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ORIGINAL RESEARCH

Rural primary care workforce views on trauma-informed care for parents experiencing complex trauma: A descriptive study

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Abstract

Background: An important service system for rural parents experiencing complex trauma is primary health care.

Aim: To investigate workforce knowledge, attitudes and practices, and barriers and enablers to trauma-informed care in rural primary health care.

Material & Methods: This study used a descriptive, cross-sectional design. It involved an on-line survey conducted in 2021 in rural Victoria, Australia. Participants were the primary health care workforce. The main outcome measures were study-developed and included, a 21-item Knowledge, Attitudes and Practices tool, a 16-item Barriers and Enablers to Trauma-Informed Care Implementation tool, and three open-ended questions.

Results: The 63 respondents were from community health ($n = 40$, 63%) and child and family services ($n = 23$, 37%). Many ($n = 43$, 78%) reported undertaking trauma-informed care training at some point in their career; with 32% ($n = 20$) during higher education. Respondents self-rated their knowledge, attitudes and practices positively. Perceived enablers were mainly positioned within the service (e.g. workforce motivation and organisational supports) and perceived barriers were largely external structural factors (e.g. availability of universal referral pathways, therapeutic-specific services). Open-ended comments were grouped into four themes: (1) Recognition and understanding; (2) Access factors; (3) Multidisciplinary and collaborative approaches; and (4) Strengths-based and outcome-focused approaches.

Discussion & Conclusion: Primary health care is an important driver of population health and well-being and critical in rural contexts. Our findings suggest this sector needs a rural trauma-informed care implementation strategy to address structural barriers. This also requires policy and system development. Long-term investment in the rural workforce and primary care service settings is essential to integrate trauma-informed care.

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KEYWORDS

complex trauma, mental health, parents, primary health care, rural workforce, trauma-informed care

1 | INTRODUCTION

As a whole-of-society strategy, primary health care (PHC) emphasises equitable access to support (not just medical care) across the social determinants of health and well-being.^{1,2} The philosophical platform of PHC as a social model of health and as a service response system has an important role in supporting parents experiencing complex trauma.^{3,4} Complex trauma is commonly associated with past childhood adversity (family violence, socioeconomic disadvantage, racism, abuse and neglect), and is linked to health inequality, poorer long-term health outcomes and quality of life.^{5,6}

Complex trauma or complex posttraumatic stress disorder (complex PTSD) includes symptoms of PTSD (avoidance, hypervigilance and intrusive thoughts), along with disturbances in emotion regulation, negative self-concept and relational difficulties.^{5,7} The effects of complex trauma are pervasive and can lead to reduced social functioning, poor ability to cope with stress, long periods of untreated mental illness, vague and difficult-to-treat health symptoms, high blood pressure, obesity, misuse of alcohol and drugs, and long-term chronic health issues.^{8,9} A lack of understanding and recognition of complex trauma can impede meaningful and sustained engagement with PHC services.

One important PHC client group are parents. Pregnancy and early parenthood offers a time of personal growth and healing from relational (complex) trauma as the parent cares for their baby and builds a secure attachment relationship.^{10,11} PHC represents the first access point for parents to seek services (of any type) and offers frequent contact during pregnancy/early parenthood; a time when feelings of trauma-related distress are more likely due to the intimate nature of pregnancy, birth and the demands of a young baby.^{10,11} Services include those offered by general practice and child and family health nurses, and programmes situated in community health, for example parenting programmes. To support parents, a proactive trauma-informed PHC system embeds policies and practices which increase awareness of the widespread impact of trauma, emphasises physical, psychological and emotional safety for service users, workers and organisations, and aims to resist re-traumatisation, decrease symptoms and promote recovery.^{12,13} Providers do not need to know an individual's trauma history or have confirmation of complex trauma to integrate universal trauma-informed care for all clients.

What is already known on this subject:

- Trauma can impact physical, psychological and social well-being, and impede health-seeking behaviours and service utilisation
- Trauma-informed care involves understanding, recognising and responding to the lifelong effects of trauma
- Strengths-based, trauma-informed approaches allow for more meaningful and sustained engagement with primary health care services

What does this study add:

- Structural-level barriers were identified as system gaps affecting rural implementation and sustainability of trauma-informed care to support parents experiencing complex trauma
- We identified elements to include in an implementation strategy connecting needs at both inner (role and service) and outer (structural) contexts for integration of trauma-informed care in rural primary health care
- The tools developed for the study have utility for services to assess workforce knowledge, attitudes and practices and barriers and enablers to trauma-informed care, prior to undertaking potentially costly implementation activities which are not sustainable

The rural PHC workforce faces unique challenges in equitable trauma-informed service delivery. Compared to their metropolitan counterparts, rural communities have poorer health outcomes, with higher rates of chronic disease and lower life expectancy.¹⁴ This is due to a range of inequalities such as lower socio-economic status, employment disadvantage, lack of locally available services, longer travel distances to services and poorer educational attainment which may affect health literacy.^{14,15} Furthermore, rural PHC services encounter systemic difficulties in attracting and retaining staff; the workforce encounters peer isolation, heavy workloads and reduced access to professional education.¹⁵ Australian rural PHC is a distinct field of research and a context where there has been a limited focus on trauma-informed care and variances in mandatory requirements for training.

The goal of this study was to understand the views of the rural PHC workforce about trauma-informed care for rural communities and specific needs in PHC service delivery involving parents. To explore the views of the rural PHC workforce about trauma-informed care we posed three research questions:

Research Question 1: How do workers rate their knowledge, attitudes and practices for trauma-informed care?

Research Question 2: What do workers perceive as the barriers and enablers to implementing trauma-informed care?

Research Question 3: What are rural workforce perspectives on training needs in trauma-informed care?

2 | METHODS

2.1 | Study framework

This study is guided by the Exploration, Preparation, Implementation, Sustainment (EPIS) Framework,¹⁶ focusing on the Exploration stage, to gain baseline information. The EPIS Framework considers two levels of context as influencing features of implementation for successful sustainability: the inner and outer contexts. The 'inner context' considers needs within a community and represents the needs of the rural workforce at the role and service level in this study. The 'outer context' considers policy and system influences and represents the needs of a sustainable (trauma-informed) rural PHC system at the structural level in this study.^{16,17}

2.2 | Context and geographical setting

The context for this research is a doctoral programme of work, conducted within a parent study which focuses on pregnancy and early parenthood. The aim of the broader, *Healing the Past by Nurturing the Future* project is to co-design culturally appropriate and feasible strategies for Aboriginal and Torres Strait Islander parents who may be experiencing complex trauma. The geographical setting for this study is PHC services in rural northern Victoria Australia.

2.3 | Design

The study design involved a cross-sectional survey using study-developed quantitative and open-ended questions. The 68-item online survey was developed using REDCap, a secure web application for data capture.¹⁸ Two main measures were included, and open-ended comments were

invited at three points in the survey. Survey completion time was approximately 15 min.

2.4 | Study inclusion criteria

Potential respondents were eligible if they: (i) were based in rural Victoria, Australia, (ii) delivered primary health care (of any type) to clients who are parents (pregnancy and early parenthood: that is child under 5 years of age) and (iii) worked in any of the following areas: general practice, community health, child and family services, or maternal and child health services. All roles were eligible to participate, from management (including board members) to 'frontline' staff (including reception staff and students on placement).

2.5 | Sample descriptors

Respondent characteristics were collected for location, service type, discipline, years working in primary care and estimated demographic characteristics of client group served (such as socio-economic status). Rural locality of the respondents' local government area (LGA) was categorised using the Modified Monash Model (MMM), which classifies location (1 [metropolitan] to 7 [very remote]), based on kilometre distance and town population size.¹⁹ We also asked about workforce training in trauma-informed care such as when training occurred (e.g. when gaining PHC qualifications) and the client group of focus (e.g. children, parents).

2.6 | Main measures

There are a range of existing validated tools related to trauma-informed organisational interventions²⁰ however, none of the existing tools fully met our study criteria. In the absence of existing rural workforce measures specific to trauma-informed care for parents experiencing complex trauma, we developed two measures: a Knowledge, Attitudes, and Practices (KAP) tool, and a Barriers and Enablers to Trauma-Informed Care Implementation (BETICI) tool. An over-inclusive pool of items was developed for each tool and reduced through iterative stages among study investigators and rural stakeholders as described below. KAP items were refined through content validation (ratings from three experts in parenting and complex trauma), and both tools underwent face validity testing and refinement with two groups of rurally based primary care practitioners ($n = 3$ and $n = 4$).

The KAP tool (File S1) included items drawn from previous studies,^{21,22} to assess three areas: (i) What people know, their understanding of a topic (knowledge domain); (ii) What people think or feel about the topic (attitudes domain) and (iii) What people do, the ways in which they demonstrate or have capacity (self-efficacy) to apply their knowledge and attitudes through their actions (practices domain).^{23,24} These three areas are connected concepts, used to assess gaps when preparing for change endeavours.²²

The final KAP tool consisted of seven items per index (total possible range: 21–105). Each item is rated on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree*. Knowledge scores were interpreted as less knowledge (strongly disagree/disagree) or greater knowledge (agree/strongly agree). Attitudes scores were interpreted as negative attitudes (strongly disagree/disagree) or positive attitudes (agree/strongly agree). Practices scores were interpreted as lower practice self-efficacy (strongly disagree/disagree) or higher practice self-efficacy (agree/strongly agree). Some items required reverse scoring.

The BETICI tool (File S2) selected items as context factors relevant to: the inner context – PHC role and service levels (workforce positions and, organisational influences), and the outer context – structural level (policy and system influences).¹⁷ The final 16-item BETICI tool consisted of eight items related to barriers and eight related to enablers on a 5-point Likert scale from 1 = *strongly disagree* to 5 = *strongly agree* (total possible range: 16–80).

Respondents were invited to answer three open-ended questions. These were placed before the relevant quantitative measure, to avoid influencing respondents' ratings: (1) *Do you have any thoughts or opinions to share on how your service engages with clients who are parents?*, (2) *What are your thoughts or opinions on how your service implements trauma-informed care for clients who are parents?* and, (3) *Thinking about trauma-informed care for clients who are parents, do you have any thoughts or opinions on staff training either at your service or in your region?* These questions were designed to capture more detailed information in relation to Research Question 2 (What do workers perceive as the barriers and enablers to implementing trauma-informed care?) and Research Question 3 (What are rural workforce perspectives on training needs in trauma-informed care?).

2.7 | Recruitment

Based on our knowledge of the size of rural services and the specificity of the survey recruitment criteria, we aimed for a sample size of 100 respondents. A similar workforce survey in regional Australia reported a sample size of

$n = 78$.²⁵ The survey link was distributed via email to targeted rural organisations and through professional networks. It was therefore not possible to calculate a response rate. The survey was open for completion from March to August 2021.

2.8 | Ethical considerations

Ethical considerations included the risk of triggering trauma-related distress associated with respondents' personal or work-related experiences, particularly in the context of the COVID-19 pandemic when uncertainty, anxiety, isolation and financial pressures were heightened.²⁶ To mitigate this risk, we provided a downloadable resource of support strategies and service contacts. The survey was anonymous, voluntary and no incentives were offered. This research was approved by the La Trobe University Human Ethics Committee ID: HEC20531.

2.9 | Data collection and analysis

Survey data were collected via the REDCap platform. All fields were specified as 'required', to prevent missing data. Quantitative data were analysed using SPSS (version 25). Respondent characteristics are reported using frequencies and percentages (rounded). Due to non-normal distribution of results nonparametric statistics were conducted and continuous variables are described using median (Md) and interquartile range (IQR).²⁷ In addition to the planned analyses, we conducted a posteriori analysis to explore the relationships between KAP and BETICI scores. Mann–Whitney *U*-tests were used to examine associations between groups (i.e. service type, location, workforce discipline and training) and knowledge, attitudes and practices and barriers and enablers. Effect sizes were determined using Cohen's criteria (0.10 small effect, 0.30 medium effect, 0.5 large effect). Spearman's (*sp*) correlation coefficients were used to explore relationships with KAP and BETICI scores.

The open-ended responses were examined using inductive template analysis by two authors (Carol Reid, Shannon K. Bennetts) and discussed with a third (Catherine Chamberlain). Template analysis is a flexible, qualitative method for organising and analysing textual data.²⁸ Firstly, Carol Reid and Shannon K. Bennetts independently coded the same random 50% subsample for all three questions. These codes formed a draft template that was further refined (Carol Reid/Shannon K. Bennetts) when applied to the full dataset. Carol Reid, and Catherine Chamberlain examined the coded dataset for patterns and grouped codes into themes.

3 | RESULTS

As shown in [Figure 1](#), 63 individuals fully completed the survey. Only fully completed surveys were included in analysis of results. Respondents who only completed the characteristics section were demographically similar to those who completed the whole survey.

3.1 | Respondent characteristics

Respondents were mainly female ($n = 56$, 91%), aged 19–67 years (Md = 43, SD = 12), and had between 1 and 40 years of experience in PHC (Md = 10, SD = 9). [Table 1](#) shows respondent characteristics.

Respondents estimated that two-thirds (67%) of their service's clients were of lower socio-economic status (descriptors used in the survey were unemployed, poorer housing and lower food security). Client diversity was estimated by respondents as: parents with a disability (18%); refugee or asylum seeker backgrounds (7%); and Aboriginal and/or Torres Strait Islander parents (5%). Respondents' indications of previously received training in trauma-informed care are provided in [Table 2](#).

3.2 | Respondent knowledge, attitudes and practices in trauma-informed care for complex trauma (research question 1)

Internal consistency was acceptable for the entire KAP tool ($\alpha = 0.77$), below acceptable (i.e. < 0.7) for the Knowledge domain ($\alpha = 0.60$) and Attitudes domain ($\alpha = 0.62$), and

good for the Practices domain ($\alpha = 0.85$). [Table 3](#) provides KAP item scores (frequency, percentage, Md, SD) and for each KAP domain (Md, SD). Examining for relationships between groups and the main measures showed practices was associated with services type. Respondents working in child and family services (Md = 20, $n = 24$) were more likely to report higher practice self-efficacy in trauma-informed care, compared to the community health services group (Md = 18, $n = 41$, $U = 717.50$, $z = 3.11$, $p = 0.002$, $r = 0.39$). Practice self-efficacy was also associated with training. Respondents who had trauma-informed care training (Md = 20, $n = 43$) were more likely to report higher practice self-efficacy compared to the group with no training (Md = 13.50, $n = 20$, $U = 55.50$, $z = -5.61$, $p = 0.00$, $r = 0.65$). There were no between group differences in KAP scores for location (i.e. MMM3 or MMM5 groups) or discipline (e.g. the social worker group and other disciplines).

3.3 | Respondent ratings on barriers and enablers to trauma-informed care implementation (research question 2)

Respondents' perceptions of the barriers and enablers to trauma-informed care implementation are shown in [Table 4](#). The table includes the sub-domains of context levels: role and service (inner context) and structural (outer context). Ratings of barriers were higher at the structural level (outer context), with large numbers rating neither disagree/agree for some items (see [Table 4](#)). For example, 43% ($n = 27$) selected neither disagree/agree to the question: 'Most primary care services lack awareness about the benefits of trauma-informed approaches'.

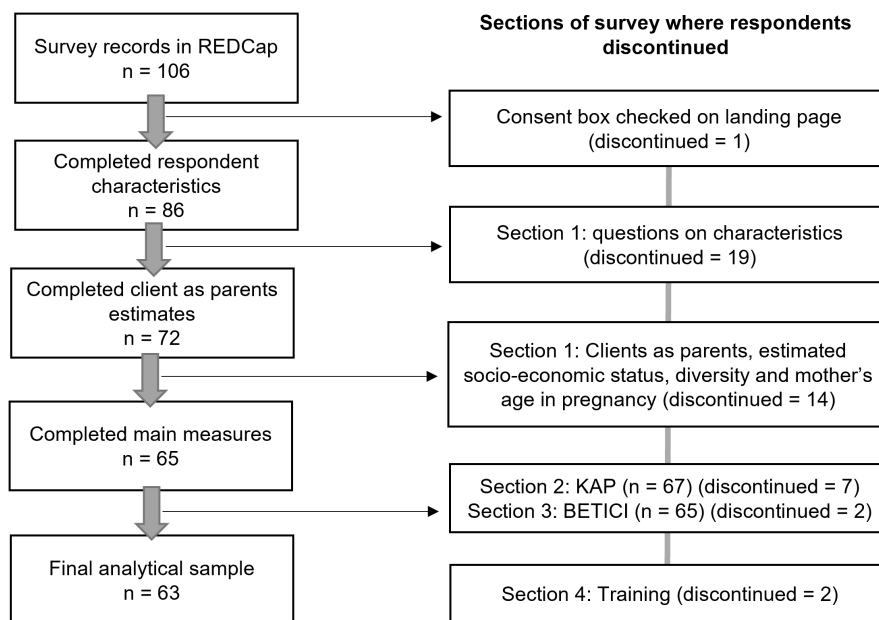


FIGURE 1 Respondent flow chart of survey completion

TABLE 1 Characteristics of respondents who completed the survey ($n = 63$) and those who provided characteristics data only ($n = 23$)

	Characteristics only ($N = 23$)	Completed survey ($N = 63$)
	n (%)	n (%)
Age (years)		
19–29	4 (17)	3 (5)
30–39	8 (35)	21 (33)
40–49	5 (22)	15 (24)
50–59	4 (17)	13 (21)
60 plus	2 (9)	11 (18)
Born in Australia		
Yes	20 (87)	54 (86)
No	3 (13)	9 (14)
Location^a		
MMM 2 (e.g. large regional centre)	2 (9)	0 (0)
MMM 3 (e.g. regional town)	15 (65)	37 (59)
MMM 4 (e.g. rural township)	3 (13)	0 (0)
MMM 5 (e.g. rural community)	3 (13)	26 (41)
Setting		
Non-government	9 (39)	30 (48)
Government	14 (61)	33 (52)
Service type		
General practice	2 (9)	0 (0)
Community health	15 (65)	41 (63)
Child & family services	5 (20)	24 (37)
Maternal & child health services	1 (4)	0 (0)
Discipline		
Case manager (e.g., family violence, AOD support workers)	5 (22)	12 (19)
Education, HR and/or administration	3 (13)	7 (11)
Nurse (includes MCHN)	4 (17)	10 (16)
Allied health (e.g., health promotion, practice support, dietician)	3 (13)	13 (21)
Social worker	8 (35)	21 (33)
Years in primary care		
1–9	11 (48)	26 (41)
10–19	9 (39)	26 (41)
20–29	1 (4)	6 (10)
30–40	2 (9)	5 (8)
Years at current service		
1–8	20 (87)	43 (68)
9–18	1 (4)	14 (22)
19–28	1 (4)	5 (8)
29–35	1 (4)	1 (2)

Abbreviations: AOD, Alcohol and other drugs; HR, Human Resources, MCHN, Maternal and Child Health Nurse.

^aLocation according to Modified Monash Model.

Regarding between group differences: recognition of barriers to trauma-informed implementation was associated with respondents' training in trauma-informed

care. Those who had undertaken training ($Md = 14.00$, $n = 43$), were more likely to identify higher barriers to trauma-informed care compared to those with no training

TABLE 2 Respondents' previous training in trauma-informed care ($n = 63$)

	Yes n (%)	No n (%)	Cannot remember n (%)
Previous training in trauma-informed care	43 (78)	20 (22)	0 (0)
Timing of training undertaken			
Current position	34 (54)	26 (41)	3 (5)
Past position/s	29 (46)	31 (49)	3 (5)
When gaining qualifications	20 (32)	39 (62)	4 (6)
Client group focus of training			
Children	28 (44)	35 (56)	0 (0)
Adults	29 (46)	34 (54)	0 (0)
Parents	21 (33)	42 (67)	0 (0)
Families	24 (38)	39 (62)	0 (0)
General	19 (30)	44 (70)	0 (0)
Did training improve practice?			
	Yes, a lot n (%)	Somewhat n (%)	Not at all n (%)
	26 (61%)	16 (37%)	1 (2%)

(Md = 15.50, $n = 20$ $U = 632.50$, $z = 3.02$, $p = 0.003$, $r = 0.038$). The recognition of enablers to trauma-informed care implementation was negatively associated with respondents' training; those who had undertaken training (Md = 21, $n = 43$), identified fewer enablers compared to those with no training (Md = 20, $n = 20$, $U = 218.50$, $z = -3.18$, $p = 0.001$, $r = 0.40$). There were no differences for recognition of barriers and enablers between the groups of service type, location or workforce discipline.

3.4 | Relationships between KAP and BETICI scores (posteriori analysis)

Correlations between KAP and BETICI scores ranged from 0.54 to -0.39 (see File S3). Respondents identifying greater knowledge also had more positive attitudes ($r_{sp} = 0.32$, $p < 0.01$). Those with greater knowledge had a negative relationship to enablers ($r_{sp} = -0.25$, $p < 0.05$), meaning they identified fewer enablers. Those respondents with higher practices had a positive relationship to identification of enablers ($r_{sp} = 0.54$, $p < 0.01$). Table 3: Frequencies for respondent Knowledge, Attitudes and Practices regarding trauma-informed care for complex trauma.

3.5 | Opinions on engagement with parents, trauma-informed care implementation and perspectives on training needs (research questions 2 and 3)

Responses to three open-ended questions were analysed: (1) service engagement with parents ($n = 49$, 78%, Md word count 27); (2) service implementation of trauma-informed

care ($n = 32$, 51%, Md word count 33) and; (3) service or regional trauma-informed care training ($n = 35$, 56%, Md word count 18). Table 5 provides illustrative quotes of the four themes and related barriers and enablers.

Recognition and understanding (Theme 1) described the intersectional needs of clients as parents and PHC perceptions in recognising and understanding client diversity and associated intersectional needs. Barriers were views of clients as separate from their identity as a parent. Trauma-informed care was enabled when clients were viewed holistically by PHC workers. Particularly, when workers connected clients' identity as a parent to the presenting issue to determine the most appropriate support required. Illustrative examples include absence or presence of recognition and understanding of rural parents' intersectional needs such as gender, race and clients experiencing complex trauma (e.g. lack or availability of trauma-informed care processes and frameworks and workforce training – preferably tailored approaches).

Access factors (Theme 2) described common access issues exacerbated in rural service settings or more complex in rural areas such client socio-economic status, availability of information, transport, referral pathways, and service, programme, or workforce funding. Specific access areas (absence or presence) relevant to clients as parents and trauma-informed care were availability of programmatic or sensitive models-of-care, and the resourcing of therapeutic 'time' (e.g. time to listen, longer appointment times and scheduling flexibility).

Multidisciplinary and collaborative approaches (Theme 3) described service and interprofessional barriers and enablers to provide support to parents experiencing complex trauma. It also described perspectives on client-centred care to build relationships and provide holistic support for

TABLE 3 Frequencies for respondent knowledge, attitudes and practices regarding trauma-informed care for complex trauma

	Strongly disagree n (%)	Disagree n (%)	Neither disagree or agree n (%)	Agree n (%)	Strongly agree n (%)	Mid (IQR)
Knowledge	Less knowledge		↔	Greater knowledge		20 (139)
1. Complex trauma can have lifelong effects on a person's well-being (e.g. physical, social, emotional, spiritual and mental health).	0 (0)	0 (0)	0 (0)	4 (6)	63 (94)	5 (4)
2. Adverse experiences in childhood are the most common cause of complex trauma.	0 (0)	1 (2)	6 (7)	41 (61)	19 (28)	4 (18)
3. Primary care service provision can trigger complex trauma-related reactions.	1 (2)	5 (8)	17 (25)	39 (58)	5 (8)	4 (12)
4. Parents with a trauma history or complex trauma will show obvious signs of distress. ^(R)	5 (8)	1 (2)	21 (31)	7 (10)	33 (49)	2 (16)
5. Trauma-informed care is an approach that recognises and acknowledges the impact of complex trauma on people's lives	1 (2)	0 (0)	2 (3)	34 (51)	30 (45)	4 (29)
6. To use trauma-informed approaches you must know specific details of a parent's trauma history. ^(R)	11 (16)	1 (2)	10 (15)	10 (15)	35 (52)	2 (1)
7. Trauma-informed care includes promoting physical, cultural, psychological and emotional safety.	0 (0)	1 (2)	2 (3)	22 (33)	42 (63)	5 (21)
Attitudes	Negative attitudes		↔	Positive attitudes		16 (137)
1. Parents with past trauma always find parenting difficult. ^(R)	3 (5)	18 (27)	26 (39)	19 (28)	1 (2)	3 (16)
2. Parents with complex trauma are not able to provide nurturing care to their child/ren. ^(R)	0 (0)	2 (3)	8 (12)	34 (51)	23 (34)	2 (21)
3. It is not possible to recover from complex trauma as the damage is already done. ^(R)	0 (0)	0 (0)	7 (10)	38 (57)	22 (33)	2 (22)
4. All primary care staff should have a sound understanding of trauma-informed care.	0 (0)	1 (2)	3 (5)	27 (42)	34 (52)	5 (26)

TABLE 3 (Continued)

	Strongly disagree n (%)	Disagree n (%)	Neither disagree or agree n (%)	Agree n (%)	Strongly agree n (%)	Md (IQR)
5. Trauma-informed care offers nothing new for primary care staff in supporting parents with past trauma. ^(R)	0 (0)	0 (0)	5 (8)	38 (59)	22 (34)	2 (22)
6. Primary care service provision can be adapted to make it less stressful for parents experiencing complex trauma.	0 (0)	0 (0)	5 (8)	43 (66)	17 (26)	4 (17)
7. All primary care services have a responsibility to improve awareness of complex trauma.	0 (0)	1 (2)	3 (5)	21 (32)	40 (62)	5 (20)
Practices	Lower self-efficacy		↔	Higher self-efficacy		19 (43)
1. I fully understand the principles of trauma-informed care.	4 (6)	10 (15)	21 (31)	28 (42)	4 (6)	3 (17)
2. I can identify a parent who may be experiencing complex trauma.	3 (5)	4 (6)	20 (31)	32 (49)	6 (9)	4 (16)
3. I can identify service situations where a parent might experience complex trauma related distress.	1 (2)	4 (6)	12 (19)	40 (62)	8 (12)	4 (8)
4. I have colleagues I can talk to if I am concerned about supporting a parent experiencing complex trauma-related distress	0 (0)	3 (5)	3 (5)	41 (63)	18 (28)	4 (15)
5. I can look after my own well-being, while supporting parents who are experiencing complex trauma.	1 (2)	1 (2)	6 (9)	47 (72)	11 (17)	4 (10)
6. I have sound knowledge of trauma-informed practices.	2 (3)	13 (20)	12 (19)	32 (49)	6 (9)	4 (7)
7. I am skilled in the use of trauma-informed practices.	7 (11)	12 (19)	16 (25)	28 (43)	2 (3)	3 (9)

Note: (R) Scores reversed in results presented.

Knowledge questions 4 and 6, strongly disagree and disagree indicate greater knowledge.

Attitude questions: 1,2,3 and 5, strongly agree and agree indicate negative attitudes.

TABLE 4 Frequencies for respondent agreement on barriers and enablers to trauma-informed care implementation

Barriers	Strongly disagree n (%)	Disagree n (%)	Neither disagree or agree n (%)	Agree n (%)	Strongly Agree n (%)	Md (IQR)	Context level
1. It's not part of my job to provide trauma-informed approaches.	29 (45)	24 (38)	7 (11)	1 (2)	3 (5)	2 (21)	Role (inner)
2. There is a lack of information and resources to learn about trauma-informed approaches.	5 (8)	17 (27)	20 (31)	18 (28)	4 (6)	3 (13)	Role
3. Trauma-informed approaches are not necessary for the parents who access our services.	34 (54)	24 (38)	4 (6)	1 (2)	0 (0)	1 (23)	Service (inner)
4. Trauma-informed approaches are not relevant to my organisation's core business.	32 (51)	26 (41)	3 (5)	2 (3)	0 (0)	1 (24)	Service
5. Trauma-informed approaches would be/are considered a burden on resources.	18 (29)	23 (37)	16 (25)	5 (8)	1 (2)	2 (13)	Service
6. Most primary care services lack awareness about the benefits of trauma-informed approaches.	1 (2)	9 (14)	27 (43)	23 (37)	3 (5)	3 (20)	Structural (outer)
7. There is a lack of therapeutic-specific services to treat parents with complex trauma.	1 (2)	2 (3)	16 (25)	26 (41)	18 (29)	4 (16)	Structural
8. There are no universal referral pathways for support for parents experiencing complex trauma.	0 (0)	4 (6)	21 (33)	29 (46)	9 (14)	4 (17)	Structural
Enablers							
1. I am highly motivated to learn more about trauma-informed approaches for parents with complex trauma.	0 (0)	2 (3)	10 (16)	27 (42)	25 (39)	4 (23)	Role (inner)
2. Regular training in trauma-informed approaches need to be offered at different levels of expertise.	0 (0)	0 (0)	2 (3)	32 (50)	30 (47)	4 (30)	Role
3. I am well supported through established processes for regular reflection on my practice.	2 (3)	7 (11)	19 (30)	25 (39)	11 (17)	4 (12)	Role
4. I am highly motivated to be part of a group at my organisation that implements trauma-informed approaches.	0 (0)	5 (8)	16 (25)	23 (36)	20 (31)	4 (15)	Service (inner)
5. Management would/do support trauma-informed training for all staff.	2 (3)	3 (5)	11 (18)	39 (62)	8 (13)	4 (8)	Service
6. Trauma-informed approaches would/do greatly improve outcomes for all parents.	0 (0)	0 (0)	4 (6)	33 (52)	26 (41)	4 (26)	Service
7. There are existing service networks which advocate for trauma-informed approaches.	1 (2)	5 (8)	31 (49)	22 (35)	4 (6)	3 (18)	Structural (outer)
8. There is local, context-specific training available about trauma-informed approaches.	3 (5)	19 (30)	30 (48)	11 (18)	0 (0)	3 (16)	Structural

TABLE 5 Themes identified in open-ended comments, with illustrative quotes of barriers and enablers (research questions 2 and 3)

	Engagement of clients as parents	Service implementation of trauma-informed care	Service or regional training in trauma-informed care
1) Recognition and understanding			
Illustrative quotes			
Barriers	<i>No experience of how parents engage though current employer with pregnancy and age demographic. (ID 58)</i>	<i>I have no knowledge of this process. (ID 19)</i>	<i>I'm not aware of my organisation offering trauma informed training. (ID 01)</i>
Enablers	<i>We particularly have a trauma informed lens and recognise from referral information impacts of parental and intergenerational trauma and are mindful of this as we engage with the parents. (ID 76)</i>	<i>We recognise that if trauma occurred as a child, we know and work with the fact that raising your own child can be a triggering experience, so we implement therapeutic interventions to assist our clients to heal from this experience. (ID 37)</i>	<i>Trauma informed practice would be ideal to have included in or in addition to Mandatory Training for all staff. (ID 32)</i>
2) Access factors			
Illustrative quotes			
Barriers	<i>We used to have a dedicated Parenting Education program that does not run anymore, I think this has created a gap in supporting parents in our organisation. (ID 43)</i>	<i>Limited services available, need more f/ups [follow-ups] and further support in early parenting years (ID 66)</i>	<i>Any training needs to be accessible (face to face &/or online), affordable and relevant to local population needs. (ID 02)</i>
Enablers	<i>We try to be flexible with appointment times and dates, try to co-ordinate care so fewer visits to the health service are required (if transport is a problem) e.g., schedule various appointments together, e.g. midwife, ultrasound, dietician. (ID 34)</i>	<i>Trauma-informed care is integrated into all aspects of our practice with parents and children. Providing support and assistance through a 'trauma' lens enables us to adapt our practice, enhance healing and access to services to meet needs. (ID 30)</i>	<i>Due to COVID many good resources have been developed for online training which has made a difference for primary care providers living in regional areas. (ID 91)</i>
3) Multidisciplinary and collaborative approaches			
Illustrative quotes			
Barriers	<i>Some parts of the service are very good at this, others see this as an extra task and not their role. (ID 103)</i>	<i>Specialised training in this area would be beneficial. Holistically implemented, general training and monthly reflective practice. Setting realistic expectations on what the service can provide. (ID 66)</i>	<i>Training tailored to support health services/ front line workers to understand trauma to enable care and curiosity with working with patients. This would enable a greater understanding of behaviours that present as a result of trauma and nursing/health workers knowing how to appropriately support, increase safety and care for the patient. (ID 07)</i>
Enablers	<i>We liaise with other services and do care team meetings/approach – open-up and maintain communication with other service providers and client. We create goals with her that she wants to achieve. We do risk assessments and safety plans with her. We advocate for her and her baby. (ID 41)</i>	<i>Our service has learning opportunities for new and existing staff to hone their knowledge and skills in the area of trauma informed care and as a workforce we are very knowledgeable. (ID 76)</i>	<i>... more opportunity to bring high quality intensive training to town, ... to collaboratively work together ... to bring training that meets local needs, to in the long run cuts costs for travel and accommodation. There is a need to have training re-run as new people enter the field and have more advanced training for those who have been working in the field for some time. (ID 03)</i>

(Continues)

TABLE 5 (Continued)

	Engagement of clients as parents	Service implementation of trauma-informed care	Service or regional training in trauma-informed care
Strengths-based and outcome focused approaches			
Illustrative quotes			
Barriers	<i>Generally speaking, services tend to engage with parents when there is some crisis, and/or when parents are ordered by a statutory body to engage. (ID 32)</i>	<i>The medical model can unfortunately be distressing and triggering for some clients. Our CAMHS [Child and Adolescent Mental Health Service] service is based at the hospital itself which is not ideal. We should be more community based. Our systems and protocols whilst necessary can sometimes create further distress. We can be intrusive and invasive and sometimes when safety risks occur restrictive (although last resort). (ID 106)</i>	<i>All professional, clinical and community service workers should be trained about trauma informed practice in our area because we are a large resettlement area for refugees, and all refugees have trauma backgrounds. (ID 83)</i>
Enablers	<i>Using a Case Management process which involves all family members and is focused on the safety, well-being and development of children. (ID 30)</i>	<i>Whilst witnessing and honouring a person's stories and the effects of past trauma(s) upon them and their children, we offer support and ways for them to experience the memories, digest them, normalise their responses, be grounded and expressive. Then move to offering ways to live differently, peacefully, co-operatively, kindly and safely in their families. (ID 41)</i>	<i>Staff training is always encouraged to provide better outcomes for children and families in our service. (ID 09)</i>

parents with complex care needs. Examples include attitudes, communication and practice skills and knowledge.

Strengths-based and outcome-focused approaches (Theme 4) captured descriptions about outcomes and well-being for parents with complex care needs through engagement strategies, trauma-informed care implementation and workforce training. Illustrative examples describe barriers as narrow system structures and deficit-based or crises approaches, and enablers as supporting parent outcomes through positive, goal-orientated and strengths-based approaches.

4 | DISCUSSION

The goal of this research was to describe workforce knowledge, attitudes and practices and perceptions of barriers to and enablers of trauma-informed care PHC service delivery involving parents. The study found the rural workforce generally self-rated their knowledge, attitudes and practices for trauma-informed care as positive. Perceived barriers were largely external structural factors such as

the availability of universal referral pathways and access to therapeutic-specific services to support parents experiencing complex trauma. The rural workforce perspectives on training identified a need for context relevant training, benefits in collaborative approaches and gaps at the structural and service levels in embedding training into tertiary curriculums and organisational systems.

This study is unique in connecting both the inner (role and service) and outer (structural) level contexts of rural PHC to examine trauma-informed care for clients who are parents. Workforce awareness of complex trauma is an important enabler to establish a trauma-informed culture. However, the absence of broader structural supports affects workforce and service capacity in rural contexts to provide sustainable, wrap-around care for clients who are parents experiencing complex trauma; these are significant barriers with implications for PHC policy decision-making.

The 2021 Royal Commission into Victoria's mental health system noted the experience of poor mental health and well-being is different in rural and regional areas and highlighted multiple access challenges such

as lack of local services, local stigma, workforce and speciality shortages.²⁹ Our findings support the recommendations for strengthening approaches to addressing trauma and, for improved regional-led commissioning of services to specifically respond to local rural communities recognising the unique strengths and challenges of each region.²⁹

Based on our findings, there is an imperative for a rural PHC trauma-informed care implementation strategy. We identified the need to increase recognition and understanding, address access factors, aid multidisciplinary and collaborative approaches, and facilitate strength-based and outcome-focused approaches in order to develop sustainability in rural contexts.

Training was identified as important at the inner (role and service) and outer (structural) levels. There is evidence that one-off, generic trauma-informed care training is less effective than systemic, context relevant approaches. A single training session has limited effect on sustained behaviour change and, there is little evidence of improved client outcomes.^{20,25} Our findings recommend that trauma-informed care training should be embedded in PHC workforce service inductions processes, regularly updated, and with on-going training opportunities which align with the worker's position and their service setting. Respondents' comments support the need for contextually specific training relevant to population characteristics which would increase understanding of client's intersectional needs. Including bicultural workforce models would build skills in providing social and emotional care for diverse client groups,³⁰ this will require increased structural level investment. Additionally at the structural level, trauma-informed care training should be included when gaining primary health care qualifications and in higher education curricula.

Our study emphasises the importance of increasing recognition and understanding of respectful engagement with diversity across client groups. Engagement is part of developing a partnership in care and is associated with increased PHC utilisation and follow-up.⁸ Client diversity in culture, race, gender and, roles within, such as parent, carer or community leader impacts effective service support. Applying an intersectionality lens to service delivery increases understanding of the intersecting factors of diversity to reduce axes of power, oppression and inequality. This lens fosters client safety and inclusion of client voice, choice and control when accessing service support.^{31,32} A rural PHC trauma-informed care implementation strategy would prioritise diversity and the social determinants of health relevant to people and place. Recognition and understanding of clients' diversity from PHC organisational board to reception desk is critical to be responsive to parents' cultural, historical and gender issues.¹²

We identified access factors highly relevant to the disadvantages of rurality: service availability, adaptability and coordination. These examples are critical in trauma-informed care to reduce fragmented service and re-traumatisation, and to enable longer term, safe, and sensitive relationships with PHC staff.^{33,34} Our study highlights the need for therapeutic service delivery and therapeutic-specific services for treatment; both are rural trauma-informed care access factors. The PHC workforce do not have to be therapists to be therapeutic,¹² but need 'therapeutic time' built into service delivery processes. This means resourcing to have the time to listen, be empathetic and show compassion in care interactions. An important rural structural factor is access to therapeutic-specific treatment models and specialist trauma expertise. This requires policy decision-making in equitable coordination and facilitation to establish system-wide referral pathways and increased PHC knowledge of therapeutic-specific services accessible to the rural population experiencing complex trauma.

The capacity of the rural PHC workforce is strengthened with collaboration and multidisciplinary approaches by reducing feelings of professional isolation and increasing knowledge and skills as the worker is exposed to different viewpoints from different disciplines.^{15,35} As our findings indicate, a rural trauma-informed care implementation strategy would be enhanced through increasing collaborative inter-organisational opportunities in: sharing of resources and training costs, joint development of supervision processes, planning for translation of trauma-informed care principles to practice and, strategies for self-care and support for vicarious trauma.^{35,36} As the integration of trauma-informed care is linked with healthier work environments and increased workforce satisfaction,³⁵ this could assist with workforce recruitment and retention challenges in rural PHC.

A rural PHC implementation strategy requires engagement with community stakeholders which can be enabled through collaborative approaches. Consumer advisory groups are essential for trauma-informed care implementation.¹² Rural PHC involves smaller numbers of client populations than urban settings hence, these services could collaborate in seeking and using consumer feedback. Collaborative mechanisms to gather feedback reduces client burden, supports the identification of local needs which can then be collated and used by services in more robust and innovative ways to address gaps as perceived by clients. This would help to increase understanding of complex care needs in a given location. This element links to our final finding of strength-based and outcome-focused approaches.

Our study underlines the importance for rural PHC to be adequately resourced to implement trauma-informed

care. As illustrated by the systematic review by Bryson et al. (2017), important implementation factors which require resourcing include building leadership skills within organisations, support for staff, listening to the client group and program models.³⁷ Rural PHC requires resource capacity to embed models which facilitate strength-based and outcome-focused approaches with clients who are parents and may be experiencing complex trauma. Strength-based approaches view clients as resilient, bringing their own knowledge and experience to the care relationship or issue of concern.^{38,39} Strengths perspectives also recommend using community knowledge to increase awareness and recognition of historical trauma.^{38,39} Outcome-focused approaches emphasise self-determination in care relationships to aid development of long-term goals to promote healing. The use of these approaches can be supported in PHC service delivery models through employing peer support workers and providing workforce mentoring, and structurally, at the policy level, by increasing early intervention models-of-care to reduce crises-driven and deficit-based approaches.³⁴

4.1 | Study strengths, limitations and future directions

This study used a rigorous stepped process to develop the main measures for the survey (KAP, BETICI). However, these tools would benefit from further testing and refinement. The midpoint in the bipolar response scale (neither disagree/agree) appeared problematic with high selection for some items. Research suggests the mid-point can be the 'hidden don't know' – a type of socially desirable responding.⁴⁰ Social desirability bias can reflect lack of familiarity on a topic or a desire to select an answer, which is more socially acceptable.⁴⁰ Thus, the positive self-reported Knowledge, Attitudes and Practices for our group of respondents may have been influenced by social bias amongst PHC peers.

A strength of the study was the multidisciplinary team: one a rural PHC practitioner (Carol Reid), and the others are experts in parenting and complex trauma. The study benefited by combining quantitative and qualitative data, adding depth and understanding to our findings. We also acknowledge several limitations, including a relatively small sample size, and the lack of a known eligible population to calculate a response rate.

The extent to which these findings are generalisable to other rural PHC contexts is unclear. Respondent diversity was limited with survey completers mainly in direct care roles and we were not successful in recruiting any general practitioners. A significant limitation was the impact of the COVID-19 pandemic on survey recruitment, with

multiple urgent demands on rural PHC staff occurring during the data collection period.

A future direction is the tools developed for this study may be useful for auditing or an initial baseline activity, either within a single service or a collaboration of rural services. The tools could be employed to explore and understand barriers to trauma-informed care implementation prior to undertaking potentially resource intense change strategies. Our findings indicate further, more extensive rural PHC research studies are warranted to understand for example, the barriers to therapeutic-specific services. This is particularly relevant to geographic location and population diversity (e.g. Aboriginal and Torres Strait Islander and migrant and refugee communities), and appropriate access and therapeutic modalities to treat parents with complex trauma. In addition, there is a need to examine policy and structural support needs for system-wide integration of trauma-informed care, such as resourcing for bi-cultural workforce models.

5 | CONCLUSION

The rural PHC context offers an important opportunity for services to support clients during pregnancy and early parenthood who may be experiencing complex trauma. Structural barriers encountered by rural services limit trauma-informed care implementation. System approaches to trauma-informed service delivery however, have been identified as critical for long-term population health and well-being. Our findings have policy and research implications in identifying a possible rural PHC implementation strategy. The existing positive knowledge, attitudes and practices of the workforce could be leveraged as enablers. However, the barriers of therapeutic access, trauma recognition and understanding across PHC services must be addressed through collaboration and strength-based and outcome-focused approaches. The immediate and long-term training requirements of the rural PHC workforce must be factored into implementation planning to offer a whole-of-system approach to sustainable trauma-informed care.

AUTHOR CONTRIBUTIONS

CR: conceptualisation of the study (lead); Methodology and formal analysis; Original manuscript draft preparation, Writing, reviewing and editing (lead). SKB: Methodology and formal analysis; writing, reviewing and editing. JMN: Methodology and reviewing and editing. LHA: Reviewing and editing. CC: Methodology and formal analysis; Writing reviewing and editing. All authors approved the final manuscript.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this paper will be made available by the authors, on request.

ETHICAL APPROVAL

This study was reviewed and approved by The La Trobe University Human Ethics Committee, under the following number [HEC20531], January 19 2021.

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SUPPORTING INFORMATION

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

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