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Barriers and facilitators to cervical cancer screening for women from culturally and linguistically diverse backgrounds; a qualitative study of GPs

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7 2 **Barriers and facilitators to cervical cancer screening for women**
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10 3 **from culturally and linguistically diverse backgrounds; a**
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13 4 **qualitative study of GPs**
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3 18 **ABSTRACT**
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6 19 **Objective** To explore general practitioners' (GPs) perspectives on the barriers and facilitators
7
8 20 to cervical cancer screening (CCS) for women from culturally and linguistically diverse
9
10 21 (CALD) backgrounds.
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15
16 23 **Design** Qualitative descriptive study involving semi-structured interviews, with interview guide
17
18 24 utilising the Theoretical Domains Framework.
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22 25
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25 26 **Setting** Adelaide, South Australia.
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29
30 28 **Participants** Twelve GPs with experience in providing CCS to women from CALD
31
32 29 backgrounds participated.
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36 30
37
38
39 31 **Results** Four main themes emerged: 'importance of clinician-patient relationship', 'patients'
40
41 32 cultural understanding regarding health care and CCS', 'communication and language' and
42
43 33 'health-system related'. Each theme had several subthemes. GPs' professional relationship
44
45 34 with their patients and repeated advice from other clinicians, together with the provision of
46
47 35 opportunistic CCS, were described as facilitators, and encompassed the theme of 'importance
48
49 36 of clinician-patient relationship'. This theme also raised the possibility of self-collection
50
51 37 human papilloma virus (HPV) tests. Lack of awareness and knowledge, lower priority for
52
53 38 cancer screening, and patients' individual circumstances contributed to the theme of
54
55 39 'patients' cultural understanding regarding health care and CCS', and often acted as barriers
56
57 40 to CCS. 'Communication and language' consisted of language difficulties, interpreter use,
58
59
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1
2
3 41 and use of appropriate resources. Language difficulties was a barrier to the provision of CCS,
4
5 42 and GPs used interpreters and written handouts to help overcome this. The theme of ‘health-
6
7 43 system related’ involved the increased time needed for CCS consults for CALD women,
8
9 44 access to appointments, funding, health promotion and effective use of practice management
10
11 45 software.
12
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17

18 47 **Conclusions** This study highlights that multiple, inter-related barriers and facilitators
19
20 48 influence CALD women’s engagement with CCS, and that GPs needed to manage all of these
21
22 49 factors in order to encourage CCS participation. More efforts are needed to address the
23
24 50 barriers to ensure that GPs have access to appropriate resources, and CALD patients have
25
26 51 access to GPs they trust.
27
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29

30 52 **STRENGTHS AND LIMITATIONS**

- 31
32
33 53 - The use of qualitative methodology allowed for in-depth exploration of GPs’
34
35 54 experiences in providing cervical cancer screening to women from CALD
36
37 55 backgrounds
- 38
39 56 - The use of the Theoretical Domains Framework in the interview guide and study
40
41 57 discussion, provided an evidence-based approach for study interpretation
- 42
43 58 - GPs who participated in our study had a general interest in improving cervical cancer
44
45 59 screening participation for CALD women, so their experiences may not be reflective
46
47 60 of all GPs in Australia
- 48
49 61 - Participants were drawn from metropolitan South Australia only, and GPs from other
50
51 62 areas in Australia, including rural areas, may add further to the study
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64 **INTRODUCTION**

65 Worldwide, cervical cancer is the fourth most common cancer in women; in both incidence
66 and mortality, with the highest burden in countries without cervical screening programs(1, 2).

67 Cervical cancer should largely be preventable, through human papilloma virus (HPV)
68 immunisation and effective screening programs(2). In Australia, the renewed National
69 Cervical Screening Program (rNCSP) has been in place since 1 December 2017,
70 recommending asymptomatic women aged 25-74 years undertake HPV screening tests every
71 five years, replacing two-yearly Pap smears(2-4).

72 However, participation in cervical cancer screening (CCS) remains low, with the Australian
73 Institute of Health and Welfare reporting that during 2018–2019, only 46% of eligible
74 women had a screening HPV test as part of the rNCSP(2). It is well-established that a
75 significant risk factor for the development of cervical cancer is under-screening or never
76 being screened(2, 3). Therefore, less than half of eligible women participating in CCS, in a
77 country with a well-developed screening program, needs to be addressed, in particular as
78 Australia plans to eliminate cervical cancer by 2035(5).

79 Current literature suggests that inequalities in screening persist with lower rates of CCS in
80 women from culturally and linguistically diverse (CALD) backgrounds(6, 7). Australia is a
81 multicultural nation, with growing migrant populations, and this calls to strengthen our
82 healthcare access and outcomes for these populations(8). Addressing such inequalities will be
83 key to Australia's success in eliminating cervical cancer.

84 Research has been performed in Australia(6, 7, 9) and internationally(10-14) exploring
85 CALD patients' perspectives on the barriers and facilitators to CCS. Patient barriers have
86 included poor health literacy, cultural beliefs and stigma, and English proficiency(6, 10, 12).
87 Comparably, linguistic strategies, and increasing patients' awareness surrounding CCS are

1
2
3 88 described as facilitators(12, 13). Although international studies have explored health care
4
5 89 providers' (HCP) perspectives on CCS; reporting barriers and facilitators relating to
6
7
8 90 knowledge, communication, and access to healthcare services(15-17), very little is known
9
10 91 about Australian HCP perspectives on this issue. To the best of the authors' knowledge,
11
12 92 Australian general practitioners' (GPs) perspectives on barriers and facilitators to CCS in
13
14 93 CALD patients have not been documented.

15
16
17 94 Therefore, this study aims to explore GPs' perspectives on the barriers and facilitators to CCS
18
19 95 for women from CALD backgrounds. By discovering the views of those who primarily
20
21 96 provide CCS in the community, we aim to gain a deeper understanding of the barriers faced
22
23 97 in every-day clinical practice, and insights into factors that can be used to increase
24
25 98 participation in CCS for these women.
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31 32 33 100 **METHODS**

34 35 101 **Study design and setting**

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37
38 102 A qualitative descriptive study involving in-depth semi-structured interviews was conducted
39
40 103 in Adelaide, South Australia. Semi-structured interviews enabled exploration of participants'
41
42 104 experiences. The interviews were undertaken by the lead author, AC; a GP Registrar.
43
44
45

46 105 **Recruitment**

47
48
49 106 Study participants were recruited through purposive sampling. General practices located in
50
51 107 communities with migrant populations, registered with GPEx (South Australia's Regional
52
53 108 Training Organisation for General Practice Registrars), and/or professional contacts of
54
55 109 Discipline of General Practice at The University of Adelaide, were identified, and GPs with
56
57 110 experience in providing cervical screening tests (CSTs) to women from CALD backgrounds
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1
2
3 111 were invited to participate in interviews through email, telephone, or snowballing methods.

4
5 112 GPs were reimbursed with a \$AUD100 gift card for their time.

6
7
8 113 **Data collection**

9
10
11 114 A semi-structured interview guide utilising the Theoretical Domains Framework (TDF)(18)

12
13
14 115 was developed by AC and EH, who has extensive experience in qualitative methodologies.

15
16 116 TDF provided a method to understand GPs' and patients' behaviours related to CCS

17
18 117 theoretically(19). The interview guide covered questions regarding GPs' experiences in

19
20 118 working with women from CALD backgrounds, in particular relating to CCS and its

21
22 119 associated barriers and facilitators. Two pilot interviews were undertaken to develop AC's

23
24 120 interview skills, and minor revisions to the interview guide were made based on feedback.

25
26 121 Data from the pilot interviews were not included in the final analysis.

27
28
29
30 122 A total of twelve interviews were conducted between May and September 2021. Ten were

31
32 123 conducted via telephone and two via video teleconference (using Zoom application). The use

33
34 124 of remote technology improved access for participants. Interviews lasted between 19 and 35

35
36 125 minutes. Written informed consent was received from all participants prior to interviews.

37
38 126 Field notes were taken by AC during each interview.

39
40
41
42 127 **Data analysis**

43
44
45 128 All but one of the interviews were digitally audio-recorded and transcribed verbatim. One

46
47 129 participant did not consent to audio-recording, and comprehensive written notes were instead

48
49 130 taken with their consent. AC listened to all audio-recordings in full and cross-checked them

50
51 131 with the transcripts for accuracy. Any identifying information was removed from the

52
53 132 transcripts.

54
55
56
57 133 Braun & Clarke's six-phase theoretical framework guided thematic analysis(20). Hard copies

58
59 134 of transcripts were reviewed by AC prior to coding, producing a brief summary outlining the

1
2
3 135 key findings within each transcript. Data were managed using QSR N-Vivo software. Codes
4
5
6 136 were generated inductively. Initial codes were generated by independent coding of three
7
8 137 transcripts by AC, EH and JB, and agreed upon through discussion. The subsequent
9
10 138 transcripts were coded by AC, and discussed regularly with EH, JB and NS for refinement.
11
12 139 The final codes were refined and structured into themes and sub-themes. Two further
13
14
15 140 interviews were undertaken after data saturation at ten interviews, to confirm the findings.
16

17 141 **Patient and public involvement**

18
19
20 142 Our study focussed on GPs' perspectives on the barriers and facilitators to CCS for women
21
22
23 143 from CALD backgrounds, and patients and the public were not involved at this stage.
24
25

26 144

27 145 **RESULTS**

28 146 **Participant characteristics**

29
30
31 147 The characteristics of the 12 participants are in Table 1. 92% of the GPs were female. 8 GPs
32
33
34 148 (67%) used another language for consulting (in addition to English).
35
36
37

38
39 149 **TABLE 1: Characteristics of the participants**
40
41

42 Characteristics	43 GP Participants (<i>n</i> =12)
44 Age (years)	
45 ≤ 35	46 2
47 36 – 54	48 9
49 ≥ 55	50 1
51 Sex	
52 Female	53

Male	11
	1
Length of practice as GP (years)	
<5	3
5 – 15	4
>15	5
Clinical workload as GP per week (hours)	
0 – 15	2
16 – 30	5
>30	5
Languages used for consulting other than English	
Nil (other than English)	4
Bengali	3
Mandarin/ Chinese	2
Urdu	2
Vietnamese	1

150

151 Themes

152 Four major themes are reported based on our analysis. Within each theme, several sub-
 153 themes are identified, and supported by quotations from the interviews. These are described
 154 below. Themes and sub-themes are also summarised in Table 2.

155 TABLE 2: Themes and sub-themes

Themes	Sub-themes
<ul style="list-style-type: none"> • Importance of clinician-patient relationship 	<ul style="list-style-type: none"> • GPs' professional relationship with their patients • Providing opportunistic CSTs • Other clinician-patient relationships • Self-collection HPV tests
<ul style="list-style-type: none"> • Patients' cultural understanding regarding health care and CCS 	<ul style="list-style-type: none"> • Lack of awareness and knowledge • Lower priority for cancer screening <ul style="list-style-type: none"> ○ Not on patients' agenda ○ Patients' subjective beliefs and perceptions of low risk ○ Covid-19 pandemic • Importance of patients' individual circumstances <ul style="list-style-type: none"> ○ Patient concerns surrounding physical examination ○ Influence of relatives ○ Previous sexual trauma
<ul style="list-style-type: none"> • Communication and language 	<ul style="list-style-type: none"> • Language difficulties • Interpreter use • Use of appropriate resources

<ul style="list-style-type: none"> • Health-system related 	<ul style="list-style-type: none"> • Increased time needed • Access to appointments • Funding • Health promotion • Use of practice management system
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156

157 **Theme 1: Importance of clinician-patient relationship**

158 **1.1 GPs' professional relationship with their patients**

159 GPs identified several helpful factors in providing CSTs to women from CALD backgrounds.

160 These included their professional experience providing CSTs, length of experience in
 161 working with CALD women, and being a female GP.

162 *“I see a lot of Vietnamese patients ...[but] I see everybody else, not just Vietnamese.
 163 So... Thai, Israel, Iran, African, everybody” (GP8).*

164 Being a male GP was identified as a barrier, as patients were less likely to see a male GP for
 165 CSTs.

166 *“My experience is that as a male doctor, we have to be very clear about how... we
 167 approach cervical screening” (GP4).*

168 A continuing doctor-patient relationship was frequently a facilitator.

169 *“To have a long-term GP or someone you're familiar with is really helpful... So, they
 170 will let you do what you think is good for them or they will bring it up because they're
 171 comfortable” (GP8).*

1
2
3 172 GPs also described the importance of building rapport with their patient to facilitate screening
4
5 173 discussions.

6
7
8 174 *“I build rapport and build a relationship with the patient first. So that then they trust*
9
10 175 *me more... about some of these more sensitive issues and exams, and are more likely*
11
12 176 *to agree to it later down the track” (GP7).*

13
14
15
16 177

178 **1.2 Providing opportunistic CSTs**

19
20
21
22 179 Being opportunistic was important. This included initiating the first discussion regarding
23
24 180 CCS, and seeking out the opportunity during other care provision, such as during preparation
25
26 181 of chronic disease GP management plans, peri-partum consults, and consults surrounding
27
28 182 sexual health.

29
30
31 183 *“I think just being opportunistic... for the practitioner to be aware to offer these*
32
33 184 *primary health prevention measures... to incorporate the cervical screening... and*
34
35 185 *offer it all the time” (GP5)*

36
37
38 186 GPs described that they needed to be aware of the lower screening rates in women from
39
40 187 CALD backgrounds, and take the initiative to raise CCS with them.

41
42
43 188 *“Being conscious of the fact that often people of these backgrounds are under-*
44
45 189 *screened so that then we can make up for it by putting in that special effort” (GP7)*

46
47
48
49 190

50 51 52 191 **1.3 Other clinician-patient relationships**

53
54
55 192 Repeated advice regarding CCS from multiple health care providers, including practice
56
57 193 nurses and hospital midwives, was described as a facilitator.

58
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60 194

1
2
3 195 *“One thing that has really helped, if there's multiple health care providers telling*
4
5 196 *them the same things”* (GP9).

6
7
8 197

11 198 **1.4 Self-collection HPV tests**

14 199 Most participants were aware of the availability of self-collection HPV tests under the rNCSP
15
16 200 for under-screened women and viewed the tests positively, describing that *“it's a good*
17
18 201 *opportunity to screen the under-screened patient”* (GP11).

22 202 However, GPs also identified several challenges to self-collection tests. Many of these relate
23
24 203 to the already identified barriers in our findings, and are described in a further article by the
25
26 204 same authors.

27
28
29 205

32 206 **Theme 2: Patients' cultural understanding regarding health care and CCS**

35 207 **2.1 Lack of awareness and knowledge**

38 208 Lack of awareness and access to reliable information regarding the rNCSP and cervical
39
40 209 cancer were significant barriers. GPs reported that CSTs were a new concept to some
41
42 210 patients, whilst others may have heard of CSTs (or pap smears), but had limited knowledge
43
44 211 about their purpose, the procedure involved, or about cervical cancer.

47 212 *“If they don't understand how important it is, they're just not going to accept it”*
48
49 213 (GP9).

52 214 It was reported that some patients' knowledge gap was universal for all screening programs
53
54 215 offered in Australia.

57 216 *“It's not just about [CCS]. It was about bowel cancer screening... mammograms as*
58
59 217 *well”* (GP9).

1
2
3 218 Participants also reflected on the differences in participation between different cultural
4
5 219 groups.

6
7
8 220 “...[Patients from] Cambodia, who have equivalent programs there... had raised it
9
10 221 with me, and asked when they're going to be due here” (GP7).

11
12
13 222 Conversely, migration from countries without CCS deepened the lack of awareness.

14
15
16 223 “Sometimes it's just, sort of, lack of exposure to this knowledge... they've recently
17
18 224 come here... back in their countries, this doesn't exist” (GP9).

19
20
21
22 225

23 24 25 226 **2.2 Lower priority for cancer screening**

26 27 28 227 **2.2.1 Not on patients' agenda**

29
30
31 228 GPs described that women from CALD backgrounds often viewed CCS with less importance
32
33 229 and priority, and it was commonly not on a patient's agenda when presenting to her GP.

34
35
36 230 Participants identified that multiple factors were often involved in preventive care taking “a
37
38 231 bit of a sideline” (GP7). Patients from CALD backgrounds often presented with acute
39
40 232 medical issues, which may be more complex, requiring more time within the consult.

41
42
43 233 “You've got so much other stuff to get through and everything's taking a bit longer
44
45 234 generally. I've also got quite a few women from refugee backgrounds who, I guess,
46
47 235 are going through a lot of difficult things and sometimes find it hard just to get to the
48
49 236 doctor and make it to appointments and when they come, [they] have quite a few
50
51 237 pressing issues that need to be addressed. And so, a lot of that preventative stuff can
52
53 238 get lost in the background a bit unfortunately” (GP7).

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2.2.2 Patients' subjective beliefs and perceptions of low risk

240
241 GPs described that some patients had pre-determined beliefs, and false perceptions of low
242 risk, regarding CCS. This included beliefs that they would not contract HPV as a result of the
243 same lifetime sexual partner, with some patients having difficulty acknowledging "*how they*
244 *got [HPV]*" (GP6).

245 GPs also identified that some patients believed their older age lowered their risk of cervical
246 cancer.

247 "*Ones that are like over 60... over 65... or that they have no longer have a sexual*
248 *partner. And then mistakenly think that, well, because they [are] not sexually*
249 *active... they don't have to do anything*" (GP8).

250

2.2.3 Covid-19 pandemic

251
252 The COVID-19 pandemic was also described to have impacted CCS participation; across
253 women from all backgrounds.

254 "*During the [COVID-19] pandemic... we've seen a marked decrease in the number of*
255 *people presenting for just primary screening*" (GP5).

256

2.3 Importance of patients' individual circumstances

2.3.1 Patient concerns surrounding physical examination

257
258
259 A common report was patients' reluctance and embarrassment surrounding cervical
260 examinations, as they involve speculums and can be intrusive.

261 "*I find that... women from particular cultures... could be quite ashamed to get*
262 *exposed... does make the actual procedure sometimes a little bit difficult*" (GP12).

1
2
3 263 Patients were less comfortable with CSTs when children were present, and it was difficult for
4
5 264 GPs to manage supervising the children and performing the examination.
6
7

8 265 *“I do think sometimes young woman with really tiny children, it could be a real*
9
10 266 *barrier to get the time. They never get a chance to come in without their kids”*
11
12
13 267 (GP1).
14
15

16 268 **2.3.2 Influence of relatives**

17
18
19 269 GPs noted that if a patient’s relatives were not participating, this reduced the patient’s own
20
21 270 willingness to engage with CCS.
22
23

24 271 *“There are some beliefs and they've reached a certain age and like they just outright*
25
26 272 *say "none of my sisters and mothers have had it and they're fine"”* (GP9).
27
28

29 273 However, relatives can also have a positive influence, with some GPs describing that the
30
31 274 presence of a support person, in particular daughters bringing their mothers, had improved
32
33 275 uptake.
34
35

36
37 276 *“Another thing I’ve found helpful is, I’ve had a few patients from different cultural*
38
39 277 *backgrounds where the daughter and the mom have come together for their pap*
40
41 278 *smears, and the daughter... interpreted for the mom... the daughter has encouraged*
42
43 279 *the mum to come along”* (GP7).
44
45
46

47 280 **2.3.3 Previous sexual trauma**

48
49
50 281 A history of female genital mutilation was raised by some GPs as negatively affecting CCS
51
52 282 participation, with an emphasis on the need for GPs to be more sensitive and respectful about
53
54 283 this issue.
55
56
57
58
59
60

1
2
3 284 *“Women that have had genital mutilation...exploring... how comfortable they are and*
4
5 285 *the sort of speculum that you might choose... a bit more gently you might go about it’*
6
7
8 286 (GP10).
9

10
11 287 Similarly, cervical examinations can be distressing for patients with a history of sexual abuse.
12
13
14 288 *“I’ve found much more barriers when women have been in sexual abuse”* (GP1).
15

16
17 289

19 290 **Theme 3: Communication and language**

22 291 **3.1 Language difficulties**

23
24
25 292 Most participants described challenges in promoting CCS when speaking a different language
26
27 293 to their patient, or when patients were not fluent in English.

28
29
30 294 *“Its a difficulty explaining [CSTs] in their own terms... what exactly this means”*
31
32 295 (GP12).
33

34
35 296 Using simple words helped with communication, as did the use of anatomy models and visual
36
37 297 aids.

38
39
40 298 *“[I] find this a new concept and [women from CALD backgrounds] have absolutely*
41
42 299 *no idea... I say this is a cancer screening... I may show a picture”* (GP4).
43
44

45
46 300 *“I really show them the speculum, probably tell them that there are smaller ones if*
47
48 301 *they were worried about internal exams, actually showing the brush and let them*
49
50 302 *have a feel of the brush”* (GP5).
51

53 303 **3.2 Interpreter use**

54
55
56 304 Language barriers were often overcome by using interpreters. GPs valued effective
57
58 305 communication, with one GP reflecting that CCS is *“something that good communication is*
59
60

1
2
3 306 *absolutely crucial for, to make sure you're getting proper consent and the patient is really*
4
5 307 *comfortable” (GP7).*
6
7

8 308 Easy access to telephone interpreters was important, but challenges included inconvenience,
9
10 309 increased time, miscommunication errors, and sensitivities in using an interpreter for a
11
12 310 gynaecological examination.
13
14

15
16 311 *“In an ideal circumstance, you'd have a telephone interpreter... that take 5 minutes*
17
18 312 *to line up at best... maybe it's something that you can plan for another day” (GP2).*
19
20

21 313 Another GP shared that using family members as interpreters provides variable results.
22

23
24 314 *“A relative could be good or they could be terrible... could talk over with them*
25
26 315 *afterwards and say this is what it's about” (GP1).*
27
28

29 316 **3.3 Use of appropriate resources**

30
31 317 GPs used written handouts, and highlighted the value of providing reliable information to
32
33 318 patients in their own language. Some GPs were aware of where to access such information,
34
35 319 whilst others expressed the need for easier access to these resources.
36
37

38
39 320 *“Something that could be useful would be to look into if there's pamphlets or*
40
41 321 *information sheets in various languages that could be given to patients” (GP7).*
42
43

44 322 Waiting room resources, such as posters and pamphlets, were mentioned as impacting patient
45
46 323 education and awareness. Additionally, written resources regarding the rNCSP was raised as
47
48 324 important in the provision of consistent information.
49
50

51 325 *“It can be confusing for the patients about how it's swapped over [to rNCSP], but*
52
53 326 *probably some kind of handout you can give for that” (GP1).*
54
55

56 327

58 328 **Theme 4: Health-system related**

4.1 Increased time needed

330 Allocating sufficient time was key to improving uptake, particularly in the presence of
331 language barriers and interpreters. GPs employed strategies such as longer appointments, or
332 discussions over multiple appointments.

333 *“You have to warn them... bring them back again and see if they’ve got any question,
334 so maybe third time finally you’d do [the CST]”* (GP1).

335 GPs expressed concerns regarding non-attendance when patients are asked to re-schedule
336 appointments.

337 *“I think that anything where you raise it and then try and think that they’ll come
338 back, you lose... your opportunity... they don’t return. So, one of the advantages is if
339 you are comfortable you can do it quite quickly, then you get it all done and dusted in
340 that consultation”* (GP10).

341 GPs also identified the need for investing more time in explaining and performing CSTs.

342 *“I have to explain [CSTs] before I go ahead. So that’s the challenge... Rather than
343 the [non-CALD] population, they would be expecting, they know what is going to
344 happen and how we interpret”* (GP3).

345 However, GPs described time-pressure challenges when spending more time on one
346 particular health issue, or when attempting to schedule multiple aspects of care into one
347 consultation.

348 *“Now there’s even the cervical cancer vaccine that needs to be brought up as well. So,
349 it’s a lot to talk about.”* (GP8).

350

4.2 Access to appointments

1
2
3 352 Improving access to appointments can improve a patient's participation in screening. Some
4
5 353 GPs suggested the use of women-only or CCS-specific clinics.

6
7
8 354 *"We can even run like a cervical screening clinic, as a separate one... where it could*
9
10 355 *be like women presenting and it could be a more welcoming environment for the*
11
12
13 356 *women."* (GP12).

14
15
16 357 Additionally, GPs reflected upon the possibility of easily accessible appointment times to
17
18 358 encourage wider participation.

19
20
21 359 *"It's interesting to see how many women come on a Saturday morning for cervical*
22
23 360 *screening... I'm sure that might be the same for CALD backgrounds"* (GP10).

24
25
26 361 Some GPs also described transport access issues, and the need for some patients to rely on
27
28 362 family members to attend appointments.

29
30
31 363 *"Maybe accessing the service could be a problem for them. Maybe they are*
32
33 364 *dependent on their husband or somebody else to make an appointment for them and*
34
35 365 *bring them for the test."* (GP12).

36 366 **4.3 Funding**

37
38
39 367 Issues surrounding Medicare eligibility and costs of CCS were raised as barriers, particularly
40
41 368 when coupled with the lack of perceived necessity.

42
43 369 *"If they don't hold a Medicare [card] and they have got some sort of a private*
44
45 370 *insurance... do they think they might have to pay for some tests? They perceive this as*
46
47 371 *an unimportant task"* (GP9).

48
49 372 One GP reflected that working in a bulk-billing clinic acted as a facilitator for these patients.
50
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1
2
3 373 *“For screening, if there's nothing that's wrong with [women from CALD*
4
5 374 *backgrounds], I don't think that they will pay... I don't think that I will be as*
6
7
8 375 *successful, as I am, running the screening program, if I charge this woman” (GP8).*
9

10 376 However, the GP also mentioned that more funding should be allocated to facilitating CCS,
11
12
13 377 in particular for under-screened populations.

14
15
16 378 *“I think, for us, the funding would be a big thing. To give us more time so we can*
17
18 379 *educate” (GP8).*
19

20 21 380 **4.4 Health promotion**

22
23
24 381 GPs advocated for culturally-sensitive public health campaigns and health promotional
25
26 382 materials, particularly in different languages, to raise awareness. Ideas offered included
27
28
29 383 Government initiatives and campaigns, and use of social media, radio services, and
30
31 384 television.

32
33
34 385 *“Maybe some more public health campaign so that people have already been*
35
36 386 *introduced to the concept [of CSTs] outside of general practice” (GP2).*
37

38 39 387 **4.5 Use of practice management system**

40
41
42 388 An effective recall and reminder system, incorporating telephone calls, text messages and
43
44 389 sending letters to patients, was considered a facilitator. GPs reflected on the importance of
45
46
47 390 placing patients on the reminder system to ensure follow up, and engaged their practice
48
49 391 nurses and receptionists to assist with recalls.

50
51
52 392 *“We actually spend a lot of manpower... to draw out the recalls and actively calling*
53
54 393 *people. Sometimes they don't respond to a message, we call them, we keep trying and*
55
56 394 *then we send a letter” (GP8).*
57
58
59
60

1
2
3 395 GPs mentioned that reminders were more effective when they were sent in patients' own
4
5 396 languages.

6
7
8 397 *"I've got a template letter for [language] ...and now I have a text message in*
9
10 398 *[language] ...it doesn't need to be long... but this is their language"* (GP8).

11
12
13 399 Additionally, GPs stated that prompts during consultations, and when booking appointments,
14
15
16 400 can also increase patient participation by initiating the discussion.

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18
19 401

20
21 402 **DISCUSSION**

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23
24 403 The study findings provide in-depth insight into GPs' perspectives about the barriers and
25
26 404 facilitators to CCS for an under-screened population group - women from CALD
27
28 405 backgrounds. GPs identified several barriers at the individual and organisational levels; often
29
30
31 406 co-existing to challenge the provision of CCS in these women. Similarly, GPs reflected on
32
33 407 several personal facilitators that encouraged and increased CCS.

34
35
36 408 The TDF emphasises on understanding the influences on behaviour in order to encourage
37
38 409 behaviour change(18). This conceptual framework has been widely applied across healthcare-
39
40
41 410 related research focussed on changing clinical behaviours, and was used to further interpret
42
43 411 our study's themes(18). We used the TDF domains of knowledge, skills, social/professional
44
45 412 role and identity, beliefs about consequences, environmental context and resources, and
46
47 413 social influences, within our interpretation. As our study demonstrates the inter-relationship
48
49 414 of the barriers and facilitators, our four prominent themes transect multiple domains of TDF.
50
51
52 415 To highlight this, we have not described our findings under domain headings as discrete
53
54 416 constructs, but rather refer to these domains (*italics used to signal this*) in the following
55
56 417 discussion.

1
2
3 418 Our study found that lack of awareness or insufficient *knowledge* regarding CCS continues to
4
5 419 hinder screening participation in CALD women, consistent with previous literature(13, 21-
6
7 420 23). Knowledge gaps in the process and importance of screening often reflected low health
8
9 421 literacy and lack of exposure to CCS in patients' countries of birth (*environmental context*
10
11 422 *and resources*). GPs mentioned that patients were more proactive if they migrated from
12
13 423 countries where CCS is offered as primary screening. GPs also reflected that some patients'
14
15 424 lack of knowledge translated to other primary screening programs, such as breast cancer and
16
17 425 bowel cancer screening. This is not surprising given that CALD women can be unfamiliar
18
19 426 with preventive health services(12, 15) (*beliefs about consequences*), indicating that
20
21 427 widespread interventions are required to improve CALD patients' cancer screening
22
23 428 participation(24). Patients who did not view cancer screening, specifically CCS, with high
24
25 429 importance, or patients who perceived themselves to be at low risk of cervical cancer, were
26
27 430 less likely to present for screening (*knowledge, beliefs about consequences*). GPs identified
28
29 431 that CALD patients' needs can be more complex, and cancer screening was often not on their
30
31 432 agenda. Additionally, the COVID-19 pandemic, which has caused significant reductions in
32
33 433 preventive healthcare, including CCS(25), was echoed by our GPs as having a negative
34
35 434 impact on CCS participation rate (*environmental context and resources*).
36
37
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42
43 435 It was highlighted that opportunistically offering CCS to women with low knowledge,
44
45 436 awareness and priority, was a significant facilitator, and at times, a necessity, in improving
46
47 437 uptake (*skills, social/ professional role and identity*). GPs demonstrated variable approaches
48
49 438 to this, with some offering it as part of chronic disease care, and others during consults
50
51 439 surrounding sexual health. Although other studies have also highlighted that CALD women
52
53 440 tend to undertake CCS when offered opportunistically(16), this was a prominent idea
54
55 441 amongst our participants. As CCS in Australia is commonly performed by GPs, this allows
56
57 442 for opportunistic care to occur, as GPs are able to perform the necessary screening test in
58
59
60

1
2
3 443 their rooms when patients present for other reasons (*skills*). This is unique, compared to
4
5 444 Australia's bowel or breast cancer screening programs, which are delivered separately at
6
7
8 445 national and/or state or territory level(26, 27).
9

10 446 A patient's individual circumstance can limit their acceptance of screening, and being
11
12 447 respectful and addressing this was helpful in improving CCS uptake. Among the factors
13
14 448 discussed, physical examination concerns and influence of relatives were the most discussed.
15
16 449 Consistent with previous findings(22, 28), the influence of relatives either hindered or
17
18 450 encouraged CCS participation, depending on whether the relatives supported CCS (*social*
19
20 451 *influences*).
21
22
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24

25 452 Whilst it is important to acknowledge patient-sided barriers to health care, it is imperative to
26
27 453 address the social and environmental influences that produce health inequities in order to
28
29 454 implement change(29). Another prominent finding in our study was the importance of the
30
31 455 clinician-patient relationship in influencing CCS uptake (*social/ professional role and*
32
33 456 *identity*). A GP's role in Australia is significant, with evidence that patients who have a
34
35 457 regular GP have better engagement with the health system(30). This is also true for CALD
36
37 458 populations, and it has been recognised that positive experiences with GPs can strongly
38
39 459 influence CALD patients' use of health services(31). The GPs in our study recognised that
40
41 460 their professional relationship with patients, particularly if long-standing, was an important
42
43 461 facilitator in encouraging CCS. Allowing time to build rapport was key as it invited trust and
44
45 462 familiarity(30), and allowed GPs to promote education surrounding CCS; improving CALD
46
47 463 patients' CCS uptake(16). Furthermore, advice from multiple HCPs regarding CCS provided
48
49 464 a consistent message (*social/ professional role and identity*).
50
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54

55 465 Barriers relating to knowledge and health literacy were often compounded by language
56
57 466 barriers (*environmental context and resources*). GPs reported difficulties when they did not
58
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1
2
3 467 speak the same language as their patients, and used visual aids and interpreter services to
4
5 468 communicate (*environmental context and resources*). Although GPs found external
6
7 469 interpreter services useful overall, they reflected on numerous challenges associated with
8
9 470 their use. This included the increased time and resources needed to organise interpreters in
10
11 471 consultations, which often resulted in not being able to access an interpreter, particularly with
12
13 472 short-notice. In Australia, GPs have access to the national Translating and Interpreting
14
15 473 Service (TIS), provided free-of-charge for use with non-English speaking patients(32).
16
17 474 However, GPs also need more time in their consultations to facilitate this. Our participants
18
19 475 proposed solutions such as offering multiple consultations, longer appointments, and
20
21 476 increased funding for such consultations. This is consistent with previous literature that
22
23 477 improving financial incentives for GPs to undertake longer consultations may be beneficial
24
25 478 for challenging and complex discussions(17, 33).

26
27 479 Delivering information through different channels has been shown to increase participation in
28
29 480 CCS for CALD women(12). GPs discussed the value of written information material,
30
31 481 including pamphlets in patients' own languages, emphasising that GPs need to have easier
32
33 482 access to such resources(12, 34) (*environmental context and resources*). Additionally,
34
35 483 evidence suggests that screening invitations from GPs can be more trusted by patients than
36
37 484 invitations from screening hubs(35). This has implications for improving CCS uptake, as GPs
38
39 485 and practice staff routinely send reminders and recalls to patients. Our study adds to this by
40
41 486 highlighting that personalised reminders sent in patients' own languages was often more
42
43 487 effective. Therefore, more effort should be made to incorporate this for under-screened
44
45 488 populations (*environmental context and resources*).

46
47 489 Another proposed solution by GPs was the use of self-collection HPV tests to reduce
48
49 490 inequities in CCS. Self-collection HPV tests have been increasingly studied in recent years as
50
51 491 an alternative for under-screened populations(36, 37). They have been implemented as part of

1
2
3 492 the rNCSP under strict criteria, and are generally accepted by GPs for their benefits, but also
4
5 493 come with challenges(37).
6
7

8 494 **Study strengths and limitations**

10
11 495 This study's key strength was the use of appropriate research strategies. This included
12
13 496 ongoing corroboration between researchers during data analysis, and using an inductive
14
15 497 approach to data collection to ensure that participants' responses drove the analysis of results.
16
17 498 Additionally, the use of TDF provided an evidence-based approach for study interpretation.
18
19 499 This study also has limitations. Firstly, it was beyond the scope of our study to investigate
20
21 500 CALD patients' experiences in regards to the barriers and facilitators of CCS. Secondly,
22
23 501 difficulties in recruiting GPs, particularly during a pandemic, meant that experiences of only
24
25 502 a small number of participants has been described. However, data collection was undertaken
26
27 503 until data saturation was reached, with a further two participants interviewed. Another
28
29 504 limitation was that our sample was drawn from metropolitan South Australia only, and data
30
31 505 from GPs across Australia, including rural areas, may add further to the study.
32
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34
35

36 506 **Conclusions**

37
38
39
40 507 Our study highlights that GPs recognise that multiple factors influence CALD women's
41
42 508 engagement with CCS, and that these barriers and facilitators are all inter-related. Barriers at
43
44 509 the individual level, such as patients' subjective beliefs, are not easily fixed. However,
45
46 510 recognising them, providing education, and remaining sensitive remain vital in encouraging
47
48 511 CCS for these women. Barriers at the organisational level have opportunities for
49
50 512 improvement. Improving CALD women's access to GPs they trust, and GPs opportunistically
51
52 513 performing CSTs, seem crucial to improving uptake. Additionally, providing GPs with
53
54 514 appropriate written patient-specific resources, and financial reimbursement for undertaking
55
56 515 longer consultations, may assist in addressing some barriers. Self-collection HPV tests are an
57
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1
2
3 516 evolving and promising area in supporting GPs to improve CCS uptake in CALD women, but
4
5 517 the above-mentioned barriers still need to be addressed in order for self-collection HPV tests
6
7
8 518 to drastically improve CCS participation.
9

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13 520

14
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24
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26

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28
29 527 and study design, and all authors revised all drafts and approved the final version of the
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34

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41

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43
44

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46
47 534 Review Group from The University of Adelaide. Ethics ID: H-2021-065.
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49
50

51 535 **Data availability statement:** All data relevant to the study are included in the article or
52
53 536 uploaded as supplementary information
54
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Standards for Reporting Qualitative Research (SRQR)*

<http://www.equator-network.org/reporting-guidelines/srqr/>

Page/line no(s).

Title and abstract

<p>Title - Concise description of the nature and topic of the study Identifying the study as qualitative or indicating the approach (e.g., ethnography, grounded theory) or data collection methods (e.g., interview, focus group) is recommended</p>	Page 1
<p>Abstract - Summary of key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results, and conclusions</p>	Pages 2, 3

Introduction

<p>Problem formulation - Description and significance of the problem/phenomenon studied; review of relevant theory and empirical work; problem statement</p>	Pages 4, 5
<p>Purpose or research question - Purpose of the study and specific objectives or questions</p>	Page 5

Methods

<p>Qualitative approach and research paradigm - Qualitative approach (e.g., ethnography, grounded theory, case study, phenomenology, narrative research) and guiding theory if appropriate; identifying the research paradigm (e.g., postpositivist, constructivist/ interpretivist) is also recommended; rationale**</p>	Page 5
<p>Researcher characteristics and reflexivity - Researchers' characteristics that may influence the research, including personal attributes, qualifications/experience, relationship with participants, assumptions, and/or presuppositions; potential or actual interaction between researchers' characteristics and the research questions, approach, methods, results, and/or transferability</p>	Pages 5, 6
<p>Context - Setting/site and salient contextual factors; rationale**</p>	Pages 5, 6
<p>Sampling strategy - How and why research participants, documents, or events were selected; criteria for deciding when no further sampling was necessary (e.g., sampling saturation); rationale**</p>	Pages 5, 6, 7
<p>Ethical issues pertaining to human subjects - Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues</p>	Pages 6, 26
<p>Data collection methods - Types of data collected; details of data collection procedures including (as appropriate) start and stop dates of data collection and analysis, iterative process, triangulation of sources/methods, and modification of procedures in response to evolving study findings; rationale**</p>	Pages 6, 7

1 2 3 4 5	Data collection instruments and technologies - Description of instruments (e.g., interview guides, questionnaires) and devices (e.g., audio recorders) used for data collection; if/how the instrument(s) changed over the course of the study	Page 6
6 7 8	Units of study - Number and relevant characteristics of participants, documents, or events included in the study; level of participation (could be reported in results)	Pages 6, 7, 8
9 10 11 12	Data processing - Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data integrity, data coding, and anonymization/de-identification of excerpts	Pages 6, 7
13 14 15 16	Data analysis - Process by which inferences, themes, etc., were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale**	Pages 6, 7
17 18 19 20	Techniques to enhance trustworthiness - Techniques to enhance trustworthiness and credibility of data analysis (e.g., member checking, audit trail, triangulation); rationale**	Pages 6, 7

Results/findings

23 24 25 26	Synthesis and interpretation - Main findings (e.g., interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	Pages 7-21
27 28 29	Links to empirical data - Evidence (e.g., quotes, field notes, text excerpts, photographs) to substantiate analytic findings	Pages 7-21

Discussion

32 33 34 35 36 37	Integration with prior work, implications, transferability, and contribution(s) to the field - Short summary of main findings; explanation of how findings and conclusions connect to, support, elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application/generalizability; identification of unique contribution(s) to scholarship in a discipline or field	Pages 21-26
38 39	Limitations - Trustworthiness and limitations of findings	Page 25

Other

42 43 44	Conflicts of interest - Potential sources of influence or perceived influence on study conduct and conclusions; how these were managed	Page 26
45 46	Funding - Sources of funding and other support; role of funders in data collection, interpretation, and reporting	Page 26

*The authors created the SRQR by searching the literature to identify guidelines, reporting standards, and critical appraisal criteria for qualitative research; reviewing the reference lists of retrieved sources; and contacting experts to gain feedback. The SRQR aims to improve the transparency of all aspects of qualitative research by providing clear standards for reporting qualitative research.

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**The rationale should briefly discuss the justification for choosing that theory, approach, method, or technique rather than other options available, the assumptions and limitations implicit in those choices, and how those choices influence study conclusions and transferability. As appropriate, the rationale for several items might be discussed together.

Reference:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. **Standards for reporting qualitative research: a synthesis of recommendations.** *Academic Medicine*, Vol. 89, No. 9 / Sept 2014
DOI: 10.1097/ACM.0000000000000388

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BMJ Open

Barriers and facilitators to cervical cancer screening for women from culturally and linguistically diverse backgrounds; a qualitative study of GPs

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7 2 **Barriers and facilitators to cervical cancer screening for women**
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13 4 **qualitative study of GPs**
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3 21 **ABSTRACT**
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6 22 **Objective** To explore general practitioners' (GPs) perspectives on the barriers and facilitators
7
8 23 to cervical cancer screening (CCS) for women from culturally and linguistically diverse
9
10 24 (CALD) backgrounds.
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16 26 **Design** Qualitative descriptive study involving semi-structured interviews, with interview guide
17
18 27 informed by the Theoretical Domains Framework.
19
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22 28
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25 29 **Setting** Adelaide, South Australia.
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31 31 **Participants** Twelve GPs with experience in providing CCS to women from CALD
32
33 32 backgrounds participated.
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36 33
37
38
39 34 **Results** Four main themes emerged: 'importance of clinician-patient relationship', 'patients'
40
41 35 cultural understanding regarding health care and CCS', 'communication and language' and
42
43 36 'health-system related'. Each theme had several subthemes. GPs' professional relationship
44
45 37 with their patients and repeated advice from other clinicians, together with the provision of
46
47 38 opportunistic CCS, were described as facilitators, and encompassed the theme of 'importance
48
49 39 of clinician-patient relationship'. This theme also raised the possibility of self-collection
50
51 40 human papilloma virus (HPV) tests. Lack of awareness and knowledge, lower priority for
52
53 41 cancer screening, and patients' individual circumstances contributed to the theme of
54
55 42 'patients' cultural understanding regarding health care and CCS', and often acted as barriers
56
57 43 to CCS. 'Communication and language' consisted of language difficulties, interpreter use,
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1
2
3 44 and use of appropriate resources. Language difficulties was a barrier to the provision of CCS,
4
5 45 and GPs used interpreters and written handouts to help overcome this. The theme of ‘health-
6
7 46 system related’ involved the increased time needed for CCS consults for CALD women,
8
9 47 access to appointments, funding, health promotion and effective use of practice management
10
11 48 software.
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18 50 **Conclusions** This study highlights that multiple, inter-related barriers and facilitators
19
20 51 influence CALD women’s engagement with CCS, and that GPs needed to manage all of these
21
22 52 factors in order to encourage CCS participation. More efforts are needed to address the
23
24 53 barriers to ensure that GPs have access to appropriate resources, and CALD patients have
25
26 54 access to GPs they trust.
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30 55 **STRENGTHS AND LIMITATIONS**

- 32 56 - The use of qualitative methodology allowed for in-depth exploration of GPs’
33
34 57 experiences in providing cervical cancer screening to women from CALD
35
36 58 backgrounds
- 37
38 59 - The use of the Theoretical Domains Framework in the interview guide and data
39
40 60 analysis, provided an evidence-based approach for study interpretation
- 41
42 61 - GPs who participated in our study had a general interest in improving cervical cancer
43
44 62 screening participation for CALD women, so their experiences may not be reflective
45
46 63 of all GPs in Australia
- 47
48 64 - Participants were drawn from metropolitan South Australia only, and GPs from other
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50 65 areas in Australia, including rural areas, may add further to the study
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67 **INTRODUCTION**

68 Worldwide, cervical cancer is the fourth most common cancer in women; in both incidence
69 and mortality, with the highest burden in countries without cervical screening programs^{1, 2}.

70 Cervical cancer should largely be preventable, through human papilloma virus (HPV)
71 immunisation and effective screening programs². In Australia, the renewed National Cervical
72 Screening Program (rNCSP) has been in place since 1 December 2017, recommending
73 asymptomatic women aged 25-74 years undertake HPV screening tests every five years,
74 replacing two-yearly Pap smears²⁻⁴.

75 However, participation in cervical cancer screening (CCS) remains low, with the Australian
76 Institute of Health and Welfare reporting that during 2018–2019, only 46% of eligible
77 women had a screening HPV test as part of the rNCSP². It is well-established that a
78 significant risk factor for the development of cervical cancer is under-screening or never
79 being screened^{2, 3}. Therefore, less than half of eligible women participating in CCS, in a
80 country with a well-developed screening program, needs to be addressed, in particular as
81 Australia plans to eliminate cervical cancer by 2035⁵.

82 Current literature suggests that inequalities in screening persist with lower rates of CCS in
83 women from culturally and linguistically diverse (CALD) backgrounds^{6, 7}. Australia is a
84 multicultural nation, with growing migrant populations, and this calls to strengthen our
85 healthcare access and outcomes for these populations⁸. Addressing such inequalities will be
86 key to Australia's success in eliminating cervical cancer.

87 Research has been performed in Australia^{6, 7, 9} and internationally¹⁰⁻¹⁴ exploring CALD
88 patients' perspectives on the barriers and facilitators to CCS. Patient barriers have included
89 poor health literacy, cultural beliefs and stigma, and English proficiency^{6, 10, 12}. Comparably,
90 linguistic strategies, and increasing patients' awareness surrounding CCS are described as

1
2
3 91 facilitators^{12,13}. Although international studies have explored health care providers' (HCP)
4
5 92 perspectives on CCS; reporting barriers and facilitators relating to knowledge,
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7
8 93 communication, and access to healthcare services¹⁵⁻¹⁷, very little is known about Australian
9
10 94 HCP perspectives on this issue. To the best of the authors' knowledge, Australian general
11
12 95 practitioners' (GPs) perspectives on barriers and facilitators to CCS in CALD patients have
13
14
15 96 not been documented.

16
17 97 There is growing recognition that delivering healthcare involves complex underlying
18
19 98 processes within specific contexts^{18,19}. In order to effectively bring about change in
20
21
22 99 healthcare, we need to theoretically understand the influences on professional behaviours, so
23
24 100 that they are considered in interventions aimed at change¹⁸⁻²⁰. The Theoretical Domains
25
26 101 Framework (TDF) is a conceptual, validated framework that has synthesised 33 behavioural
27
28 102 theories forming 14 domains, and is a useful tool to support researchers in understanding the
29
30 103 environmental, social, and cognitive influences on behaviour²¹. It has been widely applied
31
32 104 across healthcare-related research focussed on changing clinical and professional behaviours,
33
34 105 including understanding barriers and facilitators to behaviours related to healthcare
35
36 106 outcomes²¹⁻²³.

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41 107 Therefore, using TDF, this study aims to explore GPs' perspectives on the barriers and
42
43 108 facilitators to CCS for women from CALD backgrounds. By discovering the views of those
44
45 109 who primarily provide CCS in the community, we aim to gain a deeper understanding of the
46
47 110 barriers faced in every-day clinical practice, and insights into factors that can be used to
48
49 111 increase participation in CCS for these women.

52 53 112 **METHODS**

54 55 56 113 **Study design and setting**

1
2
3 114 A qualitative descriptive study involving in-depth semi-structured interviews was conducted
4
5 115 in Adelaide, South Australia. Semi-structured interviews enabled exploration of participants'
6
7 116 experiences. The interviews were undertaken by the lead author, AC; a GP Registrar.
8
9

10 117 **Recruitment**

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13 118 Study participants were recruited through purposive sampling. General practices located in
14
15 119 communities with migrant populations, registered with GPEx (South Australia's Regional
16
17 120 Training Organisation for General Practice Registrars), and/or professional contacts of
18
19 121 Discipline of General Practice at The University of Adelaide, were identified, and GPs with
20
21 122 experience in providing cervical screening tests (CSTs) to women from CALD backgrounds
22
23 123 were invited to participate in interviews through email, telephone, or snowballing methods.
24
25 124 GPs were reimbursed with a \$AUD100 gift card for their time.
26
27
28
29

30 125 **Data collection**

31
32
33 126 A semi-structured interview guide informed by TDF²¹ was developed by AC and EH, who
34
35 127 has extensive experience in qualitative methodologies. The TDF provided a method to
36
37 128 understand GPs' and patients' behaviours related to CCS theoretically¹⁸. The interview guide
38
39 129 covered questions regarding GPs' experiences in working with women from CALD
40
41 130 backgrounds, in particular relating to CCS, and covered TDF domains including knowledge,
42
43 131 skills, and social/ professional role and identity. Two pilot interviews were undertaken to
44
45 132 develop AC's interview skills, and minor revisions to the interview guide were made based
46
47 133 on feedback. Data from the pilot interviews were not included in the final analysis.
48
49
50
51

52 134 A total of twelve interviews were conducted between May and September 2021. Ten were
53
54 135 conducted via telephone and two via video teleconference (using Zoom application). The use
55
56 136 of remote technology improved access for participants. Interviews lasted between 19 and 35
57
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1
2
3 137 minutes. Written informed consent was received from all participants prior to interviews.
4

5 138 Field notes were taken by AC during each interview.
6
7

8 139 **Data analysis** 9

10
11 140 All but one of the interviews were digitally audio-recorded and transcribed verbatim. One
12
13 141 participant did not consent to audio-recording, and comprehensive written notes were instead
14
15 142 taken with their consent. AC listened to all audio-recordings in full and cross-checked them
16
17 143 with the transcripts for accuracy. Any identifying information was removed from the
18
19 144 transcripts.
20
21
22

23 145 Braun & Clarke's six-phase framework guided thematic analysis²⁴. Hard copies of transcripts
24
25 146 were reviewed by AC prior to coding, producing a brief summary outlining the key findings
26
27 147 within each transcript. Data were managed using QSR N-Vivo software. Codes were
28
29 148 generated inductively. Initial codes were generated by independent coding of three transcripts
30
31 149 by AC, EH and JB, and codes agreed upon through discussion. The subsequent transcripts
32
33 150 were coded by AC, and discussed regularly with EH, JB and NS for refinement. The final
34
35 151 codes were then structured into themes and sub-themes. In the final phase of analysis, this
36
37 152 inductive approach was followed by reflexive consideration of the potential fit between the
38
39 153 themes generated and the TDF domains. This approach supported the interpretation of the
40
41 154 data, and fits with Braun and Clarke's overall analysis framework²⁴. Two further interviews
42
43 155 were then conducted to supplement data from the first ten interviews, to confirm findings and
44
45 156 attain data saturation.
46
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51 157 **Patient and public involvement** 52

53
54 158 Our study focussed on GPs' perspectives on the barriers and facilitators to CCS for women
55
56 159 from CALD backgrounds, and patient and the public were not involved at this stage.
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161 **RESULTS**162 **Participant characteristics**

163 The characteristics of the 12 participants are in Table 1. 92% of the GPs were female. 8 GPs
 164 (67%) used another language for consulting (in addition to English).

165 **TABLE 1: Characteristics of the participants**

Characteristics	GP Participants (<i>n</i> =12)
Age (years)	
≤ 35	2
36 – 54	9
≥ 55	1
Sex	
Female	11
Male	1
Length of practice as GP (years)	
<5	3
5 – 15	4
>15	5
Clinical workload as GP per week (hours)	
0 – 15	2
16 – 30	5
>30	5

Languages used for consulting other than English	
Nil (other than English)	4
Bengali	3
Mandarin/ Chinese	2
Urdu	2
Vietnamese	1

166

167 **Themes**

168 There are four major themes reported based on our thematic analysis. Within each theme,
 169 several sub-themes were identified, and supported by quotations from the interviews. These
 170 are described below. Themes and sub-themes are also summarised in Table 2.

171 **TABLE 2: Themes and sub-themes**

Themes	Sub-themes
<ul style="list-style-type: none"> • Importance of clinician-patient relationship 	<ul style="list-style-type: none"> • GPs' professional relationship with their patients • Providing opportunistic CSTs • Other clinician-patient relationships • Self-collection HPV tests

<ul style="list-style-type: none"> • Patients' cultural understanding regarding health care and CCS 	<ul style="list-style-type: none"> • Lack of awareness and knowledge • Lower priority for cancer screening <ul style="list-style-type: none"> ○ Not on patients' agenda ○ Patients' subjective beliefs and perceptions of low risk ○ COVID-19 pandemic • Importance of patients' individual circumstances <ul style="list-style-type: none"> ○ Patient concerns surrounding physical examination ○ Influence of relatives ○ Previous sexual trauma
<ul style="list-style-type: none"> • Communication and language 	<ul style="list-style-type: none"> • Language difficulties • Interpreter use • Use of appropriate resources
<ul style="list-style-type: none"> • Health-system related 	<ul style="list-style-type: none"> • Increased time needed • Access to appointments • Funding • Health promotion • Use of practice management system

1
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3 173 **Theme 1: Importance of clinician-patient relationship**
4

5 174 **1.1 GPs' professional relationship with their patients**
6
7

8 175 GPs identified several helpful factors in providing CSTs to women from CALD backgrounds.
9

10 176 These included their professional experience providing CSTs, length of experience in
11
12 177 working with CALD women, and being a female GP.

13
14
15
16 178 *“I see a lot of Vietnamese patients...[but] I see everybody else, not just Vietnamese.*

17
18 179 *So... Thai, Israel, Iran, African, everybody” (GP8).*
19

20
21 180 Being a male GP was identified as a barrier, as patients were less likely to see a male GP for
22
23 181 CSTs.

24
25
26 182 *“My experience is that as a male doctor, we have to be very clear about how... we*
27
28 183 *approach cervical screening” (GP4).*
29

30
31 184 A continuing doctor-patient relationship was frequently a facilitator.
32
33

34 185 *“To have a long-term GP or someone you're familiar with is really helpful... So, they*
35
36 186 *will let you do what you think is good for them or they will bring it up because they're*
37
38 187 *comfortable” (GP8).*
39
40

41
42 188 GPs also described the importance of building rapport with their patient to facilitate screening
43
44 189 discussions.

45
46
47 190 *“I build rapport and build a relationship with the patient first. So that then they trust*

48
49 191 *me more... about some of these more sensitive issues and exams, and are more likely*

50
51 192 *to agree to it later down the track” (GP7).*
52
53

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56
57
58 194 **1.2 Providing opportunistic CSTs**
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1
2
3 195 Being opportunistic was important. This included initiating the first discussion regarding
4
5 196 CCS, and seeking out the opportunity during other care provision, such as during preparation
6
7
8 197 of chronic disease GP management plans, peri-partum consults, and consults surrounding
9
10 198 sexual health.

11
12
13 199 *“I think just being opportunistic... for the practitioner to be aware to offer these*
14
15 200 *primary health prevention measures... to incorporate the cervical screening... and*
16
17 201 *offer it all the time”* (GP5)

18
19
20 202 GPs described that they needed to be aware of the lower screening rates in women from
21
22 203 CALD backgrounds, and take the initiative to raise CCS with them.

23
24
25 204 *“Being conscious of the fact that often people of these backgrounds are under-*
26
27 205 *screened so that then we can make up for it by putting in that special effort”* (GP7)

28
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30 206

31 32 33 207 **1.3 Other clinician-patient relationships**

34
35
36 208 Repeated advice regarding CCS from multiple health care providers, including practice
37
38 209 nurses and hospital midwives, was described as a facilitator.

39
40
41 210

42
43 211 *“One thing that has really helped, if there's multiple health care providers telling*
44
45 212 *them the same things”* (GP9).

46
47
48 213

49 50 51 214 **1.4 Self-collection HPV tests**

52
53
54 215 Most participants were aware of the availability of self-collection HPV tests under the rNCSP
55
56 216 for under-screened women and viewed the tests positively, describing that *“it's a good*
57
58 217 *opportunity to screen the under-screened patient”* (GP11).

1
2
3 218 However, GPs also identified several challenges to self-collection tests, and many of these
4
5 219 relate to the already identified barriers in our findings.
6
7

8
9 220

10 11 221 **Theme 2: Patients' cultural understanding regarding health care and CCS**

12 13 14 222 **2.1 Lack of awareness and knowledge**

15
16 223 Lack of awareness and access to reliable information regarding the rNCSP and cervical
17
18 224 cancer were significant barriers. GPs reported that CSTs were a new concept to some
19
20 225 patients, whilst others may have heard of CSTs (or pap smears), but had limited knowledge
21
22 226 about their purpose, the procedure involved, or about cervical cancer.
23

24
25
26 227 *"If they don't understand how important it is, they're just not going to accept it"*

27
28
29 228 (GP9).

30
31
32 229 It was reported that some patients' knowledge gap was universal for all screening programs
33
34 230 offered in Australia.

35
36 231 *"It's not just about [CCS]. It was about bowel cancer screening... mammograms as*
37
38 232 *well"* (GP9).

39
40
41 233 Participants also reflected on the differences in participation between different cultural
42
43 234 groups.

44
45
46 235 *"...[Patients from] Cambodia, who have equivalent programs there... had raised it*
47
48 236 *with me, and asked when they're going to be due here"* (GP7).

49
50
51 237 Conversely, migration from countries without CCS deepened the lack of awareness.

52
53
54 238 *"Sometimes it's just, sort of, lack of exposure to this knowledge... they've recently*
55
56 239 *come here... back in their countries, this doesn't exist"* (GP9).

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4
56 241 **2.2 Lower priority for cancer screening**8
9 242 **2.2.1 Not on patients' agenda**

11
12 243 GPs described that women from CALD backgrounds often viewed CCS with less importance
13
14 244 and priority, and it was commonly not on a patient's agenda when presenting to her GP.

16
17 245 Participants identified that multiple factors were often involved in preventive care taking “a
18
19 246 *bit of a sideline*” (GP7). Patients from CALD backgrounds often presented with acute
20
21 247 medical issues, which may be more complex, requiring more time within the consult.

23
24
25 248 *“You've got so much other stuff to get through and everything's taking a bit longer*
26
27 249 *generally. I've also got quite a few women from refugee backgrounds who, I guess,*
28
29 250 *are going through a lot of difficult things and sometimes find it hard just to get to the*
30
31 251 *doctor and make it to appointments and when they come, [they] have quite a few*
32
33 252 *pressing issues that need to be addressed. And so, a lot of that preventative stuff can*
34
35 253 *get lost in the background a bit unfortunately”* (GP7).
36
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38

39 254
40
4142 255 **2.2.2 Patients' subjective beliefs and perceptions of low risk**

44
45 256 GPs described that some patients had pre-determined beliefs, and false perceptions of low
46
47 257 risk, regarding CCS. This included beliefs that they would not contract HPV as a result of the
48
49 258 same lifetime sexual partner, with some patients having difficulty acknowledging “*how they*
50
51 259 *got [HPV]*” (GP6).

52
53
54
55 260 GPs also identified that some patients believed their older age lowered their risk of cervical
56
57 261 cancer.
58
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2
3 262 *“Ones that are like over 60... over 65... or that they have no longer have a sexual*
4
5 263 *partner. And then mistakenly think that, well, because they [are] not sexually*
6
7 264 *active... they don't have to do anything” (GP8).*
8
9

10 265

13 266 **2.2.3 COVID-19 pandemic**

16 267 The COVID-19 pandemic was also described to have impacted CCS participation; across
17
18 268 women from all backgrounds.

21 269 *“During the [COVID-19] pandemic... we've seen a marked decrease in the number of*
22
23 270 *people presenting for just primary screening” (GP5).*
24
25

26 271

28 272 **2.3 Importance of patients' individual circumstances**

31 273 **2.3.1 Patient concerns surrounding physical examination**

34 274 A common report was patients' reluctance and embarrassment surrounding cervical
35
36 275 examinations, as they involve speculums and can be intrusive.

39 276 *“I find that... women from particular cultures... could be quite ashamed to get*
40
41 277 *exposed... does make the actual procedure sometimes a little bit difficult” (GP12).*
42
43

44 278 Patients were less comfortable with CSTs when children were present, and it was difficult for
45
46 279 GPs to manage supervising the children and performing the examination.

50 280 *“I do think sometimes young woman with really tiny children, it could be a real*
51
52 281 *barrier to get the time. They never get a chance to come in without their kids”*
53
54 282 *(GP1).*
55
56

57 283 **2.3.2 Influence of relatives**

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3 284 GPs noted that if a patient's relatives were not participating, this reduced the patient's own
4
5 285 willingness to engage with CCS.

6
7
8 286 *"There are some beliefs and they've reached a certain age and like they just outright*
9
10 287 *say "none of my sisters and mothers have had it and they're fine" (GP9).*

11
12
13 288 However, relatives can also have a positive influence, with some GPs describing that the
14
15 289 presence of a support person, in particular daughters bringing their mothers, had improved
16
17 290 uptake.

18
19
20
21 291 *"Another thing I've found helpful is, I've had a few patients from different cultural*
22
23 292 *backgrounds where the daughter and the mom have come together for their pap*
24
25 293 *smears, and the daughter... interpreted for the mom... the daughter has encouraged*
26
27 294 *the mum to come along" (GP7).*

28 294 29 30 31 295 **2.3.3 Previous sexual trauma**

32
33
34 296 A history of female genital mutilation was raised by some GPs as negatively affecting CCS
35
36 297 participation, with an emphasis on the need for GPs to be more sensitive and respectful about
37
38 298 this issue.

39
40
41 299 *"Women that have had genital mutilation...exploring... how comfortable they are and*
42
43 300 *the sort of speculum that you might choose... a bit more gently you might go about it"*
44
45 301 *(GP10).*

46
47
48
49 302 Similarly, cervical examinations can be distressing for patients with a history of sexual abuse.

50
51
52 303 *"I've found much more barriers when women have been in sexual abuse" (GP1).*

53
54
55 304

56 57 305 **Theme 3: Communication and language**

3.1 Language difficulties

Most participants described challenges in promoting CCS when speaking a different language to their patient, or when patients were not fluent in English.

“Its a difficulty explaining [CSTs] in their own terms... what exactly this means”
(GP12).

Using simple words helped with communication, as did the use of anatomy models and visual aids.

“[I] find this a new concept and [women from CALD backgrounds] have absolutely no idea... I say this is a cancer screening... I may show a picture” (GP4).

“I really show them the speculum, probably tell them that there are smaller ones if they were worried about internal exams, actually showing the brush and let them have a feel of the brush” (GP5).

3.2 Interpreter use

Language barriers were often overcome by using interpreters. GPs valued effective communication, with one GP reflecting that CCS is *“something that good communication is absolutely crucial for, to make sure you're getting proper consent and the patient is really comfortable”* (GP7).

Easy access to telephone interpreters was important, but challenges included inconvenience, increased time, miscommunication errors, and sensitivities in using an interpreter for a gynaecological examination.

“In an ideal circumstance, you'd have a telephone interpreter... that take 5 minutes to line up at best... maybe it's something that you can plan for another day” (GP2).

328 Another GP shared that using family members as interpreters provides variable results.

329 *“A relative could be good or they could be terrible... could talk over with them*

330 *afterwards and say this is what it’s about” (GP1).*

331 **3.3. Use of appropriate resources**

332 GPs used written handouts, and highlighted the value of providing reliable information to
333 patients in their own language. Some GPs were aware of where to access such information,
334 whilst others expressed the need for easier access to these resources.

335 *“Something that could be useful would be to look into if there’s pamphlets or*
336 *information sheets in various languages that could be given to patients” (GP7).*

337 Waiting room resources, such as posters and pamphlets, were mentioned as impacting patient
338 education and awareness. Additionally, written resources regarding the rNCSP was raised as
339 important in the provision of consistent information.

340 *“It can be confusing for the patients about how it’s swapped over [to rNCSP], but*
341 *probably some kind of handout you can give for that” (GP1).*

342 Similarly, provision of information through videos and radio communication in different
343 languages was suggested to supplement the written resources.

344 *“Some videos on the website in [patients’] own language would be a good decision...*
345 *and I know that there is some like radios that are given in like different languages just for*
346 *this... I think [patients’] acceptance would be better that its coming from their population”*
347 *(GP3).*

348

349 **Theme 4: Health-system related**

350 **4.1 Increased time needed**

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2
3 351 Allocating sufficient time was key to improving uptake, particularly in the presence of
4
5 352 language barriers and interpreters. GPs employed strategies such as longer appointments, or
6
7
8 353 discussions over multiple appointments.

9
10 354 *“You have to warn them... bring them back again and see if they’ve got any question,*
11
12
13 355 *so maybe third time finally you’d do [the CST]” (GP1).*

14
15 356 GPs expressed concerns regarding non-attendance when patients are asked to re-schedule
16
17 357 appointments.

18
19
20 358 *“I think that anything where you raise it and then try and think that they’ll come*
21
22
23 359 *back, you lose... your opportunity... they don’t return. So, one of the advantages is if*
24
25 360 *you are comfortable you can do it quite quickly, then you get it all done and dusted in*
26
27 361 *that consultation” (GP10).*

28
29
30 362 GPs also identified the need for investing more time in explaining and performing CSTs.

31
32
33 363 *“I have to explain [CSTs] before I go ahead. So that’s the challenge... Rather than*
34
35 364 *the [non-CALD] population, they would be expecting, they know what is going to*
36
37 365 *happen and how we interpret” (GP3).*

38
39
40
41 366 However, GPs described time-pressure challenges when spending more time on one
42
43 367 particular health issue, or when attempting to schedule multiple aspects of care into one
44
45 368 consultation.

46
47
48 369 *“Now there’s even the cervical cancer vaccine that needs to be brought up as well. So,*
49
50 370 *it’s a lot to talk about.” (GP8).*

51
52
53 371

54
55 372 **4.2 Access to appointments**

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2
3 373 Improving access to appointments can improve a patient's participation in screening. Some
4
5 374 GPs suggested the use of women-only or CCS-specific clinics.

6
7
8 375 *"We can even run like a cervical screening clinic, as a separate one... where it could*
9
10 376 *be like women presenting and it could be a more welcoming environment for the*
11
12 377 *women."* (GP12).

13
14
15
16 378 Additionally, GPs reflected upon the possibility of easily accessible appointment times to
17
18 379 encourage wider participation.

19
20
21 380 *"It's interesting to see how many women come on a Saturday morning for cervical*
22
23 381 *screening... I'm sure that might be the same for CALD backgrounds"* (GP10).

24
25
26 382 Some GPs also described transport access issues, and the need for some patients to rely on
27
28 383 family members to attend appointments.

29
30
31 384 *"Maybe accessing the service could be a problem for them. Maybe they are*
32
33 385 *dependent on their husband or somebody else to make an appointment for them and*
34
35 386 *bring them for the test."* (GP12).

36 37 38 39 387 **4.3 Funding**

40
41
42 388 Issues surrounding Medicare eligibility and costs of CCS were raised as barriers, particularly
43
44 389 when coupled with the lack of perceived necessity.

45
46
47 390 *"If they don't hold a Medicare [card] and they have got some sort of a private*
48
49 391 *insurance... do they think they might have to pay for some tests? They perceive this as*
50
51 392 *an unimportant task"* (GP9).

52
53
54
55 393 A GP reflected that working in a bulk-billing clinic acted as a facilitator for these patients.
56
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1
2
3 394 *“For screening, if there's nothing that's wrong with [women from CALD*
4
5 395 *backgrounds], I don't think that they will pay... I don't think that I will be as*
6
7 396 *successful, as I am, running the screening program, if I charge this woman” (GP8).*
8
9

10 397 However, the GP also mentioned that more funding should be allocated to facilitating CCS,
11
12
13 398 in particular for under-screened populations.
14

15
16 399 *“I think, for us, the funding would be a big thing. To give us more time so we can*
17
18 400 *educate” (GP8).*
19

20 21 401 **4.4 Health promotion**

22
23
24 402 GPs advocated for culturally-sensitive public health campaigns and health promotional
25
26 403 materials, particularly in different languages, to raise awareness. Ideas offered included
27
28 404 Government initiatives and campaigns, and use of social media, radio services, and
29
30 405 television.
31
32

33
34 406 *“Maybe some more public health campaign so that people have already been*
35
36 407 *introduced to the concept [of CSTs] outside of general practice” (GP2).*
37
38

39 408 **4.5 Use of practice management system**

40
41
42 409 An effective recall and reminder system, incorporating telephone calls, text messages and
43
44 410 sending letters to patients, was considered a facilitator. GPs reflected on the importance of
45
46 411 placing patients on the reminder system to ensure follow up, and engaged their practice
47
48 412 nurses and receptionists to assist with recalls.
49
50

51
52 413 *“We actually spend a lot of manpower... to draw out the recalls and actively calling*
53
54 414 *people. Sometimes they don't respond to a message, we call them, we keep trying and*
55
56 415 *then we send a letter” (GP8).*
57
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1
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3 416 GPs mentioned that reminders were more effective when they were sent in patients' own
4
5 417 languages.

6
7
8 418 *"I've got a template letter for [language] ...and now I have a text message in*
9
10 419 *[language] ...it doesn't need to be long... but this is their language"* (GP8).

11
12
13 420 Additionally, GPs stated that prompts during consultations, and when booking appointments,
14
15 421 can also increase patient participation by initiating the discussion.

16
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18 422

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21 423 **DISCUSSION**

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24 424 The study findings provide in-depth insight into GPs' perspectives about the barriers and
25
26 425 facilitators to CCS for an under-screened population group - women from CALD
27
28 426 backgrounds. GPs identified several barriers at the individual and organisational levels; often
29
30 427 co-existing to challenge the provision of CCS in these women. Similarly, GPs reflected on
31
32 428 several personal facilitators that encouraged and increased CCS.

33
34
35
36 429 The TDF was used to further interpret our study's themes. We used the TDF domains of
37
38 430 knowledge, skills, social/professional role and identity, beliefs about consequences,
39
40 431 environmental context and resources, and social influences, within our interpretation. As our
41
42 432 study demonstrates the inter-relationship of the barriers and facilitators, our four prominent
43
44 433 themes transect multiple domains of the TDF. To highlight this, we have not described our
45
46 434 findings under domain headings as discrete constructs, but rather refer to these domains
47
48 435 (*italics used to signal this*) in the following discussion.

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51
52
53 436 Our study found that lack of awareness or insufficient *knowledge* regarding CCS continues to
54
55 437 hinder screening participation in CALD women, consistent with previous literature^{13,25-27}.

56
57
58 438 Knowledge gaps in the process and importance of screening often reflected low health
59
60 439 literacy and lack of exposure to CCS in patients' countries of birth (*environmental context*

1
2
3 440 *and resources*). GPs mentioned that patients were more proactive if they migrated from
4
5 441 countries where CCS is offered as primary screening. GPs also reflected that some patients'
6
7 442 lack of knowledge translated to other primary screening programs, such as breast cancer and
8
9 443 bowel cancer screening. This is not surprising given that CALD women can be unfamiliar
10
11 444 with preventive health services^{12,15} (*beliefs about consequences*), indicating that widespread
12
13 445 interventions are required to improve CALD patients' cancer screening participation²⁸.
14
15 446 Patients who did not view cancer screening, specifically CCS, with high importance, or
16
17 447 patients who perceived themselves to be at low risk of cervical cancer, were less likely to
18
19 448 present for screening (*knowledge, beliefs about consequences*). GPs identified that CALD
20
21 449 patients' needs can be more complex, and cancer screening was often not on their agenda.
22
23 450 Additionally, the COVID-19 pandemic, which has caused significant reductions in preventive
24
25 451 healthcare, including CCS²⁹, was echoed by our GPs as having a negative impact on CCS
26
27 452 participation rate (*environmental context and resources*).
28
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32
33 453 It was highlighted that opportunistically offering CCS to women with low knowledge,
34
35 454 awareness and priority, was a significant facilitator, and at times, a necessity, in improving
36
37 455 uptake (*skills, social/ professional role and identity*). GPs demonstrated variable approaches
38
39 456 to this, with some offering it as part of chronic disease care, and others during consults
40
41 457 surrounding sexual health. Although other studies have also highlighted that CALD women
42
43 458 tend to undertake CCS when offered opportunistically¹⁶, this was a prominent idea amongst
44
45 459 our participants. As CCS in Australia is commonly performed by GPs, this allows for
46
47 460 opportunistic care to occur, as GPs are able to perform the necessary screening test in their
48
49 461 rooms when patients present for other reasons (*skills*). This is unique, compared to
50
51 462 Australia's bowel or breast cancer screening programs, which are delivered separately at
52
53 463 national and/or state or territory level^{30,31}.
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1
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3 464 A patient's individual circumstance can limit their acceptance of screening, and being
4
5 465 respectful and addressing this was helpful in improving CCS uptake. Among the factors
6
7 466 discussed, physical examination concerns and influence of relatives were the most discussed.
8
9
10 467 Consistent with previous findings^{26,32}, the influence of relatives either hindered or
11
12 468 encouraged CCS participation, depending on whether the relatives supported CCS (*social*
13
14 469 *influences*).

15
16
17
18 470 Whilst it is important to acknowledge patient-sided barriers to health care, it is imperative to
19
20 471 address the social and environmental influences that produce health inequities in order to
21
22 472 implement change³³. Another prominent finding in our study was the importance of the
23
24 473 clinician-patient relationship in influencing CCS uptake (*social/ professional role and*
25
26 474 *identity*). A GP's role in Australia is significant, with evidence that patients who have a
27
28 475 regular GP have better engagement with the health system³⁴. This is also true for CALD
29
30 476 populations, and it has been recognised that positive experiences with GPs can strongly
31
32 477 influence CALD patients' use of health services³⁵. The GPs in our study recognised that their
33
34 478 professional relationship with patients, particularly if long-standing, was an important
35
36 479 facilitator in encouraging CCS. Allowing time to build rapport was key as it invited trust and
37
38 480 familiarity³⁴, and allowed GPs to promote education surrounding CCS; improving CALD
39
40 481 patients' CCS uptake¹⁶. Furthermore, advice from multiple HCPs regarding CCS provided a
41
42 482 consistent message (*social/ professional role and identity*).

43
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47
48 483 Barriers relating to knowledge and health literacy were often compounded by language
49
50 484 barriers (*environmental context and resources*). GPs reported difficulties when they did not
51
52 485 speak the same language as their patients, and used visual aids and interpreter services to
53
54 486 communicate (*environmental context and resources*). Although GPs found external
55
56 487 interpreter services useful overall, they reflected on numerous challenges associated with
57
58 488 their use. This included the increased time and resources needed to organise interpreters in
59
60

1
2
3 489 consultations, which often resulted in not being able to access an interpreter, particularly with
4
5 490 short-notice. In Australia, GPs have access to the national Translating and Interpreting
6
7 491 Service (TIS), provided free-of-charge for use with non-English speaking patients³⁶.

8
9
10 492 However, GPs also need more time in their consultations to facilitate this. Our participants
11
12 493 proposed solutions such as offering multiple consultations, longer appointments, and
13
14 494 increased funding for such consultations. This is consistent with previous literature that
15
16 495 improving financial incentives for GPs to undertake longer consultations may be beneficial
17
18 496 for challenging and complex discussions^{17,37}.

19
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21
22 497 Delivering information through different channels has been shown to increase participation in
23
24 498 CCS for CALD women¹². GPs discussed the value of written information material, including
25
26 499 pamphlets in patients' own languages, emphasising that GPs need to have easier access to
27
28 500 such resources^{12,38} (*environmental context and resources*). GPs also suggested using videos
29
30 501 as information resources, which has been shown in previous studies to be effective in
31
32 502 promoting uptake of cancer screening in targeted populations³⁹.

33
34
35
36 503 Additionally, evidence suggests that screening invitations from GPs can be more trusted by
37
38 504 patients than invitations from screening hubs⁴⁰. This has implications for improving CCS
39
40 505 uptake, as GPs and practice staff routinely send reminders and recalls to patients. Our study
41
42 506 adds to this by highlighting that personalised reminders sent in patients' own languages was
43
44 507 often more effective. Therefore, more effort should be made to incorporate this for under-
45
46 508 screened populations (*environmental context and resources*).

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51 509 Another proposed solution by GPs was the use of self-collection HPV tests to reduce
52
53 510 inequities in CCS. Self-collection HPV tests have been increasingly studied in recent years as
54
55 511 an alternative for under-screened populations^{41,42}. In 2017, they were implemented as part of
56
57 512 the rNCSP under strict criteria, and since 1 July 2022, they have become available for all
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1
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3 513 women eligible for CCS in Australia⁴³. They have been generally accepted by GPs for their
4
5 514 benefits, but also come with challenges⁴².
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7

8 515 **Study strengths and limitations**

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11 516 This study's key strength was the use of appropriate research strategies. This included
12
13 517 ongoing corroboration between researchers during data analysis, and using an inductive
14
15 518 approach to data collection to ensure that participants' responses drove the analysis of results.
16
17 519 Additionally, the use of TDF provided an evidence-based approach for study interpretation.
18
19
20 520 This study also has limitations. Firstly, it was beyond the scope of our study to investigate
21
22 521 CALD patients' experiences in regards to the barriers and facilitators of CCS. Secondly,
23
24 522 difficulties in recruiting GPs, particularly during a pandemic, meant that experiences of only
25
26 523 a small number of participants has been described. However, data collection and analysis
27
28 524 were undertaken until data saturation was reached, with a further two participants interviewed
29
30 525 to confirm findings. Another limitation was that our sample was drawn from metropolitan
31
32 526 South Australia only, and data from GPs across Australia, including rural areas, may add
33
34 527 further to the study. Similarly, as our study reflects the delivery of CCS within the Australian
35
36 528 health care system, it was not within the scope of our study to include nurses, limiting the
37
38 529 transferability of our findings to GPs only.
39
40
41 530 Furthermore, due to the qualitative nature of the study, our findings may not be representative
42
43 531 of the whole GP population. Instead, the findings provide detailed and theoretically informed
44
45 532 insights into the experiences of South Australian GPs in providing CCS to CALD patients.
46
47 533 We also note that as our sample of GPs was purposively collected, and they had a general
48
49 534 interest in improving CCS participation for CALD women, their experiences may not be
50
51 535 reflective of all GPs in Australia.
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58 536 **Conclusions**

1
2
3 537 Our study highlights that GPs recognise that multiple factors influence CALD women's
4
5 538 engagement with CCS, and that these barriers and facilitators are all inter-related. Barriers at
6
7 539 the individual level, such as patients' subjective beliefs, are not easily fixed. However,
8
9 540 recognising them, providing education, and remaining sensitive remain vital in encouraging
10
11 541 CCS for these women. Barriers at the organisational level have opportunities for
12
13 542 improvement. Improving CALD women's access to GPs they trust, and GPs opportunistically
14
15 543 performing CSTs, seem crucial to improving uptake. Additionally, providing GPs with
16
17 544 appropriate patient-specific resources, and financial reimbursement for undertaking longer
18
19 545 consultations, may assist in addressing some barriers. Self-collection HPV tests are an
20
21 546 evolving and promising area in supporting GPs to improve CCS uptake in CALD women, but
22
23 547 the above-mentioned barriers still need to be addressed in order for self-collection HPV tests
24
25 548 to drastically improve CCS participation.
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44
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46
47

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49
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51
52 558 AC wrote the first draft of the manuscript. AC, EH, JB and NS contributed to the conception
53
54 559 and study design, and all authors revised all drafts and approved the final version of the
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56 560 manuscript.
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Standards for Reporting Qualitative Research (SRQR)*

<http://www.equator-network.org/reporting-guidelines/srqr/>

Page/line no(s).

Title and abstract

<p>Title - Concise description of the nature and topic of the study Identifying the study as qualitative or indicating the approach (e.g., ethnography, grounded theory) or data collection methods (e.g., interview, focus group) is recommended</p>	Page 1
<p>Abstract - Summary of key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results, and conclusions</p>	Pages 2, 3

Introduction

<p>Problem formulation - Description and significance of the problem/phenomenon studied; review of relevant theory and empirical work; problem statement</p>	Pages 4, 5
<p>Purpose or research question - Purpose of the study and specific objectives or questions</p>	Page 5

Methods

<p>Qualitative approach and research paradigm - Qualitative approach (e.g., ethnography, grounded theory, case study, phenomenology, narrative research) and guiding theory if appropriate; identifying the research paradigm (e.g., postpositivist, constructivist/ interpretivist) is also recommended; rationale**</p>	Page 5
<p>Researcher characteristics and reflexivity - Researchers' characteristics that may influence the research, including personal attributes, qualifications/experience, relationship with participants, assumptions, and/or presuppositions; potential or actual interaction between researchers' characteristics and the research questions, approach, methods, results, and/or transferability</p>	Pages 5, 6
<p>Context - Setting/site and salient contextual factors; rationale**</p>	Pages 5, 6
<p>Sampling strategy - How and why research participants, documents, or events were selected; criteria for deciding when no further sampling was necessary (e.g., sampling saturation); rationale**</p>	Pages 5, 6, 7
<p>Ethical issues pertaining to human subjects - Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues</p>	Pages 6, 26
<p>Data collection methods - Types of data collected; details of data collection procedures including (as appropriate) start and stop dates of data collection and analysis, iterative process, triangulation of sources/methods, and modification of procedures in response to evolving study findings; rationale**</p>	Pages 6, 7

1 2 3 4 5	Data collection instruments and technologies - Description of instruments (e.g., interview guides, questionnaires) and devices (e.g., audio recorders) used for data collection; if/how the instrument(s) changed over the course of the study	Page 6
6 7 8	Units of study - Number and relevant characteristics of participants, documents, or events included in the study; level of participation (could be reported in results)	Pages 6, 7, 8
9 10 11 12	Data processing - Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data integrity, data coding, and anonymization/de-identification of excerpts	Pages 6, 7
13 14 15 16	Data analysis - Process by which inferences, themes, etc., were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale**	Pages 6, 7
17 18 19 20	Techniques to enhance trustworthiness - Techniques to enhance trustworthiness and credibility of data analysis (e.g., member checking, audit trail, triangulation); rationale**	Pages 6, 7

Results/findings

23 24 25 26	Synthesis and interpretation - Main findings (e.g., interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	Pages 7-21
27 28 29	Links to empirical data - Evidence (e.g., quotes, field notes, text excerpts, photographs) to substantiate analytic findings	Pages 7-21

Discussion

32 33 34 35 36 37 38	Integration with prior work, implications, transferability, and contribution(s) to the field - Short summary of main findings; explanation of how findings and conclusions connect to, support, elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application/generalizability; identification of unique contribution(s) to scholarship in a discipline or field	Pages 21-26
39	Limitations - Trustworthiness and limitations of findings	Page 25

Other

42 43 44	Conflicts of interest - Potential sources of influence or perceived influence on study conduct and conclusions; how these were managed	Page 26
45 46	Funding - Sources of funding and other support; role of funders in data collection, interpretation, and reporting	Page 26

*The authors created the SRQR by searching the literature to identify guidelines, reporting standards, and critical appraisal criteria for qualitative research; reviewing the reference lists of retrieved sources; and contacting experts to gain feedback. The SRQR aims to improve the transparency of all aspects of qualitative research by providing clear standards for reporting qualitative research.

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**The rationale should briefly discuss the justification for choosing that theory, approach, method, or technique rather than other options available, the assumptions and limitations implicit in those choices, and how those choices influence study conclusions and transferability. As appropriate, the rationale for several items might be discussed together.

Reference:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. **Standards for reporting qualitative research: a synthesis of recommendations.** *Academic Medicine*, Vol. 89, No. 9 / Sept 2014
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BMJ Open

Barriers and facilitators to cervical cancer screening for women from culturally and linguistically diverse backgrounds; a qualitative study of GPs

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7 2 **Barriers and facilitators to cervical cancer screening for women**
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3 21 **ABSTRACT**
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6 22 **Objective** To explore general practitioners' (GPs) perspectives on the barriers and facilitators
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8 23 to cervical cancer screening (CCS) for women from culturally and linguistically diverse
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10 24 (CALD) backgrounds.
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16 26 **Design** Qualitative descriptive study involving semi-structured interviews, with interview guide
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18 27 informed by the Theoretical Domains Framework.
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25 29 **Setting** Adelaide, South Australia.
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31 31 **Participants** Twelve GPs with experience in providing CCS to women from CALD
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33 32 backgrounds participated.
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39 34 **Results** Four main themes emerged: 'importance of clinician-patient relationship', 'patients'
40
41 35 cultural understanding regarding health care and CCS', 'communication and language' and
42
43 36 'health-system related'. Each theme had several subthemes. GPs' professional relationship
44
45 37 with their patients and repeated advice from other clinicians, together with the provision of
46
47 38 opportunistic CCS, were described as facilitators, and encompassed the theme of 'importance
48
49 39 of clinician-patient relationship'. This theme also raised the possibility of self-collection
50
51 40 human papilloma virus (HPV) tests. Lack of awareness and knowledge, lower priority for
52
53 41 cancer screening, and patients' individual circumstances contributed to the theme of
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55 42 'patients' cultural understanding regarding health care and CCS', and often acted as barriers
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57 43 to CCS. 'Communication and language' consisted of language difficulties, interpreter use,
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3 44 and use of appropriate resources. Language difficulties was a barrier to the provision of CCS,
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5 45 and GPs used interpreters and written handouts to help overcome this. The theme of ‘health-
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7 46 system related’ involved the increased time needed for CCS consults for CALD women,
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9 47 access to appointments, funding, health promotion and effective use of practice management
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11 48 software.
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19 50 **Conclusions** This study highlights that multiple, inter-related barriers and facilitators
20
21 51 influence CALD women’s engagement with CCS, and that GPs needed to manage all of these
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23 52 factors in order to encourage CCS participation. More efforts are needed to address the
24
25 53 barriers to ensure that GPs have access to appropriate resources, and CALD patients have
26
27 54 access to GPs they trust.
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30 55 **STRENGTHS AND LIMITATIONS**

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33 56 - The use of qualitative methodology allowed for in-depth exploration of GPs’
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35 57 experiences in providing cervical cancer screening to women from CALD
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37 58 backgrounds
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39 59 - The use of the Theoretical Domains Framework in the interview guide and data
40
41 60 analysis, provided an evidence-based approach for study interpretation
42
43 61 - GPs who participated in our study had a general interest in improving cervical cancer
44
45 62 screening participation for CALD women, so their experiences may not be reflective
46
47 63 of all GPs in Australia
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49 64 - Participants were drawn from metropolitan South Australia only, and GPs from other
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51 65 areas in Australia, including rural areas, may add further to the study
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67 **INTRODUCTION**

68 Worldwide, cervical cancer is the fourth most common cancer in women; in both incidence
69 and mortality, with the highest burden in countries without cervical screening programs^{1, 2}.

70 Cervical cancer should largely be preventable, through human papilloma virus (HPV)
71 immunisation and effective screening programs². In Australia, the renewed National Cervical
72 Screening Program (rNCSP) has been in place since 1 December 2017, recommending
73 asymptomatic women aged 25-74 years undertake HPV screening tests every five years,
74 replacing two-yearly Pap smears²⁻⁴.

75 However, participation in cervical cancer screening (CCS) remains low, with the Australian
76 Institute of Health and Welfare reporting that during 2018–2019, only 46% of eligible
77 women had a screening HPV test as part of the rNCSP². It is well-established that a
78 significant risk factor for the development of cervical cancer is under-screening or never
79 being screened^{2, 3}. Therefore, less than half of eligible women participating in CCS, in a
80 country with a well-developed screening program, needs to be addressed, in particular as
81 Australia plans to eliminate cervical cancer by 2035⁵.

82 Current literature suggests that inequalities in screening persist with lower rates of CCS in
83 women from culturally and linguistically diverse (CALD) backgrounds^{6, 7}. Australia is a
84 multicultural nation, with growing migrant populations, and this calls to strengthen our
85 healthcare access and outcomes for these populations⁸. Addressing such inequalities will be
86 key to Australia's success in eliminating cervical cancer.

87 Research has been performed in Australia^{6, 7, 9} and internationally¹⁰⁻¹⁴ exploring CALD
88 patients' perspectives on the barriers and facilitators to CCS. Patient barriers have included
89 poor health literacy, cultural beliefs and stigma, and English proficiency^{6, 10, 12}. Comparably,
90 linguistic strategies, and increasing patients' awareness surrounding CCS are described as

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3 91 facilitators^{12,13}. Although international studies have explored health care providers' (HCP)
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5 92 perspectives on CCS; reporting barriers and facilitators relating to knowledge,
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8 93 communication, and access to healthcare services¹⁵⁻¹⁷, very little is known about Australian
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10 94 HCP perspectives on this issue. To the best of the authors' knowledge, Australian general
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12 95 practitioners' (GPs) perspectives on barriers and facilitators to CCS in CALD patients have
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15 96 not been documented.

16
17 97 There is growing recognition that delivering healthcare involves complex underlying
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19 98 processes within specific contexts^{18,19}. In order to effectively bring about change in
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22 99 healthcare, we need to theoretically understand the influences on professional behaviours, so
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24 100 that they are considered in interventions aimed at change¹⁸⁻²⁰. The Theoretical Domains
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26 101 Framework (TDF) is a conceptual, validated framework that has synthesised 33 behavioural
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28 102 theories forming 14 domains, and is a useful tool to support researchers in understanding the
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30 103 environmental, social, and cognitive influences on behaviour²¹. It has been widely applied
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32 104 across healthcare-related research focussed on changing clinical and professional behaviours,
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34 105 including understanding barriers and facilitators to behaviours related to healthcare
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36 106 outcomes²¹⁻²³.

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41 107 Therefore, using TDF, this study aims to explore GPs' perspectives on the barriers and
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43 108 facilitators to CCS for women from CALD backgrounds. By discovering the views of those
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45 109 who primarily provide CCS in the community, we aim to gain a deeper understanding of the
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47 110 barriers faced in every-day clinical practice, and insights into factors that can be used to
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49 111 increase participation in CCS for these women.

52 53 112 **METHODS**

54 55 56 113 **Study design and setting**

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3 114 A qualitative descriptive study involving in-depth semi-structured interviews was conducted
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5 115 in Adelaide, South Australia. Semi-structured interviews enabled exploration of participants'
6
7 116 experiences. The interviews were undertaken by the lead author, AC; a GP Registrar.
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10 117 **Recruitment**

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13 118 Study participants were recruited through purposive sampling. General practices located in
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15 119 communities with migrant populations, registered with GPEx (South Australia's Regional
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17 120 Training Organisation for General Practice Registrars), and/or professional contacts of
18
19 121 Discipline of General Practice at The University of Adelaide, were identified, and GPs with
20
21 122 experience in providing cervical screening tests (CSTs) to women from CALD backgrounds
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23 123 were invited to participate in interviews through email, telephone, or snowballing methods.
24
25 124 GPs were reimbursed with a \$AUD100 gift card for their time.
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29 30 31 125 **Data collection**

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33 126 A semi-structured interview guide informed by TDF²¹ (supplementary file) was developed by
34
35 127 AC and EH, who has extensive experience in qualitative methodologies. The TDF provided a
36
37 128 method to understand GPs' and patients' behaviours related to CCS theoretically¹⁸. The
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39 129 interview guide covered questions regarding GPs' experiences in working with women from
40
41 130 CALD backgrounds, in particular relating to CCS, and covered TDF domains including
42
43 131 knowledge, skills, and social/ professional role and identity. Two pilot interviews were
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45 132 undertaken to develop AC's interview skills, and minor revisions to the interview guide were
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47 133 made based on feedback. Data from the pilot interviews were not included in the final
48
49 134 analysis.
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54 135 A total of twelve interviews were conducted between May and September 2021. Ten were
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56 136 conducted via telephone and two via video teleconference (using Zoom application). The use
57
58 137 of remote technology improved access for participants. Interviews lasted between 19 and 35
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3 138 minutes. Written informed consent was received from all participants prior to interviews.
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5 139 Field notes were taken by AC during each interview.
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8 140 **Data analysis** 9

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11 141 All but one of the interviews were digitally audio-recorded and transcribed verbatim. One
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13 142 participant did not consent to audio-recording, and comprehensive written notes were instead
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15 143 taken with their consent. AC listened to all audio-recordings in full and cross-checked them
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17 144 with the transcripts for accuracy. Any identifying information was removed from the
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19 145 transcripts.
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23 146 Braun & Clarke's six-phase framework guided thematic analysis²⁴. Hard copies of transcripts
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25 147 were reviewed by AC prior to coding, producing a brief summary outlining the key findings
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27 148 within each transcript. Data were managed using QSR N-Vivo software. Codes were
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29 149 generated inductively. Initial codes were generated by independent coding of three transcripts
30
31 150 by AC, EH and JB, and codes agreed upon through discussion. The subsequent transcripts
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33 151 were coded by AC, and discussed regularly with EH, JB and NS for refinement. The final
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35 152 codes were then structured into themes and sub-themes. In the final phase of analysis, this
36
37 153 inductive approach was followed by reflexive consideration of the potential fit between the
38
39 154 themes generated and the TDF domains. This approach supported the interpretation of the
40
41 155 data, and fits with Braun and Clarke's overall analysis framework²⁴. Two further interviews
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43 156 were then conducted to supplement data from the first ten interviews, to confirm findings and
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45 157 attain data saturation.
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51 158 **Patient and public involvement** 52

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54 159 Our study focussed on GPs' perspectives on the barriers and facilitators to CCS for women
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56 160 from CALD backgrounds, and patient and the public were not involved at this stage.
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162 **RESULTS**163 **Participant characteristics**

164 The characteristics of the 12 participants are in Table 1. 92% of the GPs were female. 8 GPs
 165 (67%) used another language for consulting (in addition to English).

166 **TABLE 1: Characteristics of the participants**

Characteristics	GP Participants (<i>n</i> =12)
Age (years)	
≤ 35	2
36 – 54	9
≥ 55	1
Sex	
Female	11
Male	1
Length of practice as GP (years)	
<5	3
5 – 15	4
>15	5
Clinical workload as GP per week (hours)	
0 – 15	2
16 – 30	5
>30	5

Languages used for consulting other than English	
Nil (other than English)	4
Bengali	3
Mandarin/ Chinese	2
Urdu	2
Vietnamese	1

167

168 **Themes**

169 There are four major themes reported based on our thematic analysis. Within each theme,
 170 several sub-themes were identified, and supported by quotations from the interviews. These
 171 are described below. Themes and sub-themes are also summarised in Table 2.

172 **TABLE 2: Themes and sub-themes**

Themes	Sub-themes
<ul style="list-style-type: none"> • Importance of clinician-patient relationship 	<ul style="list-style-type: none"> • GPs' professional relationship with their patients • Providing opportunistic CSTs • Other clinician-patient relationships • Self-collection HPV tests

<ul style="list-style-type: none"> • Patients' cultural understanding regarding health care and CCS 	<ul style="list-style-type: none"> • Lack of awareness and knowledge • Lower priority for cancer screening <ul style="list-style-type: none"> ○ Not on patients' agenda ○ Patients' subjective beliefs and perceptions of low risk ○ COVID-19 pandemic • Importance of patients' individual circumstances <ul style="list-style-type: none"> ○ Patient concerns surrounding physical examination ○ Influence of relatives ○ Previous sexual trauma
<ul style="list-style-type: none"> • Communication and language 	<ul style="list-style-type: none"> • Language difficulties • Interpreter use • Use of appropriate resources
<ul style="list-style-type: none"> • Health-system related 	<ul style="list-style-type: none"> • Increased time needed • Access to appointments • Funding • Health promotion • Use of practice management system

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2
3 174 **Theme 1: Importance of clinician-patient relationship**
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5 175 **1.1 GPs' professional relationship with their patients**
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8 176 GPs identified several helpful factors in providing CSTs to women from CALD backgrounds.
9

10 177 These included their professional experience providing CSTs, length of experience in
11
12 178 working with CALD women, and being a female GP.

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14
15
16 179 *“I see a lot of Vietnamese patients...[but] I see everybody else, not just Vietnamese.*

17
18 180 *So... Thai, Israel, Iran, African, everybody” (GP8).*
19

20
21 181 Being a male GP was identified as a barrier, as patients were less likely to see a male GP for
22
23 182 CSTs.

24
25
26 183 *“My experience is that as a male doctor, we have to be very clear about how... we*
27
28 184 *approach cervical screening” (GP4).*
29

30
31 185 A continuing doctor-patient relationship was frequently a facilitator.
32
33

34 186 *“To have a long-term GP or someone you're familiar with is really helpful... So, they*
35
36 187 *will let you do what you think is good for them or they will bring it up because they're*
37
38 188 *comfortable” (GP8).*
39
40

41
42 189 GPs also described the importance of building rapport with their patient to facilitate screening
43
44 190 discussions.

45
46
47 191 *“I build rapport and build a relationship with the patient first. So that then they trust*
48
49 192 *me more... about some of these more sensitive issues and exams, and are more likely*
50
51 193 *to agree to it later down the track” (GP7).*
52
53

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56
57
58 195 **1.2 Providing opportunistic CSTs**
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3 196 Being opportunistic was important. This included initiating the first discussion regarding
4
5 197 CCS, and seeking out the opportunity during other care provision, such as during preparation
6
7
8 198 of chronic disease GP management plans, peri-partum consults, and consults surrounding
9
10 199 sexual health.

11
12
13 200 *“I think just being opportunistic... for the practitioner to be aware to offer these*
14
15 201 *primary health prevention measures... to incorporate the cervical screening... and*
16
17 202 *offer it all the time”* (GP5)

18
19
20 203 GPs described that they needed to be aware of the lower screening rates in women from
21
22 204 CALD backgrounds, and take the initiative to raise CCS with them.

23
24
25 205 *“Being conscious of the fact that often people of these backgrounds are under-*
26
27 206 *screened so that then we can make up for it by putting in that special effort”* (GP7)

28
29
30 207

31 32 33 208 **1.3 Other clinician-patient relationships**

34
35
36 209 Repeated advice regarding CCS from multiple health care providers, including practice
37
38 210 nurses and hospital midwives, was described as a facilitator.

39
40
41 211

42
43 212 *“One thing that has really helped, if there's multiple health care providers telling*
44
45 213 *them the same things”* (GP9).

46
47
48 214

49 50 51 215 **1.4 Self-collection HPV tests**

52
53
54 216 Most participants were aware of the availability of self-collection HPV tests under the rNCSP
55
56 217 for under-screened women and viewed the tests positively, describing that *“it's a good*
57
58 218 *opportunity to screen the under-screened patient”* (GP11).

1
2
3 219 However, GPs also identified several challenges to self-collection tests, and many of these
4
5 220 relate to the already identified barriers in our findings.
6
7

8 221

11 222 **Theme 2: Patients' cultural understanding regarding health care and CCS**

14 223 **2.1 Lack of awareness and knowledge**

16 224 Lack of awareness and access to reliable information regarding the rNCSP and cervical
17
18 225 cancer were significant barriers. GPs reported that CSTs were a new concept to some
19
20 226 patients, whilst others may have heard of CSTs (or pap smears), but had limited knowledge
21
22 227 about their purpose, the procedure involved, or about cervical cancer.
23
24

25
26 228 *"If they don't understand how important it is, they're just not going to accept it"*

27
28
29 229 (GP9).

30
31
32 230 It was reported that some patients' knowledge gap was universal for all screening programs
33
34 231 offered in Australia.

35
36 232 *"It's not just about [CCS]. It was about bowel cancer screening... mammograms as*
37
38 233 *well"* (GP9).

39
40
41 234 Participants also reflected on the differences in participation between different cultural
42
43 235 groups.

44
45
46 236 *"...[Patients from] Cambodia, who have equivalent programs there... had raised it*
47
48 237 *with me, and asked when they're going to be due here"* (GP7).

49
50
51
52 238 Conversely, migration from countries without CCS deepened the lack of awareness.

53
54
55 239 *"Sometimes it's just, sort of, lack of exposure to this knowledge... they've recently*
56
57 240 *come here... back in their countries, this doesn't exist"* (GP9).

58
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60

241

2.2 Lower priority for cancer screening

2.2.1 Not on patients' agenda

244 GPs described that women from CALD backgrounds often viewed CCS with less importance
245 and priority, and it was commonly not on a patient's agenda when presenting to her GP.

246 Participants identified that multiple factors were often involved in preventive care taking “a
247 *bit of a sideline*” (GP7). Patients from CALD backgrounds often presented with acute
248 medical issues, which may be more complex, requiring more time within the consult.

249 *“You've got so much other stuff to get through and everything's taking a bit longer*
250 *generally. I've also got quite a few women from refugee backgrounds who, I guess,*
251 *are going through a lot of difficult things and sometimes find it hard just to get to the*
252 *doctor and make it to appointments and when they come, [they] have quite a few*
253 *pressing issues that need to be addressed. And so, a lot of that preventative stuff can*
254 *get lost in the background a bit unfortunately” (GP7).*

255

2.2.2 Patients' subjective beliefs and perceptions of low risk

257 GPs described that some patients had pre-determined beliefs, and false perceptions of low
258 risk, regarding CCS. This included beliefs that they would not contract HPV as a result of the
259 same lifetime sexual partner, with some patients having difficulty acknowledging “*how they*
260 *got [HPV]*” (GP6).

261 GPs also identified that some patients believed their older age lowered their risk of cervical
262 cancer.

1
2
3 263 *“Ones that are like over 60... over 65... or that they have no longer have a sexual*
4
5 264 *partner. And then mistakenly think that, well, because they [are] not sexually*
6
7 265 *active... they don't have to do anything” (GP8).*
8
9

10 266

13 267 **2.2.3 COVID-19 pandemic**

16 268 The COVID-19 pandemic was also described to have impacted CCS participation; across
17
18 269 women from all backgrounds.

21 270 *“During the [COVID-19] pandemic... we've seen a marked decrease in the number of*
22
23 271 *people presenting for just primary screening” (GP5).*
24
25

26 272

28 273 **2.3 Importance of patients' individual circumstances**

31 274 **2.3.1 Patient concerns surrounding physical examination**

34 275 A common report was patients' reluctance and embarrassment surrounding cervical
35
36 276 examinations, as they involve speculums and can be intrusive.

39 277 *“I find that... women from particular cultures... could be quite ashamed to get*
40
41 278 *exposed... does make the actual procedure sometimes a little bit difficult” (GP12).*
42
43

44 279 Patients were less comfortable with CSTs when children were present, and it was difficult for
45
46 280 GPs to manage supervising the children and performing the examination.

50 281 *“I do think sometimes young woman with really tiny children, it could be a real*
51
52 282 *barrier to get the time. They never get a chance to come in without their kids”*
53
54 283 *(GP1).*
55
56

57 284 **2.3.2 Influence of relatives**

58
59
60

1
2
3 285 GPs noted that if a patient's relatives were not participating, this reduced the patient's own
4
5 286 willingness to engage with CCS.

7
8 287 *"There are some beliefs and they've reached a certain age and like they just outright*
9
10 288 *say "none of my sisters and mothers have had it and they're fine" (GP9).*

11
12
13 289 However, relatives can also have a positive influence, with some GPs describing that the
14
15
16 290 presence of a support person, in particular daughters bringing their mothers, had improved
17
18 291 uptake.

19
20
21 292 *"Another thing I've found helpful is, I've had a few patients from different cultural*
22
23 293 *backgrounds where the daughter and the mom have come together for their pap*
24
25 294 *smears, and the daughter... interpreted for the mom... the daughter has encouraged*
26
27 295 *the mum to come along" (GP7).*

28 296 **2.3.3 Previous sexual trauma**

29
30
31 297 A history of female genital mutilation was raised by some GPs as negatively affecting CCS
32
33
34 298 participation, with an emphasis on the need for GPs to be more sensitive and respectful about
35
36 299 this issue.

37
38
39 300 *"Women that have had genital mutilation...exploring... how comfortable they are and*
40
41 301 *the sort of speculum that you might choose... a bit more gently you might go about it"*
42
43 302 *(GP10).*

44
45
46 303 Similarly, cervical examinations can be distressing for patients with a history of sexual abuse.

47
48
49 304 *"I've found much more barriers when women have been in sexual abuse" (GP1).*

50
51
52 305

53 306 **Theme 3: Communication and language**

3.1 Language difficulties

Most participants described challenges in promoting CCS when speaking a different language to their patient, or when patients were not fluent in English.

“Its a difficulty explaining [CSTs] in their own terms... what exactly this means”
(GP12).

Using simple words helped with communication, as did the use of anatomy models and visual aids.

“[I] find this a new concept and [women from CALD backgrounds] have absolutely no idea... I say this is a cancer screening... I may show a picture” (GP4).

“I really show them the speculum, probably tell them that there are smaller ones if they were worried about internal exams, actually showing the brush and let them have a feel of the brush” (GP5).

3.2 Interpreter use

Language barriers were often overcome by using interpreters. GPs valued effective communication, with one GP reflecting that CCS is *“something that good communication is absolutely crucial for, to make sure you're getting proper consent and the patient is really comfortable”* (GP7).

Easy access to telephone interpreters was important, but challenges included inconvenience, increased time, miscommunication errors, and sensitivities in using an interpreter for a gynaecological examination.

“In an ideal circumstance, you'd have a telephone interpreter... that take 5 minutes to line up at best... maybe it's something that you can plan for another day” (GP2).

1
2
3 329 Another GP shared that using family members as interpreters provides variable results.
4
5

6 330 *“A relative could be good or they could be terrible... could talk over with them*

7
8 331 *afterwards and say this is what it’s about”* (GP1).
9

10 11 332 **3.3. Use of appropriate resources**

12
13 333 GPs used written handouts, and highlighted the value of providing reliable information to
14
15 334 patients in their own language. Some GPs were aware of where to access such information,
16
17
18 335 whilst others expressed the need for easier access to these resources.

19
20 336 *“Something that could be useful would be to look into if there’s pamphlets or*

21
22 337 *information sheets in various languages that could be given to patients”* (GP7).
23
24
25

26 338 Waiting room resources, such as posters and pamphlets, were mentioned as impacting patient
27
28 339 education and awareness. Additionally, written resources regarding the rNCSP was raised as
29
30 340 important in the provision of consistent information.

31
32 341 *“It can be confusing for the patients about how it’s swapped over [to rNCSP], but*

33
34 342 *probably some kind of handout you can give for that”* (GP1).
35
36
37

38 343 Similarly, provision of information through videos and radio communication in different
39
40 344 languages was suggested to supplement the written resources.

41
42 345 *“Some videos on the website in [patients’] own language would be a good decision...*

43
44 346 *and I know that there is some like radios that are given in like different languages just for*

45
46 347 *this... I think [patients’] acceptance would be better that its coming from their population”*

47
48 348 (GP3).
49
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52 349

53 54 350 **Theme 4: Health-system related**

55 56 57 351 **4.1 Increased time needed**

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3 352 Allocating sufficient time was key to improving uptake, particularly in the presence of
4
5 353 language barriers and interpreters. GPs employed strategies such as longer appointments, or
6
7 354 discussions over multiple appointments.
8
9

10 355 *“You have to warn them... bring them back again and see if they’ve got any question,*
11
12 *so maybe third time finally you’d do [the CST]” (GP1).*
13 356

14
15 357 GPs expressed concerns regarding non-attendance when patients are asked to re-schedule
16
17 358 appointments.
18
19

20 359 *“I think that anything where you raise it and then try and think that they’ll come*
21
22 *back, you lose... your opportunity... they don’t return. So, one of the advantages is if*
23 360 *you are comfortable you can do it quite quickly, then you get it all done and dusted in*
24
25 361 *that consultation” (GP10).*
26
27 362

28
29
30 363 GPs also identified the need for investing more time in explaining and performing CSTs.
31
32

33 364 *“I have to explain [CSTs] before I go ahead. So that’s the challenge... Rather than*
34
35 365 *the [non-CALD] population, they would be expecting, they know what is going to*
36
37 366 *happen and how we interpret” (GP3).*
38
39

40
41 367 However, GPs described time-pressure challenges when spending more time on one
42
43 368 particular health issue, or when attempting to schedule multiple aspects of care into one
44
45 369 consultation.
46
47

48 370 *“Now there’s even the cervical cancer vaccine that needs to be brought up as well. So,*
49
50 371 *it’s a lot to talk about.” (GP8).*
51
52

53 372

54
55 373 **4.2 Access to appointments**
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2
3 374 Improving access to appointments can improve a patient's participation in screening. Some
4
5 375 GPs suggested the use of women-only or CCS-specific clinics.

6
7
8 376 *"We can even run like a cervical screening clinic, as a separate one... where it could*
9
10 377 *be like women presenting and it could be a more welcoming environment for the*
11
12
13 378 *women."* (GP12).

14
15
16 379 Additionally, GPs reflected upon the possibility of easily accessible appointment times to
17
18 380 encourage wider participation.

19
20
21 381 *"It's interesting to see how many women come on a Saturday morning for cervical*
22
23 382 *screening... I'm sure that might be the same for CALD backgrounds"* (GP10).

24
25
26 383 Some GPs also described transport access issues, and the need for some patients to rely on
27
28 384 family members to attend appointments.

29
30
31 385 *"Maybe accessing the service could be a problem for them. Maybe they are*
32
33 386 *dependent on their husband or somebody else to make an appointment for them and*
34
35 387 *bring them for the test."* (GP12).

36 37 38 39 388 **4.3 Funding**

40
41
42 389 Issues surrounding Medicare eligibility and costs of CCS were raised as barriers, particularly
43
44 390 when coupled with the lack of perceived necessity.

45
46
47 391 *"If they don't hold a Medicare [card] and they have got some sort of a private*
48
49 392 *insurance... do they think they might have to pay for some tests? They perceive this as*
50
51 393 *an unimportant task"* (GP9).

52
53
54
55 394 A GP reflected that working in a bulk-billing clinic acted as a facilitator for these patients.
56
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1
2
3 395 *“For screening, if there's nothing that's wrong with [women from CALD*
4
5 396 *backgrounds], I don't think that they will pay... I don't think that I will be as*
6
7 397 *successful, as I am, running the screening program, if I charge this woman” (GP8).*
8
9

10 398 However, the GP also mentioned that more funding should be allocated to facilitating CCS,
11
12
13 399 in particular for under-screened populations.
14

15
16 400 *“I think, for us, the funding would be a big thing. To give us more time so we can*
17
18 401 *educate” (GP8).*
19

20 21 402 **4.4 Health promotion**

22
23
24 403 GPs advocated for culturally-sensitive public health campaigns and health promotional
25
26 404 materials, particularly in different languages, to raise awareness. Ideas offered included
27
28 405 Government initiatives and campaigns, and use of social media, radio services, and
29
30 406 television.
31
32

33
34 407 *“Maybe some more public health campaign so that people have already been*
35
36 408 *introduced to the concept [of CSTs] outside of general practice” (GP2).*
37
38

39 409 **4.5 Use of practice management system**

40
41
42 410 An effective recall and reminder system, incorporating telephone calls, text messages and
43
44 411 sending letters to patients, was considered a facilitator. GPs reflected on the importance of
45
46 412 placing patients on the reminder system to ensure follow up, and engaged their practice
47
48 413 nurses and receptionists to assist with recalls.
49
50

51
52 414 *“We actually spend a lot of manpower... to draw out the recalls and actively calling*
53
54 415 *people. Sometimes they don't respond to a message, we call them, we keep trying and*
55
56 416 *then we send a letter” (GP8).*
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3 417 GPs mentioned that reminders were more effective when they were sent in patients' own
4
5 418 languages.

6
7
8 419 *"I've got a template letter for [language] ...and now I have a text message in*
9
10 420 *[language] ...it doesn't need to be long... but this is their language"* (GP8).

11
12
13 421 Additionally, GPs stated that prompts during consultations, and when booking appointments,
14
15 422 can also increase patient participation by initiating the discussion.

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19 423

20
21 424 **DISCUSSION**

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23
24 425 The study findings provide in-depth insight into GPs' perspectives about the barriers and
25
26 426 facilitators to CCS for an under-screened population group - women from CALD
27
28 427 backgrounds. GPs identified several barriers at the individual and organisational levels; often
29
30 428 co-existing to challenge the provision of CCS in these women. Similarly, GPs reflected on
31
32 429 several personal facilitators that encouraged and increased CCS.

33
34
35
36 430 The TDF was used to further interpret our study's themes. We used the TDF domains of
37
38 431 knowledge, skills, social/professional role and identity, beliefs about consequences,
39
40 432 environmental context and resources, and social influences, within our interpretation. As our
41
42 433 study demonstrates the inter-relationship of the barriers and facilitators, our four prominent
43
44 434 themes transect multiple domains of the TDF. To highlight this, we have not described our
45
46 435 findings under domain headings as discrete constructs, but rather refer to these domains
47
48 436 (*italics used to signal this*) in the following discussion.

49
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52
53 437 Our study found that lack of awareness or insufficient *knowledge* regarding CCS continues to
54
55 438 hinder screening participation in CALD women, consistent with previous literature^{13,25-27}.
56
57 439 Knowledge gaps in the process and importance of screening often reflected low health
58
59 440 literacy and lack of exposure to CCS in patients' countries of birth (*environmental context*

1
2
3 441 *and resources*). GPs mentioned that patients were more proactive if they migrated from
4
5 442 countries where CCS is offered as primary screening. GPs also reflected that some patients'
6
7 443 lack of knowledge translated to other primary screening programs, such as breast cancer and
8
9 444 bowel cancer screening. This is not surprising given that CALD women can be unfamiliar
10
11 445 with preventive health services^{12,15} (*beliefs about consequences*), indicating that widespread
12
13 446 interventions are required to improve CALD patients' cancer screening participation²⁸.
14
15 447 Patients who did not view cancer screening, specifically CCS, with high importance, or
16
17 448 patients who perceived themselves to be at low risk of cervical cancer, were less likely to
18
19 449 present for screening (*knowledge, beliefs about consequences*). GPs identified that CALD
20
21 450 patients' needs can be more complex, and cancer screening was often not on their agenda.
22
23 451 Additionally, the COVID-19 pandemic, which has caused significant reductions in preventive
24
25 452 healthcare, including CCS²⁹, was echoed by our GPs as having a negative impact on CCS
26
27 453 participation rate (*environmental context and resources*).
28
29
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31
32
33 454 It was highlighted that opportunistically offering CCS to women with low knowledge,
34
35 455 awareness and priority, was a significant facilitator, and at times, a necessity, in improving
36
37 456 uptake (*skills, social/ professional role and identity*). GPs demonstrated variable approaches
38
39 457 to this, with some offering it as part of chronic disease care, and others during consults
40
41 458 surrounding sexual health. Although other studies have also highlighted that CALD women
42
43 459 tend to undertake CCS when offered opportunistically¹⁶, this was a prominent idea amongst
44
45 460 our participants. As CCS in Australia is commonly performed by GPs, this allows for
46
47 461 opportunistic care to occur, as GPs are able to perform the necessary screening test in their
48
49 462 rooms when patients present for other reasons (*skills*). This is unique, compared to
50
51 463 Australia's bowel or breast cancer screening programs, which are delivered separately at
52
53 464 national and/or state or territory level^{30,31}.
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2
3 465 A patient's individual circumstance can limit their acceptance of screening, and being
4
5 466 respectful and addressing this was helpful in improving CCS uptake. Among the factors
6
7 467 discussed, physical examination concerns and influence of relatives were the most discussed.
8
9
10 468 Consistent with previous findings^{26,32}, the influence of relatives either hindered or
11
12 469 encouraged CCS participation, depending on whether the relatives supported CCS (*social*
13
14 470 *influences*).

15
16
17
18 471 Whilst it is important to acknowledge patient-sided barriers to health care, it is imperative to
19
20 472 address the social and environmental influences that produce health inequities in order to
21
22 473 implement change³³. Another prominent finding in our study was the importance of the
23
24 474 clinician-patient relationship in influencing CCS uptake (*social/ professional role and*
25
26 475 *identity*). A GP's role in Australia is significant, with evidence that patients who have a
27
28 476 regular GP have better engagement with the health system³⁴. This is also true for CALD
29
30 477 populations, and it has been recognised that positive experiences with GPs can strongly
31
32 478 influence CALD patients' use of health services³⁵. The GPs in our study recognised that their
33
34 479 professional relationship with patients, particularly if long-standing, was an important
35
36 480 facilitator in encouraging CCS. Allowing time to build rapport was key as it invited trust and
37
38 481 familiarity³⁴, and allowed GPs to promote education surrounding CCS; improving CALD
39
40 482 patients' CCS uptake¹⁶. Furthermore, advice from multiple HCPs regarding CCS provided a
41
42 483 consistent message (*social/ professional role and identity*).

43
44
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47
48 484 Barriers relating to knowledge and health literacy were often compounded by language
49
50 485 barriers (*environmental context and resources*). GPs reported difficulties when they did not
51
52 486 speak the same language as their patients, and used visual aids and interpreter services to
53
54 487 communicate (*environmental context and resources*). Although GPs found external
55
56 488 interpreter services useful overall, they reflected on numerous challenges associated with
57
58 489 their use. This included the increased time and resources needed to organise interpreters in
59
60

1
2
3 490 consultations, which often resulted in not being able to access an interpreter, particularly with
4
5 491 short-notice. In Australia, GPs have access to the national Translating and Interpreting
6
7 492 Service (TIS), provided free-of-charge for use with non-English speaking patients³⁶.

8
9
10 493 However, GPs also need more time in their consultations to facilitate this. Our participants
11
12 494 proposed solutions such as offering multiple consultations, longer appointments, and
13
14 495 increased funding for such consultations. This is consistent with previous literature that
15
16 496 improving financial incentives for GPs to undertake longer consultations may be beneficial
17
18 497 for challenging and complex discussions^{17,37}.

19
20
21
22 498 Delivering information through different channels has been shown to increase participation in
23
24 499 CCS for CALD women¹². GPs discussed the value of written information material, including
25
26 500 pamphlets in patients' own languages, emphasising that GPs need to have easier access to
27
28 501 such resources^{12,38} (*environmental context and resources*). GPs also suggested using videos
29
30 502 as information resources, which has been shown in previous studies to be effective in
31
32 503 promoting uptake of cancer screening in targeted populations³⁹.

33
34
35
36 504 Additionally, evidence suggests that screening invitations from GPs can be more trusted by
37
38 505 patients than invitations from screening hubs⁴⁰. This has implications for improving CCS
39
40 506 uptake, as GPs and practice staff routinely send reminders and recalls to patients. Our study
41
42 507 adds to this by highlighting that personalised reminders sent in patients' own languages was
43
44 508 often more effective. Therefore, more effort should be made to incorporate this for under-
45
46 509 screened populations (*environmental context and resources*).

47
48
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50
51 510 Another proposed solution by GPs was the use of self-collection HPV tests to reduce
52
53 511 inequities in CCS. Self-collection HPV tests have been increasingly studied in recent years as
54
55 512 an alternative for under-screened populations^{41,42}. In 2017, they were implemented as part of
56
57 513 the rNCSP under strict criteria, and since 1 July 2022, they have become available for all
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59
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2
3 514 women eligible for CCS in Australia⁴³. They have been generally accepted by GPs for their
4
5 515 benefits, but also come with challenges⁴².
6
7

8 516 **Study strengths and limitations**

10
11 517 This study's key strength was the use of appropriate research strategies. This included
12
13 518 ongoing corroboration between researchers during data analysis, and using an inductive
14
15 519 approach to data collection to ensure that participants' responses drove the analysis of results.
16
17 520 Additionally, the use of TDF provided an evidence-based approach for study interpretation.
18
19 521 This study also has limitations. Firstly, it was beyond the scope of our study to investigate
20
21 522 CALD patients' experiences in regards to the barriers and facilitators of CCS. Secondly,
22
23 523 difficulties in recruiting GPs, particularly during a pandemic, meant that experiences of only
24
25 524 a small number of participants has been described. However, data collection and analysis
26
27 525 were undertaken until data saturation was reached, with a further two participants interviewed
28
29 526 to confirm findings. Another limitation was that our sample was drawn from metropolitan
30
31 527 South Australia only, and data from GPs across Australia, including rural areas, may add
32
33 528 further to the study. Similarly, as our study reflects the delivery of CCS within the Australian
34
35 529 health care system, it was not within the scope of our study to include nurses, limiting the
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37 530 transferability of our findings to GPs only.
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41 531 Furthermore, due to the qualitative nature of the study, our findings may not be representative
42
43 532 of the whole GP population. Instead, the findings provide detailed and theoretically informed
44
45 533 insights into the experiences of South Australian GPs in providing CCS to CALD patients.
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47 534 We also note that as our sample of GPs was purposively collected, and they had a general
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49 535 interest in improving CCS participation for CALD women, their experiences may not be
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51 536 reflective of all GPs in Australia.
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57 537 **Conclusions**

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3 538 Our study highlights that GPs recognise that multiple factors influence CALD women's
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5 539 engagement with CCS, and that these barriers and facilitators are all inter-related. Barriers at
6
7 540 the individual level, such as patients' subjective beliefs, are not easily fixed. However,
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9 541 recognising them, providing education, and remaining sensitive remain vital in encouraging
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11 542 CCS for these women. Barriers at the organisational level have opportunities for
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13 543 improvement. Improving CALD women's access to GPs they trust, and GPs opportunistically
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15 544 performing CSTs, seem crucial to improving uptake. Additionally, providing GPs with
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17 545 appropriate patient-specific resources, and financial reimbursement for undertaking longer
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19 546 consultations, may assist in addressing some barriers. Self-collection HPV tests are an
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21 547 evolving and promising area in supporting GPs to improve CCS uptake in CALD women, but
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23 548 the above-mentioned barriers still need to be addressed in order for self-collection HPV tests
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25 549 to drastically improve CCS participation.
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50 558 performed analysis of the data, and AC, EH and JB undertook interpretation of the results.
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52 559 AC wrote the first draft of the manuscript. AC, EH, JB and NS contributed to the conception
53
54 560 and study design, and all authors revised all drafts and approved the final version of the
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56 561 manuscript.
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14 566 **Data sharing statement:** All data relevant to the study are included in the article or uploaded
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16 567 as supplementary information.
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18 568 **Ethics approval:** Ethics approval was granted by the Low Risk Human Research Ethics
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20 569 Review Group from The University of Adelaide. Ethics ID: H-2021-065.
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For peer review only

Participant # _____

Semi structured interview questions

1. How much experience do you have in regards to providing cervical cancer screening in women from CALD backgrounds?
2. Could you tell me how you would normally bring up and discuss cervical screening tests with women from CALD backgrounds?
3. Is there anything to consider in the treatment of women from CALD backgrounds, generally speaking?
 - *Follow up question:* What about any specific considerations for cervical screening in women from CALD backgrounds?
4. Based on your experiences, have there been any factors that have made it harder to provide cervical screening to women from CALD backgrounds?
 - *Follow up question:* Could you give me some examples of issues/ problems that you have encountered?
 - *Follow up question:* CALD women are an under-screened population when it comes to cervical screening. What do you think are some factors that may be contributing to this?
 - *Prompts (based on literature; only if needed):*
 - o e.g. time factors, language barriers, lack of awareness/ education, competing work schedules, public awareness, doctor-patient relationship
5. Based on your experiences, what factors have assisted you in providing cervical screening in women from CALD backgrounds?
 - *Follow up question:* What further factors do you think could assist GPs in being better equipped to encourage CST participation in women from CALD backgrounds?
 - *Follow up question:* What do you think CALD patients might find useful?
6. How confident do you feel in providing cervical cancer screening to women from CALD backgrounds?
 - *Follow up question:* Could you tell me more about this?
 - *Follow up question:* Can you think of anything that could assist you in becoming more confident?
 - *Follow up question:* Have you had any training or educational resources in working with women from CALD backgrounds
 - o If so, what did you find useful?
 - o If not, what would you prioritise?

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7. We're just going to talk a little about self-collection HPV tests now. What do you know about self-collection HPV tests?
- *Follow up question:* What would be the benefits and challenges of self-collection tests?
 - *Follow up question:* If they were offered in the future, would you be able to incorporate this into your practice?
 - o How would you achieve this?
 - *Follow up question:* How do you think they will be taken up by your participants?
8. Is there anything else that you would like to comment on about cervical screening, including barriers and facilitators that we have not covered here?

These are all the questions we had for you today. I would like to thank you for your time and efforts in participating.

Standards for Reporting Qualitative Research (SRQR)*

<http://www.equator-network.org/reporting-guidelines/srqr/>

Page/line no(s).

Title and abstract

<p>Title - Concise description of the nature and topic of the study Identifying the study as qualitative or indicating the approach (e.g., ethnography, grounded theory) or data collection methods (e.g., interview, focus group) is recommended</p>	Page 1
<p>Abstract - Summary of key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results, and conclusions</p>	Pages 2, 3

Introduction

<p>Problem formulation - Description and significance of the problem/phenomenon studied; review of relevant theory and empirical work; problem statement</p>	Pages 4, 5
<p>Purpose or research question - Purpose of the study and specific objectives or questions</p>	Page 5

Methods

<p>Qualitative approach and research paradigm - Qualitative approach (e.g., ethnography, grounded theory, case study, phenomenology, narrative research) and guiding theory if appropriate; identifying the research paradigm (e.g., postpositivist, constructivist/ interpretivist) is also recommended; rationale**</p>	Page 5
<p>Researcher characteristics and reflexivity - Researchers' characteristics that may influence the research, including personal attributes, qualifications/experience, relationship with participants, assumptions, and/or presuppositions; potential or actual interaction between researchers' characteristics and the research questions, approach, methods, results, and/or transferability</p>	Pages 5, 6
<p>Context - Setting/site and salient contextual factors; rationale**</p>	Pages 5, 6
<p>Sampling strategy - How and why research participants, documents, or events were selected; criteria for deciding when no further sampling was necessary (e.g., sampling saturation); rationale**</p>	Pages 5, 6, 7
<p>Ethical issues pertaining to human subjects - Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues</p>	Pages 6, 26
<p>Data collection methods - Types of data collected; details of data collection procedures including (as appropriate) start and stop dates of data collection and analysis, iterative process, triangulation of sources/methods, and modification of procedures in response to evolving study findings; rationale**</p>	Pages 6, 7

1 2 3 4 5	Data collection instruments and technologies - Description of instruments (e.g., interview guides, questionnaires) and devices (e.g., audio recorders) used for data collection; if/how the instrument(s) changed over the course of the study	Page 6
6 7 8	Units of study - Number and relevant characteristics of participants, documents, or events included in the study; level of participation (could be reported in results)	Pages 6, 7, 8
9 10 11 12	Data processing - Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data integrity, data coding, and anonymization/de-identification of excerpts	Pages 6, 7
13 14 15 16	Data analysis - Process by which inferences, themes, etc., were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale**	Pages 6, 7
17 18 19 20	Techniques to enhance trustworthiness - Techniques to enhance trustworthiness and credibility of data analysis (e.g., member checking, audit trail, triangulation); rationale**	Pages 6, 7

Results/findings

23 24 25 26	Synthesis and interpretation - Main findings (e.g., interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	Pages 7-21
27 28 29	Links to empirical data - Evidence (e.g., quotes, field notes, text excerpts, photographs) to substantiate analytic findings	Pages 7-21

Discussion

32 33 34 35 36 37 38	Integration with prior work, implications, transferability, and contribution(s) to the field - Short summary of main findings; explanation of how findings and conclusions connect to, support, elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application/generalizability; identification of unique contribution(s) to scholarship in a discipline or field	Pages 21-26
39	Limitations - Trustworthiness and limitations of findings	Page 25

Other

42 43 44	Conflicts of interest - Potential sources of influence or perceived influence on study conduct and conclusions; how these were managed	Page 26
45 46	Funding - Sources of funding and other support; role of funders in data collection, interpretation, and reporting	Page 26

*The authors created the SRQR by searching the literature to identify guidelines, reporting standards, and critical appraisal criteria for qualitative research; reviewing the reference lists of retrieved sources; and contacting experts to gain feedback. The SRQR aims to improve the transparency of all aspects of qualitative research by providing clear standards for reporting qualitative research.

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**The rationale should briefly discuss the justification for choosing that theory, approach, method, or technique rather than other options available, the assumptions and limitations implicit in those choices, and how those choices influence study conclusions and transferability. As appropriate, the rationale for several items might be discussed together.

Reference:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. **Standards for reporting qualitative research: a synthesis of recommendations.** *Academic Medicine*, Vol. 89, No. 9 / Sept 2014
DOI: 10.1097/ACM.0000000000000388

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