

Barriers and facilitators to chiropractic pediatric practice

Dr Tylah Strauss, M.Tech Chiropractic, MHSc: Homoeopathy, MSc MSK Pediatric Health
Jeju-do, South Korea

Dr Aurélie M Marchand, MChiro, MScAPP, MMed
Senior Lecturer, Health Sciences University
Bournemouth, England, United Kingdom

Tylah Strauss, Corresponding Author
strausstylah17@gmail.com

33 Globaledureo, 145 beongil, Daejeongueup, seogwiposi, 63644, Jeju-do, South Korea

ABSTRACT

Objective: To investigate the perceptions and experiences of South African chiropractors, with a special interest in the pediatric population, and to explore any barriers and/or facilitators experienced in their practices when caring for pediatric patients. **Methods:** Semi-structured interviews with purposive sampling were used to identify South African chiropractors with a declared interest in pediatrics. Eight participants were included in the study and data saturation was reached. The online private interviews utilized a semi-structured approach: collecting demographics, practice-based questions, followed by a 'grand tour' question and probing questions. The interviews were transcribed verbatim and then analysed according to the six phases of reflexive thematic analysis, whereby recurring themes were extracted from the data for interpretation. **Results:** This study identified new findings about the South African pediatric chiropractic profession. Four major themes were identified: chiropractors, parents and/or caregivers, healthcare professionals, and advertising and public awareness. The findings showed that most factors were considered as both facilitators and barriers and that, depending on how a practitioner utilized them, they could be dynamic and moldable. Findings suggest that increasing knowledge and awareness of pediatric chiropractic to other healthcare professionals and the public, establishing and building interprofessional relationships, and integrating into public healthcare would be useful. **Conclusion:** The findings show that barriers experienced may be manipulated into facilitators and that facilitators can be enhanced. These findings could assist practitioners, professional bodies, and institutions in addressing perceived barriers and developing pediatric practices.

Introduction

Chiropractic is sought out by parents for managing a variety of pediatric musculoskeletal and non-musculoskeletal conditions worldwide.¹⁻³ In this area of practice, current patterns identify a female predominance holding additional pediatric qualifications.^{1,4,5} Referral patterns show variation including healthcare professionals (HCPs), family and/or word of mouth.^{1,6} Adverse effects are rare and normally mild and temporary; however, further research is warranted.⁷⁻⁹ Best practice recommendations¹⁰ noted barriers and facilitators to chiropractic pediatric practice: patient communication, establishing trust with parents/caregivers, having cultural/religious/gender sensitivity, and developing interprofessional relationships. In adult chiropractic populations, finances, outcome expectations, lack of awareness, accessibility and knowledge were additional factors.¹¹ Other pediatric healthcare professions identified parental educational status, cultural and parental participation in physiotherapy¹², parental participation, trust, interprofessional collaboration, technology, policy,

and education in nursing^{13,14}, and financial or lack of knowledge in multi-disciplinary practice.¹⁵

There is sparse literature exploring the South African context, with grey literature reporting a high volume of pediatric patients,^{16,17} and chiropractors not holding an additional pediatric qualification due to lack of available and/or affordable opportunities.¹⁶⁻¹⁸ But otherwise similar practice patterns to global chiropractic pediatric practice. African countries are typically low- to middle-income earning with their own cultural and context-specific issues having a unique impact on healthcare.¹⁹ Pediatric chiropractic is currently developing in South Africa (SA) with practitioner lack of confidence and knowledge, collegial support, undergraduate education, parental satisfaction, patient-doctor communication,¹⁸ knowledge and awareness from other HCPs, and interprofessional relationships¹⁷ identified as barriers in the grey literature.

The National Health Insurance (NHI) will be progressively

implemented over 2024-2028 in SA. The NHI aims to become a single source of healthcare funds from which the government can purchase services from HCPs in both the public and private sectors.²⁰ However, chiropractic's stake in the NHI has yet to be confirmed, further highlighting the need for higher-quality evidence in pediatric chiropractic.

This study aimed to address a gap by investigating facilitators and barriers in a South African context, answering the research question: What are the barriers and facilitators encountered by South African pediatric chiropractors when caring for this population?

Methods

Design

An explorative, qualitative design,²¹ grounded theory model,²² and constructivist paradigm²³ were chosen for this study. The standards for reporting qualitative research (SRQR) were utilized in the development and reporting of this study.²⁴

Researcher characteristics

The researcher is a chiropractor with previous interview-based qualitative research experience. All South African chiropractors with a pediatric special interest were invited to participate; it was attempted to include an equal number of participants from both South African universities where a Chiropractic Masters is offered to limit introduction bias. Assumptions prior to data collection, were that barriers and facilitators would be separate factors.

Context

Healthcare is regulated by the National Department of Health (NDoH), which consists of six health professional councils, with the Allied Health Professions Council of South Africa (AHPSCSA) regulating chiropractors.²⁵ Chiropractic is delivered privately or via student learning clinics and is not considered an integral part of pediatric healthcare. Upon their application to the AHPSCSA, chiropractors may elect to provide free services to the community in safe houses, a child service agency where abandoned or surrendered children are given to the state for care.²⁶

In June 2024, there were 953 chiropractors registered with the AHPSCSA.²⁷ The voluntary pediatric chiropractic association (Pediatric Chiropractic South Africa (PCSA))²⁸ held 167 PCSA members or 17.5% of the whole chiropractor population.

Sampling

Purposive sampling was used to identify participants based on their declared interest in pediatrics.²⁹ All members of PCSA were invited to participate, as well as chiropractors with a declared special interest in pediatrics.

Ethical considerations

Ethics approval was granted from the AECC University College Ethics Panel (AECC Ethics Approval Number: SOC - 0823 - 04). Participants gave informed consent to their data being processed, confidentiality was maintained and data was stored securely.

Data collection and analysis

A focus group (n=3) and pilot study (n=1) were conducted to ensure the validity and reliability of the interview guide (see Appendix A). Recruitment of potential participants was open between December 2023 and March 2024. A total of 174 potential participants were contacted, and follow-up reminders were sent. Sixteen expressed an interest in participating: One did not meet the inclusion criteria; six agreed to participate. After reminders, a further nine chiropractors responded, with two being included, two cancelling due to emergencies, and five no longer being available. In total, eight participants were interviewed. Data saturation was reached at the sixth interview, confirming data saturation.^{30,31}

Semi-structured online interviews were recorded and transcribed as private meetings on Microsoft Teams (Microsoft Corp, Redmond, WA, USA); interviews were anonymised during transcription. To increase the credibility of data, reflective notes were made during the interviews and research process³², data saturation was achieved³³, the six-phase process of reflexive thematic analysis was followed³⁴, and the interpretation was reviewed with another researcher to ensure accurate and reasonable interpretation.

Results

The mean age of participants was 34, ranging from 25 to 45. Six were female. They collectively held 66 years of experience (mean: 8.25, range: 1-20). They furthered their knowledge and/or skills by reading literature (n=7), attending seminars (n=5), enrolling in courses (n=5), searching journal databases (n=2), membership to PCSA (n=2), colleague interaction (n=1), and mentorships (n=1).

The anticipated themes of barriers and facilitators identified in the literature, did not emerge from the data, instead the reports of the participants showed blurred distinctions: "...I suppose a barrier and a facilitator [are] really just opposite sides of the same coin...". The results are therefore presented per themes instead of barriers and facilitators. A total of four themes on *chiropractors*, *parents/caregivers*, *other HCPs*, and *advertising* and *public awareness* emerged, with thirteen interrelated subthemes. Figure 1.1 shows the relationships between the themes and subthemes.

A. Chiropractor factors

A1. Consultation time

This was mostly identified as a barrier: appointment durations were longer, thus limiting the number of patients a practitioner saw each day. In addition, the unavailability of longer time slots for urgent and/or follow-up appointments acted as a deterrent for parents/caregivers. Practice opening hours were a barrier: "...I don't want to work 8 till 5, Monday to Friday...so that definitely is a barrier...[it] reduces my practice hours."

A2. Years of experience

Seven participants reported a postgraduate lack of confidence; "...I did not feel confident coming from university into practice and just treating peds..." Increased time in practice was a facilitator, directly resulting in more confidence and competence. Upskilling oneself was achieved by staying abreast of the literature and attending seminars/courses from both chiropractic and other pediatric fields: "...constant learning with webinars and courses... that's how I grow myself." Another barrier was skepticism from parents: "...the parents are a bit skeptical...that's something that's tough to deal with...And I think [it] can knock my confidence..." During the probing questions of the interviews, three participants reported utilizing mentorship; this was a symbiotic relationship with more experienced practitioners benefiting from practice growth and increased public awareness of pediatric chiropractic and the less experienced associate gaining experience under their guidance.

A3. Environment: the practice and the practitioner

The relatively cheap initial practice set-up costs were a facilitator; "I work with my hands...I don't have to have crazy equipment to be able to work." Three participants noted the practice environment needing to be pediatric-friendly and aesthetically pleasing, requiring additional expenses. Another key component of finances was location: "...in South Africa, there is such a gap between people who have the funds for accessing chiropractic care and then those who are on basic government healthcare..." When considering their own environment, having an innate passion for pediatric chiropractic showed the significance of the practitioners' mindset; "...if you really passionately love the thing that you're doing, I think that as an internal drive [it] is a major facilitator..."

A4. Specialization

Five participants felt that chiropractic sub-specialities should be considered; "I don't think everyone should be doing peds..." Additionally, participants noted negative experiences which had "...given a really bad taste in the mouth..." when parents/caregivers and HCPs had interactions with a chiropractor without additional pediatric education.

B. Parent/caregiver factors

B1. Knowledge

Parent/caregiver knowledge was essential throughout the consultation and through many media (in-person, social media, blogs, etc.). Several factors were reported as barriers: inability to communicate, volume of information delivered at a time, conflicting advice from different HCPs, and setting realistic treatment expectations. This sub-theme is also linked to B4, Trust/Fear, since a lack of knowledge could also cause fear.

B2. Financial

Finances were noted as a "big barrier...interesting to deal with and a luxury in South Africa." "Medical aid is another barrier...[patients will] use up these savings, [and then they won't return because] they don't have the medical aid [funds] or that's the way that they perceive it..." Finances also had an impact on care decisions: "...a lot of the time we undertreat because we're worried about what they can afford."

B3. Cultural

In some cultures, there is a lack of awareness of pediatric chiropractic and caregivers would not include it as standard pediatric healthcare: "...because it hasn't been part of their recent cultural upbringing, it's deemed to be different." However, if a practitioner displays cultural sensitivity, it can instill trust in caregivers, and even assist in building clientele: "...if you can show cultural sensitivity... [from those who weren't] expecting it, that will build your practice..." This highlighted the importance of cultural awareness: "...how different cultures interpret things like crying, diet changes, sleep, milestones...you're not seeing a child separate to their culture. You're seeing them within their culture, and you have to work around them."

B4. Trust/Fear

Seven chiropractors reported skepticism around safety: "Parents thinking that chiropractic is unsafe. Or [that] we're gonna hurt their baby..." This was typically addressed with education on pediatric chiropractic care, and general skill of handling parents/caregiver: "...it's not just handling the babies; [it's] handling the parents as well." Three chiropractors reported becoming a parent as a facilitator for trust building: "...I felt like I grew so much as a pediatric chiro when I had my own baby. I felt like it was a whole new world that I was now a part of..." However, being a parent was also recognised as a form of bias and a potential barrier: "...when you've had a baby...your experience is going to determine how you think, how you should speak to someone, what kind of information you should give...I think sometimes that can cloud things. So, it's a barrier, but I also think that it's a facilitator because I'm that neutral person..."

C. HCP factors

C1. Openness

All participants interacted with HCPs; however, some were interested in collaborating, and some were opposed. Participants directed their efforts towards those HCPs who were more open-minded and holistic practitioners (e.g.: doulas, midwives, lactation consultants). Younger and more open-minded HCPs were interested and allowed for the development of a relationship: "[There were] new pediatricians, so they're young [and] more open minded. I could set up a meeting with them...and then I set up that relationship." Some chiropractors unsuccessfully attempted to establish relationships with pediatricians and gynecologists; "...a lot of them didn't even want to come out of their offices to meet me." To remedy this, written referral letters and patient word of mouth were used to demonstrate knowledge and skill: "...when you have a chance to refer, write a good referral letter. Show the ped that you are knowledgeable [and] highly skilled...that builds trust and strengthens the relationship and the peds trust in us as a profession." "...tell your pediatrician that you've been here [and] what a good experience this was." However, this was not always met with success. Facilitating effective relationships with other HCPs remains an area of development for the profession.

C2. Knowledge

Participants reported a lack of awareness from other HCPs as a barrier: "...[they] don't get educated when they study medicine...on chiropractic and what we do...and what our role is in the whole of healthcare..." However, knowledge may also be a facilitator: "...those people who have been educated or have some experience of the benefit of chiropractic...they can be very strong advocates. So, it goes both ways."

C3. Interprofessional relationships

Upon opening a practice, establishing interprofessional relationships for future referral and co-management was reported: "...[I needed to] build a name for myself, introduce myself to the key players in the pediatric field...Anyone who's involved in the first few months of a baby's life, that's who I've needed to make connections with." Chiropractors assisted in aligning patient management, as differing advice from different HCPs could confuse parents/caregivers: "...patients hearing different things from different people...can be quite a challenge...differing opinions between practitioners." Referral from a trusted HCP assisted in dispelling skepticism about pediatric chiropractic from the parent/caregiver: "...a referral from those kinds of practitioners really makes parents believe in what you do because if it's coming from the doctor, it must be true..." Establishing professional relationships assisted in both interprofessional and public referrals: "...professional referral is the thing that really drives everything...I feel that the professional builds the public." Collaboration was helpful to busy pediatricians: "...pediatricians don't have time to talk about what's normal [and] what's not, what are the conservative ways to manage reflux? They don't have time for that..."

D. Advertising and public awareness

D1. Regulations and restrictions

Participants mentioned integrating pediatric chiropractic further into public HC: "...getting ourselves in the hospital setting or with the pediatricians and gynecologists...we should be a part of the primary healthcare..." Another participant proposed offering support to children who are cared for by the system as part of a chiropractic students' undergraduate training; "...when you're doing your clinic hours you can choose to go and do it at a safe house..."

D2. Marketing

Public awareness was low, in terms of pediatric chiropractic knowledge, and marketing regulations were considered a facilitating factor: "...I do think we're at the stage of life where people have access to so much information at their fingertips...", and with this ease of access to information chiropractors can "...educate people and the community on what chiropractors do and where we fit in the health profession."

Discussion

The barriers and facilitators identified in SA chiropractic pediatric practice were *chiropractors, parents or caregivers, HCPs, and advertising and public awareness*. Participants reported barriers, which could be adapted and turned into facilitators. Some were consistent throughout a practitioner's career, such as regulations and restrictions, while others changed over time, such as advancing years of experience resulting in increased confidence.

On the theme of the *chiropractor*, the female predominance observed is aligned with previous local¹⁶⁻¹⁸ and overseas^{1,2} findings. Factors such as historical gender dominance or preference for child-carer therapeutic alliance³⁴ could be at play.

The subtheme of *education and practice information* was similar to the methods of furthering knowledge and/or skills, through journal reading and attending conferences and seminars,³⁵ previously identified locally. The lack of availability and high costs of attending conferences and seminars were also reported.¹⁶⁻¹⁸ This lack of availability in pediatric training could also be due to the relatively new establishment of post-graduate chiropractic speciality programs.⁸ Approximately a quarter of overseas pediatric chiropractors report additional formal training^{1,36} and half of the participants in this study held additional pediatric training. Participants commended the advancements in post-graduate education yet felt that education could be improved in their undergraduate training.

Another sub-theme was the *increased consultation time* (for in-depth examination and patient education) needed, similarly to a local study.¹⁸ Additionally, participants emphasized the importance of having a healthy work-life balance to protect from burnout by reducing working hours.³⁷

The subtheme of *confidence* showed a bell-shaped curve in the development of confidence: recent graduates spend time on upskilling themselves whilst building a client base. They had time to see patients, yet due to a lack of confidence or experience or clientele, they did not. With increasing years of practice, the amount of time spent seeing patients rose. A plateau was reached mid-career when decisions relating to work-life balance were made. Thereafter, a progressive decline in clinical time was observed with advancing age. Towards the end of their careers, practitioners felt most equipped in terms of clinical experience to see patients but were less likely to see them due to decreased clinical time. It is proposed that mentorship at this stage could be most beneficial to recent graduates wanting to pursue pediatrics and to the overall profession.

The subtheme *lack of confidence* was reported as the biggest barrier for recent graduates. They did not rate themselves

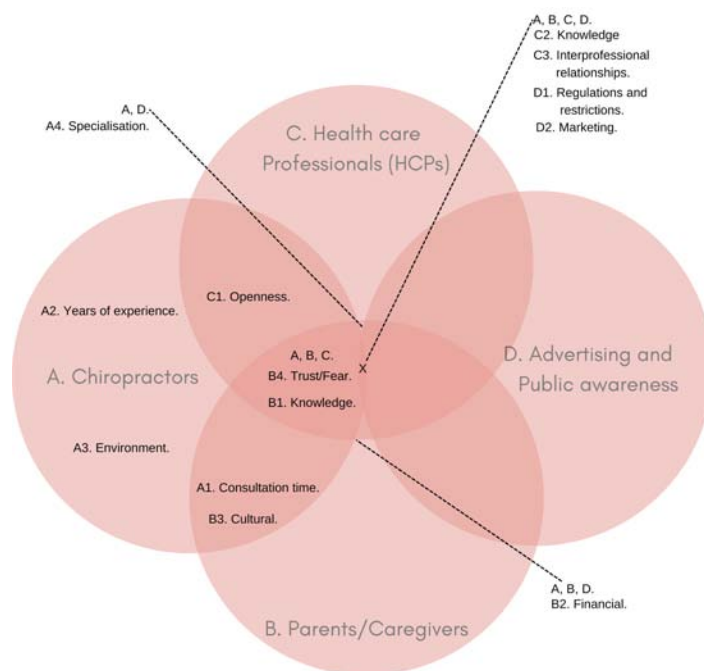


Figure 1.1 Barriers and facilitators to chiropractic pediatric practice

as highly competent at managing this population,¹⁷ and would avoid treating this population due to lack of confidence;¹⁶ which may result from a lack of knowledge and formal specialization in this area.¹⁷ This was mitigated by corresponding with experienced pediatric colleagues. Another novel finding influencing confidence was skepticism and critique from parents. Some participants perceived this as ongoing critique of themselves and by extension, the chiropractic profession. They emphasized the need for mental toughness and thorough individualized education for the parents/caregivers to dispel concerns.

For the sub-theme *environment*, the expense of chiropractic care is not currently covered by the South African healthcare system. This financial barrier could limit chiropractic access to patients or prevent it all together. A SA chiropractor may need to consider the general affluence in an area when setting up. This aligns with Australian chiropractors working in rural and remote areas. With an extended scope of practice, such practitioners become valued assets to an otherwise understaffed healthcare system due to the broader range of services they can provide. When practising in remote and rural areas with limited healthcare, chiropractors may have to “extend” themselves to pediatrics to meet the needs of their population.³⁸

Another subtheme identified was pediatric chiropractic as a *sub-speciality*. If applied, this could become a barrier and a facilitator in the future: generalist chiropractors would be barred from caring for this population without additional education, hence becoming a barrier. A facilitator of specialization would be that of formalized education being made accessible to the profession, which would produce

more confident and competent pediatric chiropractors. Education standards expect all qualified chiropractors to complete a simple pediatric assessment^{10,39} and refer out where applicable.^{1,39} Despite this, most participants felt disappointed in their undergraduate training. However, those with undergraduate pediatric exposure reported it as a facilitator to pediatric practice with increased confidence, competency, and igniting their passion for this population. This perceived educational need could be explored further by educational providers in SA. Currently, varied postgraduate pediatric chiropractic qualifications are offered in the United States;^{40,41} United Kingdom;^{42,43} South Africa,⁴⁴ and Australia.⁴⁵ Developing this in SA could lead to improved health outcomes for pediatrics and increased recognition for additional training.

For the theme *parents and caregivers*, chiropractors reported becoming increasingly responsible for their education about the condition when parents were less educated. This finding is similar to those in India, where unrealistic treatment expectations from less educated parents complicated interactions and served as barriers to effective management.¹² South African chiropractors, however, reported spending more time educating all parents of pediatric patients compared to adult patients, not only those with lower educational backgrounds. Furthermore, low-income families had a low adherence to treatment,¹² most likely due to the associated costs of repeated chiropractic visits.¹⁸ Indeed, less affluent caregivers only utilized chiropractic when affordable and prioritised pediatricians instead, whereas higher incomes were facilitators to accessing pediatric chiropractic care.

In the cultural subtheme for parents/caregivers, HCPs needing to adapt and individualize management plans that ensure cultural acceptability.⁴⁶ For instance, in this study, a participant explained the importance of being culturally sensitive to the practice of baby-wearing on the mother's back, yet still providing medical advice around the concerns of hip dysplasia prevention. Therefore, not considering the parents' cultural beliefs can lead to decreased treatment compliance,¹² and act as a cultural barrier. Participants reported having adaptable and individualized management plans to ensure cultural acceptability, as previously reported.⁴⁶ Furthermore, in some South African cultures, a lack of awareness about pediatric chiropractic care may also lead caregivers to overlook it in healthcare in favor of culturally acceptable treatment methods. Indeed, a lack of awareness around pediatric chiropractic was reported by chiropractors with most parents/caregivers not including it as part of their child's HC. This is similar to other countries with limited use of chiropractic pediatrics.

Parent/caregiver education was utilized to address mistrust and concerns surrounding chiropractic care. *Trust* between

practitioners and family members, as well as active family participation, positively influences a child's healthcare.¹⁴ Participants reported that once trust was gained, it assisted in dispelling skepticism, encouraged word-of-mouth referrals and led to successful patient management.

Under the theme of *HCPs*, a lack of openness to engaging and co-managing with chiropractors was reported from most HCPs and pediatricians. The exception was the midwifery profession,⁴⁷ and those who had a personal experience with chiropractic, who were more willing to engage and develop professional relationships.

The limited *knowledge and awareness* of pediatric chiropractic by other HCPs, may be affected by the currently limited evidence supporting it, which was a subtheme barrier to interprofessional relationships. The safety concern of pediatric chiropractic was also most prominently reported in the interviews and compounded by the lack of evidence. Indeed, the current evidence in Australia⁴⁸ and other systematic reviews,^{7,8} indicated no or inconclusive evidence over the efficacy of manual therapy in the pediatric population. Additionally, these reviews were critiqued on methodological flaws and the validity of their conclusions.⁴⁹ The scientific climate calls for more robust scientific evidence,⁴⁸ with funding and research required to produce higher-level studies both locally and globally.

Under the subtheme of *interprofessional referral and co-management*, current overseas referral patterns primarily show referrals from family and/or "word of mouth",^{1,50,51} with some reporting rare interprofessional communication, or informing pediatric HCPs,^{35,50} and a general trend of referrals to other HCPs rather than from.^{8,52} In this study, most pediatric patients came from word of mouth, with pediatric HCPs having little or no knowledge of pediatric chiropractic. In Switzerland, where chiropractic is a government-recognized healthcare profession, chiropractors report receiving significant referrals from other HCPs,⁵³ showing how government policy may impact interprofessional relationships. When HCPs are knowledgeable of each other's scope, co-management is more effective.^{10,17,47,54,55} Interprofessional practices involving chiropractors are at the early stages⁵⁴ with many barriers including professional mistrust, lack of interprofessional education, professional license and regulation, funding, policies and support being strongly in place. Improving awareness and understanding of chiropractic pediatrics among other HCPs was recognized as essential by participants.

In the last theme of *public awareness and regulation*, chiropractors felt that the public had limited access to the profession due to current healthcare policies not including chiropractic. Indeed, legislation plays a role as a financial and scope of practice barrier,⁶ and promoting pediatric

chiropractic at a public level can increase the exposure of students and chiropractors to this population in South Africa.¹⁸ When considering private healthcare routes, barriers were encountered through medical aid schemes, public and private funds being often depleted quickly.

Under the subtheme of *marketing*, social media can be a barrier to marketing due to public confusion.³⁸ However, in a South African context, the proper utilization of this tool could be beneficial by increasing awareness of pediatric chiropractic, educating the public and increasing the number of potential patients. Marketing guidelines for the profession have been identified as a barrier to awareness of pediatric chiropractic.¹² In this study, participants confirmed this barrier and highlighted the usefulness of social media. Strategies to further the public awareness that do not infringe on current guidelines should be investigated.

Limitations

The results may not be representative of the entire South African chiropractic profession, should be interpreted with caution and not generalized to the entire population. The sampling method was open to self-sampling and non-response biases. Despite the methodology employed, difficulties in interpreting questions or forgetting a noteworthy incident, might have impacted the data collected. The interviewer had some prior experience in qualitative interviews, which may be considered a

limitation. Due to the pediatric chiropractic profession in South Africa being small, two participants were known to the interviewer.

Future recommendations from this study include further pediatric chiropractic undergraduate and postgraduate education being available and accessible to ensure practitioners are capable and confident in pediatric management. Mentorship opportunities in private pediatric chiropractic practice, and further research in the specific South African context would also be beneficial.

Conclusion

The South African pediatric chiropractic profession has commonalities and differences with chiropractic pediatric worldwide. Specific South African barriers and facilitators included the clinical environment in terms of the chiropractors, other HCPs, the financial and cultural factors concerning the caregivers, and the advertising and public awareness of the profession. The participants experienced many barriers, however barriers could be adapted and turned into facilitators. Some barriers/facilitators were consistent throughout a practitioners' career (e.g.: regulations and restrictions); some changed with time (e.g.: advancing years of experience resulting in increased confidence). These findings may be useful to support the future development practitioners, the professional bodies that represent them, and the institutions that educate them.

Appendix A: Interviewer guide

Education and Practice Information:

What is your age in years?

What is the gender group to which you feel most comfortable assigning yourself to?

In what year did you graduate?

How many years have you been in private practice?

How do you further your knowledge/skills in the field of pediatrics?

'Grand tour' question: "Please tell me about your journey on the setting up, growth and general running of a pediatric chiropractic practice in South Africa."

Probing questions:

Setting up

How did you come to develop your special interest in pediatrics?

How did your education prepare you for practice?

Did you have any pre-conceived barriers and/or facilitators prior to the set-up of your pediatric practice?

What would you say was the most significant barrier, in terms of setting up your pediatric practice?

How did you overcome your experienced barriers?

What would you say was the most significant facilitator, in terms of setting up your pediatric practice?

How did this benefit you in terms of setting up your pediatric practice?

Developing and Future

What are your current barriers/facilitators, in terms of the growth and/or stability of your pediatric practice today?

What would you say is the most significant barrier?

How do you intend to overcome it?

What would you say is the most significant facilitator?

How do you intend to use this to your benefit?

Do you foresee any other future barriers/facilitators?

Other factors (these probing questions are only to be explored if the participant hasn't mentioned them above or has but not in sufficient detail, according to the interviewer).

Patient and parent factors

Have you encountered any patient factors (e.g.: communication, feeding, response to treatment etc.) that have proven to be either a barrier or facilitator, in terms of your pediatric practice?

Have you encountered any parental factors (financial, cultural, geographical, economical, etc.) that have proven to be either a barrier or facilitator, in terms of your pediatric practice?

Accessibility factors

Do you find that your typical patient has knowledge of and can easily access your pediatric services?

Do you find that the general population has knowledge of and can easily access your pediatric services?

Are there any factors, in terms of knowledge and accessibility, that you think would greatly aid the establishment of a pediatric chiropractic practice?

Other health care professional factors

Do you utilise inter-professional referral in your pediatric practice? How did you establish these connections?

Do you encounter any barriers or facilitators by way of other health care professionals?

How do you overcome/utilise these factors?

References:

1. Doucet C, Dubuc É, Imbeau C, Pohlman KA, Blanchette M. Chiropractic pediatric patient management and interdisciplinary collaboration: a descriptive cross-sectional study of chiropractors in Quebec. *Chiropr Man Therap.* 2022;30(1):54. [doi:10.1186/s12998-022-00464-y](https://doi.org/10.1186/s12998-022-00464-y).
2. Alcantara J, Lamont AE, Ohm J, Alcantara J. The quality of life of children under chiropractic care using PROMIS-25: Results from a practice-based research network. *J Altern Complement Med.* 2018;24(4):378-384. [doi:10.1089/acm.2017.0141](https://doi.org/10.1089/acm.2017.0141).
3. Todd AJ, Carroll MT, Robinson A, Mitchell EKL. Adverse events due to chiropractic and other manual therapies for infants and children: A review of the literature. *J Manipulative Physiol Ther.* 2015;38(9):699-712. [doi:10.1016/j.jmpt.2014.09.008](https://doi.org/10.1016/j.jmpt.2014.09.008).
4. Alcantara J, Ohm J, Kunz D. The chiropractic care of children. *J Altern Complement Med.* 2010;16(6):621-626. [doi:10.1089/acm.2009.0369](https://doi.org/10.1089/acm.2009.0369).
5. Pohlman KA, Hondras MA, Long CR, Haan AG. Practice patterns of doctors of chiropractic with a pediatric diplomate: a cross-sectional survey. *BMC Complement Altern Med.* 2010;10(1):26. [doi:10.1186/1472-6882-10-26](https://doi.org/10.1186/1472-6882-10-26).
6. Miller J. Demographic survey of pediatric patients presenting to a chiropractic teaching clinic. *Chiropr Osteopat.* 2010;18(1):33. [doi:10.1186/1746-1340-18-33](https://doi.org/10.1186/1746-1340-18-33).
7. Côté P, Hartvigsen J, Axén I, et al. Correction to: The global summit on the efficacy and effectiveness of spinal manipulative therapy for the prevention and treatment of non-musculoskeletal disorders: a systematic review of the literature. *Chiropr Man Therap.* 2021;29(1):11. [doi:10.1186/s12998-021-00368-3](https://doi.org/10.1186/s12998-021-00368-3).
8. Prevost CP, Gleberzon B, Carleo B, Anderson K, Cark M, Pohlman KA. Manual therapy for the pediatric population: a systematic review. *BMC Complement Altern Med.* 2019;19(1):60. [doi:10.1186/s12906-019-2447-2](https://doi.org/10.1186/s12906-019-2447-2).
9. Gleberzon BJ, Arts J, Mei A, McManus EL. The use of spinal manipulative therapy for pediatric health conditions: a systematic review of the literature. *J Can Chiropr Assoc.* 2012;56(2):128-141.
10. Keating G, Hawk C, Amarin-Woods L, et al. Clinical practice guideline for best practice management of pediatric patients by chiropractors: Results of a Delphi consensus process. *J Integr Complement Med.* 2024;30(3):216-232. [doi:10.1089/jicm.2023.0010](https://doi.org/10.1089/jicm.2023.0010).
11. De la Ruelle LP, de Zoete A, Myburgh C, Brandt HE, Rubinstein SM. The perceived barriers and facilitators for chiropractic care in older adults with low back pain; insights from a qualitative exploration in a dutch context. *PLoS One.* 2023;8(4). [doi:10.1371/journal.pone.0283661](https://doi.org/10.1371/journal.pone.0283661).
12. Vajravelu S, Solomon P. Barriers and facilitators to family-centred pediatric physiotherapy practice in the home setting: A pilot study. *Disabil CBR Incl Dev.* 2014;24(4):107. [doi:10.5463/dcid.v24i4.220](https://doi.org/10.5463/dcid.v24i4.220).
13. Courtwright SE, Turi E, Barr EA, et al. Facilitators and barriers to pediatric nurse practitioner practice in the United States: A systematic review. *J Pediatr Health Care.* 2024;38(4):520-543. [doi:10.1016/j.pedhc.2023.12.003](https://doi.org/10.1016/j.pedhc.2023.12.003).
14. Alotaibi K, Higgins I, Day J, Chan S. Pediatric pain management: knowledge, attitudes, barriers and facilitators among nurses — integrative review. *Int Nurs Rev.* 2018;65:524—533. [doi:10.1111/inr.124655](https://doi.org/10.1111/inr.124655).
15. Lin JLL, Quartarone S, Aidarus N, et al. Process evaluation of a hub-and-spoke model to deliver coordinated care for children with medical complexity across Ontario: Facilitators, barriers and lessons learned. *Healthc Policy.* 2021;17(1):104-122. [doi:10.12927/hcpol.2021.26574](https://doi.org/10.12927/hcpol.2021.26574).
16. Somerville SM. A survey on pediatric care by chiropractors in South Africa. Dissertation. University of Johannesburg. 2016. <https://ujcontent.uj.ac.za/esploro/outputs/graduate/A-survey-on-pediatric-care-by/9912199307691>.

17. Evans K. The status of pediatric care in chiropractic practices in KwaZulu-Natal. Dissertation. Durban University of Technology. 2013. https://ir.dut.ac.za/bitstream/10321/1679/1/EVANS_2013.pdf.
18. Frederick T. Perceptions of new graduate chiropractors in their management of pediatric patients in the eThekweni municipality. Dissertation. Durban University of Technology. 2019. https://openscholar.dut.ac.za/bitstream/10321/3833/3/FREDERICK_T_2019.pdf.
19. Lizarondo L, Lockwood C, McArthur A. Barriers and facilitators to implementing evidence in African health care: A content analysis with implications for action. *Worldviews Evid Based Nurs*. 2019;16(2):131-141. doi:10.1111/wvn.12355.
20. National Health Insurance. National Department of Health. Updated 2024. <https://www.health.gov.za/nhi/>.
21. Hunter D, McCallum J, Howes D. Defining exploratory-descriptive qualitative (EDQ) research and considering its application to healthcare. *Journal of Nursing and Health Care*. 2019;4(1). <https://eprints.gla.ac.uk/180272/7/180272.pdf>.
22. Cleland JA. The qualitative orientation in medical education research. *Korean J Med Educ*. 2017;29(2):61-71. doi:10.3946/kjme.2017.53.
23. Mann K, MacLeod A. *Researching Medical Education*. 2nd ed. Wiley & Sons Ltd; 2023. <https://onlinelibrary.wiley.com/doi/10.1002/9781119839446.ch3>.
24. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: A synthesis of recommendations. *Acad Med*. 2014;89(9):1245-1251. doi:10.1097/acm.0000000000000388.
25. Home. National Department of Health. Updated 2024. <https://www.health.gov.za/>.
26. Continuing Professional Development (CPD). Allied Health Professions Council of South Africa. Updated 2018. https://ahpcs.co.za/wp-content/uploads/2018/02/cpd_community_care_application.docx.
27. Registers: Chiropractic. Allied Health Professions Council of South Africa. Updated June 2024. <https://ahpcs.co.za/wp-content/uploads/2024/06/CHIROPRACTIC.pdf>.
28. Home. Allied Health Professions Council of South Africa. Updated 2018. <https://ahpcs.co.za/>.
29. Home. Pediatric Chiropractic South Africa. Updated 2022. <https://www.chiropaeds.co.za/>.
30. Code of ethics. Allied Health Professions Council of South Africa. December 18, 2015. https://ahpcs.co.za/wp-content/uploads/2015/10/39531_18-12_NationalGovernment-1.pdf.
31. Ortlipp M. Keeping and using reflective journals in the qualitative research process. *The Qualitative Report*. 2018;13(4). <https://doi.org/10.46743/2160-3715/2008.1579>.
32. Fusch PI, Ness L. Are we there yet? Data saturation in qualitative research. *Qual Rep*. 2015;20(9):1408-1416. https://www.researchgate.net/publication/282955844_Are_We_There_Yet_Data_Saturation_in_Qualitative_Research.
33. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004;24(2):105-112. doi:10.1016/j.nedt.2003.10.001.
34. Braun V, Clarke V, Hayfield N, Terry G. *Handbook of research methods in health social sciences*. Springer Nature Singapore Pty Ltd; 2018.
35. Vassar L. Specialty profiles: How medical specialties vary by gender. American Medical Association. February 18, 2015. <https://www.ama-assn.org/medical-students/specialty-profiles/how-medical-specialties-vary-gender>.
36. Siegenthaler MH. Pediatric Patients in Swiss Chiropractic Clinics: A Questionnaire Survey. *J Manipulative Physiol Ther*. 2017;40(7):477-485. doi:10.1016/j.jmpt.2017.03.007.
37. Jung FU, Bodendieck E, Bleckwenn M, Hussenoeder FS, Lupp M, Riedel-Heller SG. Burnout, work engagement and work hours - how physicians' decision to work less is associated with work-related factors. *BMC Health Serv Res*. 2023;23(1). doi:10.1186/s12913-023-09161-9.
38. Wiggins D, Downie A, Engel R, Grace S, Brown BT. Factors that influence the scope of practice of the chiropractic profession in Australia: a thematic analysis. *Chiropr Manual Therap*. 2024;32(1):18. doi:10.1186/s12998-024-00535-2.
39. Hawk C, Schneider MJ, Vallone S, Hewitt EG. Best Practices for Chiropractic Care of Children: A Consensus Update. *J Manipulative Physiol Ther*. 2016;39(3):158-168. doi:10.1016/j.jmpt.2016.02.015.
40. Pediatric certification. International Chiropractic Pediatric Association. Updated 2024. <https://icpa4kids.com/training/pediatric-certification/>.
41. Master of science in chiropractic pediatrics. Logan University. Updated 2024. <https://www.logan.edu/academics/master-of-science-in-chiropractic-pediatrics/>.
42. MSc musculoskeletal pediatric health. AECC University College. Updated 2024. <https://www.aecc.ac.uk/course/msc-musculoskeletal-pediatric-health/>.
43. MSc Chiropractic (Pediatrics). McTimoney College of Chiropractic. Updated 2024. <https://mctimoney-college.ac.uk/study/postgraduate-course/msc-chiropractic-pediatrics/>.
44. Hybrid Short-Learning Programme: Pediatric Chiropractic Care. University of Johannesburg. Updated 2024. <https://www.uj.ac.za/wp-content/uploads/2021/09/2024-vf-chiro-slp.pdf>.

45. Advanced pediatric chiropractic. Australian College of Chiropractic Pediatrics. Updated 2024. <https://accp.asn.au/apc>.
46. Ezezika O, Gong J, Abdirahman H, Sellen D. Barriers and Facilitators to the Implementation of Large-Scale Nutrition Interventions in Africa: A Scoping Review. *Global Implementation Research and Applications*. 2021;1:38-52. doi:10.1007/s43477-021-00007-2.
47. Belli J. A survey on the perception of midwives in a private health care environment in Gauteng on chiropractic treatment amongst pregnant women and pediatrics. Dissertation. University of Johannesburg. 2019. <https://ujcontent.uj.ac.za/esploro/outputs/9913746407691>.
48. Chiropractic spinal manipulation of children under 12. Safer Care Victoria. October 30, 2019. <https://www.safercare.vic.gov.au/sites/default/files/2019-10/20191024-Final%20Chiropractic%20Spinal%20Manipulation.pdf>.
49. Yu H, Shearer H, Taylor-Vaisey A, et al. "Methodological flaws on manual therapy for the pediatric population: a systematic review"; by Prevost et al. (2019). *BMC Complement Med Ther*. 2021;21(1):4. doi:10.1186/s12906-020-03145-6.
50. Vallone SA, Miller J, Larsdotter A, Barham-Floreani J. Chiropractic approach to the management of children. *Chiropr Osteopat*. 2010;18(1):16. doi:10.1186/1746-1340-18-16.
51. Mior S, Wong J, Sutton D, et al. Understanding patient profiles and characteristics of current chiropractic practice: a cross-sectional Ontario Chiropractic Observation and Analysis Study (O-COAST). *BMJ Open*. 2019;9(8). doi:10.1136/bmjopen-2019-029851.
52. Allen-Unhammer A, Wilson FJH, Hestbaek L. Children and adolescents presenting to chiropractors in Norway: National Health Insurance data and a detailed survey. *Chiropr Man Therap*. 2016;24(29). doi:10.1186/s12998-016-0107-x.
53. Humphreys BK, Peterson CK, Muehlemann D, Haueter, P. Are Swiss chiropractors different than other chiropractors? Results of the job analysis survey 2009. *J Manipulative Physiol Ther*. 2010;33(7):519-535. doi:10.1016/j.jmpt.2010.08.003.
54. Myburgh C, Tegllhus S, Engquist K, Vlachos E. Chiropractors in interprofessional practice settings: a narrative review exploring context, outcomes, barriers and facilitators. *Chiropr Man Therap*. 2022;30(1):56. doi:10.1186/s12998-022-00461-1.
55. Louw J, Myburgh C. The knowledge and perception of general practitioners about chiropractic as a factor that may influence inter-professional communication: A South African perspective. *J Interprof Care*. 2007;21(2):221-224. doi:10.1080/13561820600991546.