

## Climate Change Issue

### ORIGINAL RESEARCH

# Control, uncertainty, and expectations for the future: a qualitative study of the impact of drought on a rural Australian community

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## A B S T R A C T

Many rural Australian communities continue to endure a prolonged drought. The mental health effects of short-term natural disaster are well known; those of a long-term and chronic natural disaster such as drought are less well understood. However, in addition to immediate distress there are likely to be feelings of loss, grief and hopelessness, all of which are implicated in an increased risk of subsequent psychiatric morbidity. Furthermore, rural Australia is at a relative disadvantage for early and effective mental health intervention due to a lack of resources, compared with urban Australia. This qualitative research investigates the experience of drought in two farming communities in the state of New South Wales. Farmers, farm and non-farm businesspeople,



and health workers took part in focus group discussions of the effects of drought on themselves, their families and their community. In addition to current distress related to financial and workload problems, people reported experiencing significant distress from the emotional impact of environmental degradation, from loss of hope for the future of their community, and from feelings of being misunderstood by the wider Australian community. The stressors affecting farming communities during times of drought are likely to be associated with increased risk of mental health problems.

**Key words:** communities, drought, farming, mental health, qualitative methods.

## Introduction

Farming is associated with a unique set of stressors<sup>1,2</sup> that include reliance on unpredictable environmental conditions and financial or business pressures. These situational stressors have flow-on effects throughout rural communities dependent on farming<sup>3</sup>. More generally, many rural communities suffer isolation, economic disadvantage and limited services<sup>4</sup>.

A characteristic of rural locations in recent times is prolonged drought which, at the time of writing, affects large areas of Australia's agricultural land and has done since early 2002<sup>5</sup>. Although this drought is causing concern in both rural and urban communities, it is in rural communities, particularly those reliant on agricultural industry, where the greatest social and economic impact is felt. Drought causes serious reduction in income for both farmers and small businesspeople alongside major social impact in entire communities<sup>6</sup>.

### *Drought and farming in Australia*

The farming sector defines and ultimately sustains many rural towns. Agricultural, forestry and fishing industries employ 4.4% of the total Australian workforce but 14.3% of the workforce outside metropolitan areas<sup>7</sup>. (These figures are for direct employment only and do not include related and support industries, for example small businesses such as agricultural suppliers). Within Australia, farmers represent a group at higher risk of a range of health problems. Factors that may influence this risk include poorer access to

healthcare services in rural and remote areas in general<sup>8</sup>, and specific barriers to health care among farmers<sup>9</sup>. In addition to limited access to health services, the level of knowledge regarding mental health problems and effective treatments are important barriers to receiving help for mental health problems<sup>10</sup>.

The serious consequences of unaddressed mental health problems in farmers and farm workers are evident in suicide rates in these groups<sup>9,11</sup>. More generally, young men in rural and remote areas in Australia have higher suicide rates than their urban counterparts<sup>12,13</sup>. Studies of farm workers indicate that this group has a higher suicide rate than non-farming men in rural areas, and that they represent an important high-risk group for targeting preventive interventions<sup>11,14</sup>. Suicide continues to be a major cause of death by injury among farmers in Australia<sup>11</sup>.

### *Drought, natural disaster, and mental health*

The distress and trauma associated with natural disasters can affect the entire community<sup>15</sup>, and rural and remote communities suffer additional disadvantage due to their isolation and limited access to health and mental health resources<sup>16-18</sup>. Drought can usefully be construed as a chronic stressor akin to natural disaster experienced over a longer time. Natural disaster can give rise to feelings of loss of control and mastery, fear, helplessness and futility; and in the long term there may be an increased risk of psychiatric morbidity<sup>19</sup>. While the mental health effects of short-term natural disasters such as fire and flood are well known<sup>15,20</sup> research is lacking on the effects of a long-term chronic stressor such as drought.



Chronic stress and uncertainty, and feelings of helplessness and lack of control are significant risk factors for psychological morbidity<sup>21</sup>. The distress arising from a chronic natural disaster such as drought is likely to be associated with mental health problems such as depression and anxiety. Additionally, ecological disturbance such as that caused by drought may affect psychosocial health<sup>22</sup>. Environmental distress or solastalgia, the distress caused by negative change in the home landscape<sup>23</sup>, particularly affects the domains of sense of wellbeing and sense of control<sup>22</sup>.

This article reports on the outcomes of a longitudinal qualitative study investigating the characteristics of a rural farming community of the state of New South Wales (NSW), Australia. The study investigated the social and emotional effects of long-term drought on the community, and explored the perceived impact of this chronic natural disaster on emotional wellbeing. The research arose from previous consultation by the authors with mental health and agricultural support workers<sup>24</sup>.

## *Aims*

The main aim of this study was to explore the perceived impact of drought on the emotional and social wellbeing of diverse groups within a rural community, and the factors that may mitigate this impact, in order to guide the development of community-based strategies to support the emotional wellbeing of people within these communities.

## Method

This study had ethical approval from the University of Newcastle's Human Research Ethics Committee, and informed consent was obtained from all participants. In designing and conducting this study, the authors followed the methodological principles for social analysis outlined by Krueger et al<sup>25</sup>.

## *Location*

The study was conducted within and around two farming communities in central-western NSW: one town of approximately 3000 (as in Australian Bureau of Statistics, 2001 Census data), and a cluster of farm properties based between this town and a smaller hamlet approximately 130 km away. The major agricultural activities in this area are cereal cropping, and sheep and cattle grazing. The Rural Lands Protection Board area in which the communities are located has been drought-declared since April 2002, with a brief period of satisfactory conditions between November 2005 and February 2006. The area remains in drought at the time of writing.

## *Participants*

Participants were chosen and allocated to groups based on likely shared experiences. Within each group, participants were reasonably homogeneous but were unfamiliar with each other<sup>25</sup>. Following preliminary consultation with key informants from local agricultural agencies and key community organisations, separate focus groups were held with female farmers, male farmers (these first two both within the large town and on a property close to the satellite town), male and female businesspeople (agricultural or non-agricultural), and health and other support workers. Separate groups were conducted for male and female farmers on the advice of community contacts and in order to ensure that husbands and wives did not participate in the same group.

In determining who should be approached to take part in the focus groups, consideration was given to contacting residents who had personal experience of the drought and who were likely to have an insight into the wider effects of drought on the community<sup>25</sup>. Participants were recruited with the help of four key contacts, selected because of their prominent role in the community: a health worker, a prominent businessperson and member of a local service club, an agricultural worker, and a rural financial counsellor. These contacts approached potential participants and obtained their consent for a formal approach from the



investigators. Findings from an initial round of discussions were reported back to the community at an evening meeting.

## Sample

Thirty participants took part, grouped as follows:

- ◆ 10 female farmers (two groups)
- ◆ 11 male farmers (two groups)
- ◆ 6 local businesspeople: 2 female/4 male, 2 agricultural/5 non-agricultural/1 farmer (several people had multiple businesses)
- ◆ 12 support workers: 10 health workers (all female), 2 school principals (1 male/1 female).

**Demographics:** The age of participants ranged from 22 to 67 years (average age, 44 years). Participants were predominantly married ( $n = 30$ ) and had spent times ranging from under one year to 67 years in the area (average time in the area: 28 years). Number of children in the household of participants ranged from 0 to five (mode = 2).

## Data collection and analysis

Qualitative data collection was by semi-structured focus groups and, in the follow-up phase, individual interview. The facilitator used an interview schedule (Appendix I) to prompt and guide discussion. Key domains were: how life had changed as a result of the drought; what effects of drought participants had noticed in themselves, their families, and in others; participants' expectations of the future for themselves and the wider community; difficulties and positives about living in a rural community; and met or unmet needs for wellbeing. These domains were chosen based on previous work by the authors<sup>24</sup> and on the objective of identifying strategies to promote emotional wellbeing. A scribe kept a record of participant speaking order and took notes on the discussion in each group. Each group and interview was audio recorded.

All recordings were transcribed verbatim for coding and analysis. A transcript-based, discovery-focussed thematic

analysis was conducted<sup>26,27</sup>, with an initial list of themes generated from the interview schedule and a first reading of the transcripts<sup>28</sup>. Initial coding of transcripts according to the themes was checked and validated by team members who were not involved either in facilitating the discussions or performing the analysis. The coding system was then refined and categorised into higher-level themes in the light of this validation and of further reflection by the investigators.

## Results

A number of themes and sub-themes emerged from participants' initial discussions about the effects of drought on their community. These will be presented in separate sections, with firstly an exemplar of the theme category and then descriptions of further responses and any sub-themes. Participants' comments could be assigned to more than one category.

### *The perceived community impact of drought*

*There's certainly no doubt...as far as trying to keep your motivation and that sort of thing, it's not easily done. It's not a farming thing, as well, it's right across the community, it's right across the board. It shows up here probably because no-one...in living history there hasn't been a drought that's lasted like this one has. It's just phenomenal...almost so we're used to it [laughs] you know, you sort of almost forgotten what to do in a good year. (male farmer)*

Unsurprisingly, given the focus of the research, concern about difficulties arising from the drought was dominant across all focus groups. The difficulties mentioned by participants related mainly to finances, lack of resources, onerous regulations, uncertainty and workload. Thus, participants mentioned both operational difficulties and their emotional responses to those difficulties as major negative consequences of drought. Other difficulties reported less frequently were workforce issues (eg demoralisation of staff in the face of business downturns) and family separation



(eg wives having to move into town for several nights a week to undertake a second job, leaving husbands alone and isolated on the farm).

**Personal financial impact:** The following quote came from a businessman:

*...it's just, the responsibility to some of these other people like, not to have a job, do you know what I mean, it's a horrible feeling to have to try and think of someone to say like 'look, you don't get to come into work on Monday'. If it rains now, I reckon it's worse if it rains now because some of these farmers are gunna go ahead and sow and not get a crop, and they're not gunna get a return.*

Financial problems due to the drought were reported by all groups and are stressful in themselves, but also because they exacerbate other problems or emphasise uncertainty, lack of control, feelings of responsibility, or raise family issues such as separation.

**Impact on community resources:** The following quote came from a male farmer.

*I think there's a real decay in the infrastructure, too; ah, we're all virtually [relying on] off-farm income...to keep the farm going, and don't employ people. I know down our way, if there's a fire, who goes to fight the fire? So we've gotta stay home. Like, two years ago you'd have two or three people on the place; someone could go fight the fire and someone could stay home. It's getting to be a, you know a real problem. If there are any of these emergency situations, and it will rain one day, we'll get a fire through this again but we're not going to have the infrastructure to address those problems...you know look at all the machinery that we've got, and no-one to operate it. So it's an aging farming group. You've got people who would otherwise be retired expected to go out and do these things.*

A perceived lack of resources was mentioned by participants both as a consequence of drought, and as an issue that made getting through the drought more difficult. Concerns existed regarding lack of resources relating to *finances* (to run the farm or business or employ help), *workload and workforce issues*, *future of community* with fewer people to run businesses and undertake vital volunteer work such as with the Rural Fire Service, and lack of local services made worse by poor quality of roads when travel was necessary.

**Restriction of options:** A major theme emerging from the discussions about the effect of the drought was restriction: of ability to practise farming, of trade in other businesses and of finances. Even the most immediate anxiety relating to financial difficulties can be seen as a type of restriction: restriction of ability to provide for family and employees and of ability to fulfil expected roles.

## ***The emotional consequences of drought***

*I've stopped going out to the paddock myself. I went down on the weekend and I wish I hadn't gone. My husband and I run it together, I do just as much. He works off-farm as well, it wasn't the plan [but] having to educate four children, that's how it's worked out.*  
(female farmer)

This theme emerged from questions about how things had changed for participants as a result of the drought, and how things had changed for other people known by participants. The theme is related to broader changes within the farming and farm-based community.

**The changing landscape: Environmental distress:** The following quote came from a female farmer.

*You just sort of think 'oh well, there's clouds out there...' My son said to me yesterday, he said 'no Mum, it's never going to rain again' you know, so he's just made up his mind that it's never going to rain.*



Comments made by participants about their physical environment were predominantly negative, as would be expected given the focus on the effects of drought. Participants noted the negative effect on mood of the parched and dry landscape and reported a reluctance to be outside on their property unless necessary. Small amounts of rain, or rain falling in restricted areas, also lowered mood when not followed up by substantial falls. It was pointed out that unlike many other businesses the farm is also home, so it is much harder to escape the stresses of work. The appearance of the landscape is a constant reminder of other problems arising from the drought; however, it was also noted that even children who presumably have less or no detailed knowledge of the farm business found it 'yucky' outside. The loss of a garden was distressing for several women and was interpreted as loss of a barrier protecting the home from a hostile environment; this issue was not raised by men. Women who had maintained their garden reported some feelings of guilt at watering plants, although other women insisted they shouldn't feel that way. Women also reported the physical discomfort of showering with dam water (preserving remaining tank water for cooking and drinking) that might be very muddy.

**Avoidance and coping:** Participants reported feelings of wanting to avoid and escape being reminded of the drought. This was manifested as reluctance to: talk about the drought, open bills (which they were unable to pay due to the financial restrictions mentioned above), think about how long the last drought went on and when it might rain this time, and spend time on the farm or in the outdoors generally because of reminders of the drought. A commonly reported coping mechanism was the deferring of making plans with the view that the drought would cease and life would return to normal.

**Concerns about others:** Changes were experienced by participants in their own lives, but were more often reported in relation to participants' families or in their community at large. Effects on children were of particular concern. Parents expressed concern at not being able to provide the level of financial support they had wished and planned for their

children's education, so university-age children were having to spend more time working to support themselves, resulting in poorer grades and less opportunity to visit the family farm. Younger children were spending more time working on the farm in some cases; in others, they were spending more time alone doing their schooling while both parents were working on farm.

Changes to family roles were also reported and were a source of some distress. In particular, participants reported that drought had made it necessary for more women to work off-farm. Because of the distances involved, this often meant women had to live in town during the week. For men left behind on the farm, the loss of companionship increased their sense of being unable to escape the drought and its stresses, as well as representing a shift from traditional gender roles. Conversely, but still a shift from traditional roles, women were also becoming more involved and interested in the running of the farm.

**Personal hope and morale:** The following quote came from a male farmer.

*To me that's really demoralising. When you've got a business that you can pass on [to your children], that's all your calculation to do, and you very conscientiously deter him from becoming too involved in it because you know damn well that when the next drought hits it may be just as bad as this one, or, if this one doesn't clear up but it stays on, there's just no future.*

*...he came home so depressed because he said the number of, it was just a bad day, he said the number of shop owners who talk to him about closing was incredible. And, and he said I just don't know where it's going. So he felt all that, as well as having farm worries and the whole thing as well, he came back with that. I was having a good day until he came home! (female farmer)*

Participants saw a troubled *future for farming* (notwithstanding their generally positive feelings about



farming as a lifestyle, see below). Farmers spoke of concerns about succession planning, with children keen to take on farming but parents worried that they are passing on a burden due to the uncertain environmental conditions. For example, they reported insisting that children acquire a trade or other qualification before risking farming. Participants were also aware that farming communities are ageing (as in a comment above).

The most significant effects of the drought on lifestyle and business were the uncertainty and inability to plan ahead caused by the drought. This also caused a shift in traditional expectations of farm succession, outlined above and below. Fears were also expressed about non-farm businesses as the drought either continues or breaks, thus leading to increased demand for agricultural products using credit which business owners cannot afford to support.

The ability to *retire* at an appropriate time and to provide for children's *education* were also expectations which had undergone drastic revision for many participants.

**Community morale:** Concern was often expressed about others' or participants' own mood or behaviours attributed to the impact of drought (eg disturbed sleep, irritability, feelings of disillusionment, worrying and negativity). It was suggested that the first few years of drought were to be expected given the Australian climate and had been coped with fairly well, but there was a fear that things had reached a point where distress was becoming or about to become a community-wide problem.

The *future of the local community* was of primary concern to all participant groups. Participants cited many instances of businesses closing and families leaving the district. This was perceived to have had an immediate impact on the mood of the community and its infrastructure; many participants also outlined their fears for future vital community activities such as bush fire brigades and service clubs as the population reduces and ages.

## ***Factors modifying the emotional effects of drought***

*A cry for help doesn't always solve the problem...probably the hardest thing for men is to go to a group, to be able to unload what they feel [and not] feel that it's going to be talked about all around the traps. (businessman)*

**What would help you to deal with the drought?** This was explicitly asked in some form in all focus groups; however, few people gave elaborate responses. Rain was proposed by many participants as the only solution to the community's problems. Less common suggestions were indicative of the desire of participants to talk through their worries with a sympathetic and knowledgeable listener: access to specialist mental health resources such as a counsellor, willingness on the part of GPs to refer to counsellors when they were present in the community, or more time to talk with their GP about anxiety and depression; informal small-group meetings to encourage people to talk about problems and concerns; community education on the signs of distress and ways of alleviating it; business and financial planning advice. Apart from these explicit suggestions, three themes emerged which clearly modify the community's experience of drought: two negatively, and one in a more positive way.

*Feeling understood* The following quote came from a male farmer.

*But it just seems to me that they're bringing all these things on us now, as though they really want to get rid of us, you know?*

*People don't think anything exists out here...he [brother-in-law] was saying 'why would you want to live out here for and why would people live here?' and that sort of thing, he said it about fifty times in the twenty-four hours he was out here, and that's a lot of people's attitudes in Sydney really...they think that we should all go and live in Newcastle, then they*



*wouldn't have to worry about it out here. (female support worker)*

*Yes I think people sort of sit back and think, people on the land have got it good... (female farmer)*

Feelings of being misunderstood exacerbated the negative emotional effects of drought in this community. Many statements made by participants were consistent with an imputation of (negative) attitudes towards farmers and country people in general by the government, the media, and city residents, which affected the ability to cope with drought. Participants expressed resentment that outsiders believe farmers have an easy life, blame farmers for the drought, and fail to understand their difficulties. Participants also considered that the drought was being used as a pretext to curtail farming for environmental reasons.

*Help coping with regulatory demands* The following quote came from a female farmer.

*I think um what hurts me—and I guess you might all feel the same—is the government; that it, it's almost...you know how borers get into a tree when the tree is starving...it seems to me that—I don't want to get political—but...they just seem to be kicking us while we're down, I mean they've had the NLIS [livestock ID], they've got the grasshopper levy now that they've put on which we've been paying into for fifty years, but as soon as we have a grasshopper plague they put it up to, you know, \$3.50 instead of 50c per head of stock; um, the native vegetation business that they're continuously making life terribly difficult to make a living...there's all of these things.*

Government regulations regarding farming practices, water access, and land clearing were cited as an exacerbation of the negative effects of drought, taking up already scarce financial and/or mental resources. They were resented as a restraint on running the farm or business. However, regulations also made it harder to apply for drought assistance, either because of: (i) the volume of paperwork

generated, or (ii) husband and wife farmers were not recognised as equal team members. Often the female partner in the farm business (often, in this sample, the person most concerned with paperwork) was the person attempting to deal with the organisation granting financial aid; however, these organisations usually needed to speak with the male partner (presumably because the farm is in his name), necessitating time-consuming trips from the paddock to the home to make phone calls. This results in increased workload for male farmers and feelings of undervaluing and demoralisation in women farmers.

While it was agreed that financial assistance programs are helpful, this was not seen as a long-term solution; the paperwork required to obtain the assistance was seen as discouragingly onerous, and in any case the assistance is not available to farm-related businesses affected at second-hand by the drought. It was noted by the non-farm businesspeople that they are not eligible for the emergency financial assistance available to farmers in 'exceptional circumstance'-declared areas, even though their own businesses were drastically affected by the downturn in the farming sector. This same point was made by several farmers. There was a general sense that the whole community should be supported through drought, although it was argued that providing assistance directly to farmers does keep business alive in the town.

*'Getting through it together' - social support* The following quote came from a female farmer.

*We just do the best we can. And we'll always live here, so we want our community to stick together and grow. We don't want people to move out.*

*Many friendships are much stronger - I have people ringing concerned about friends, sticking together - I don't think it's only in this situation. (female health worker)*





The responses showed that life in a farming community during severe drought is not one of unrelieved gloom. Many responses related either to things that had helped people through the drought, or positive aspects of life in a rural community more generally. Informal talk and joking with people who understood or were in the same situation was the most strongly endorsed method of support, and a sense of solidarity was seen as one clear advantage of living in a small farming town. Farming was seen as a rewarding shared lifestyle overall in the community, in particular because of the perceived freedom and independence it provides, although regulations are seen as challenging that independence and autonomy.

Participants made several suggestions for changes that would help their community through the drought, such as streamlined procedures for applying for financial assistance, making such assistance more widely available (for example, to non-farm businesses affected by downturns in the agricultural sector), and for better information about dealing with stress.

## Discussion

Clearly, this NSW drought-affected community is experiencing significant distress. The distress is not confined to the farming sector, but also permeates businesses both related and unrelated to farming. Support workers also experience distress, whether vicariously from their contact with clients or due to their secondary role as farmers or spouses of farmers, and in many cases from both roles. Participants' distress and worry was not only for their own immediate concerns, but was expressed in the effect they saw the drought having on family, friends and colleagues, and on the community as a whole.

The majority of participants saw themselves as remaining in their community but worried about the community's future amid the perception of a declining local population. While displaying an attachment to the lifestyle of farming and life in a small rural community, decreasing resources and

degradation of a loved environment became a further source of distress for those remaining in the community.

This drought-induced distress has adverse implications for the well-being of affected communities while simultaneously (through the perceived impact on sources of social support and community social capital) reducing communities' capacity to respond effectively to these needs.

### *Stress and community factors*

The community impact of drought was significant – the negative impact on the sense of community but also the positive use of community connection in a strong sense of rural identity and of 'getting through' drought. The role of community was a significant theme across the groups. The negative impact of drought on the whole district and its people was widely reported by participants, but so was the importance of a sense of connection to community in coping with such adversity. This is consistent with the recent finding that a sense of social cohesion and community support was associated with lower levels of distress in a rural Australian sample, with a greater effect on non-farming than on farming participants<sup>29</sup>.

The results identify the perceived impact of drought and the range of individual, family and community wide changes that can occur, along with the ways in which the associated distress is experienced. The participants in this study described the aspects of drought that potentially enhance the negative impact on their sense of control over key areas of their personal and community life and future. Drought is of its nature unpredictable in duration, severity and distribution. The unpredictability of drought is exacerbated in the community by feelings of powerlessness in the face of regulations relating to farming activities and financial support.

Additionally, a perception of limited regard for or understanding of farming from those outside the community was a key factor that potentially modifies the adverse impact of drought. Participants expressed the view that their



difficulties are devalued by urban residents and the media, and that outsiders believe that struggling farmers should leave the land. Of key significance is the perception of blame by others of farming practices.

The opportunity to share the distress and 'talk over' the difficulties was valued, alongside the need for access to more emotional support from services including health services. While there was an expected focus on the needs for rain and financial support to address drought, the themes of maintaining connection, sense of community identity and the need for broader acknowledgement of the value and role of rural communities and farming specifically were important indicators of factors that can assist communities through drought.

**Environmental distress:** Drought as an ecological phenomenon is a source of another form of distress - environmental distress. Lack of water has an obvious effect on the local landscape as well as participants' ability to farm and carry out other businesses. The physical degradation of one's home environment has been associated with severe distress and anxiety-like symptoms<sup>23</sup> and also with intense feelings of helplessness. Women in particular reported distress from losing gardens and reported a reluctance among children to be outdoors. It was clear that environmental degradation had an emotional impact on participants over and above that which might be expected from its practical implications.

**Social isolation:** Participants reported a serious attrition of community life. Remaining residents are overstretched in their community commitments as the pool of potential volunteers shrinks and drought affects their ability to donate time to social and volunteer activities. People become increasingly isolated as overwork and financial constraints force them to reduce 'extra-curricular' activities - this is especially isolating for farm families who live a long way out of town. Participants also reported a lack of validation of their experience (ie 'city doesn't understand us'). This may strengthen some feelings of community as rural residents take on an 'us and them' attitude, but it may also lead to

feelings of isolation, frustration and anger. The many 'bureaucratic' hurdles described by participants were one example of perceived misunderstanding by the city of rural life, and of farming as a profession. Such stressors are also closely linked to the community's sense of being misunderstood or unappreciated. Perceived lack of understanding from government, the media, and city residents appeared to be of significant concern to many participants.

Finally, isolation, particularly the physical isolation of farm work, may encourage rural residents to *ruminate* on their unpleasant and stressful circumstances, a further trigger for distress and exacerbation of feelings of lack of control<sup>30</sup>.

## Conclusions

Rural communities are experiencing significant distress as a result of prolonged drought. This qualitative and exploratory research identified a range of issues arising in a farming community in NSW. The study of the community experience of drought identified:

1. The social and emotional impact of drought, changes in landscape, and concerns for the future on the community.
2. Factors that may mediate the effect of drought, by exacerbating or ameliorating the perceived impact within the community.

The distress experienced by participants is not confined to the farming sector but has an impact on the wider community, including rural township residents. This highlights that drought has a meaning at the community level, shown particularly in perceived concerns about the future and viability of these communities.

The responses of participants in this study suggest a need for revised and enhanced support for farmers across a range of practical tasks in the business of farming, which should also be extended to other drought-affected businesses, alongside



supporting individual and community adaptation to the impacts of protracted drought. A model such as that developed in Australia<sup>31</sup> can provide a framework for broad-based programs of support to rural communities dependent on farming, and has the potential to improve mental health and wellbeing, building on the evidence base of community mental health promotion programs. Such programs can link assistance with social and personal impacts alongside the practical assistance and planning that is needed in the face of drought.

Such findings can provide guidance to community or population level interventions to assist the adaptation of drought affected regions. There is a need for enriched health supports, such as a facility to talk over concerns which might be less specific than direct health problems, to deal with short- and long-term effects of drought in community. Participants were particularly supportive of avenues for men to talk about their feelings, balancing concerns about confidentiality with an acknowledgment that others experience similar feelings.

Further investigation focussing on methods to support or promote community optimism would be valuable, addressing feelings of helplessness resulting from the uncontrollable nature of drought, and also on mechanisms to break down any perceived misunderstanding of outsiders of farming communities' way of life.

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## Appendix I: Facilitator guide showing key domains for discussion

Questions in normal text will be asked by interviewer to spark discussion. Those in italics *may* be asked to prompt or focus the discussion, however this will also be shaped by the responses of the participants.

How has life changed for you as a result of the drought?

*Financially*

*In how you conduct your work*

How has the drought affected your expectations for your future work?

*Have there been any issues surrounding succession or farm planning?*

*Do you think there is a future for farming in this area?*

In your experience, how has this drought affected those around you?

Who would you say has been most affected by this drought?

*Self*

*Spouse or children*

*Other people/groups observed in the community*

How has the drought affected your day-to-day life?

*Family or home life*

*Social relationships with people outside your family*

What support have you felt you needed during the drought?

*Was there support made available? What kind?*

*What could have happened to support you that didn't?*

*Did you experience any difficulties getting help when you needed it?*

Can you tell me about the people you could talk with, about the drought or other problems you may have experienced?

*Did you ever talk to family, friends, or others about how the drought made you feel?*

*Did you ever talk to a GP or other health professional about health worries, for example sleeping problems?*

People have said that the drought has caused a lot of stress in rural communities. Have you noticed this in people you know?

What have been the main worries for you?

What has it been like living in this district during the drought? What are the things that have helped you through the drought? What about things that made it harder?

*(If participants have expressed intention to stay): What is it about this community that makes it a place you want to live in/bring up children in?*



How do you see the future from here?

What do you think will happen in the aftermath of the drought and in the future?

*For yourself?*

*For your family and friends?*

*For this community?*

*Have your plans for yourself or your children changed?*

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