

**Improving Health Care Access in Primary Care Through Physician Assistant (PA)  
Integration: A Literature Review**

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## **Abstract**

**Introduction:** Canada is currently experiencing a shortage of primary care physicians. Lack of access to primary care results in increased morbidity, mortality, and increased burden on the healthcare system. A proposed solution has been introducing team-based care, which includes Physician Assistants (PAs). The implementation of PAs in the primary care setting and the impact on patients' access to health services and patient care is still vastly under researched.

**Objective:** This literature review will examine the impact of PAs in primary care settings to improve patient access specifically looking at wait times. Further, this review will examine patients' perspectives on being treated by a PA in the primary care setting. These objectives will directly address if PAs could be a proposed solution to the primary care crisis.

**Methods:** A literature search was completed using PubMed, and Medline databases. The search was performed using key terms about physician assistants working in primary care settings and patient perspectives. Six articles were found to meet the inclusion criteria and were analyzed for this review.

**Results:** Six studies explored the role of PAs in primary care settings across North America and England. Four themes were found including improved patient access, patient satisfaction, patient awareness, and patient experiences. These themes were used to examine patient perspectives and the roles of PAs in supporting the primary care setting. The findings suggest that PAs improve patient access in primary care and that patients' experiences are overall positive with PAs in the primary care setting.

**Conclusions:** These findings suggest that PAs are a potential solution to the primary care crisis. The Physician Assistant programs are expanding across Canada, and the number of practicing PAs in Canada is set to exponentially grow. For PAs to be implemented in primary care, primary research on PAs working in these settings should be prioritized to examine the potential positive benefits on the healthcare system and primary care access.

## **Introduction**

Canada is currently experiencing a primary care crisis (1). There are currently 6.5 million Canadians that do not have access to regular primary care (2). Currently 1/3 of Canadians that are connected to a family doctor find it difficult to get an appointment when needed (2). It is proposed that the primary care crisis is due to physician shortages, an aging population, and increasing rates of disability and chronic disease (3) Family physicians are the slowest growing category of new physicians in Canada (1). In 2023, the University of Manitoba faculty and stakeholders investigated patient perspectives in how to address the growing primary care crisis. The responses yielded a desire to have flexible services to meet individuals specific needs and have access to the care they need when needed. One key recommendation included a shift to team-based models in health care delivery (4). Team-based care involves a patient being seen in a primary care clinic by a health care provider, other than a physician, with relevant skills. This provider can then connect with a physician for their expertise as needed (2). In the United States, PA integration into primary care settings has been one strategy to meet the increasing demand (5). PAs are health care providers that practice medicine under the medical model in collaboration with their licensing physician(s). In order to understand if PAs could be a proposed solution to the primary care crisis in Canada it is important to review if PA integration increases patient access, and what the patients' perspectives are in regards to their health being managed by a PA.

### ***History of Physician Assistants***

PAs were first founded in the United States in the mid-1960s as a response to a physician shortage and uneven geographical distribution of doctors (6). PAs are often referred to as physician associates or physician extenders. They work in collaboration with a licensing

physician(s) as an extender of their services provided. PAs allow more patients to be seen and allow for doctors advanced skills to be better utilized (6). PAs are often described as generalists for the wide variety of tasks that they are trained to perform. This includes diagnosing, collecting medical histories, performing thorough physical examinations, ordering and interpreting diagnostic tests, performing therapeutic procedures, prescribing medications, providing education and counselling patients (7). In 1984 the role of “Physician Assistant” was adopted by the Canadian Armed Forces for the role of senior medics in the field (6). It was in 1991 when the Canadian Armed Forces had the title officially changed from Senior Medical Technician to Physician Assistant (6). PAs were first introduced to the Canadian public healthcare system in 1999 (8). There is an estimated 1000 certified PAs currently practicing in Canada across the following provinces: Manitoba, Ontario, New Brunswick, Alberta, Nova Scotia, Saskatchewan, British Columbia, Newfoundland/Labrador and Prince Edward Island (8).

### ***Physician Assistants in Primary Care***

PAs began to be integrated into the primary care setting in the early 1980s in the United States (5). It was speculated that the generalist training that PAs receive in their schooling was what contributed to their success in the primary care field of medicine (5). PAs work under the license of the supervising physician(s) and can substitute or complement the physician (7). This is mainly supported with the mutual understanding that the PA can consult the physician for their expertise when needed as it is a collaborative role. The PA role in primary care is dynamic and flexible (9) demonstrating the ability to adapt and support the current primary care crisis in Canada. The specific tasks of the PA are dependent on the PAs experience in the clinical setting (5). This role increases in autonomy as the PA develops experience and builds a working relationship with the licensing physician(s). PAs in a primary care setting can be utilized for up

to 75% of all patient visits without requiring further referral or consultation to the licensing physician (10).

## **Objectives**

There is very limited literature regarding the implementation of PAs in primary care in Canada. With the current primary care crisis, potential solutions need to be explored. This literature review will examine literature available internationally, mainly in North America and England. The identified goal was to determine if current evidence exists in the literature to support that PAs could be a potential solution for the primary care crisis in Canada.

The review will explore the impact that PAs have on access to primary care, specifically looking at patient wait times with a secondary objective to understand the patient perspectives of being treated by a PA for their health care needs.

## **Research Questions**

There is a growing demand for health care providers in the primary care setting. Previous literature has proposed the implementation of PAs in a primary care setting as part of a team-based approach. It remains unclear and is vastly under researched whether implementation of a PA in a primary care setting can improve patients' access to primary care services, leading to reduced wait times.

Therefore, this review will attempt to answer the following questions:

1. Does implementing a Physician Assistant in the primary care setting improve patient access?
2. What are the patient perspectives on being treated by a Physician Assistant?

## Methods

To explore the research questions, a literature review of published research was completed. There were two search engines used: PubMed and Medline. For both search engines the key search terms included: (physician assistant OR physician associate OR physician extender) AND (primary care) AND (access OR health services accessibility OR wait times). The inclusion criteria included English language publications with publication dates spanning from 2010 to 2025. Exclusion criteria included any articles that assessed either patients' access or patients' perspectives on being treated by a PA outside of the primary care setting.

A formal literature search was done using PubMed on November 25, 2024 through online consultation with a librarian who has expertise in literature reviews. PubMed is a database from the National Center of Biotechnology Information (NCBI). It is a key resource for medical and health sciences research. An additional filter was applied to select randomized controlled trials, clinical trials, observational studies, meta-analysis, reviews, and systematic reviews overall yielding 377 results.

A formal literature search was completed using Medline on December 17, 2024. Medline is maintained by the U.S National Library of Medicine (NLM) and is a database for biomedical and life sciences journals. This search yielded 210 results. There was a significant amount of overlap with PubMed. The abstracts were reviewed for all search results to determine if the articles met inclusion criteria and were applicable to the research questions. In total 13 articles were initially selected after review of the published abstracts.

Completion of a literature search in both search engines yielded many systematic reviews. To complete a comprehensive literature review, relevant primary studies sourced within these systematic reviews were analyzed and integrated into this review. All of the articles

selected to be used within the literature review and all other sources being referenced were imported into the Zotero desktop reference manager.

## **Results**

In total 13 articles were identified and reviewed. From the 13 articles, six were selected as meeting the inclusion criteria as they specifically examined components relevant to answering the research questions. The articles spanned from 2012-2024. Of the six studies, two were performed in Canada, two were performed in England, and two were performed in the United States of America. The sample size ranged from 12 to 125. There was a variety of methodologies including two surveys, three semi structured interviews, and one mixed qualitative methods study (semi-structured interview and survey combination). Critical analysis and review of the six articles revealed recurring themes amongst the studies as discussed below.

### ***The role of Physician Assistants in primary care***

All six articles focused on the role of PAs specifically in a primary care setting. Most articles identified the specific role(s) of the PA or explored patient perspectives when a PA was implemented in a primary care setting. One study conducted in 2014 by Henry and Hooker utilized mixed qualitative methods of both survey and semi structured interviews in Texas, United States of America with a total of 176 participants. 51 participants were clinicians and 125 participants were patients (11). They specifically looked at community health centers (CHCs) and the role of PAs within them. The researchers indicate that CHCs in the USA have a central role in primary healthcare, meeting the medical needs of those considered to be disadvantaged. For the majority of CHCs examined, the role of the PA was for same-day appointments and it was noted that PAs provided a substantial amount of patient education (11).

Drennan et. al explored the role of PAs in English primary care teams in 2012 (12). The researchers surveyed practicing PAs to further understand their roles. Their findings indicated that PAs spent the most time on same day/urgent and non-urgent appointments. Following this, appointments for reviewing test results were the next most frequent activity followed by appointments for chronic disease management. Other daily activities of the PA included minor procedures (such as cryotherapy), home visits, responding to patient queries, and administrative paperwork (12).

In 2017 Halter et. al utilized semi-structured interviews in England to explore 30 patients' understanding of the role of a PA, and what their experiences were when receiving care from a PA in general practice (13). The conclusion was that patients saw a PA as an appropriate provider in the primary care setting. Burrows et. al conducted a study in 2020 in Ontario, Canada with the goal of identifying the factors that optimize the role of PAs in family medicine practice (14). They utilized semi-structured interviews amongst 15 participants that consisted of PAs, physicians, and a clinic manager. While this study did not specifically detail the roles of the PA in family medicine, it examined factors that may optimize the PA role in general practice. Professional, practice-based and political factors were identified. Professional factors were notably influenced by the relationship between the licensing physician and PA, as well as the level of comfort with autonomy, trust, rapport and PA competencies. Practice-based factors included patient access to care, patient acceptance, support from administration, and knowledge of medical-legal risks. Political factors consisted of billing practices (14). Burrows and Moschella investigated patient experiences with primary care PAs in Ontario, Canada in 2023 (15). They surveyed 66 patients that had received healthcare services from a PA in the primary care setting. Improved access to care was noted as well as a reduction in patient wait times. In

2024 Gillette et. al performed a qualitative study utilizing semi structured interviews to understand the public's perceptions of the different types of healthcare providers (including PAs) that they might encounter in a primary care setting. A total of 12 patients were interviewed. PAs were valued for offering an increase in appointment times and for good communication skills (16).

### ***Impact of Physician Assistants on healthcare access in primary care***

Out of all of the articles reviewed, only Moschella and Burrows (15) article specifically addressed patient access as the primary research question. A positive impact on patient access in primary care was still a consistent finding. Moschella and Burrows (15) found that 79% of survey respondents indicated that the PA at the primary care clinic provided same-day appointments and were easily accessible for their medical needs. Survey results demonstrated that patients appreciated the timely access that PAs provided in the medical clinic. Noting that the wait time to see their physician was significantly longer. Physician Assistant care was preferred over physician care for better access and longer appointments (15). Similarly, Drennan et. al (12) suggest that PAs contribute to meeting patients' needs in the primary care setting, indicating that their focus is on same day and urgent consultations. Alternatively, Burrows et. al (14) interviewed professionals (family medicine PAs, family physicians, and a clinic manager) rather than patients. Utilizing a semi-structured interview, they found that in two out of the six clinical sites PAs have a significant role in providing same day access to medical care, suggesting that PAs improve patient access in primary care. Patient acceptance of a PA in this study was attributed to PAs creating increased accessibility and flexibility within the clinics. This included increased length in appointment times and increased availability of services (14).

### *Patient understanding and awareness of the Physician Assistant role*

Multiple studies in the literature review highlighted the significance of both patients and fellow healthcare providers understanding the role of PAs in primary care. Halter et. al's (13) study revealed mixed results with regards to patient understanding of the PA role. The results varied from patients that were certain about the PA role and patients that were uncertain about the PA role. The authors emphasized the importance of ensuring that patients received education regarding the role and scope of the PA if they were to see the PA for their medical appointment (13). Moschella and Burrows (15) conducted a survey with multiple components. One component specifically looked at patients' understanding of the role of a PA compared to other healthcare providers that might be considered more established in modern medicine (physician, nurse practitioner, etc). 79% of respondents found the PA role to be similar to a role of more established healthcare providers (attending physician, resident physician, nurse practitioner). One participant offered their input stating: "Both [physicians and PAs] fill prescriptions, both do my health checks, both do physical exams" (15). Responses demonstrated that patients understand the collaborative role between the physician and the PA. Recognizing that the PA has the ability to consult the supervising physician if they are unsure about the best treatment possible for their care. This understanding enhanced patient confidence and rapport (15). Gillette et. al (16) found that there was confusion among patients regarding the roles of the different healthcare providers in the primary care teams. The authors conclude that ensuring patients have the appropriate education to understand their providers qualifications positively contributes to patient acceptance (16).

### *Patient perceptions and experiences with Physician Assistants*

Positive patient experiences with PAs was an overarching theme amongst the articles reviewed. Henry and Hooker (11) specifically looked at patient perspectives and experiences of being treated by a PA in a community health center (CHC). The authors surveyed patients and results indicated that patient perspectives yielded high ratings in relation to their experiences with PAs in CHCs. The highest possible score was 5, and 10 questions were asked. The mean rating was 4.8 or 4.9 for each question. Questions included exploring PA attentiveness, understanding of the patient situation, quality of medical explanations provided by breaking down medical jargon, and the satisfaction experienced by the patient during their appointments (11). Open-ended questions resulted in responses indicating that the PA was genuine, efficient and knowledgeable. Patients noted that the PA provided education about treatments and diagnoses leaving patients feeling informed about their health. Some patients indicated their desire to return to a PA for their medical concerns was from a sense of connection they felt. Other patients indicated that they saw the PA as they were assigned to them from the front desk, or if their physician was unavailable. Patients also saw a PA after it was highly recommended to them from family or friends (11).

Gillette et. al (16) conducted a broader study looking at patient perspectives amongst a variety of healthcare providers in the primary care setting. This included Physician Assistants but was not limited to the single profession. 12 participants were interviewed. Three participants indicated that they preferred a PA or Nurse Practitioner (NP) as their primary care provider noting that these providers had increased compassion and patience. Responses also indicated that PAs and NPs had more time to have increased comprehensive involvement in the patients care (16). Notably when PAs and NPs are the patient preference it is attributed to positive previous

experiences with these providers. Positive aspects of encounters included convenience, compassion, patience and increased duration of appointment times (16).

Halter et. al (13) also sought out to understand patients' experiences of being treated by a PA in the primary care setting. The sample group had received a variety of treatments from the practicing PA ranging in acuity. Participants emphasized that PAs have good communication skills, take the time to listen to patient concerns, and invest their time in knowing the patient on a personal level. Overall a high level of trust was demonstrated by many respondents. Yet this was not the response from all participants. Not all participants in the interviews expressed a high level of trust with the practicing PAs due to being unfamiliar with the profession, or from having a previous negative encounter (13). Burrows et.al (14) noted that participants on their interviews felt that patients were highly accepting of receiving care from PAs. Physicians shared the importance of introducing the PA to patients and noted a significant positive impact on integration and acceptance of PAs through this (14).

As mentioned earlier, Moschella and Burrows (15) investigated a variety of components in their study in an attempt to explore patient experiences with primary care PAs. Patient perspectives on having a PA provide their medical care were overwhelmingly positive. 54% of respondents chose to see a PA for their medical appointment. Notably participants indicated that they had a strong therapeutic alliance with the primary care PA. This led to increased comfort and confidence in the PA as their provider. PAs were noted by respondents to break medical jargon down into understandable terms, have increased time to answer questions, provide detailed information, and demonstrate empathy during more difficult discussions. Combining this with patients' perceptions of the PA having well-developed medical knowledge and skills

resulted in patients feeling confident with receiving medical services from a PA in the primary care setting (15).

### ***Quality of care and patient satisfaction***

Examining quality of care and patient satisfaction were either stated in the objectives, or found as a finding commonly amongst the articles reviewed. Henry and Hooker (11) concluded that patients rarely switched providers if they were currently under the care of a PA. The authors reported that patients were highly satisfied with their medical care when being treated by a PA (11). Halter et. al (13) created a patient satisfaction survey to understand patients' experiences of receiving care from a PA. Those that completed the survey were then invited for a semi-structured interview. In this study it was noted that for most patients they described their appointment with the PA to be similar to previous experiences with a family physician. One participant stated "the questions he asked, he did an examination, the examination was all really professional and exactly as I would expect him to do" (13). A small number of participants indicated that they sought out the PA for their appointments, noting the following as their indications for this: shorter wait time, dissatisfaction previously with a family physician, and trust in the PA based on previous contact. Multiple participants indicated that they would be willing to see a PA for future appointments. PAs were preferred by some participants for follow-up appointments as the PA demonstrated the ability to recall important details such as medical and family history. Suggesting that there was a high degree of satisfaction with the medical care received (13).

Moschella and Burrows (15) sought out to specifically explore the element of patient satisfaction when receiving care from a PA. The authors determined that patients felt that the quality of care that they received from a PA was equivalent to the care of a medical doctor. 98%

of participants indicated it was appropriate to see a PA for their health concerns, were satisfied with the PAs skillset and ability to address their concerns and would recommend a PA as a primary care provider to family and friends (15).

## **Discussion**

The PA profession is still relatively new in comparison to other established healthcare provider roles. There has been a limited number of studies exploring PAs ability to improve patient access and the patient perspectives of PAs within primary care settings (11-16). This literature review explored the primary research available to extract the themes discussed above in an attempt to answer the research questions. While an extensive search was completed, the selected studies varied in their focus. Only one of the six articles specifically identified patient access in their primary research question. Four of the six articles specifically identified patient perspectives and experiences of receiving care from a PA in the primary care setting as a primary research question. Only one study specifically looked at both patient access and patient perspectives in the identified objectives. Therefore, a comprehensive analysis of both research questions was not completed for each study included.

Amongst the findings it was demonstrated that PAs play a significant role in primary care. The roles range from urgent/same-day appointments (11, 12, 13) to chronic disease management (12). The significant role in primary care suggests that PAs increase patient access. Amongst the articles reviewed it appears that PAs improve patient access significantly through same day/urgent appointments which has the potential to benefit the healthcare system. By providing these same day and urgent appointments this potentially could reduce the number of

emergency room visits and necessity of after-hours walk-in clinics as previously suggested by Moschella and Burrows (15).

In the articles reviewed, there were inconsistencies found regarding patients' understanding of the PA role (13, 15, 16). Moschella and Burrows (15) identified that patients had a well-developed understanding of the PA role. It was not specifically hypothesized or indicated what contributed to this understanding (15). In other articles there were inconsistencies in the data about patients' understanding of the role of a PA. Halter et. al (13) emphasized the importance of the reception team being educated on the role of a PA. These medical staff employees could then transfer this education to patients when booking them in for appointments. Additionally, there is responsibility within the PA to ensure they define their role prior to initiating the patient encounter. Trust with the PA to provide appropriate medical care was demonstrated to be established through both understanding that PAs are physician extenders, and the collaborative role between PAs and family physicians. Finally, trust was established through positive experiences with the PA, suggesting that trust develops with multiple interactions over time (13).

Gillette et. al (16) found inconsistencies amongst patients' understandings of the role of a PA and NPs. Their future recommendations indicated that the responsibility was within those regulating bodies to create more awareness about role education and ensure public education was provided to reduce confusion (16). Future recommendations to ensure that the PA role is understood could also include a local newsletter outlining new practicing PAs within rural communities as discussed by Burrows et. al (14). The authors also suggest having digital display screens in the waiting room advertising the different team members and what their roles entail (14). These findings suggest that increasing public awareness of the PA profession could lead to

greater patient acceptance. In the future, health policy initiatives should focus on educational campaigns to outline the scope of practice for a PA and promote team-based care models.

Overall, acceptance of the PA profession and positive patient experiences are essential for PA implementation in primary care.

Due to the limited amount of primary research available in this topic, not all articles selected were specific to studying only the role of a PA in primary care. However, the articles selected did note important strengths of PAs that benefit the primary care setting. In the past year, multiple new Physician Assistant programs have been announced across Canada. This will result in an exponential rise of practicing PAs in the near future in Canada. It is important to note that the purpose of this literature review was not an attempt to demonstrate that the PA profession is superior to other healthcare professions (nurse practitioner, physician). Rather to demonstrate that with an increasing demand for providers in the primary care setting, Physician Assistants are a suitable recommendation with the evidence to date that was found in this review. The overarching themes and findings in this literature review support the idea that expanding the PA role in primary care could be a solution to physician shortages across Canada.

## **Limitations**

This review aimed to identify if PAs improve patient access to primary care and what the patient perspectives are on being treated by a PA in a primary care setting. The literature review focused on answering these questions to determine if existing available evidence supports the implementation of PAs in primary care as a potential solution to the crisis. A major limitation in this literature review is the minimal amount of primary research that specifically explores the role of PAs in primary care. While common themes could be identified across the articles it is

necessary to identify the small sample sizes within each article as a limitation. The sample sizes ranged from 12 to 176 participants. These small sample sizes may restrict the generalizability of the findings to broader populations. With small sample studies there is a potential for bias as it may not represent the full diversity of a population. Future research with larger cohorts could strengthen these findings by demonstrating reproducibility and a larger impact on patient outcomes. As the PA profession continues to expand across Canada future studies could include multiple primary care sites where PAs are employed.

In the literature review, two studies reviewed were conducted in England. Notably the scope of the PA in primary care differs in England as PAs do not have prescribing authority (13). Halter et. al (13) describes the process as that the PA leaves the treatment room to obtain a signature from the physician for the prescription. Patients then wait for the signed prescription in the room, receive the prescription from reception, or have it directly faxed to their pharmacy. Most participants did not indicate a significant delay, however some reported waiting from a range of five to 30 minutes. Not all participants considered this reasonable and even indicated that it was unacceptable (13). This data therefore contributed to inconclusive findings overall in regard to patient satisfaction with PA care. Articles from England were included due to the limited availability of studies internationally. In North America PAs have prescribing authority suggesting that the profession has more autonomy. While this is a potential significant barrier identified in the literature review it is not applicable to PAs practicing within Canada. The data could have been more conclusive in this area if there were additional articles in North America available to support the research question.

As discussed, primary research in this area is quite limited. One of the research questions outlined for this literature review asked if PAs improve patient access to primary care,

specifically looking at wait times. Notably, there is no current research where wait times are specifically studied or quantified. As discussed in the results section, a common finding was that PAs generally improve patient access to health services in the primary care setting. While no studies specifically indicated reduction in patient wait times, several articles suggested that PAs improve access by increasing availability for same day/urgent consultations, indirectly suggesting an impact on wait times. Therefore, further studies directly and quantitatively looking at primary care access and appointment wait times would be beneficial.

## **Conclusion**

The Physician Assistant profession is exponentially increasing across Canada. Primary care settings continue to experience a shortage in medical doctors to meet the demands of the current population. The limited current research in primary care demonstrates that patients have positive perspectives about being treated by a PA and that PAs improve patient access. With a suggestion of teams-based care to improve patient access to primary care, PAs can be part of this solution. Notably, there is limited research within Canada and majority of the research has occurred within the United States of America and England. The PA profession is continuing to expand across Canada and requires further Canadian research to continue to support and advance this growth.

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## Appendix

Table 1: Summary of included studies

	Article #1	Article #2	Article #3	Article #4
Methodology: Sample Size:	Survey 66 respondents → patients	Semi-structured interview 15 participants → family medicine PAs, family physicians, and a clinic manager.	Mixed Methods (semi-structured interviews and survey) → 51 clinician participants 125 patient participants	Semi-structured interviews 12 participants → patients
Author name(s): Location of study: Year of study:	Moschella and Burrows Canada 2023	Burrows et. al Canada 2020	Henry & Hooker USA 2010	Gillette et. al USA 2024
Research Questions:	Explore patient perspectives on primary care PAs in Ontario	What are the factors that influence role success and barriers that prevent PA role optimization	What is the role of PAs in community health centers, why they work in CHCs and pt perspectives of PAs	What are the public's perceptions about the different types of health care providers that they might encounter in primary care
Conclusions:	Improved access to care, patients seen in time frame they felt appropriate. Overall positive patient experiences with PA in primary care. Reduction in poor patient outcomes, missed diagnoses and misuse of ER.	Patient satisfaction and trust are key for integration of PAs in primary care.	Patients felt that the PA was effective, efficient, and knowledgeable. PAs were perceived as genuine, patients reported a high level of satisfaction with the medical care received.	PA/NP/GP seen as primary care team interdependence which increases access. Some patients prefer PA for increased visit length, communication skills. Others prefer MD for length of training. Some hesitancy if unfamiliar with the PA role

Table 2: Summary of included studies continued

	Article #5	Article #6
Methodology: Sample Size:	Survey 16 participants → practicing PAs	Semi-Structured Interviews 30 participants → patients
Author info: Location of study: Year of study:	Drennan et. al England 2012	Halter et. al England 2017
Research Questions:	What extent of PAs are employed in primary care, and what are their contributions within the team to patient care?	How patients understand the role of PAs and their experience of receiving health care from a PA
Findings:	A large portion of the PAs workload consisted of providing same-day/urgent consultation appointments in the primary care setting improving patient access.	Patients saw PAs as an appropriate health care provider in the primary care setting. It is important that patients have a clear understanding of the PA role to foster trust and confidence.

## References

1. Flood CM, Thomas B, McGibbon E. Canada's primary care crisis: federal government response. *Health Manage Forum*. 2023;36(5):327.
2. Canadian Medical Association. *Why Canada's health system needs (a lot more) team-based care [Internet]*. Canada; 2025 [cited 2024 Nov 10]. Available from: <https://www.cma.ca/our-focus/workforce-planning/why-canadas-health-system-needs-lot-more-team-based-care>
3. Ansell D, Crispo JAG, Simard B, Bjerre LM. Interventions to reduce wait times for primary care appointments: a systematic review. *BMC Health Serv Res*. 2017;17(1):295. doi:10.1186/s12913-017-2219-y
4. Elvers A. *Patients propose real world solutions to Manitoba's worsening primary care crisis: report [Internet]*. Manitoba: University of Manitoba; 2023 [cited 2024 Nov 8]. Available from: <https://news.umanitoba.ca/ourcare-report>
5. Hooker RS, Everett CM. The contributions of physician assistants in primary care systems. *Health Soc Care*. 2012;20(1):20–31.
6. Canadian Association of Physician Assistants. *History [Internet]*. Canadian Association of Physician Assistants; [cited 2025 Mar 13]. Available from: <https://capa-acam.ca/pa-profession/history>
7. Bowen S, Botting I, Huebner LA, Wright B, Beaupre B, Permack S, et al. Potential of physician assistants to support primary care. *Can Fam Physician*. 2016;62(5):268–77.

8. Canadian Association of Physician Assistants. *PA Facts [Internet]*. Canadian Association of Physician Assistants; [cited 2025 Mar 13]. Available from: <https://capa-acam.ca/pa-profession/pa-facts>
9. Thampinathan S. The role, contribution and utilization of physician assistants in Primary Care. *The Journal of Canada's Physician Assistants*. 2020;1(4):9–16.
10. Moscovice IS. Staffing Primary Care in 1990. *Health Serv Res*. 1983;18(3):396–8.
11. Henry LR, Hooker RS. Caring for the disadvantaged: the role of physician assistants. *JAAPA*. 2014;27(1):36-42.
12. Drennan VM, Chattopadhyay K, Halter M, Brearley S, de Lusignan S, Gabe J, et al. Physician assistants in English primary care teams: a survey. *J Interprof Care*. 2012;26(5):416–418.
13. Halter M, Drennan VM, Joly LM, Gabe J, Gage H, de Lusignan S. Patients' experiences of consultations with physician associates in primary care in England: a qualitative study. *Health Expect*. 2017;20(5):1011–1019.
14. Burrows K, Abelson J, Miller P, Levine M, Vanstone M. Professional, practical and political opportunities: optimizing the role of ontario physician assistants in family medicine : optimizing the role of ontario PAs in family medicine. *The Journal of Canada's Physician Assistants*. 2020;1(4):17–33.
15. Moschella A, Burrows K. Patient experience with primary Care physician assistants in ontario, canada: impact of trust, knowledge, and access to care. *J Patient Exp*. 2023;10:23743735231211782.

16. Gillette C, Ostermann J, Garvick S, Everett CM, Valente J, Aguilar AA, et al. A qualitative study about the public's perception of primary care providers. *JAAPA*. 2024;37(12):33-37.