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### **Abstract**

The suicide rate of farmers is approximately double that of the general Australian population, yet farmers employ fewer help-seeking behaviours (Arnautovska, McPhedran, & De Leo, 2014; Brew, Inder, Allen, Thomas, & Kelly, 2016). Therefore, it is crucial to understand if, and how health services and system might influence farmer help-seeking. To shed light on this, the current study employed qualitative semi-structured interviews with 10 farmers, 10 farmers' partners and 8 medical practitioners. Thematic analysis, guided by Braun and Clarke's (2006) techniques, was used to analyse the data. Three themes were devised concerning the interaction between farmers and health services, including 'health service interactions', 'services are provided within a complex system' and 'emerging technologies: the users, practitioners, and systems'. The findings underscore the importance of interactions between a farmer and a service provider, with farmers wanting their provider to have an understanding of farming life. Help-seeking was also shaped by access, availability, and practitioner constancy. Lastly, a complex relationship between digital mental health services and farmer help-seeking was reported, with factors related to the farmers, the practitioners and the infrastructure/systems discussed. The outcomes have implications for health service and policy reform, developing and providing interventions for farmers to promote health services interaction as a way of mental health help-seeking.

*Keywords:* Farmers; service provision; help-seeking; primary producers; mental health

24 **“Don’t ... break down on Tuesday because the mental health services are only in town**  
25 **on Thursday”**: A qualitative study of service provision related barriers to, and  
26 **facilitators of farmers’ mental health help-seeking**

27 Farmers are at high risk for mental health difficulties, as evidenced by low scores on  
28 wellbeing measures and alarmingly elevated suicide rates compared to the general Australian  
29 population (Arnautovska et al., 2014; Schirmer, Peel, & Mylek, 2015). Research has  
30 demonstrated that farmers do not typically seek help for mental health difficulties, however,  
31 the reasons for this are currently unclear (Brew et al., 2016; Roy, Tremblay, & Robertson,  
32 2014). The factors that delay, prevent, or facilitate mental health help-seeking among farmers  
33 are likely broad-reaching and complex, and span individual to system-level influences. The  
34 current investigation will focus on healthcare service-related factors that may serve as  
35 potential barriers and/or facilitators of mental health help-seeking among Australian farmers.  
36 This is an important avenue to explore given the known difficulties of engaging farmers in  
37 mental health care (Brumby & Smith, 2009).

38 Mental health help-seeking refers to the intentions and behaviours of a person directed  
39 towards accessing professional support for feelings of distress, mental health issues or  
40 suicide-related thoughts and behaviours (hereon referred to as help-seeking; Rickwood &  
41 Thomas, 2012). Help-seeking from a professional is important because it can prevent further  
42 deterioration of mental health and wellbeing, and when help is sought early the response  
43 tends to be positive and enduring (de Diego-Adelino et al., 2010; Ogrodniczuk & Oliffe,  
44 2010) Professional help encompasses General Practitioners (GPs or family physicians hereon  
45 referred to as GPs) and health professionals such as nurses, counsellors, psychologists and  
46 psychiatrists, as well as telephone and online services (encompassing all digital mental health  
47 services). Invariably, farmer help-seeking requires an interaction between a farmer and some  
48 form of mental health service and this nexus represents a critical juncture at which potential

49 barriers and facilitators of farmer help-seeking are likely to operate, and also be amenable to  
50 intervention.

51         While the focus is on help-seeking for mental health, the challenging context within  
52 which farmers operate warrants understanding. A key challenge farmers face relates to the  
53 weather and climate, particularly drought, but also storms, floods and frost, as well as fires  
54 (Schirmer et al.,2015). Much of Australia, and in particular Queensland, where this research  
55 was completed, has experienced widespread drought since 2011 (Queensland Government  
56 Department of the Premier and Cabinet, 2017). Weather events have had a large impact on  
57 farming businesses due to reduced output and in turn reduced income, which has a range of  
58 implications for farmers themselves, specifically their mental health and help-seeking  
59 (Queensland Government Department of Agriculture, Fisheries, and Forestry, 2014; Vayro,  
60 Brownlow, Ireland, & March, 2020). As such, practical help or support related to these  
61 challenges is likely to be beneficial. However, this does not preclude the importance of the  
62 focal topic of farmer help-seeking in response to distress, especially as this could lead to  
63 complementary support as well as the development of stress management techniques to  
64 improve and maintain their wellbeing.

65         To further understand the context of farmers and their help-seeking, the minimal  
66 research must be reviewed. Brew, Inder, Allen, Thomas, and Kelly (2016) compared farmers  
67 and non-farming rural residents on their endorsement of factors likely to be barriers to help-  
68 seeking, although, it does not extend to analyses of the relationships between the measured  
69 barriers and help-seeking. Nonetheless, they found that farmers are less likely to visit a GP  
70 and that farmers endorsed attitudinal barriers most strongly, followed by structural and time-  
71 related barriers. Another study, by Hull, Fennell, Vallury, Jones, and Dollman (2017), also  
72 examined farmer help-seeking compared to rural non-farmers, with a focus on attitudinal  
73 barriers such as stoicism, stigma, and self-reliance. Self-reliance and need for control were

74 found to be slightly elevated in farmers compared to non-farming farm residents and rural  
75 residents. Staniford, Dollard, and Guerin (2009) conducted a qualitative study of drought-  
76 stricken citrus farmers that had a secondary aim to understand barriers to help-seeking, which  
77 encompassed five themes: self-reliance, social image, lack of knowledge, perceptions of  
78 health professionals' efficacy, and restrictive lifestyle. While this highlights that health  
79 professionals have a role, the themes were not explored in-depth, limiting the utility. Another  
80 relevant qualitative study is Roy et al.'s (2014) exploration of help-seeking in male Canadian  
81 farmers. It was found that geographic isolation, finances, acceptability, stigma,  
82 confidentiality, self-reliance, pride, male gender roles, and a lack of knowledge of services  
83 impact Canadian farmers' help-seeking. This research provides some insight and supports the  
84 need to explore the role of health services in farmer mental health help-seeking in Australia.  
85 Additionally, Vayro et al.'s (2020) findings shed light on factors that farmers report impact  
86 their help-seeking, although the focus is on farming life, not health services. The three themes  
87 highlighted by Vayro et al. include the lifestyle and culture of farming that is ingrained in  
88 their identity and encourages stoicism and self-reliance in opposition of help-seeking.  
89 Second, farming priorities that are time-consuming but can allow help-seeking if managed  
90 well were highlighted. Third, the challenges of farming life such as weather events, market  
91 variability and increasing legislative requirements as well as the potential financial  
92 consequences that can increase the need for help, and reduce the ability to obtain it were  
93 explored. The above research has contributed to our understanding of farmer help-seeking,  
94 but there has yet to be an exploration that is specific to the role of health services within  
95 farmer help-seeking.

96         The experience of health service interactions directly influence health outcomes.  
97 Multiple meta-analyses on the therapeutic alliance have confirmed that the relationship  
98 between a person and their mental health care provider has a small to medium effect on the

99 therapeutic outcome (Fluckiger, Del Re, Wampold, & Horvath, 2018; Horvath & Symonds,  
100 1991; Norcross & Wampold, 2011). Specifically for farming populations, Hull, et al. (2017)  
101 showed that South Australian farmers reported difficulty understanding their doctor/health  
102 professional significantly more often than rural residents (24.4% compared to 15.3%). This  
103 finding indicates that farmers' interactions with health service providers may be qualitatively  
104 different from that of rural populations, and this is likely to influence help-seeking  
105 behaviours. Rural cultural knowledge has also been found to be key to successful rural  
106 service-delivery, and rural people report a desire for services that are locally conceived to  
107 meet their unique needs (Alston, 2012; Bischoff et al., 2013; Wilson, Wilson, & Usher,  
108 2015). Vayro et al. (2020) identified strong and distinct culture associations with farming  
109 including the belief that farming is a lifestyle, not merely an occupation. These results  
110 suggest that service-delivery considerations may be particularly important to the acceptability  
111 of health interventions, and are therefore, likely relevant to farmers' help-seeking. However,  
112 no examination of help-seeking barriers and facilitators related to healthcare services,  
113 including therapeutic relationships, amongst farmers has yet been conducted.

114         In the absence of evidence directly from farmers, inferences must be made from  
115 research addressing health-service factors impacting help-seeking among rural communities.  
116 At the most direct level, the diminution of health services as a function of increasing  
117 remoteness and the associated availability and access difficulties are likely to complicate  
118 help-seeking among farmers (Australian Government Department of Health and Ageing,  
119 2008; Collins, Winefield, Ward, & Turnbull, 2009; Judd et al., 2006). However, it is unclear  
120 how these broader service-delivery challenges for rural communities manifest and influence  
121 help-seeking specifically among farmers. This is especially the case given that farmers are  
122 less likely to visit a GP than rural residents (Brew et al., 2016). Compared to non-farming  
123 rural residents, farmers report greater structural barriers such as travel cost, travel distance,

124 transport, service cost, and availability. This reinforces the notion that mental health service-  
125 provision factors should be considered in their own right to improve our understanding of  
126 farmer help-seeking.

127         Alternative delivery modes, such as digital mental health services, are recommended  
128 for rural residents and farmers (Bradford, Caffery, & Smith, 2015; Griffiths & Christensen,  
129 2007), yet little is known about the uptake of such services and whether they successfully  
130 overcome traditional service barriers. Given digital mental health services can be accessed  
131 remotely, they hold great promise for remote populations such as farmers and those living in  
132 rural areas. The available evidence suggests that digital mental health services have many  
133 benefits and are clinically and cost-efficacious (Orman et al., 2014; Titov et al., 2017).  
134 However, the uptake by the general population is uninspiring, with only 24.1% of individuals  
135 who completed an online mental health assessment proceeding to engage with digital mental  
136 health services, despite the recommendation being made to 75.9% of the sample after  
137 assessment (Titov et al., 2017). There may even be additional barriers constraining farmers  
138 from using such services. Research suggests that these may include farmers' attitudes,  
139 awareness, or digital literacy regarding digital mental health services (Handley et al., 2014),  
140 as well as insufficient internet connectivity, which is a common issue in rural and remote  
141 locations (Shealy, Davidson, Jones, Lopez, & de Arellano, 2015). Although technology-based  
142 services are regularly recommended by researchers to overcome barriers such as remote  
143 location and stigma (Bradford et al., 2015; Meurk, Leung, Hall, Head, & Whiteford, 2016),  
144 there is currently an insufficient understanding of how farmers decide to use (or not use) such  
145 services when seeking help for mental health.

## 146 **The Current Research**

147         This research aims to understand the relationship between health services and  
148 farmers' help-seeking, and identify specific service-related barriers and facilitators of help-

149 seeking for this population. Given the scarcity of existing research, an inductive, qualitative  
150 exploratory approach is the most appropriate to create an in-depth understanding of farmers'  
151 mental health help-seeking (Kavalidou, McPhedran, & De Leo, 2015; Palinkas, Horwitz,  
152 Chamberlain, Hurlburt, & Landsverk, 2011). This investigation will focus specifically on  
153 health service variables that serve to facilitate or inhibit help-seeking among this vulnerable  
154 population and will be carried out using thematic analysis informed by Braun and Clarke  
155 (2006).

156         To ensure a more complete understanding of these issues, multiple perspectives will  
157 be sourced including direct input from farmers but also incorporating the perspectives and  
158 insight of spouses/partners, and from GPs. Through triangulation, multiple sources of  
159 information furnish a more accurate and complete understanding of the phenomenon (Braun  
160 & Clarke, 2013). This approach maximises both the depth of understanding obtained as well  
161 as the reliability of these findings (Willig, 2013). For rural farmers, these additional  
162 perspectives are likely to be of particular importance for two reasons. First, health in rural  
163 areas has historically been gendered; that is, it is taken as a woman's responsibility to ensure  
164 the health of her family, which includes the provision of support (Alston, 2012; Alston &  
165 Kent, 2008; Ide, 1986; Kolves, Milner, McKay, & De Leo, 2012; McLaren & Challis, 2009).  
166 Thus, farmers' spouses/partners (who are typically female in the Australian context;  
167 Australian Bureau of Statistics, 2012) play a critical role in any health help-seeking decisions  
168 and thus, provides additional information beneficial to understanding farmer help-seeking.  
169 Second, GPs are essential to the life and health of a rural farmer. Research has shown that  
170 rural Australians often choose GPs to provide mental health care (Perkins et al., 2013), and  
171 that GPs are invariably the first professional point of contact for farmers seeking health care  
172 (Kavalidou et al., 2015). This means that GPs are well-positioned to provide insight into  
173 farmer help-seeking, especially with respect to specialist service utilisation.

174 **Methods**

175 **Participants**

176 Three participant groups were recruited for individual semi-structured interviews:  
177 farmers, farmers' partners (hereon partners), and GPs. Purposive sampling was adopted to  
178 ensure that participants possessed experiential understandings and could authoritatively  
179 report on help-seeking in the farming population. In total, 28 participants were interviewed.

180 **Farmers.** Farmer participants comprised seven male and three female participants. To  
181 be included, farmers needed to identify farming as their primary occupation, and as such,  
182 hobby farmers were ineligible. The farmers ranged in age from 43 to 70 years ( $M = 57.00$ ,  $SD$   
183  $= 9.09$ ), and they all resided in Queensland. The farmers' location remoteness was categorised  
184 using the Accessibility/Remoteness Index of Australia (ARIA+; Hugo Centre for Migration  
185 and Population Research, 2011), and Australian Standard Geographic Classification systems  
186 (ASGC; Australian Institute of Health and Welfare, 2004). These provide standardised  
187 measures of rurality in Australia, where the ARIA+ measures road distance to different  
188 amenities with scores coinciding with classifications of metropolitan, inner regional, outer  
189 regional, remote, or very remote from the ASGC. Expectedly, no farmers resided in  
190 metropolitan areas, two resided in inner regional areas, one in outer regional, two in remote,  
191 and five in very remote locations.

192 **Partners.** The 10 partners of farmers recruited were all females who were in a  
193 relationship with a farmer who met the study criteria but were not actually related to the  
194 farmer participants in the sample. The partners were between 29 and 64 years of age ( $M =$   
195  $45.10$ ,  $SD = 11.29$ ) and resided in inner regional ( $n = 1$ ), outer regional ( $n = 2$ ), remote ( $n =$   
196  $2$ ), and very remote areas ( $n = 5$ ), based on the ARIA+ and ASGC classifications.

197 **GPs.** Eight GPs were recruited, five females and three males. GPs were eligible if  
198 farmers were represented in their current patient caseload. Based on the ARIA+ and ASGC



199 classifications, the GPs represented metropolitan (within an inner regional district;  $n = 1$ ),  
200 inner regional ( $n = 1$ ), outer regional ( $n = 3$ ), remote ( $n = 2$ ), and very remote areas ( $n = 1$ ).

201 Every effort was expended to ensure no relationships were present within the  
202 participant pool, to prevent duplication of information and the potential influence of  
203 relationship dynamics. This was to prevent the disclosure of relationship issues outside the  
204 focus of this study and protect the privacy of the individuals within the relationship (DeVito,  
205 2009).

### 206 **Data Collection**

207 This study was approved by the host institution's Human Research Ethics Committee  
208 prior to commencement. Participants were recruited during 2016 through personal networks,  
209 social networking websites (e.g., Twitter), and community/professional associations (e.g.,  
210 Rural Doctors Association Queensland and Agforce). A short description of the research was  
211 shared with an invitation to express interest in participating managed through an online  
212 survey link. Participants who expressed interest were provided with an information package,  
213 which explained the study in detail. Participants were also informed that they would receive a  
214 \$20 prepaid Visa card in recognition of their participation. Participants chose the medium by  
215 which they were interviewed, with the majority interviewed by phone ( $n = 26$ ), although  
216 participants were also offered a video conference, or face-to-face interview ( $n = 2$  farmers  
217 opted for this mode). All interviews were conducted by the first author (a PhD candidate) to  
218 ensure consistency in style. The first author was not known to the participants, and she  
219 consciously took the position of a layperson to agriculture and the participants' experiences.  
220 Participants were able to choose the time and location for their interviews, which were audio-  
221 recorded and transcribed verbatim. Following transcription, participants were emailed their  
222 transcript to ensure accuracy and invite corrections or revisions. Only one participant, a  
223 farmer, provided a revised transcript, which was used in the analysis instead of the original.

224 Recruitment and interviewing continued until saturation, at which point, no new information  
225 was elicited (Marshall, Cardon, Poddar, & Fontenot, 2013). The obtained saturation point  
226 exceeded the sample size recommendations by Morse (2000) for six to ten participants in a  
227 qualitative sample.

228         Semi-structured interviews were used to collect data because this method is well-  
229 validated for the use of scripted questions while allowing scope to explore participant-raised  
230 points (Braun & Clarke, 2013; Willig, 2013). The interview questions were based on  
231 empirical evidence from relevant help-seeking literature in conjunction with  
232 recommendations made by Braun and Clarke (2013). Participants were asked a series of  
233 demographic questions, such as age, gender, and region of residence at the beginning of the  
234 interview to build rapport. This was followed by a specific initial open question “Can you tell  
235 me about farming life?” as recommended by Braun and Clarke (2013). This initial question  
236 was followed by scripted open questions, including “what would prevent a farmer from  
237 seeking help regarding mental health?” Additionally, probes were used if an interesting point  
238 was made or for further clarification. The final scripted question based on the  
239 recommendations of Braun and Clarke (2013) was a closing question “Are there any other  
240 things you think would influence whether a farmer sought help or not?” Throughout the  
241 interview encouragers (e.g., “mmm”, “yeah”, “mhmm”) were used liberally, as well as  
242 paraphrasing and summarising to check understanding and encourage correction if necessary  
243 (Ivey, Ivey, & Zalaquett, 2010). The interviews varied in length between 29 minutes 38  
244 seconds to 170 minutes 50 seconds ( $M = 71$  minutes, 55 seconds). Overall, there was 33  
245 hours and 34 minutes of interview time.

## 246 **Analysis**

247         The analysis followed Braun and Clarke’s (2006) method of thematic analysis.  
248 Initially, the first and second authors coded the interview transcripts, one manually and one

249 using NVivo (Version 11; QSR International Pty Ltd, 2016). The codes were then manually  
250 categorised into themes. The codes and themes were then compared to the original transcripts  
251 to ensure they portrayed an accurate representation of the raw data. Next, the data from the  
252 three population samples were compared. The themes reported by the three samples  
253 demonstrated a considerable degree of convergence. Thus, it was decided that the data from  
254 the three response groups would be organised thematically rather than by group. The  
255 consequent presentation allows a greater depth of understanding, including a better  
256 understanding of within-theme congruent and divergent perspectives across the participant  
257 groups. Throughout the analysis, the coders discussed any discrepancies until they were  
258 collaboratively resolved. The findings were then shared with participants and they were  
259 invited to share any feedback, which none of the participants chose to do. In reporting  
260 individual responses, participant-chosen pseudonyms or initials were used.

## 261 **Findings**

262 Three key themes were identified by all participant groups and summarised in table 1.  
263 Within the themes, there were several factors that the participants reported as influencing  
264 help-seeking, either as barriers or as facilitators.

265 INSERT TABLE 1 HERE

### 266 **Theme 1: Health service interactions.**

267 The nature of interactions that occur between farmers and GPs appears key to  
268 understanding help-seeking. Farmers and GPs each bring their own perspectives and  
269 expectations to the relationship, with both playing a role in shaping the success of a given  
270 interaction as well as the likelihood of future help-seeking. While certain factors within this  
271 theme were identified by all three participants groups, some differences did emerge,  
272 particularly in the focus of the farmer and GP perceptions. The differing perceptions of GPs  
273 and farmers are highlighted throughout the theme.

274 Farmers clearly and consistently asserted that GPs needed to display a type of cultural  
275 literacy that they referred to as ‘bush knowledge’ (i.e., an understanding and appreciation of  
276 the distinctive lifestyles, experiences, and worldviews of rural people, particularly famers) in  
277 addition to healthcare knowledge in order to understand and service them effectively. For  
278 example:

279 They have to be able to relate to the people and sort of understand their way of life  
280 and what puts the pressure on them, and I don’t think you can learn that out of a book.  
281 (Rudy, Farmer).

282 The GPs also acknowledged the importance of bush knowledge to their practice, albeit as  
283 helpful rather than a necessity.

284 As the practitioner, you have to be really aware of what is going on seasonally with  
285 their busy time. You can’t ask someone to come back and try and see for a check-up  
286 in the middle of harvest and planting (. . .). I’m lucky I grew up on a big cattle and  
287 cropping place, so I’m, you know, I know what it’s like. I know the lingo and that  
288 helps a lot, as we already know what questions to ask these fellas. So that gives you a  
289 foot in the door already, as such. Chat to them about how the harvest is going, blah,  
290 blah, blah, did they get any rain, bit of general chit chat. (Mary, GP).

291 Furthermore, the sampled GPs indicated that they had an interest in farmer health/mental  
292 health and thus, likely demonstrate a greater understanding of farming life than GPs without  
293 this particular interest, especially those on temporary placements. While Mary (and other  
294 interviewed GPs) indicated that she has an understanding of farming life, Kate’s report  
295 below suggests that this is not the case with all practitioners and those with bush knowledge  
296 are likely to achieve better clinical outcomes.

297 If the person who they are talking to has a really good understanding of the industry  
298 that these people are working in, I think they’d be able to relate to them a lot better.  
299 And be able to help them with their problem. Yeah, they’d just be able to relate to  
300 them a lot better and provide them with, you know, solutions that are friendly to their  
301 lifestyle. (Kate, Partner).

302 Thus, bush knowledge is acknowledged as important to service provision for farmers, echoed  
303 by partners who also recognised the impact of bush knowledge on farmers’ help-seeking  
304 behaviours.

305           The nature of the practitioner-patient relationship was also identified as a factor that  
306 may influence farmers' help-seeking. In particular, some GPs reported difficulty building  
307 rapport with farmers, potentially when there was a perceived lack of bush knowledge  
308 possessed by the GPs, and the somewhat necessary stoic nature of farming culture (Vayro et  
309 al., 2020). Difficulty establishing rapport may leave farmers less willing to return to the  
310 health professional or seek help for other issues in the future. This is problematic given the  
311 generally late presentation of farmers to GPs/healthcare (Brumby & Smith, 2009).

312           If they come in and they've got something formulated, some people will just tell you.  
313 I tend to find just teasing it out is the way to go, and as you build some rapport, they  
314 will become a little warmer and just disclose to you a little bit more. It can be a very  
315 painful procedure though. It can be very challenging to actually get someone to  
316 honestly say that things are not going well and they're not feeling well (. . .) It is so  
317 much about building a rapport with this person so that you can actually assist them.  
318 (Vanessa, GP).

319           The difficulty building rapport with farmers may stem from a number of complex and  
320 interwoven issues such as continuity of care, cultural or gender norms, as well as treatment  
321 preferences.

322           They really need to connect with someone that they're going to be able to go back to  
323 and develop a rapport with. So, you know, whether it's a big campaign of, you know,  
324 'go and get your man check-up' (. . .) They've got to try to appeal to their practical  
325 side and like, talk about psychology as a like a toolkit for managing your mood, and  
326 then you go and see the psychologist. You learn all these tools and you can use them  
327 later in life. You can pull them out if you need them later in life. And it has to be  
328 something very practical, relatable, which looks at fixing a problem, because that's  
329 the way men think about, it's a problem that needs a solution. (Mary, GP).

330           The GPs' experiences of the importance of rapport-building align with reports from Abigail,  
331 a partner who highlighted farmers' hesitance toward seeking and receiving mental health  
332 care. Farmers will be more hesitant to seek help as well as adhere to recommended treatment  
333 protocols if they do not have a good relationship with their healthcare provider.

334           There is probably a level of suspicion, maybe; I'm not sure that lots of farmers are  
335 totally convinced about what needs to happen in the treatment process. And that, I  
336 guess, comes back to their relationship with your health provider. If you've got a  
337 doctor that you really trust, and you know well, and you believe what they say, then  
338 you're probably going to do what they say. If you're seeing a locum that you've never

339 laid eyes on, there is a whole, you know, it's a lot harder for you as a patient to really  
340 put your faith in what they're asking you to do. (Abigail, Partner).

341 The difficulties in building relationships between farmers and health professionals are  
342 also highlighted by the farmers, whose assertions indicate that the care provided is often not  
343 in line with their preferences. This may relate to the bush knowledge that farmers want their  
344 practitioners to have, which would likely allow health professionals to build a good  
345 relationship and appropriately tailor their caregiving for farmers. For example, farmers report  
346 a belief that mental health is typically managed using emotion-based options, whereas their  
347 preference is for more practical options.

348 This is what you've got to do; 'this is what happens if you don't do this.' Forget about  
349 the 'I feel this way I feel that way'. I don't know how you do it, but if you make it  
350 sound like you're fixing up a bulldozer (. . .) you'll cure it in one week. (Greg,  
351 Farmer).

352 The relationship between a farmer and their healthcare provider is therefore, likely to  
353 influence their help-seeking, as well as the way in which healthcare is delivered by  
354 professionals. Both of these effects have important implications for treatment success and  
355 health outcomes.

356 A GP's ability to create avenues that facilitate identification of mental health  
357 problems via routine screening rather than through active help-seeking also appears crucial.  
358 Importantly, this issue was raised solely by GPs, who are most familiar with the benefits of  
359 routine screening. Although it was mostly instigated by GPs, the importance of screening did  
360 align with farmers' views on monitoring their mental health. Indeed, one GP highlighted the  
361 importance of screening for mental health among farmers during routine consultations.

362 They might come in for [a] skin thing or something unrelated to mental health (. . .) If  
363 the doctor doesn't ask them 'how're you going? How's the farm going?' (. . .) Then  
364 nothing, they won't say anything, they won't think to say 'hey, I'm really down, I'm  
365 having trouble sleeping like I'm not, I feel terrible I don't know what's going on'.  
366 (Jane, GP).

367 While this opportunistic screening was highlighted as an important way to identify potential  
368 problems (also echoed below by Mary), it can be difficult for GPs to incorporate within the

369 scope of their practice and daily schedule. Importantly, GPs familiar with farming culture  
370 identified the importance of integrating such screening into practice (“opportunistic  
371 medicine”), despite potential logistical challenges.

372           That’s a problem as well is that depending on what sort of day your doctor is having,  
373 you get someone on a flat-out day and someone comes in and goes ‘I’ve got gout in  
374 my toe’, they might go ‘brilliant, it’s going to take me 5 minutes. I’ll be able to catch  
375 up. I’m already running 15 minutes late’, so you have to have someone who  
376 recognises, one they don’t come in very often and goes ‘right, while you’re here’ and  
377 doing an opportunistic medicine. They’ve really got to capture them while they’re  
378 there. (Mary, GP).

379 Using opportunistic medicine to integrate screening for mental health issues into routine care  
380 can help raise awareness of these issues among farmers and reinforce their importance.

381 Further, positive experiences through this process might facilitate intervention and encourage  
382 future help-seeking by the farmer. However, screening is only likely to work for those  
383 farmers who make contact with their medical professional, and the challenge to activate  
384 support channels may remain for some.

385           In summary, the evidence suggests that farmers will be more likely to seek healthcare  
386 when the health professional is able to demonstrate good bush knowledge and the ability to  
387 personalise care through trusting patient relationships. Healthcare delivered by unfamiliar  
388 professionals, with poor bush knowledge and an inability to personalise the delivery of  
389 services presents a barrier to help-seeking. With respect to screening, the interaction between  
390 farmers and health professionals and the relationships that are developed will likely play a  
391 more crucial role in encouraging farmers to seek help when issues arise, though GPs can also  
392 instigate this through opportunistic screening. Nevertheless, a range of system-level  
393 determinants will also play a role in shaping the extent that professionals such as GPs are able  
394 to invest the appropriate amount of time in relationship-building or perform opportunistic  
395 screening.

396 **Theme 2: Services are Provided Within a Complex System**

397           The services and encompassing systems that provide mental health care play an  
398 important role in farmers' help-seeking. Three rather intuitive and fundamental service- and  
399 system-related factors were reasserted as influencing farmers' help-seeking: expectations of  
400 care outcomes, access and availability, and continuity of care.

401           Firstly, expected outcomes of help-seeking was identified as a key determinant of  
402 whether or not farmers seek help. Perceived or expected benefits however, were often linked  
403 to personal experience or experiential knowledge rather than any formal evidence. For  
404 example:

405           I witnessed a chap that was very sick [and sought help], and as far as I know, he's  
406 fine. The other chap that didn't seek mental health and sadly his family didn't push  
407 him to; he's no longer with us. (Rudy, Farmer).

408 Other farmer participants were unable to identify the potential benefits of help-seeking. "It's  
409 got less relevance verbalising it if you don't think someone can be of any assistance to you."  
410 (Steve, Farmer). Thus, farmers reported that the perception or expectation of potential  
411 service outcomes are influential in whether or not help-seeking occurs. While the GPs did  
412 not provide commentary on this topic, partners tended to concur with farmers' perspectives.  
413 That is, the farmers who have positive outcome expectations are more likely to seek help,  
414 however, positive expectations may be low overall in this population.

415           I think farmers probably don't place a lot of faith in the medical community. But I  
416 think that if they trust their doctor, that's going to be the person (. . .) My boyfriend,  
417 on the one hand, will go with the doctor, but on the other hand, he wouldn't. 'Cause  
418 he'd be worried they'd just write out a prescription for antidepressants and not really  
419 listen to what was going on (. . .) So, on the one hand, he's a bit dubious of them, but  
420 he would also know (. . .) that, you know, if you get a good doctor, you can trust them  
421 (JA, Partner).

422 Farmers, therefore, consider the potential outcomes of an interaction when deciding whether  
423 to engage in help-seeking and these considerations appear to influence help-seeking heavily.

424           Second, access to and availability of services were confirmed as essential to help-  
425 seeking. The three participant groups all agreed that the availability (i.e., do the services



426 exist?) and accessibility (i.e., can farmers actually access them?) of health professionals may  
427 not be suitable for farmers and may limit help-seeking.

428           The availability of GP consults [appointments] can be an issue. Farmers tend to work  
429           during daylight hours (...). A lot of them are reluctant to take time off to go to doctors  
430           during the day, but there are not as many medical services available during the night.  
431           (Jacob, GP).

432 This issue of accessible appointments and availability is more pronounced if specialised care  
433 such as from mental health professionals is needed. Abigail, a partner, shared that “We have  
434 visiting specialists, but you know, they might come every six weeks or less” (Abigail,  
435 Partner). Limited availability and accessibility act as a key barrier to timely help-seeking.  
436 Additionally, accessibility is likely to be further constrained by the ‘small-town’ context in  
437 which anonymity and privacy are perceived to be diminished. That is, farmers think  
438 “confidentiality would be a big issue (...) You wouldn't want everyone else knowing you've  
439 got problems” (Michael, Farmer).

440           [Farmers] don't go unless it's an emergency; it's life and death because it's not  
441           confidential (. . .). I've had older people say to me, there would be a young girl walk  
442           out of the doctor's surgery and she'd had a blood test, and they'd go ‘Oh she's  
443           pregnant’. (Albert, Partner).

444 In contrast, issues of anonymity and privacy were not raised by GPs as factors reducing  
445 accessibility. Only two GPs (Melissa and Mary) mentioned the importance of privacy and  
446 anonymity, specifically for small communities, but did not cite these as barriers to care.  
447 However, the perception or expectation of limited confidentiality was a central issue for  
448 farmers, and this influences their help-seeking.

449           Third, continuity of care was highlighted for its impact on farmers' help-seeking. This  
450 is particularly problematic for farming communities in light of the large locum workforce that  
451 service rural areas. Farmers and partners shared convergent views that continuity of care and  
452 the ability to develop an ongoing relationship with their GP is essential to facilitate help-  
453 seeking among farmers. This is especially important when the presenting issue is related to  
454 mental health.

455           There is no continual medical health provision, so every time you go to the doctor,  
456           you see someone different. So, they're not seeing how you were 2 months ago or 3  
457           months ago or 6 months ago they're not going 'oh this person is in trouble I saw them  
458           6 months ago, they were a lot happier then' if there were differences. There is no  
459           safety net in the health system. (Albert, Partner).

460   The locum workforce can be problematic to achieving continuity of care and trusting patient-  
461   doctor relationships. For example, participants cited the hassle that "next time, there is  
462   another person that you have to tell your story all over again to." (Abigail, Partner).

463   Consistent with the desire for an ongoing relationship discussed earlier concerning rapport  
464   and 'bush knowledge', locum GPs were often considered unfamiliar to the farmers.

465           You get a lot of (. . .) doctors that fly in and out and in and out (. . .), and you don't  
466           know them personally; as in a doctor in a rural hospital or medical centre, and they've  
467           been there, and they know you. (Madge, Farmer).

468   From the perspective of GPs, issues with workforce retention and the resulting use of locum  
469   GPs were also noted as problematic in facilitating help-seeking and delivery of appropriate  
470   services.

471           People don't want to go and see a 'fly-in' doctor (. . .) there are lots of parts of  
472           Queensland are still served by locum workforce where they've got people who come  
473           for a week or 2 at a time then go; (. . .) treating mental illness is at least a medium-  
474           term proposition. (. . .) Imagine trying to go and see a locum about being depressed, if  
475           you know they're not going to be there next week. (Anthony, GP).

476           In summary, all participant groups highlighted issues with continuity of care and the  
477   transient locum workforce that negatively influences help-seeking. In addition, farmers are  
478   faced with barriers of limited availability of specialist mental health services and limited  
479   accessibility to core GP services. Finally, expectations that seeking help will not result in  
480   beneficial outcomes are often based on personal experience and can influence help-seeking.

### 481   **Theme 3: Emerging Technologies: the users, practitioners, and systems**

482           The final theme explored technology-based services, which, similarly to the previous  
483   themes, revealed aspects relating to the users, practitioners, and the services and systems.

484   First, from the user perspective, some farmers reported they were simply not interested in

485 making use of technology-based services because they prefer face-to-face contact and/or have  
486 low ICT literacy, which was also consistent with the views of partners and GPs.

487 I wouldn't want to go that way just I'm very old-fashioned in terms of that I know I  
488 shouldn't be, (. . .) but I just much prefer to talk to someone, you know. I don't search  
489 the web well, the internet quickly and efficiently. Perhaps I'm just that wrong  
490 generation. I think. I wouldn't be interested in that. (Rudy, Farmer).

491

492 I think regarding the whole e-stuff, like, I reckon there is a lot of male farmers that  
493 don't use the computer very much. (Abigail, Partner).

494 Additionally, farmers expressed other concerns about technology-based services "because  
495 you don't know who's on the other end. You don't know what you're getting there." (Michael,  
496 Farmer). Farmers reported that their capabilities to engage with, and attitudes towards  
497 technology-based services were poor. While there is the potential for technology-based  
498 services to facilitate, or at least reduce some barriers to service availability and accessibility,  
499 there appear to be additional barriers from the user perspective that may limit their uptake  
500 and effectiveness.

501 Second, whether GPs support and refer farmers to technology-based services may  
502 influence the use of these mediums. GP responses diverged on their support for technology-  
503 based mental health care. Some GPs reported that navigating the technology-based mental  
504 healthcare landscape can be arduous and demonstrated hesitance in recommending these  
505 technology-based services to farmers, while other GPs were comfortable making referrals to  
506 technology-based services. In making referral decisions however, the GPs were careful to  
507 ensure they understood the service before they would be willing to provide a referral.

508 The Black Dog Institute was a little bit difficult to find their link for all those, all  
509 those different programs for a while there. They've improved their website, now it's a  
510 bit easier to find. But certainly, I think there, it's also not clear how long they are, you  
511 know, how simple they are. Sometimes I want to actually try them out myself just to  
512 get a feel for what I'm sending people too. But you have to actually fully register  
513 before you can actually be allowed to look at them so, so they're specific to what  
514 they've covered in the program are not entirely clear (. . .) I think that's part of it. The  
515 referring practitioners know exactly the specifics each of them offers. (Anthony, GP).

516 Further, there were additional concerns from GPs that might prevent referral to technology-  
517 based solutions, such as a belief that these programs would fail to provide adequate tailoring  
518 to ensure relevance farmers.

519 I have recommended to go and do, if they're reluctant to go to a psychologist, to try  
520 and do some online CBT, (. . .) there is new stuff popping up all the time. But whether  
521 the new resources are just sort of more 'farm-y' directed; I know there is certainly  
522 some phone lines for rural crisis stuff. But I don't know if there is any online services  
523 that match up with that. (Mary, GP).

524 Overall, GPs presented differing views pertaining to the use of technology-based services in  
525 supporting farmers. Only GPs with positive perceptions were likely to present such services  
526 as a viable alternative for help-seeking.

527 Third, from the system perspective, the communications infrastructure in non-  
528 metropolitan areas was identified as a barrier to seeking help from technology-based services  
529 by all three participant groups. Specifically, poor connectivity, both with internet and  
530 mobile/cellular phones, was identified as having implications for the use of technology-based  
531 care options.

532 The phones and the internet is probably our biggest issue really 'cause (. . .) that's just  
533 basic services that you expect to be able to have and you just don't have it. And that's  
534 where you can get a lot of help for things like mental [health]. You know, online you  
535 can get a lot of help and find all the resources to help you, and it's when you can  
536 access it, in your own time when it suits you. So, if he comes home, it's late at night  
537 and he wants to read up about something or look at strategies for something to do with  
538 mental health, or whatever, he can do it in his own time. You know, a normal person  
539 can do it in their own time and their own leisure 'cause they can access the internet all  
540 the time but we can't. (JA, Partner).

541 One GP summarised several issues relating to technology-based mental health care and  
542 support.

543 I don't think [farmers] realise the extent of the resources that are there. So, I suppose  
544 there's that part of it. But the other component really is to actually have good internet  
545 access and, you know. It's basically that, you know, IT literacy and that feeling of  
546 connectedness because a lot of farmers, you know, wouldn't necessarily have the will  
547 or, you know, to get online. Or that actually may not even know how to search the  
548 internet or type in, you know, a page address or anything like that. (Ben, GP).

549 Overall, technology-based mental health care is emerging as an option that holds great  
550 promise for rural and remote areas. However, several barriers appear to be preventing

551 adoption by patients and health practitioners. Farmers are hesitant to use technology-based  
552 services due to familiarity and digital literacy issues. Generally, GPs understood the benefits  
553 of technology-based options, however, many were reluctant to make referrals. Moreover,  
554 system issues, such as lack of infrastructure and poor connectivity compound barriers to the  
555 use of technology-based services in help-seeking.

## 556 **Discussion**

557 The aim of the current study was to develop an in-depth understanding of the service-  
558 related factors that influence help-seeking in farmers. Help-seeking behaviours are complex  
559 and multi-determined, and a wide range of processes have been implicated. Previous research  
560 has shed light on many factors, however little is known about how aspects of the health  
561 services themselves influence help-seeking. This study provides the necessary first step in  
562 understanding how such processes might help explain the low rates of help-seeking among  
563 farmers. This might also in turn help to reduce the elevated rate of suicide among farmers,  
564 because while help-seeking is a broader issue, when there is early engagement with  
565 appropriate support the progression of distress is likely to abate. Three key themes emerged  
566 from the three respondent groups: (1) The interactions between health service providers and  
567 farmers, (2) the systems that encompass the health services, and (3) the engagement with  
568 digital mental health services. The findings from the current research identified (interacting)  
569 factors across the micro, meso and macro levels that could be included in a theoretical  
570 account of help-seeking, as well as informing the planning of potential interventions and  
571 reforms for service delivery to increase farmers' help-seeking.

572 The first theme focuses at a more micro-level (relative to themes two and three) and  
573 on the actual service interaction itself. All participant groups underscored how the nature of  
574 the interaction between a practitioner and farmer influences help-seeking efforts. In order to  
575 be trusted (and thus utilised) by farmers, GPs need to demonstrate bush knowledge, or an

576 understanding of farming culture within regional and remote areas. However, this cultural  
577 literacy was believed to be uncommon, based on reports from farmers and partners, and this  
578 diminishes help-seeking. While the GPs noted that bush knowledge is helpful to them  
579 professionally, they did not hold it to the same level of importance as the other participant  
580 groups. These findings align with previous evidence from studies with rural populations that  
581 shows that GPs with rural cultural knowledge were judged as more successful in practice by  
582 their peers (Bischoff et al., 2013). The current study provides further support for this notion  
583 from the perspective of the farmer/patient, along with an indication that a lack of bush  
584 knowledge may act as a barrier to seeking help in the first place.

585         The therapeutic relationship that was developed between a farmer and their GP during  
586 service delivery was also identified as a key determinant of help-seeking. A general mistrust  
587 and wariness by farmers was noted by all participant groups, which reduces the likelihood of  
588 help-seeking, as well as potentially diminishing adherence to treatment protocols and the  
589 ability to build rapport. It was acknowledged by GPs that with a large locum workforce  
590 servicing farming areas, GPs might not have the career longevity or personal knowledge of  
591 the patients necessary to build rapport and trusting relationships with farmers. This aligns  
592 with previous findings that demonstrate a general wariness from rural people toward health  
593 care services that are not locally conceived and delivered (Wilson, Wilson, & Usher, 2015),  
594 and suggest that similar issues are likely to be detrimental to help-seeking among farmers.  
595 The current findings also indicate that the commonly-noted difficulties engaging farmers in  
596 mental health care (Alston, 2012; Brumby & Smith, 2009) may, in part, be due to  
597 incongruences between services offered and preferences of farmers.

598         Finally, the GPs identified a need to proactively initiate screening and opportunistic  
599 medicine, which may assist them to overcome some of the issues related to the lack of direct  
600 help-seeking for mental health concerns. Integrating mental health screening into routine

601 healthcare appointments holds particular value given research that demonstrates that 48% of  
602 farmers who died by suicide saw their GP for a physical health issue in the three months prior  
603 (Kavalidou et al., 2015). Although such screening could result in early detection, it may  
604 create an additional burden to the doctor, is only possible when the farmer attends the GP,  
605 and is unlikely to be successful when implemented by GPs with whom the farmers are not  
606 familiar and comfortable. This theme demonstrates that bush knowledge is fundamental to  
607 successful practice as a health professional in farming communities because it allows the  
608 development of rapport, which in turn is necessary for adequate tailoring of care and might  
609 also increase the likelihood of regular contact, which is necessary for screening to occur.

610         The second theme focused at a more macro-level (relative to theme one) and at the  
611 actual system or context in which service interactions take place. Farmers' decision-making  
612 for seeking help was reportedly guided by a number of services- and systems-related  
613 considerations. First, seeking help was guided by perceptions or expectations of the potential  
614 outcomes of such help-seeking, known as outcome expectancies. Outcome expectancies, the  
615 beliefs held about the consequences of an action, have been found to impact on intentions and  
616 in turn, behaviour (Hamilton, Vayro, & Schwarzer, 2015; Luszczynska & Schwarzer, 2015).  
617 In line with this, farmers that were able to perceive benefits associated with help-seeking  
618 were more open to engaging in mental health care. Alternatively, those farmers who were  
619 unable to see any potential benefits of seeking help were less inclined to seek care. Further,  
620 the farmers' outcome expectancies seem heavily dependent on access and availability of  
621 services, as well as continuity of care (discussed below), in addition to the micro-level factors  
622 discussed in theme one. The outcome expectancies or perceptions, however, were based  
623 largely on biases and anecdotes (e.g., of a friend or family member) or based on previous  
624 interactions with GPs. Importantly, these perceptions and expectations did not seem to be  
625 based on reliable evidence concerning the efficacy of the treatments.

626           The findings of the current study extend previous research with rural and remote  
627 residents demonstrating poor health service accessibility for remote areas, even when services  
628 are available (Bishop, Ransom, Lavery, & Gale, 2017; Hossain, Eley, Coutts, & Gorman,  
629 2008; Judd et al., 2006; Tonna et al., 2009). The findings also demonstrate how farmers  
630 perceive these access and availability issues and identify the associated consequences of  
631 delayed or absent help-seeking. Additionally, concerns over continuity of care previously  
632 raised in research with GPs (e.g. Fuller et al., 2004) are here corroborated and extended by  
633 farmers and their partners. It seems that there is a complex interaction of factors such that  
634 poor access and availability as well as continuity of care contribute to poorer outcome  
635 expectancies farmers hold toward help-seeking. While outcome expectations are important  
636 for several behaviours and populations (e.g., parents providing fruit and vegetables,  
637 university students' physical activity; Baranowski et al., 2007; Farren, Zhang, Martin, &  
638 Thomas, 2017), farmers face this unique combination of factors that further reduces the  
639 likelihood of positive expectations related to seeking help. Overall, theme two emphasises the  
640 challenges of providing and receiving care in farming contexts.

641           Help-seeking in the context of emerging technologies was explored in the third theme.  
642 Emerging technologies provide opportunities for healthcare to be delivered in new ways;  
643 however, several barriers were noted specifically to their use by farmers. Farmers explained  
644 their reluctance in using technology-based care options as due to low digital literacy and a  
645 general preference to speak with someone face-to-face. Hesitance was also noted on the  
646 part of some GPs with concerns regarding an inability to keep up with the number of  
647 technology-based options, a lack of information and inability to properly appraise the quality  
648 of these options as well as dissatisfaction with the lack of farmer-specific options. Without  
649 buy-in and referrals from GPs, technology-based services are unlikely to make much  
650 difference to help-seeking by farmers. Whilst there have been some efforts to improve GP



651 knowledge and referral systems through programs like e-mental health in practice (eMHprac;  
652 eMHprac.org.au), GP knowledge and attitudes appear to still be problematic in rural areas.  
653 Additionally, poor connectivity emerged as a continuing barrier to farmers seeking assistance  
654 via technology-based care, which is consistent with previous findings that poor connectivity  
655 prevents technology-mediated therapies such as video conferencing (Shealy et al., 2015). To  
656 realise the promise of these technologies, improvements are required in ICT literacy among  
657 farmers, the ease of use and user experience of the platforms, telecommunications  
658 connectivity, and to professional attitudes towards such services. In summary, digital mental  
659 health services hold great promise and could help to address several of the system-related  
660 issues highlighted in theme two. However, this is unlikely to address the need to tailor the  
661 services to ensure they are culturally appropriate for farmers, as per their preferences reported  
662 in theme one.

663         The factors discussed above should be considered when developing a model of farmer  
664 help-seeking. Farmer help-seeking is complex and is likely to need multi-faceted  
665 intervention, and this research indicates that there are several implications for the role of  
666 mental health services and systems. To address the issues raised by the farmers, farmers'  
667 partners and GPs, rural mental health training for all health professionals who practice in  
668 rural and remote locations could be made mandatory. This could enhance rural competence,  
669 including bush knowledge, as well as increase the possibility of mental health issues being  
670 detected and treated through opportunistic screening. Health professionals could also use this  
671 knowledge to tailor how they deliver their services to better align with farmers preferences.  
672 Further, specific system-level policies and planning to reduce the reliance on a locum  
673 workforce could be implemented (especially while the strategic work to increase the  
674 workforce is being undertaken through University Departments of Rural Health; Australian  
675 Government Department of Health, 2008). Alternatively, policies for workforce stability,

676 encouraging the same locum practitioners to provide services over time, may help to improve  
677 continuity of care, farmers' outcome expectancies, and in turn, their help-seeking.

678         The promise of digital mental health services for addressing several of the barriers to  
679 farmer help-seeking has been highlighted above, although there are also many policy and  
680 practical issues that must be addressed. These include ongoing funding for GPs to provide  
681 digital mental health services, health professionals lack of familiarity with external digital  
682 mental health services, farmers' reservations about these forms of care, and farmers'  
683 preferences. Strategies are in place to address poor internet connectivity through the National  
684 Broadband Network, as well as knowledge of digital mental health services in Australian GPs  
685 through the e-mental health in practice program (eMHprac; eMHprac.org.au). This means  
686 addressing funding, and farmers concerns about digital mental health should be prioritised.  
687 One avenue that could address farmers concerns it to train agricultural and health service  
688 professionals (e.g., rural financial counsellors or agronomists) to provide farmers with  
689 exposure to brief or less intense e-mental health programs to increase familiarity because  
690 prior use greatly increases the likelihood of intending to use these programs in the future  
691 (March et al., 2018).

### 692 **Strengths, limitations, and future directions**

693         The two key strengths of this research are the inclusion of farmers' partners and GPs  
694 as informants due to their critical roles and complementary perspectives on farmer help-  
695 seeking, and the adoption of a gold-standard qualitative research design. The triangulation of  
696 data from multiple perspectives provides a variety of valuable insights and allows for a  
697 comparison of varying perspectives that contributes to a greater understanding of help-  
698 seeking among farmers. Further, distinct participant groups were recruited to avoid  
699 relationships between participants and misinformation associated with such relationship  
700 dynamics. Therefore, triangulation and a firm grounding in Braun and Clarke's (2006)

701 methodology provide rigour to this research. The dearth of research on the barriers and  
702 facilitators of farmers' help-seeking means that qualitative research is critical to creating an  
703 in-depth understanding. Thus, this research used a bottom-up qualitative approach to  
704 understanding the barriers and facilitators of help-seeking, related to health service provision,  
705 among farmers.

706 This research also has limitations which need to be considered, such as those related  
707 to sampling. Participants were recruited through advertising and relied on interested  
708 participants contacting the research team; thus, there may be a possibility of selection bias.  
709 That is, those that chose to participate in the study may differ from those who did not, and  
710 this may result in important perspectives being neglected from the current findings.

711 Although this research does have limitations, it has made significant strides in  
712 understanding the complex issue that serve as barriers and facilitators to help-seeking in  
713 farmers. This research provides preliminary findings that can be corroborated in larger, more  
714 varied farming samples across different rural regions (creating a mixed-methods  
715 QUAL→quan project; Palinkas et al., 2011). Further, quantitative research could also be used  
716 to determine the relative importance of these service-related factors in predicting help-  
717 seeking in farmers and identify any individual variability. Based on these investigations,  
718 tailored intervention approaches could be developed to improve farmers' help-seeking  
719 behaviour.

## 720 **Conclusion**

721 Farmers experience poor wellbeing and demonstrate elevated rates of suicide, yet they  
722 seldom seek help for their mental health. This research contributes to the body of literature  
723 for farmer mental health broadly by providing an understanding of how service-related  
724 factors may influence mental health help-seeking. Findings from this study show that service-

725 related factors can act as both barriers to and facilitators of mental health help-seeking in

726 farmers.

727

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910 Table 1

911 *Themes developed across the three participant sub-samples.*

Theme	Summary
Health service interactions.	The interaction between a farmer and a GP influences help-seeking. Positive interactions facilitate care being sought, and negative interactions prevent it.
Services are provided within a complex system	The impact of mental health services and systems on help-seeking is complex; some components are barriers while other components can act as barriers or facilitators, dependent on other additional factors.
Emerging Technologies: the users, practitioners, and systems	The relationship between technology-based services and farmers' help-seeking is also complex. There is the potential for technology-based services to be a facilitator of farmers' help-seeking, but there are barriers that prevent this.

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