AHMC). Practice information, local sociodemographic characteristics, practice representative and interview duration are displayed in Table 1. Practice representatives were three GP practice owners, one practice manager and one nurse team leader. The impacts of COVID-19 on participating practices were diverse, with practices in Qld and SA experiencing low levels of community transmission prior to data collection, compared with those in Tas, Vic and NSW.

Thematic analysis

Six themes developed from the meta-synthesis, and all themes are described in detail, supplemented by indicative narrative quotes.

Theme 1: The pandemic created new barriers to enacting patient-centred care

The COVID-19 pandemic created new challenges for practice teams in the pursuit of PCC. As one participant said, 'Everything went out the window throughout the pandemic … with patients not being able to get in as needed, I just think that nothing really flowed well' (IPC). The clinic environment and the usual activities of general practice clinicians were adversely affected by the pandemic, and this meant practice teams needed to explore new methods of enacting PCC. As one study participant said, 'I guess the pandemic forced people to see a different way' (HHMP). The level of disruption caused by the pandemic varied across the sample. Enacting PCC was severely affected in areas with a high number of COVID-19 cases because of the significant disruption that increased community transmission of COVID-19 caused the local health system.

> *The local hospital was closed in the middle of the pandemic as they had a big [COVID-19] outbreak. So, it was another part of the challenge in the middle of the pandemic here, that general practices were asked to be the local hospital emergency department for a few weeks while the local hospital was closed for a deep clean. GPs in other areas wouldn't have had that … That's another added layer of complexity for us. It was something new for us in [COVID-19] that we had to act in lieu of the local emergency department, and we had to be open for patients from anywhere, not just our practice. So that was something we didn't need but we managed.* [SSMP]

As another example, HHMP detected several COVID-19 cases through their testing facility, leading to a dramatic spike in the number of local patients engaging with HHMP for a COVID-19 test. The NSW government carried out close-contact tracing and isolation of patients who were suspected have come into close contact with the virus while attending the clinic. Conversely, HMC reported that the delivery of PCC in their clinic was minimally affected because of

Table 1. Participant information

Practice characteristics				Local sociodemographic characteristics					Interview characteristics	
Practice name	Number of FTE GPs*	Business model†	Practice location (state, postcode)	Resident population (2020 estimates)	Median age (years)	Indigenous population (%)	Unemployment rate (%)	SEIFA 2016 Index‡	ARIA classification	Practice representative (role)§	Interview duration (mins)
Saunders Street Medical Practice (SSMP)	5.4	GP	Tas, 7325	13,900	46	7.6	7.6	925	Outer regional	GP practice owner	29
Hawkins Medical Clinic (HMC)	18	GP	SA, 5290	27,433	40	2.2	14.9	925	Outer regional	Practice manager	19
Inala Primary Care (IPC)	8.5	Registered charity	Qld, 4077	14,849¶	34	5.5	18.4	728	Major city	Nurse team leader	28
Hunters Hill Medical Practice (HHMP)	6	GP	NSW, 2110	14,962	42	0.6	3.5	1,098	Major city	GP practice owner	31
Atticus Health Medical Clinic (AHMC)	3.75	GP	Vic, 3197	4,511	41	0.6	5.2	1,044	Major city	GP practice owner	32

**Number of FTE GPs indicates practice size: 1–3 = small, 4–7 = medium, >7 = large*
†Practice ownership could be corporate (C), community board (CB), GP owned (GP) or other (specified)
‡Lower score indicates a higher rank of relative socioeconomic disadvantage
§A GP practice owner is a qualified GP who consults patients and has part or full ownership of the practice. A nurse team leader performs nurse duties while overseeing other practice nurses.
¶2016 national census data
ARIA, Accessibility/Remoteness Index of Australia; FTE, full-time equivalent; GP, general practitioner; SEIFA, Socio-Economic Indexes for Areas

the low level of community transmission in their area.

All practices established PCC policies and protocols (eg telephone screening patients for COVID-19 symptoms prior to attending the clinic). However, the frequently changing nature of government-enforced regulations added complexity to this task, which affected the confidence of practice teams to ensure access to their services, a foundational aspect of PCC.

> *The rules were changing basically every two to three days and … we would come up with a new process or protocol then everything would change again … we had modified our staffing to create teams so different people aren't on at the same time.* [HHMP]

One practice (IPC) actively cancelled their elderly patients' appointments to protect them from the virus, while others cancelled appointments because of a lack of confidence in staff availability as a result of mandatory isolation.

> *Those patients were also the ones that every time we went into a little lockdown … we might ring them up, book them in, every time we go into lockdown and really don't want the elderly people out wandering around, we then have to cancel and reschedule then. So, they've had a lot of appointments cancelled and rescheduled and I don't think that is PCC.* [IPC]

The pandemic had a negative impact on practice leadership of HMC, which placed pressure on GPs to satisfy business needs at the expense of PCC initiatives such as bulk billing and discounting fees for low-income patients.

> *We've lost nine partners, and a lot of those doctors were highly influential on the less experienced doctors coming through, and on the attitudes around the place. So, one thing that the pandemic has done for us, not for us but possibly to us, is to mean that with a lower number of people in the ownership group, there's more of a focus on making sure that there's enough money coming in to pay the bills [at the*

> *expense of PCC]. That wasn't necessarily a concern before, but it definitely is now and something that we are constantly aware of and trying to do.* [HMC]

Theme 2: A focus on patient-centred care within general practice teams was maintained throughout the pandemic

PCC was a clear foundational value of all practice teams in this study, and it remained important despite the COVID-19 pandemic. All practices sustained their interest and commitment to a patient-centred approach to care as the pandemic commenced and then continued. GP practice owner representatives described making an active decision to remain open, with patient safety, engagement and professional duty front of mind to ensure patients could maintain access to continuous, comprehensive general practice services while assuring safety.

> *We wanted to have local patients to be able to be tested locally, quickly, with the people they know, and those people to get the results back to them. The other point of view was that we wanted our regular patients to be able to access the services they need.* [HHMP]

> *The concern that came to patients' minds was that they need to know that they are in safe hands within their chosen practice … The prime concern was that we needed to do things to make sure people felt safe during the pandemic.* [AHMC]

One practice (HHMP) reflected that although PCC was still an essential part of their clinic, it was not delivered 'as systematically' as the process outlined in the latest theoretical model.[3] The diversity in patient opinion about the pandemic quickly became apparent to practice teams, 'to this day, there is a spectrum of views [of the pandemic by patients] rather than one or two views, in fact' (AHMC). Some patients expressed frustration at physical distancing requirements, scepticism of the virus or concern about their health and their loved ones, leading to anxiety. In response, practice teams became more attuned to the perspectives of patients as individuals and focused on listening and responding to needs on an individual basis. This experience led practice teams to view PCC in a new, more pragmatic light, as they realised PCC needed to be implemented differently when compared with before the pandemic.

Theme 3: Proactiveness led to patient-centred innovations

Despite the challenges to delivering PCC, all practices were proactive; they adapted processes to deliver PCC using new strategies.

> *We got proactive pretty early in identifying people who are at risk, who would normally come and see us. We reversed the model of patients coming to see us; we-to-them.* [SSMP]

SSMP experienced a reduction of attendance and engagement in their service, so they established a database of vulnerable patients and telephoned them to ask if they required any general practice services.

> *Last year was certainly challenging. Many patients wouldn't touch base. So, the challenge was, trying to get a database of people … basically we had to cold call them. But we found that everyone appreciated the call. So, we found that us going out to patients was beneficial for patients, and we were dealing with issues that they would otherwise have not bothered about. We picked up some very important diseases and illness behaviours and tried to manage patients as best we could.* [SSMP]

This activity uncovered high levels of social isolation among patients and allowed the practice team to develop a deeper understanding of their patients, whereas patients would usually present with a medical problem in a visit to their practice. The SSMP team responded accordingly and led interventions to address social isolation among their patients. The services delivered as a result of this initiative identified medical issues that would have not been identified using processes in place prior to the pandemic.

The SSMP community services a higher proportion of older patients in comparison to other participating practices, and this strategy was tailored to the needs and behaviours of their patient base. The innovative strategy enacts PCC because it supports relationships between clinicians and patients, allows GPs to spend more time with their patients and aims for positive patient outcomes as a priority.

Proactiveness by general practice teams led to staff taking on new roles, providing more opportunities to enact PCC. While the administrative workload increased, reception staff spent more time listening to patients, and clinicians trained general practice registrars and interacted with their patients using new technology. One new strategy for training GPs that was implemented during the pandemic was a three-way video call between the patient, general practice registrar and supervisor. Increased use of telehealth meant communication skills were important for clinicians in terms of taking clinical history over the telephone and making diagnoses. The interviewee from SSMP reflected that increased dialogue led clinicians to be more aware of patient health literacy levels, providing more opportunities to enact PCC.

> *As far as understanding the whole person goes, we had to use our listening skills and we probably became more aware of their health literacy from only using telehealth, because we had to hone our history-taking skills and ability to diagnose just by talking and certainly, we appreciated more the social situation of patients. We did see them more as the whole person during [the COVID-19 pandemic].* [SSMP]

Theme 4: Strong leadership and patient-focused practice culture enabled patient-centred care

All interviewees were in a leadership role in their practice. Strong practice leadership – characterised by integrity and courage, communication, honesty and influence – was regarded by participants as key to addressing barriers to PCC caused by the pandemic. In many clinics, general practice staff became prominent leaders of their community because they

demonstrated courage by continuing to operate in the pandemic, and they embodied confidence while serving their patient base to make patients feel safe. Reassurance of safety alleviated fear and frustration induced by the pandemic among patients. Strong leadership by general practice teams enabled PCC throughout the pandemic by ensuring continuity of services and by assisting clinicians to connect with their patients. GPs at HHMP spent time supporting their co-located allied health professionals. They communicated confidence and safety to allied health clinicians in the same way they supported their patients, and they supported them to integrate technology into care delivery. HHMP leaders supported their co-located allied health services because they saw them as fundamental to PCC.

> *The allied health [clinicians] that share the rooms with us; they were scared of what [the pandemic] meant to their business and also for them seeing patients and we spent a lot of time supporting them … We supported them to convert to electronic [services], and we supported some of the more essential services to sort of modify. Again, with the understanding that you know, we need to be there for the patients, in good times and bad.* [HHMP]

Many participants, but particularly the participant from AHMC, expressed the importance of having an established ethos as a source of inspiration for the practice team, particularly in times of adversity. The practice team drew on this ethos throughout the pandemic, and this enabled PCC. The team at AHMC modelled their ethos on Atticus Finch,[16] a character in literature who demonstrates the qualities of integrity, empathy and respect. The GP practice owner at AHMC led the pursuit of these values by first reflecting on this value set and implementing it in the practice, becoming a role model of these values for the practice team. Then, the GP practice owner articulated these values across the practice team, encouraging further reflection by others, ultimately evoking these values in the wider practice team; 'connection was the real driver of patient outcomes and PCC' (AHMC). This form of active and influential leadership enabled PCC, because it led to greater levels of respect towards patients. The ongoing focus on empathy meant that the needs and preferences of patients were put first in practice decisions throughout the pandemic.

> *This is a case of us appreciating that many people who are patients of ours had a variety of views and therefore we needed to respond in a way that was consistent, at the end of the day, with our value set, and drive value, and yet make an understanding that many patients have different views … I suppose it was to articulate our value set and what drove our decisions that was really important there … and to reflect on ourselves, so that we are all on the same page that way about things …* [AHMC]

Theme 5: Investment in new technology and infrastructure enabled patient-centred care

In response to the pandemic, participants identified the need to quickly invest in technology and infrastructure. Investing time and money into technology resulted in new processes for general practice services that assured the safety of patients and general practice teams, thus supporting PCC and ensuring the continued operation of the practice.

> *We spent the whole year investing in technology, in terms of our [information technology]. We centralised things. We decided what the purpose was of centralisation and decentralisation. Different staff members were involved in the changing environment and a whole heap of phone calls. So, the point is to be accessible to our patients was very important to maintain that connection.* [AHMC]

Similar to most clinics, IPC used telehealth to screen patients for COVID-19 infection symptoms prior to physically attending the clinic: 'They'd [patient would] ring up and we did lots of questioning every time they made an appointment' (IPC). The use of technology was seen as providing improved communication and engagement with patients, and this promoted access to services. HMC used Facebook as a means of mass communication, whereas HHMP used SMS messaging to communicate practice news with their patients. Effectively using technology to enable PCC was a process that required time to adjust to, as clinicians initially experienced difficulties in integrating new technology into their practices, and organisations needed to establish and adapt to new technological systems.

> *We used SMS extensively where we downloaded mobile number lists from our software, put it through into an SMS software and just send sort of regular updated messaging about … local cases or … testing or flu vaccine availability or lack of availability or when we were open, or … what services were available. Well, [SMS messaging] gives us greater access to patients, but it also gives the patients greater access to us in terms of availability and knowing what services are available to them locally at the place where they normally go. But it also makes it easier for the patients to contact us.* [HHMP]

One example of innovative practice to support PCC was enhancing team collaboration by holding regular clinical meetings over videoconference software while GPs were working remotely. Virtual clinical meetings helped support practice team interconnectedness and decreased isolation. While not all general practice staff embraced these changes initially, their views evolved over time as staff saw their new strategies to deliver PCC in effect, and practice staff felt that the new changes were likely to be sustainable. Innovations in technology led some practices to appreciate the environment in a new fashion. For example, SSMP realised that a virtual general practice environment could play a part in providing social support to patients, which is an important component of healthcare, and can support PCC through enhanced patient–clinician relationships.

> *Social isolation was a big problem, especially with a lot of older people living by themselves, widowers. It turned out to be a big part of our [COVID-19] response was touching base with people who were isolated … We had to change the place from the physical space to a whole community space basically, considering patients first in their own homes as opposed to patients coming to us. So, we made our general practice not a virtual practice but certainly made a telehealth space. All the staff contributed here.* [SSMP]

Participants modified the physical layout of the clinic and invested in new practice infrastructure in response to social distancing requirements and best-practice COVID-19 infection control. Some practices converted current spaces, others hired equipment and some built new rooms entirely to create isolation rooms.

> *We got our patient population vaccinated for [influenza] across the pandemic, which was challenging. We wound up renting an Atco-hut and having that sitting in our car park and vaccinating people through there because it was easier to clean than the whole consulting areas.* [HMC]

Maintaining an organised and consistent patient flow was an important consideration in terms of achieving influenza vaccination goals, which were superimposed on the pandemic, and preventing any infection outbreaks. Participants saw the changes to the general practice environment as patient centred, maintaining patient privacy and patient and clinician safety. The innovative use of technology and infrastructure are key concepts that have emerged from the pandemic that are likely to be maintained in the future of general practice.

> *I think you still have to be very aware of pandemics and in the future, and how long it's going to be around. I think the way you design and build new places, I just think people now have to be aware of the size of rooms to fit people in, and I just think lots of things are going to have to change in general practice.* [IPC]

Theme 6: Convenience and accessibility of telehealth was valued and embraced by clinicians and patients

The pandemic forced participants to use telehealth consultations to sustain usual clinic services. The initial increase in telehealth use was not without challenges. One interviewee expressed that it took time to establish effective telehealth systems:

> *As soon as the telehealth idea came up again, there was no real systems or providers that were offering telehealth, or, you know, a full telehealth package. So, I basically asked everybody to bring an old iPhone from home, separate to their normal phone. So, we brought all of those we connected to the Wi-Fi in the practice. And then got everybody to download Zoom and WhatsApp. And there's FaceTime. Obviously. On the iPhone. So that gave us three ways that we could connect with patients from a video point of view …* [HHMP]

The representative of AHMC had concerns about billing practices, feeling that 'blanket' bulk billing for telehealth might bias patients to use telehealth even if it was not ideal for their medical care. However, over time, general practice teams began to value telehealth for its convenience and ease of access to engage with patients. Participants reported that telehealth was widely valued by patients because of its convenience, affordability and the ease of access to services.

> *Apart from the pricing, you know, for us, we will be making it the same pricing as face-to-face consults, the fact is [telehealth is] very convenient. What we found is that patients were loving telehealth for the convenience but also because it was bulked billed.* [AHMC]

> *As patients came in and saw what it was like and how sort of organised and systemised it was, especially when they came in for their flu shot because for that one, they had to come in. That couldn't be done by telehealth. They saw the systems in place. They felt very much more comfortable.* [HHMP]

Most practices delivered telehealth services as part of usual care prior to the pandemic and felt it was a valuable tool to deliver PCC because of its potential to save time and increase patient engagement. Staff at one practice (SSMP) saw the potential for telehealth to deliver care that is more holistic and less disease-focused because of the advanced listening skills required during telehealth. The pandemic saw telehealth used in innovative ways, such as a dedicated phone script clinic by HMC and a structured telehealth clinic by IPC.

> *We've adapted to telephone and telehealth consults pretty well. We actually have a dedicated phone script clinic now, so that instead of patients requesting a script, they can have a quick chat with the doctors and then the script is faxed through to their pharmacy for them. That's a dedicated [service] that happens every morning and most evenings. We maintain that.* [HMC]

> *We're running our [telehealth COVID-19] clinic from 7.00 am to 9.00 am. So, we usually don't open till 7:30 am and a lot of doctors start at 8.00 am, so the doctors that are here at 8.00 am, they will just do telehealth from 8.00 am to 9.00 am because we can't have too many people in because of the number of patients are in the clinic … So, for them [GPs], they're just doing little jobs … like there might be abnormal results or non-urgent recalls or whatever that they have to ring up and discuss with their patients.* [IPC]

Discussion

This is the first study to explore the perceptions and experiences of PCC by high-functioning general practice teams throughout the COVID-19 pandemic. The pandemic did not detract from the importance placed on PCC by general practice teams, but it did create challenges in terms of sustaining PCC given expanded clinical roles and added complexity of clinician–patient interactions. Participants described several characteristics throughout the pandemic that supported PCC, such as proactiveness, leadership and a patient-focused culture. Participants

delivered PCC through strategies not used before the pandemic, centred on new infrastructure and innovative use of technology.

These general practice teams strived for PCC in line with the conceptual definition of PCC illustrated in *Putting patients first: A map for patient-centred care,*[3] within the confines of new COVID-19-safe practice policies, while delivering new services (eg COVID-19 screening and immunisation). Despite the disruption to the health system caused by the pandemic, the general practice teams in the present study maintained their focus on PCC. Continued focus on enacting PCC by participants was important to support patient safety, accessibility, care comprehensiveness and engagement of patients by general practice teams. This supports pillar one of the Australian Government Department of Health's Long Term National Health Plan, which aims to 'make primary healthcare more patient-focused, more accessible and better able to provide preventive health and management of chronic conditions'.[17] It is encouraging to see that PCC was preserved in award-winning practices, and the participants' perspectives and experiences of PCC can inform PCC across the wider general practice workforce.

Participants relied on telehealth to maintain access to their patients and continue to provide required services. Increased adoption of telehealth was reflected by the wider general practice workforce in Australia, with the volume of telephone consultations involving GPs increasing drastically from 0% to 34% in the months following the expansion of telehealth MBS items in 2020.[18] All practice teams in the present study valued telehealth, and their experience using telehealth generated new ideas to enact PCC. The expansion of the MBS items meant that telehealth consultations were generally bulk billed (ie paid for through the MBS with no additional cost to the patient). One general practice team found it difficult to process private payments over videoconference/phone. Across the sample, telehealth was delivered at a low cost to patients, which has implications for the financial income for GPs and can lead to unnecessary care.[19] A recent report published by COVID-19 Consumer Leaders Taskforce (Health Consumers New South Wales) cited that the rapid increase in telehealth consultations was 'life-changing' for patients.[20] Patients experienced less pain, anxiety and exhaustion by joining a consultation from the comfort of their own homes; patients saved time and money by not travelling to an appointment and sitting in a waiting room; and patients experienced a reduced impact on their working hours and income.[20] Furthermore, patients who would have delayed or avoided seeking medical treatment have accessed services using telehealth, suggesting telehealth consultations are worth promoting because of their benefits to patients.[20] Future research needs to support GPs and patients to use telehealth wisely and avoid unnecessary care, and explore the development of guidelines for general practice teams enacting PCC over telehealth/videoconference.

Participants demonstrated strong leadership qualities (eg integrity, courage, communication and influence) throughout the pandemic, and this enabled PCC in many ways. Prior to the pandemic, the perceptions of PCC by GPs and patients have been identified as highly individual and varied, and this may have been a barrier to PCC.[21] The three GP practice owners in the study articulated their patient-centred value set to their team, enacted PCC and supported others to carry out PCC. This form of leadership generated a shared understanding of PCC within general practice and enabled teams to work collaboratively on strategies to deliver PCC. Fix and colleagues have previously advocated for this, as they called for general practice team leaders to engage staff and middle managers to develop organisation-wide strategies to implement patient-centred principles.[22] The Primary Health Reform Steering Group has recently identified leadership as being fundamental to reform and achieving the Australian Government Department of Health's Long Term National Health Plan.[17,23] The group identified role modelling, shared learning and innovation; and clinician–consumer collaboration as important leadership characteristics to drive PCC.[23] Leadership is one of the characteristics that makes practices high performing,[12] and the strong leadership seen in the present sample may not be generalisable to wider general practice in Australia. Novel strategies to promote leadership within general practices warrant further attention.

The sample consisted of exemplar PCC contexts, made up of general practice staff whose practices had received an award in recognition of quality. The characteristics of patients within the practice catchments varied. For example, SSMP's population is generally older when compared with other participants' populations; IPC's catchment has the highest levels of unemployment and socioeconomic disadvantage when compared with other participating clinics. Future research should explore the influence of the pandemic on PCC across different geographic locations (eg rural and remote areas), population-specific general practice (eg Aboriginal health service) or common (non-awarded) general practices.

Conclusion

This qualitative case study explored the experiences and perceptions of PCC by high-performing general practices in the first 18 months of the COVID-19 pandemic. While the pandemic created challenges for the delivery of PCC, these findings highlight that high-functioning general practice teams still prioritise PCC. The PCC strategies identified in this study related to proactiveness, strong leadership and patient-centred culture, and innovation and use of new technology and infrastructure. New PCC approaches identified can act as a model to inform practitioners in care and assist policymakers with the development of patient-centred general practice policy.

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References

1. The Royal Australian College of General Practitioners. Vision for general practice and a sustainable healthcare system. East Melbourne, Vic: RACGP, 2019.
2. Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service (NSQHS) standards. Sydney, NSW: ACSQHC, 2017.
3. Brickley B, Williams LT, Morgan M, Ross A, Trigger K, Ball L. Putting patients first: Development of a patient advocate and general practitioner-informed model of patient-centred care. BMC Health Serv Res 2021;21(1):261. doi: 10.1186/s12913-021-06273-y.
4. Wright M, Versteeg R, Hall J. General practice's early response to the COVID-19 pandemic. Aust Health Rev 2020;44(5):733–36. doi: 10.1071/AH20157.
5. POLAR GP. Report into COVID-19 and general practice: Insights from the first few weeks. Blackburn, Vic: Outcome Health, 2020.
6. Australian Government Department of Health. Telehealth. Canberra, ACT: DoH, 2015. Available at www1.health.gov.au/internet/main/publishing.nsf/Content/e-health-telehealth [Accessed 1 June 2021].
7. The Royal Australian College of General Practitioners. What is general practice? East Melbourne, Vic: RACGP, 2019.
8. Brickley B, Williams LT, Morgan M, Ross A, Trigger K, Ball L. Patient-centred care during the pandemic: Protocol for a qualitative collective case study by high performing general practice teams. Aust J Gen Pract 2022;51(1–2):77–81. doi: 10.31128/AJGP-08-21-6133.
9. Crotty M. The foundations of social research. What is social constructionism? Grounded Theory Review 1998;11(1).
10. Sandelowski M. Whatever happened to qualitative description? Res Nurs Health 2000;23(4):334–40. doi: 10.1002/1098-240x(200008)23:4<334::aid-nur9>3.0.co;2-g.
11. Zainal Z. Case study as a research method. Jurnal Kemanusiaan 2007;5(1).
12. Dunham AH, Dunbar JA, Johnson JK, Fuller J, Morgan M, Ford D. What attributions do Australian high-performing general practices make for their success? Applying the clinical microsystems framework: A qualitative study. BMJ Open 2018;8(4):e020552. doi: 10.1136/bmjopen-2017-020552.
13. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006;3(2):77–101.
14. Creswell JW, Miller DL. Determining validity in qualitative inquiry. Theory Into Practice 2000;39(3):124–30. doi: 10.1207/s15430421tip3903_2.
15. Queensland Treasury. Accessibility/remoteness index of Australia: Brisbane, Queensland. Brisbane, Qld: Queensland Government, 2019.
16. Lee H. To kill a mockingbird. London, UK: Random House UK, 2010 (1960).
17. Australian Government Department of Health. Australia's long term national health plan. Canberra, ACT: DoH, 2019.
18. Snoswell CL, Caffery LJ, Haydon HM, Thomas EE, Smith AC. Telehealth uptake in general practice as a result of the coronavirus (COVID-19) pandemic. Aust Health Rev 2020;44(5):737–40. doi: 10.1071/AH20183.
19. Australian Commission on Safety and Quality in Health Care. Australian atlas of healthcare variation. Sydney, NSW: ACSQHC, 2015.
20. Hallam L, Joyner S, Nance J. Navigating telehealth: The patients' perspective. Sydney, NSW: Health Consumers NSW, 2021.
21. Brickley B, Williams LT, Morgan M, Ross A, Trigger K, Ball L. Patient-centred care delivered by general practitioners: A qualitative investigation of the experiences and perceptions of patients and providers. BMJ Qual Saf 2020:bmjqs-2020-011236. doi: 10.1136/bmjqs-2020-011236.
22. Fix GM, VanDeusen Lukas C, Bolton RE, et al. Patient-centred care is a way of doing things: How healthcare employees conceptualize patient-centred care. Health Expect 2018;21(1):300–07. doi: 10.1111/hex.12615.
23. Primary Health Reform Steering Group. Draft recommendations from the Primary Health Reform Steering Group. Canberra, ACT: DoH, 2021.

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