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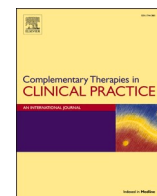
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'Thrown at twins' - A qualitative study exploring the lived experience of Australian osteopaths who regularly treat paediatric patients

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ABSTRACT

Background: and purpose: Little is known about the training and experience of osteopaths who treat paediatric patients, and graduates report feeling unprepared for this aspect of practice. The purpose of this study was to investigate the lived experience of Australian osteopaths who regularly treat these patients, in order to better understand their individual educational pathways and their management of this population.

Materials and methods: Osteopaths who reported regularly treating paediatric patients were recruited through the Osteopathy Research and Innovation Network (ORION) national practice-based network. Semi-structured interviews were completed, transcribed and thematically analysed using the principles of Descriptive Phenomenology to compile qualitative data.

Results: Ten osteopaths were interviewed, whose age ranged from 33 to 71 years and with 15–46 years of clinical experience. Proportion of paediatric patients ranged from 20 to 90 % of participants' caseload according to self-report. Seven themes were identified that reflected the lived experience of treating paediatric patients: 1) *Variable pathways to practice*, 2) *Challenges and rewards*, 3) *Scope of practice*, 4) *Team-based care*, 5) *Importance of entry-level skills*, 6) *Family-centred care*, and 7) *Success*.

Conclusion: The study found a diversity of educational pathways, that paediatric practice was highly rewarding, the scope of practice was based on diagnostic skills and experience, the practitioners had extensive team-based professional networks, practice reflected a family-centred care model, and personal measures of success were multifactorial. These results give insight into this area of practice to guide further research.

1. Introduction

Osteopaths provide care for a range of musculoskeletal complaints using a combination of manual therapy, education, exercise and adjunctive therapies. Patients presenting to osteopaths are from a range of age groups including paediatric and adolescent populations. There is an emerging evidence-base for the osteopathic management of a range of issues affecting paediatric populations with a minimal adverse event profile [1–3], and evidence of multidisciplinary and inter-professional collaborations associated with paediatric patient care [4,5]. Data from European osteopathy patient profiles suggests between 10 and 20 % of patients presenting to osteopaths are from these paediatric and adolescent populations [6]. In the Australian context, data suggests

approximately 10 % of patients are from these populations [7] with nearly 16 % of osteopaths reporting often treating patients up to 3 years of age, and over 25 % often treating patients aged 4–18 years [8]. These data suggest that paediatric presentations to Australian osteopaths are relatively common.

From a regulation perspective, osteopaths in Australia are government-registered health professionals, and are able to provide care for paediatric patients assuming appropriate training and competence [9]. Further, the accreditation standards for Australian osteopathy courses require graduates from approved programs to be able to manage patients across the lifespan, including paediatric patients [10]. Unpublished data from the Australian osteopathy practice-based research network [8] suggests Australian osteopaths who regularly provide

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Table 1
Interview questions.

Domain	Questions
Introductory	How often do you treat children? How did you come about treating paediatric patients? What has your experience been like in managing paediatric patients?
Educational pathways	How did you learn the skills you have today? Did you undertake extra training after graduating from university? If so, what did you do? What would you like to see in new graduates when it comes to treating paediatric patients? Do you think new graduates are prepared with the ability to treat paediatrics? Do you think they should be? How has your confidence developed and how you measure success now, as compared to when you were a new graduate?
Clinical decision making	How comfortable did you feel treating paediatrics initially? Can you describe the differences for you when treating paediatric patients and adults? Is there a technique use preference? How do you determine clinical success and how do you measure it? How do you know when something is outside of your scope and how is it dealt with? Who do you refer to when unsure of presenting complaint or a serious condition?

services to paediatric patients typically have greater clinical experience (i.e. more than 15 years' experience) compared to general osteopathy practice and hold post-graduate qualifications. There is currently no consistent standard of paediatric training nor prescribed curricula content for osteopathy programs in Australia, which may suggest that there is a risk of practitioner skill deficit in the management of this population group. There is an opportunity for osteopaths to be recognised by the professional association as having advanced practice through demonstration of further training and skills in managing paediatric patients [11]. However, research suggests paediatric care is one area that new graduates feel underprepared [12].

Given the lack of formal education pathways and reported under preparedness of graduates, there is a need to explore how osteopaths develop their knowledge and experience managing paediatric patients on graduation, how they progress in their career and where education for paediatric care should occur [13]. This study sought to explore the lived experience of Australian osteopaths who regularly treat children to understand their individual educational pathways and gain insight into their management of paediatric patients, and a qualitative research approach is reported to be important in building knowledge of osteopathic practice [14].

2. Materials and methods

2.1. Study design

Qualitative semi-structured interviews were conducted with Australian registered osteopaths. The methodology was informed by descriptive phenomenology [15], an approach considered appropriate in exploring “the core commonalities and meaning, structure and essence of ... lived experiences” (p. 2) [16]. The Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist was completed (see Supplementary Files) and the domains are reported on in this section. The interviews were conducted online using Zoom.

2.2. Participants

Potential participants were drawn from the Osteopathy Research and Innovation Network (ORION) – the practice-based research network for Australian osteopaths [8]. Inclusion criteria for the current study were being a registered osteopath who indicated on the ORION baseline questionnaire [8] that they *often* treated patients aged 0–3 years and 4–18 years. Potential participants were excluded if they indicated *never*, *rarely*, or *sometimes* treating patients aged 0–3 years and 4–18 years on the ORION baseline questionnaire [8]. Prospective participants were invited to take part via an email distributed by the ORION survey team and potential participants were invited to contact the researchers if they wished to participate.

2.3. Ethics

The project was approved by the Southern Cross University Human Research Ethics Committee. A participant consent form, information sheet and participant invitation were provided for all who expressed their interest prior to the interview being scheduled.

2.4. Interview development

A semi-structured interview guide was developed by the researchers to seek information about educational pathways, clinical decision making and the nature of their clinical practice (see questions in Table 1). Factors that influenced practitioners' educational pathways and professional development were a significant focus. This facilitated an exploration of participant perceptions of avenues towards competency and effectiveness of Australian osteopaths working with paediatric patients.

Draft questions were tested with postgraduate osteopathic students and members of the research team who were registered osteopaths to ensure clarity, and minor adjustments were made. The two interviewers from the research team were male postgraduate osteopathy students with training in clinical interview skills. These two researchers were provided additional training by senior members of the research team in conducting qualitative interviews. This included the use of secondary prompts such as “why is that”, “please explain” to unpack participant responses. The interviewers then observed each other interviewing and engaged in a reflective exercise to establish consistency of process.

2.5. Data collection

The interviewers declared that they had no relationship with any of the interviewees. Interviews took place between August 2021 and January 2022 and were approximately 40 min in duration. All interviews were conducted via the videoconferencing platform Zoom Inc, and all questions were posed consistently and completely in every interview, with the order of questions adapted as appropriate to the flow of each interview. Interviews were audio and video recorded within the Zoom Inc function, and the interviewers made field notes following each interview. The interviews were first transcribed with Otter.ai software, checked for accuracy and spelling, and then de-identified (when necessary). Interviews continued up to the point that consensus agreement was reached amongst all researchers that data sufficiency had been reached [17]. Sufficiency was agreed upon when team members unanimously agreed that participant responses were sufficiently similar that no new themes, ideas or concepts would emerge with further data collection. The participants did not receive a copy of the transcripts for formal member checking, as the interviewers clarified meaning throughout to confirm accurate understanding. Information recorded was considered clear and descriptive, and without ambiguity.

Table 2
Phases of thematic analysis [18].

Phase	Description of process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

2.6. Data analysis

Data were analysed inductively using the thematic analysis approach described by Braun and Clarke [18] (see Table 2). Two researchers began by reading each transcript repeatedly to immerse themselves in the participant responses. Codes were identified from the data by highlighting words and phrases that represented key perspectives – coding was undertaken in Microsoft Word. The research team reviewed and discussed the codes which were subsequently grouped into sub-themes, which were further clustered into themes. The research team then met to discuss and confirm the final themes with correlation of the field notes (see Table 2).

2.7. Trustworthiness

Process checking and peer debriefing was completed firstly with the interviewers observing each other conducting an interview and reflecting on their process to ensure consistency. The details of each interview and researcher reflections were recorded in individual diaries, and were checked for adherence to the methods. Subthemes and draft themes were tabulated by the two interviewers, and the broader research team met as a group to discuss and clarify the themes before gaining consensus.

3. Results

Twenty-six osteopaths met the inclusion criteria and were emailed the invitation to participate. Twelve potential participants responded, and ten were able to be scheduled in the collection period. Semi-structured interviews were conducted with these ten practitioners – five by each interviewer, comprising two male and eight female osteopaths. The participants' age range was from 33 to 71 years with clinical experience ranging from 15 to 46 years (see Table 3).

Of the ten participants interviewed, two found it difficult to estimate the proportion of paediatric patients in their practice (IP1 & IP9), five

said they saw between 20 and 35 % paediatric patients in a typical week (IP2, IP4, IP5, IP7 & IP10), two saw up to 90 % per week (IP3 & IP6), and one saw between 50 and 80 % (IP8). Whilst there was clear percentage variation between participants, there was also notable individual variation between weeks and along the span of a career. Table 4 gives an example of the process of coding and Table 5 outlines the identified sub-themes and resultant themes.

Analysis supported seven overarching themes: 1) Variable pathways to practice; 2) Challenges and rewards; 3) Scope of practice; 4) Team-based care; 5) Importance of entry-level skills; 6) Family-centred care; and, 7) Success.

3.1. Variable pathways to practice

Common to many participants was the experience of 'being thrown in at the deep end', and they emphasised the importance of simple exposure to babies and children as an important component in becoming confident and comfortable in managing paediatric patients.

I got thrown at twins when I was about three months out in practice, twins booked in with me and it was just ... dive into the deep end. IP4

Because it was sort of like a baptism by fire. I had to just sink or swim, much quicker that way. But I had good people around me who I could always call in, I had practitioners next door in the same practice who I could call in if there was [sic] any issues or I didn't know what to do. IP2

Participants reported having undertaken a wide range of formal and informal short courses, and several participants undertook more extended post-graduate training such as a two-year course at the Sydney Children's Hospital (Australia), or paediatric-specific non-osteopathy courses offered at university. Mentoring was an experience reported by participants as significant to the development of their paediatric practice and skill-base.

Table 3
Participant demographics.

Participant	Age	Years in practice	Educational background (post-registration)	Estimated % paediatric cases
IP1	68	41	Weekend CPD paediatric courses	No estimate given
IP2	43	16	Weekend CPD paediatric courses	'Everyday'
IP3	45	23	Apprenticeship to senior osteopaths Graduate Certificate in Neonatal Manual Therapy (Victoria University)	20–30 % 90 %
IP4	41	19	Sydney Children's Hospital programme No formal training reported	35 %
IP5	33	15	Weekend CPD paediatric courses	15–20 %
IP6	47	25	No formal training reported	60–70 %
IP7	48	21	Lactation Consultant Masters/Grad Diploma in Paediatrics (RMIT University)	20–35 %
IP8	52	30	No formal training reported	40–80 %
IP9	64	40	No formal training reported	varied
IP10	71	46	No formal training reported	varied

CPD = Continuing Professional Development.

Table 4
Coding process examples.

Initial codes (phase 2)	Subthemes formed (phase 3)	Draft themes (phase 4)
Fun	Personal and professional experiences	Challenges and rewards
Learn as you go	Experiential learning	
Draining	Lack of confidence in handling children	
Uncomfortable		
Jumped in	Experiential	Variable pathways
Thrown at twins		
Continuing professional development	Multiple/inconsistent	
Formal course		
Good people around me	Informal mentoring	

Table 5
Thematic analysis detail.

Enquiry Domain	Sub-themes/codes	Theme
Lived experience	• “Fun” • Positive • Constant learning/“learn as you go” • Personal and professional rewards • “Draining” - cap on patient numbers • Initially not very comfortable and lacked confidence • Personal experience - parenthood/basic handling of children and their behaviour • Develop empathy	Challenges and rewards
Educational pathways	• Undergraduate exposure – one university had paediatrics clinic • “Jumped in” - mentor sought out • Post-graduate exposure; e.g. Biodynamic, OCF/cranial, short courses/CPD • University post-graduate paediatrics osteopathy course • Need for mainstream training – variable whether osteopaths can apply for	Variable pathways Non-mainstream
Clinical scope and reasoning	• Priority - red flags (pain, weight, failure to thrive). • Relevant diagnostic knowledge, including normal development/stage • Referral basis • Assessment • “Gut feeling” - intuitive reasoning • Comes with experience • “Take pain seriously”	Scope Experiential learning
Skills learnt	• Mentorship – university and post grad teachers • Diagnostic skills – learnt at university • Therapeutic skills – learnt at CPD workshops, short courses • Parenthood • Informal mentoring	Mentoring Experiential/informal learning
Therapeutic interventions	• Different to adult care: - o Management of consult process - o Communication style - consult and treatment - o No HVLA -Under 13 y.o.a • Whole family management • Modifying treatment principles/techniques (application) • Mostly indirect, cranial or gentle direct techniques	Family-centred care
Clinical outcomes	• Direct feedback • Community/referral • Palpation feedback • “Parents are happy” • Cranial - listening/body communication • Rapid results	Measuring success
Referral network	• Multiple: general practitioner, lactation consultant, midwife, paediatrician, dentist, maternal child health nurses, podiatrist, speech pathologist. • Continuity of care/two-way referral network • Practice network (ORION) • Collaboration vital	Team-based care Inter-disciplinary care
Graduate skills	• Comprehensive assessment skills • Curriculum “gaps” • Some concern about quality/safety • Lack of clarity/structure in the training pathway	Entry level skills

OCF = Osteopathy in the Cranial Field.

CPD = Continuing Professional Development.

HVLA = High Velocity Low Amplitude technique.

ORION = Osteopathy Research and Innovation Network.

Having hands on (experience) and being guided by somebody who's a bit more experienced at the same time is probably the ideal way of learning so that you can have a feel. IP9

I also actively sought out hanging out with midwives, and other practitioners who dealt with babies. IP2

Parenthood was also cited as a significant contribution to preparedness in managing the complexities of a paediatric clinical encounter.

I still feel as if my real education didn't occur until I had kids of my ownthat remains the most relatable thing in day-to-day practice. it just

gives you an understanding of what the everyday stresses and strains and nuances feel like for new parents that no amount of clinical education can ever give you. IP6

3.2. Challenges and rewards

Participants described their work as positive, fun and rewarding. There was an emphasis on constant learning, personal and professional development, on the job hands-on experience and professional or personal rewards.

Paediatrics is the bit that is the most fun for me in practice. IP3.

It's meant that at this stage of my career, 25 years in, I'm probably more excited and passionate about my work than I was when I first graduated and that's a surprise to me, I didn't expect to be this far down the track and be still so interested and engaged IP6

Whilst participants described predominantly positive experiences, several identified challenges associated with managing paediatric patients.

... it's also very, very stressful at times. It's a very intense type of work. And it's a massive responsibility, and a huge privilege. So it's real mixed emotions in there, I wouldn't want it any other way IP6

3.3. Scope of practice

All practitioners had a strong sense of scope of practice based on a thorough diagnostic physical assessment, sound biomedical knowledge, and understanding of childhood developmental processes, combined with relevant professional experience and intuition.

So sometimes just backing yourself in terms of my clinical experience, my palpatory ability, my diagnostic ability, and sometimes clinician intuition. IP8

If you have a knowledge of what is normal, what's normal development, you know, that's the foundation and you'll know, you also know what happens in development. IP9

Practitioners identified a balance between a desire to help versus setting boundaries on their therapeutic interventions or provision of professional advice.

... you have to be careful as an osteopath, because I think my general tendency is to give most things a go, but the more I learn, the more I realise how much I don't know. Of course! And just needing to be careful and clear, and stay in my lane. IP3

I'm quite confident, because I know my scope I think, but it's that thing where when I chat to other people, I think I second guess myself a lot, but in the way that we should. IP5

Scope of practice might also be seen as extending beyond the present moment of the consultation.

I'm very aware and very comfortable at identifying when things are beyond my scope ... But that doesn't end my care of that patient anymore. I continue to work with that baby, support the family, even if that's just a text or phone call to follow up. IP6

Participants indicated using articulation, myofascial release, Osteopathy in the Cranial Field, biodynamic osteopathy, Balanced Ligamentous Tension (BLT), Balanced Membranous Tension (BMT) and strain-counterstrain as their dominant manual therapy approaches. None of the respondents reported using High-Velocity Low-Amplitude (HVLA) techniques in anyone aged under 13 years, with thoracic adjustments being the only technique occasionally reported to be utilised with adolescents.

I do use a lot of cranial, indirect techniques, probably 50% of what I do. And then I also use a fair degree of ... very gentle, more structural techniques. IP6

I use [biodynamic technique] a little more than I use a direct approach. But I also use Caroline's Stones [osteopath] type of approach, which is more direct, and moving the body gently and easily. Incorporating functional type of techniques and fluid techniques IP1

3.4. Team-based care

Participants described a multi-disciplinary approach to their practice and having a wide referral network, comprising both public and private professionals, such as general practitioners, lactation consultants, paediatricians, tongue tie clinics, paediatric dentists, physiotherapists, speech therapists, specialists, maternal child health nurses and community clinics.

There's a, a real sense of collaboration, you know, often the babies that come to me are already referred. So, they're already being co-managed by other health professionals. And so, you're a part of a team in those situations. And as part of my intake process, I always gather that information, who else is part of the care of this child? So there is a very open sort of communication back and forth with whoever else is managing that baby. IP6

Maybe orthopaedic paediatricians or people in my network that I've got to know and feel confident that I can refer people to. And great rapport with our maternal child and health care nurses, speechies [speech pathologists] in the area, dentists, physiotherapists as well. So, the whole layer approach, depending on the needs of the child. IP8

They expressed the view that the general awareness of osteopathy, specifically within another allied health profession, has improved over the last 40 years.

... nine out of 10 of those letters that I wrote to the GP [general practitioner] would be screwed up in front of the patient thrown in the bin. That doesn't happen anymore. A lot has occurred. IP10

3.5. Importance of entry-level skills

Core diagnostic skills and a thorough knowledge of childhood development were identified by participants as fundamental when entering clinical paediatric practice.

That [clinical knowledge] is the foundation and you also know what happens in development. It's quite different at certain ages to have different types of development and ... there are different types of clinical conditions that can develop as the body is growing and changing. So, if you don't have that knowledge, then you wouldn't know if it was an area of concern or not. IP9

This knowledge base was combined with manual therapy and palpatory skills, and simple exposure to handling of babies.

Honestly, it starts off with just an opportunity to put your hands on a baby. That's probably the first thing. And that's just using your base knowledge of being an osteopath. IP4

Several participants noted changes in undergraduate curricula since their own entry into practice, e.g. in new graduates that they employed, and expressed the importance of allowing extra time for the development of the requisite skills and experience appropriate for managing and treating paediatric patients, especially babies and infants.

Now, with new grads [graduates], I will not let them treat anyone under seven. ... I've got a third and fourth year with me now that has been with me as a new grad. And they're now able to treat down to the age of two ... and then one of them is starting to put hands on toddlers ... Not newborns,

probably the 12 [month] to two-year age group. So that's four years out with me. IP8

If new grads graduated knowing how to do a proper assessment and comfortably and confidently conduct a proper assessment, that would be amazing. IP4

We deliberately, I think, don't train to the same standard we used to full stop, ... we do a lot more pain education, a lot more transferable skills, health management, but we don't do as much hands-on So, we don't train people as competent, which is happening in the whole profession. IP5

3.6. Family-centred care

Assessing and managing the relationship between parent and child, or specifically mother and child, was frequently reported as a key element of paediatric practice. Furthermore, appropriate treatment and management of the parents' health and education were regarded as continuous with the child's consultation.

... you do everything to empower that mother. So your whole treatment is really about, you don't want to be the authority, the mother is the authority on her baby ... So you've really got two patients in the room. IP9

I would say that I find treating babies in particular, more challenging than treating adults, because you have to treat the parents as well as treat the baby, in a sense of you treat the baby but you are communicating with the parents, and you have to get the parents to understand what you're doing. IP4

3.7. Success

Participants measured the success (or otherwise) of their treatment in terms of improvement in range of motion and decrease in pain. Participants also emphasised the importance of palpatory feedback in assessing and understanding the effectiveness of their treatments. Furthermore, the distinct change of tissues palpated within the treatment is considered a major reward for the practitioner as well as a form of success.

You feel the change straight away and see it at the next treatment. IP5

When you basically start feeling that cranial rhythm come back in but ultimately, even more than just even that rhythm coming back in through the tissues or through an area, you get a strong sense or a strong understanding of how that area is now communicating with the whole rest of the system. IP7

Broader outcomes such as feedback from family members, effective communication and parental satisfaction were also seen as essential in measuring success with paediatric patients.

It's clinical outcomes. And also feedback from parents or carers. IP2

So, I think usually, like with every consult with every age group, my goal is to make the consult worthwhile, no matter what for the parents ... you're giving advice, you're giving clarity, you're helping them with their thought process, you're reassuring them, giving them new things to try. IP5

The speed of response of babies and children following treatment was regarded as both distinctive and rewarding, as well as affecting approaches to clinical management.

I think you can make such an impact so quickly, even in the consult. So I can go from a baby who's not breastfeeding, and mum and baby are beside themselves to them breastfeeding at the end of one treatment. So, I think it's the nature of the rapid results. And the difference that you make, not only to the child but to the whole family. So, I think it's the biggest impact. IP8

Receiving referrals and word of mouth reputation were important

indicators of effectiveness.

That would be the main way to be honest, you get to get referrals from the patients and you have them come back. The family come back in years to come. They speak about you positively. IP5

You get a build-up of baby clientele because of word of mouth. I think that's the other sign of success that you're doing the right thing. An indicator of success. IP4

Often then the family starts coming in after the infant has. So, it's more that they feel like they got something out of it. IP5

4. Discussion

This study is the first to provide a perspective of Australian osteopaths' experiences who report often managing paediatric patients. The themes identified support a range of influences on the care of paediatric patients including how practitioners develop competency managing this population, the challenges and rewards of managing paediatric patients including family-centred care, and relationships with other health professionals.

Participants identified a range of pathways by which they developed their capability in managing paediatric patients. For several participants, capability was developed through experience whilst for others, it was developed through a combination of experience and participation in professional development, including university-based, post-graduate courses. Pre-professional education has been identified as lacking with respect to paediatric care in chiropractic [19], and this is consistent with the findings from the current work. Subsequently, Australian osteopaths who manage paediatric patients appear to engage in experiential learning (on-the-job) approaches supplemented by professional development, rather than developing skills and knowledge to manage this patient group during their pre-professional training. Osteopaths in New Zealand, whilst having a similar regulatory structure to Australia, also have a defined scope of paediatric patient care [20] and research in the New Zealand profession suggests training for paediatric care should take place in pre-professional osteopathy programs [21]. It may be that a combination of pre- and post-professional education is the most appropriate for Australian osteopaths to develop their expertise for paediatric patient care. Work should be directed towards understanding current curricula content, and potentially identifying the baseline skills and knowledge required for graduating Australian osteopaths to best prepare them for paediatric patient care.

Recognition of advanced knowledge and education in particular areas of practice is emerging in the Australian osteopathic profession. A small but increasing number of Australian osteopaths have been recognised for advanced practice in paediatric care.

Blaich et al. [22] identified that a key challenge for osteopaths was the tension between 'generalist' and 'specialist', that is, being able to manage a range of conditions and patient groups versus specialising in an area of practice or patient group. Although the participants in the current study could be assumed to potentially fall into the 'specialist' category, participants did not identify themselves as such. For most participants, although their practice was dominated by paediatric care, they also engaged with care of other patient populations – more consistent with the 'generalist' who has a special interest in paediatric care. Given the emergence of the recognition of advanced practice in paediatrics for Australian osteopaths [11], research should explore whether the generalist/specialist divide exists. Such research could inform how best to position the Australian profession in the health system with respect paediatric patient care.

Multi-disciplinary or inter-professional care is paramount for patient care. Participants in the current work highlighted the need for this approach to care in the paediatric context and reported having a wide range of well-established relationships with other professions. However, some measure of hesitancy from particular professions, such as general

practitioners, was described. In other areas of practice, positive referral relationships have been identified between Australian osteopaths and general practitioners [23], however this finding is not consistent [24]. Several participants had observed what they felt was a significant improvement in interdisciplinary respect from other health professionals over their career. Morin et al. [5] identified somewhat similar findings between Canadian osteopaths and other health professionals involved in paediatric care. Together these findings suggest an increasing appreciation by other health professionals of the role osteopaths can play in paediatric care. Research should explore the nature of the relationships between osteopaths and other health professionals to better understand how they influence patient care and outcomes.

From a patient care perspective, participants recognised the need to engage with the parents/guardians, and tailor their treatment approach to the paediatric patient. Although not explicitly described as such, participants expressed an awareness of the central role of the parent-baby dyad [25], and their role in providing agency – developing a triad. This triad has been identified in work by Accardi et al. [26] where osteopaths providing paediatric care report developing a therapeutic alliance through creating a safe care environment, effective verbal and non-verbal communication and observation of the parent-baby dyad. These authors, and others [27,28] also identified touch as a component of effective osteopathic paediatric care. Touch, as provided by the osteopath, comes in the form of both the physical examination and manual therapy approaches utilised. Participants in the current study identified using a variety of manual therapy approaches they considered to be “very gentle” and suited to the paediatric patient. Reasoning for manual therapy technique selection by osteopaths is an area of the literature that is developing [29]. Given the minimal adverse event profile of osteopathy manual therapy techniques used in paediatric care [30], future research could explore how practitioners choose, modify and apply these techniques.

This research describes the practice experience of a group of osteopaths who *often* manage paediatric patients as part of their practice. These results provide insight for the profession into how osteopaths approach the care of this patient population, and the public into what to expect from this health service. Further, the study provides additional data describing the work of osteopaths in paediatric care that could be utilised in better understanding the role from a workforce perspective, and provide researchers with a foundation on which to base further work to understand the outcomes of paediatric care by Australian osteopaths.

4.1. Implications for professional practice

This research suggests that paediatric practice is stimulating and satisfying, but there is a need to develop less variable educational pathways leading to and maintaining competency and safety in the osteopathic management of paediatric patients. This is especially true of this population group. The responsibility for this lies with educational institutions and their accreditors for graduates, the professional associations for the ongoing education of practicing osteopaths, and for individual osteopaths to ensure they are competent and practicing within their training and scope.

4.2. Limitations

There are a number of limitations of the study. The transferability of the results to other osteopaths, whether in Australia or elsewhere is not known and requires additional research. These differences may be related to practitioner experience, training or professional development, along with geographic location. Further, due to a relatively small sample size and the targeted sampling, the experiences of the participant group may differ from others with similar experience in paediatric patient care based on the aforementioned influences. There may also be differences in the experiences of Australian osteopaths who have undertaken formal

post-graduate studies in paediatric care, and those who have developed experience ‘on-the-job’ and this is an area that would benefit from additional investigation.

5. Conclusion

Australian osteopaths who regularly manage paediatric patients identified a largely experiential approach to the development of their skillset, mixed with formal and informal education opportunities. Participants also identified a lack of training in pre-professional osteopathy programs and this was an opportunity for the profession to develop. Osteopaths in our study also appeared to be engaging in multidisciplinary paediatric care, driven by development of referral networks and patient care outcomes. There appears to be a role for Australian osteopaths in paediatric patient care and research should be directed towards understanding where osteopaths are best placed in the health system to participate in multidisciplinary paediatric care.

CRedit authorship contribution statement

John Carr: Writing – original draft, Investigation, Formal analysis, Data curation, Conceptualization. **Tayla Lane:** Writing – original draft, Formal analysis, Data curation, Conceptualization. **Joshua Naylor:** Writing – original draft, Formal analysis, Data curation, Conceptualization. **Paul Orrock:** Writing – review & editing, Writing – original draft, Validation, Supervision, Methodology, Formal analysis, Data curation, Conceptualization. **Kirstine Shrubsole:** Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. **Brett Vaughan:** Writing – review & editing, Writing – original draft, Data curation. **Emily Jones:** Writing – review & editing, Methodology, Data curation.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ctcp.2024.101897>.

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