

RESILIENCE AND WELL-BEING OF SMALL INLAND COMMUNITIES: COMMUNITY ASSETS AS KEY DETERMINANTS

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Abstract

Introduction: *The current climatic conditions and ongoing changes in the farming sector constitute stressful circumstances that impact on the well-being of many Australian rural communities. In these circumstances, small towns and communities are at particular risk due to their relative isolation from services and resources. However, rural communities are noted for being resilient, or able to successfully adapt to stressful circumstances, with well-being both a determinant and outcome of this resilience. This study operationalised a model of resilience, risk and well-being that examined community assets important for resilience of small, inland rural communities.*

Methods: *102 participants from eight outer regional or remote towns and communities in the northern Riverina region of New South Wales (Australia) completed survey items developed from the community resilience model and the Personal Wellbeing Index (PWI).*

Results: *Social assets including parents and citizens associations (P&C), sporting clubs and groups, and service agency assets including schools were rated as the assets of most benefit to the community and the PWI results were similar to Australian norms, suggesting these communities were resilient.*

Conclusions: *Identifying schools, sporting and other clubs as prominent social assets highlights the role these rural agencies play to maintain and sustain relationships and connectedness of community members. When developing interventions or support services, program and policy makers should recognise these social assets for their contribution to the resilience and well-being of rural environments. The model of community resilience provides a framework that is useful for future policy development, planning, interventions and research.*

Keywords

Rural, Resilience, Community, Resources, Assets, Well-being

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Introduction

Small, inland rural communities face many challenges but may also possess strengths that can assist them in effectively addressing these challenges. This study investigated strengths in eight small rural communities of southern New South Wales, Australia, as a basis for facilitating community action that would enhance community resilience and well-being. To set the scene, we start with an overview of the challenges typically faced by these small inland communities, the benefits experienced by these communities and a framework for thinking about community resilience and well-being and their determinants.

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Challenges for small, inland rural communities

In Australia, 'the current drought is considered unprecedented in terms of its geographic spread, length and severity. Some areas have been declared as experiencing exceptional circumstances for 13 of the past 16 years' (Productivity Commission, 2008). This situation has severely impacted upon many rural towns and communities. Local economies have suffered, as the loss of income to farmers has flowed through to affect most businesses in local communities (Bureau of Rural Sciences, 2008). The economic loss and the 'natural' causes of the events have left whole communities feeling helpless to deal effectively with the situation and fearful of what will happen in the future. However, the current climate effects are also intertwined with the changing social and demographic characteristics of rural Australia, which include lower numbers of farmers, with larger holdings, who are older and work longer hours (Australian Bureau of Agricultural Resource Economics, 2008). A recent report by an Australian Government Drought Policy Review Expert Social Panel highlighted the difficulty in separating the 'impact of dryness from the longer term socio-demographic trends contributing to a decline for some rural populations' (Drought Policy Review Expert Social Panel, 2008, p. 27).

Unfortunately, rural communities also face greater difficulties than urban dwellers in relation to health. The World Health Organisation (2008, p. 33) defines health as 'a state of complete physical, mental and social *well being* and not merely the absence of disease or infirmity', and in this paper we use the terms 'health' and 'well-being' interchangeably. Increasing degrees of remoteness are associated with increasing scarcity of health services, additional sources of physical health risk, harsher environments, and greater threats to the sustainability of services and whole communities (Australian Institute of Health and Welfare, 2007). These issues lead to problems such as transport difficulties to and from treatment, long waiting lists, lack of after hours services and a lack of qualified professionals (Aisbett, Boyd, Francis, Newnham, & Newnham, 2007). All of these concerns affect the well-being of small, inland

rural communities, and may require very different solutions to those applied in coastal communities and major cities.

Benefits of living in rural communities

While rural communities are often associated with a multitude of challenges, such as those described above, they are also frequently attributed with considerable benefits and strengths associated with rural life and living. Contrary to popular opinion, levels of access to services have not been found to be associated with levels of psychological distress or disability (Murray et al., 2004). Surprisingly, Murray et al. found that life in rural towns (as opposed to more isolated farming communities) is associated with higher levels of perceived well-being and satisfaction than that experienced by city dwellers. Others have also shown rural life to be associated with higher levels of well-being. Previous research has shown (Cummins, Davern, Okerstrom, Lo, & Eckersley, 2005, p. 5), for example, that:

(a) The highest level of personal wellbeing is achieved by people who live in rural towns, with their self-ratings of personal wellbeing being higher than for people who live in capital cities and more remote regions.

(b) In terms of satisfaction with safety and community connection, self-ratings of people living in cities are lower than for people living in all other locations. It is evident that high living density produces less interpersonal connections and a diminished sense of safety.

Framework for community resilience, well-being and their determinants

Fuller, McGraw, and Goodyear (1999) defined resilience as 'the ability to bungy jump through life' (p. 159). Rutter (1987) defined resilience as individuals at high risk prospering. For the purposes of this study, we have adopted the definition of resilience proposed by Werner and Smith (1982) – 'successfully adapting to stressful circumstances' – which is consistent with the many definitions identified in a recent review by Norris, Stevens, Pfefferbaum, Wyche, and Pfefferbaum (2008). While there is some dispute in the literature regarding the definition and operationalisation of resilience, inner strengths

such as optimism and self-esteem, adaptive coping techniques and having external supports and connections appear to be important components of the concept (Grotberg, 1995; Norris et al., 2008).

Importantly, a widely acknowledged predictor of resilience is the sustaining of connectedness with others (Davis, Cook, & Cohen, 2005; Fuller et al., 1999; Norris et al., 2008). Social connectedness is also an important determinant of well-being (World Health Organisation, 2003; Australian Unity & Deakin University, 2008), and strong social networks and support will therefore enhance both resilience and well-being. If, as proposed, we define resilience as successfully adapting to stressful circumstances, and thus effectively managing stress, it is clear that resilience addresses another important determinant of health, or well-being – namely, levels of stress (World Health Organisation, 2003, 2008). On this basis, well-being can be considered the key outcome of a resilient response to stressful circumstances, and mediated by management of stress, social connectedness and other factors evident in a resilient response (Davis et al., 2005; Norris et al., 2008).

Murray et al. (2004) proposed that rural ‘wellbeing can be understood as a resilience dimension, expected to impact on responses to life challenges’ (p. 633). This suggests that, in addition to being viewed as an *outcome* of resilience, as noted above, well-being may be viewed as a *determinant* of resilience – a resource which facilitates resilient responses. Murray et al. suggested that future research should examine how professionals might focus upon the positive aspects of communities by concentrating on enhancing resilience rather than just highlighting the negative. In fact, the past 10 years has seen mental health and social work professions moving from deficit or risk models to more strengths-focused or positive psychology approaches (Norris & Stevens, 2007; Norris et al., 2008; Scales & Streeter, 2004). Of particular relevance to this study is the demonstration of resilience by some small inland communities, in the face of contextual stressors, which include the ongoing rural risks and adverse climate factors. This raises questions regarding why some communities can demonstrate resilience while others struggle to do so.

While most emphasis in the study of resilience has been upon individuals, a recent focus has been on resilient communities (Davis et al., 2005; Norris et al., 2008; Walsh, 2007) and neighbourhoods (Mowbray et al., 2007). Landau and Saul (2004) outline four themes that have been important to community resilience and response to natural disasters and traumas:

1. *Community and social connectedness;*
2. *Collective communication regarding the trauma;*
3. *‘Getting back on the horse’ by ‘...reestablishing the rhythms and routines of life’; and*
4. *Having a positive vision of the future (renewed hope).*

In outlining a model of urban neighbourhood resilience developed in the United States of America, Mowbray et al. (2007, p. 667) suggest the importance of ‘*community strengths and resources that stress the role of measures of social interaction variables...*’ Figure 1 depicts this model of community resilience, though in a somewhat simpler form than that proposed by Mowbray et al., for the purposes of this study, as will be further discussed.

Figure 1 shows three types of resources thought to contribute to resilient communities. Social assets are resources such as community relationships built upon shared values and trust that promote cooperation between members of the community. Such resources include relationships between neighbours and social ties associated with community centres such as churches, schools and sporting clubs and facilities (Mowbray et al., 2007). Service agency assets involve community agencies that serve to support community action and behaviour but have an institutional as opposed to social focus. These include assets such as hospitals, employers and service agencies (Mowbray et al., 2007). The final types of community resilience resources are neighbourhood and economic resources, and these include employment opportunities, family income and assets, and investment in local infrastructure (Mowbray et al., 2007). Finally, Mowbray et al. also outline negative or community risk factors including economic disadvantage or poor physical or neighbourhood conditions, such as high levels of crime.

The model is important for several reasons. It summarises some of the key ecological factors that



Figure 1: Model of community resilience – social, service agency and neighbourhood & economic resources – and community risks (based on model from Mowbray et al., 2007).

impact upon communities. In particular, it focuses strongly upon strengths and assets rather than solely risks, and thus provides a series of positive attributes that can be built upon in a community. More importantly, if and when such strengths have been identified, the model proposes that these strengths can form an important focus for planning future actions, which will enable communities to adapt in positive ways. This concept is consistent with principles of asset-based community development (Scales & Streeter, 2004) and with models proposed for community resilience by other authors (Davis et al., 2005; Norris et al., 2008).

Background and aims of the current study

Mowbray et al. (2007) suggest that a model of community resilience such as the one they have proposed (particularly one including strength factors) has been under researched, and we believe that such a model has never been employed in Australia and particularly not in a rural setting. We therefore set out to operationalise the model and to investigate its value in small, inland rural communities of Australia. This endeavour would allow us to quantify key factors, including the relative importance of model components contributing to resilient rural communities in the face of the current climate stress and changing rural circumstances. The results would provide direction for policy makers, community agencies and

communities in determining optimal approaches for developing healthier and more resilient communities. On this basis, the primary aim of the study was to quantify and compare a range of factors that might be important determinants of resilience in several small rural communities in the Riverina region of New South Wales, Australia.

Given the strong links between resilience and well-being discussed above, a second aim of the study was to examine the Personal Wellbeing Index (PWI; International Wellbeing Group, 2006) in these communities. The PWI is described by the International Wellbeing Group as follows (p. 8):

The PWI scale contains eight items of satisfaction, each one corresponding to a quality of life domain: standard of living, health, achieving in life, relationships, safety, community-connectedness, future security, and spirituality/religion. These eight domains are theoretically embedded, representing the first level deconstruction of the global question: 'How satisfied are you with your life as a whole?'

Method

The data collected in this study were part of an evaluation, in 2008 and 2009, of the 'Riverina Communities – Building Our Future Together' project, conducted by the North East Riverina Rural Counselling Service (NERRCS). An important role of NERRCS is to empower small rural communities, families and individuals to work together to deal with stressful circumstances

and to ensure there are sufficient leaders who will work within these communities to facilitate positive change management. The guiding philosophy of NERRCS for interactions with the local communities in this project was borrowed from principles underlying family and community-centred practices (Dempsey & Keen, 2008; Dunst, Trivette, & Hamby, 2007). These principles include the notion that communities are unique, know the needs of their members best and are best placed to support themselves.

Participants

In total, 102 self-selecting and consenting participants from eight, purposefully selected, small inland rural communities of the northern Riverina region of NSW, Australia, completed questionnaires. The participants were self-selecting in their initial choice to attend a community meeting organised by NERRCS, with the intention of contributing to community action that would strengthen their community. Each participant gave written, informed consent to participate in the survey. The communities were purposefully selected by NERRCS based on their population size, location and remoteness. All of the communities were within census collection districts with an average ARIA+ index (Australian Institute of Health and Welfare, 2004) between 2.40 and 10.53 (i.e. outer regional to remote). All were located between 50 and 220 km north and west of the large regional centre of Wagga Wagga NSW, an area served by NERRCS, and they ranged in population size from approximately 150 to 8,000 people. These communities were chosen because their levels of remoteness and relatively small populations put them at risk, based on the challenges facing such communities, discussed earlier.

There were 4 participants from town A, 16 from town B, 19 from town C, 16 from town D, 8 from town E, 14 from town F, 20 from town G, and 5 from town H. While not all participants provided demographic data, available data indicated that, amongst the 102 participants, there were at least 26 farmers, 7 business owners, 14 retirees, 14 employees, 4 who had dual roles, and 4 who were categorised as of an 'Other' occupation. Of note,

towns E and G had mostly farmer representatives (75% and 85%, respectively), while other towns had a wider spectrum of participants. Of the 102 participants, at least 28 were aged under 50 years, 39 were aged over 50 years, 20 were male and 47 were female.

Procedure

A series of community meetings were held within each of the eight communities and facilitated by trained staff from NERRCS. At the commencement of these meetings, participants were provided with verbal and written information regarding the project, its evaluation, elements in which they were invited to participate and the manner in which aggregated and non-identifiable results would be provided to them from the questionnaires (i.e. via a formal briefing at a subsequent community meeting). In this process, they were advised of the secure manner in which information gathered by questionnaires would be collected, stored and managed by the researchers, in order to protect their privacy and anonymity. Those who agreed to participate gave voluntary, written, informed consent before completing a brief, anonymous questionnaire at the end of the meeting. The questionnaire aimed to quantify participant perceptions of the value of a range of community resources (see Table 1) to meet their needs and enhance their well-being. The study was approved by Charles Sturt University's Ethics in Human Research Committee.

Measures

Two measures were used within the questionnaire. The first sought to establish the types and levels of impact of community strengths and risks perceived by participants to exist in their communities. This part of the questionnaire was termed the Community Resources Questionnaire and was developed in consultation with a member of one of the selected communities, from the model outlined in Figure 1. The overarching question and individual items were framed from consideration of the types of items suggested by Mowbray et al. (2007) as underpinning or associated with social assets, service agency assets, neighbourhood and economic resources, and community risks. Item

development was further informed by the research team's knowledge of the local context and local concerns (e.g. concern over migration of youth to the cities and a resulting ageing population). The number and range of items listed in the questionnaire were limited to reduce the response burden for participants. Participants were asked:

Using the scale below please estimate the amount of impact each of the following items have on your community's health and well-being

and

If you don't have this resource in your community please circle 0 = None.

The items listed in Table 1 then followed, and participants were given space and asked by the NERRCS facilitators to add any additional, similar items in each category, which they believed impacted significantly upon the health and well-being of their community.

On this basis, participants estimated the amount of benefit provided to their community by each of 17 examples of common asset types and the amount of difficulty generated by three examples of common risk types for their community. Participants responded on a 5-point impact scale ranging from 0 = None to 4 = A very great amount. Participants also had the option of indicating that they did not know. No attempt was made to examine the 'factor influence variables' (such as level, location and accessibility of community assets) proposed by Mowbray et al. (2007). This was a deliberate decision made by the researchers to minimise the response burden for participants, recognising that these more complex aspects of the model can be addressed by future research that builds on this study, though also acknowledging the limitations this decision would impose on the current study.

The PWI was employed as a measure of subjective well-being of participants from each community. The measure was developed by Cummins and colleagues from Deakin University (International Wellbeing Group, 2006). While measuring general satisfaction, it also measures sub-constructs of well-being (Table 2). The measure has been widely used within Australia and

translated into multiple languages. Participants respond on a scale from 0 (totally dissatisfied) to 10 (totally satisfied). The PWI is both reliable (intra-class correlation coefficient = 0.84 for test-retest reliability) and possesses good levels of construct and convergent validity (International Wellbeing Group, 2006).

The full questionnaire was piloted in two of the communities, with no amendments required on this basis.

Data analysis

Survey data were entered into the SPSS statistical package. Mean benefit or difficulty scores and standard deviations (SD) were calculated for specific asset and risk factors within each community. Means and standard deviations were then calculated across the communities for the global categories of social assets, service agency assets, neighbourhood and economic resources, and community risks. To enable comparisons of the relative importance assigned by community members to different asset and risk factors across all communities combined, 95% confidence intervals were calculated from benefit or difficulty scores assigned by the participants to each item. These confidence intervals allowed a graphical comparison of the perceived contributions to community resilience made by different asset and risk factors, from the perspective of participants and those they represented, across all of the communities of interest. Significant differences in the perceived importance of different factors could then be identified where confidence intervals did not overlap (for details of this approach, see Cumming & Finch, 2005). PWI data for all participants from all communities was analysed to determine overall mean scores for well-being and for the sub-constructs of well-being.

Results

Means (SD) are provided in Table 1 for participant ratings of the impacts of specific asset and risk factors, and for the global categories of social assets, service agency assets, neighbourhood and economic resources.

Across the four resilience and risk factor global categories, social assets were the highest scoring category, with a mean approaching

Table 1: Means (SD) for participant ratings of the impacts of community assets and risks

Figure code	Community assets and risks	Mean (SD)
SA	Social assets	2.95 (0.73)
SA1	P&C association	3.15 (0.91)
SA2	Range of ages in community	2.95 (1.04)
SA3	Churches / religious groups	2.73 (1.05)
SA4	Sporting groups	3.05 (0.91)
SA5	Clubs	3.03 (0.94)
SA6	Community service organisations	2.76 (1.11)
SAA	Service agency assets	2.20 (0.86)
SAA1	Hospitals/Doctors	2.14 (1.41)
SAA2	Mental Health Services	1.69 (1.16)
SAA3	Community Health Services	2.49 (1.06)
SAA4	Schools	3.30 (0.95)
SAA5	Transport	1.37 (1.26)
NER	Neighbourhood and economic resources	2.22 (0.88)
NER1	Employment opportunities	1.36 (1.09)
NER2	Income	2.01 (1.19)
NER3	Sporting and recreational facilities	2.78 (1.07)
NER4	Community wealth / land or business ownership	2.48 (1.14)
NER5	Tourism and local attractions	1.93 (1.25)
NER6	Restaurants, churches, pubs, town halls, club rooms and other meeting places	2.78 (0.98)
CR	Community risks	2.13 (0.77)
CR1	Economic and opportunity disadvantage	2.77 (1.06)
CR2	Poor physical conditions and social disorder / crime	1.81 (1.08)
CR3	Environmental toxicity	1.80 (1.19)

‘a lot of benefit’ (2.95), compared to the three other categories all scoring slightly above ‘some benefit’ or, in the case of community risks, ‘some difficulty’.

Figure 2 depicts the 95% confidence intervals calculated for the impact (benefit or difficulty) scores assigned by participants to each asset or risk item, across all eight communities combined.

In real terms, these were the intervals in which we could expect, with 95% certainty, that the population mean of impact scores for each item would fall, if the whole population represented by participants had completed the survey. Significant differences in the perceived importance of different factors are indicated where the confidence intervals do not overlap (Cumming & Finch, 2005).

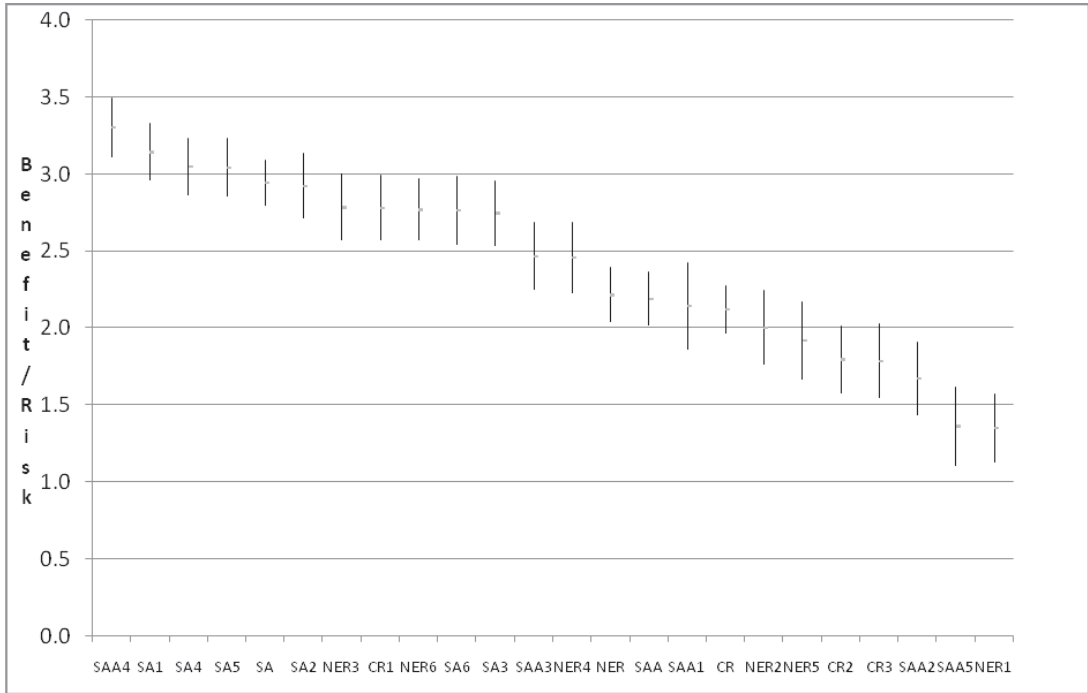


Figure 2: Comparison of means and 95% confidence intervals for asset and risk items.

One note of caution here is that the population represented by participants in this study was quite probably not the whole population of all communities combined. Participants were self-selecting community members who responded to a call for a community meeting designed to plan action to strengthen the community. It is, therefore, far more likely that the population represented by participants was a sub-population of the full, combined community population, and that this sub-population was principally comprised of those with a bias towards attending community meetings and notionally being involved in community action. Nevertheless, the confidence intervals provide a useful indication of the perceptions of community-minded members of the eight communities, who might be expected to have a clearer perception of the relative importance of different community assets and risk factors than community members who are less inclined to be involved in community meetings and action. We leave it to the individual reader to consider these matters and judge the

value of these graphed confidence intervals for themselves.

Four community assets were scored as providing ‘a lot of benefit’ to the community (a score above 3) and included schools (3.30), P&C association (3.15), sporting groups (3.05) and clubs (3.03). The highest scoring risk factor was economic and opportunity disadvantage (2.77). The lowest scoring community assets were transport (1.37) and employment opportunities (1.36). These two asset types scored as providing ‘little benefit’ and scored significantly lower than almost all other asset types. Another notable finding was the benefit ascribed to hospitals/doctors, with a score of ‘some benefit’ (2.14). However, the spread of scores (as measured by a standard deviation of 1.41) was large for this factor, indicating a considerable disparity of views. Possible reasons for this finding could not be ascertained from the data collected in the current study.

Despite opportunity in the questionnaire, very few participants provided examples of community assets or risks that were additional to those already

Table 2: Comparison of means (SD) for participants in this study with Australian normative data for scores on the PWI and 'satisfaction with life' items

Variable	Participants in this study	Australian norms (2005)
Personal Wellbeing Index	7.56 (1.59)	7.50 (1.22)
Standard of living	7.34 (2.37)	7.73 (1.74)
Health	7.24 (1.99)	7.51 (1.99)
Achieving in life	7.37 (2.17)	7.42 (1.78)
Personal relationships	8.34 (1.64)	7.98 (2.05)
Safety	8.46 (1.77)	7.76 (1.84)
Part of community	7.80 (1.83)	7.05 (2.01)
Future security	6.53 (2.72)	7.05 (2.00)
Spirituality	7.40 (2.39)	Unavailable in 2005 data
Life as a whole	7.41 (2.06)	7.76 (1.74)

listed in the questionnaire. This lack of data prohibited any analysis of responses to this part of the questionnaire.

Table 2 shows the PWI results, including scores on the eight 'satisfaction with life' items. The participants indicated a mean PWI of 7.56. Females indicated a lower PWI on average (7.27) than males (7.70) but this difference was not statistically significant. These results are very similar to normative Australian data from 2005, where the average PWI was 7.50 for all participants, 7.57 for females and 7.42 for males (Cummins et al., 2005).

Among the satisfaction with life items, satisfaction with standard of living, health, future security and life as a whole were rated lower by participants in this study than the Australian norm. Perceptions of personal relationships, safety and being part of the community were rated higher by participants in this study than the Australian norm.

Discussion

A model of neighbourhood resilience

The primary aim of this study was to operationalise, in the Australian context, a simplified version of an accepted model of neighbourhood resilience (Mowbray et al., 2007). This objective was achieved, with the model providing a rural resilience framework within which future research, policy, planning and interventions can be developed. While the model

requires further investigation in specific rural sub-samples (e.g. genders, occupations) and in its more complex entirety (Mowbray et al., 2007), the current findings provide an important starting point for future resilience research and development in the Australian rural context.

The most important factors within the model of resilience, according to participants from these small, rural Australian communities in drought, were a community's social assets. Together, these assets were rated as providing 'a lot of benefit' to the communities, indicating that they were active, potent and highly valued. These assets were followed by those in the categories of neighbourhood/economic resources and service agency assets, which were each scored by community participants as providing just above 'some benefit'. On this basis, rural community members appeared to most value the relationships they had with others in their communities. This finding suggests that community assets which promote interpersonal interactions and social ties are highly valued by these communities and assigned greater importance than other assets or institutions, for the purpose of building community well-being. This notion is consistent with findings in other contexts, where these types of assets, often labeled 'social capital', have been shown to underpin community resilience and

well-being (Davis et al., 2005; Norris et al., 2008; Norris & Stevens, 2007; World Health Organisation, 2003, 2008).

Of interest for the Australian rural context, the four community assets scoring above 'a lot of benefit' in this study for building community resilience included three of the social assets – the Parents & Citizens (P&C) association, sporting groups and clubs. This finding suggests these three social assets are core community structures in small, rural Australian communities, around which these communities function, socially. Interestingly, the fourth community asset scoring the highest of all was the local school – a service agency asset. It should be recognised, however, that the categorisation of some community assets in this study is perhaps arbitrary, for example, schools versus the P&C association. While classified as a service agency and a social asset, respectively, their roles and meanings, for many individuals, are almost certainly overlapping. Making distinctions between and within asset types is important and unfortunately might also highlight some important community assets that were not listed and assessed in this study. Continuing the school theme, such things as school working bees and canteen duty may provide important social roles and forums in rural towns and communities. In addition, other social assets such as fire brigades, other local emergency services, community halls and associated committees may provide important social mechanisms that should not be underestimated by policy makers. These will be important inclusions in future research in the Australian rural context; the current study provides a glimpse of what might be discovered.

The greatest risk factor in the eyes of community participants was economic and opportunity disadvantage, scored by participants as creating just below 'some difficulty'. This finding perhaps reflects the economic and climatic circumstances affecting the communities and supports the recent suggestion of the Productivity Commission (2008) that the current climatic circumstances are severely impacting upon Australian rural towns and communities. Local economies are suffering through loss of farm income (Bureau of Rural Sciences, 2008). However, this study and other

reports (Davis et al., 2005; Scales & Streeter, 2004) highlight the importance of research, interventions and policies which focus upon community strengths and not just risks and negative factors. While risks are extremely important considerations, the strengths of communities should not be underestimated – particularly the relationships between community members that are built by community social assets. Nevertheless, this finding regarding risks is consistent with findings of other studies (Norris et al., 2008; Scales & Streeter, 2004; World Health Organisation, 2003, 2008), which suggest that economic and opportunity disadvantage, if not addressed through asset and resource building, will impair community resilience and well-being.

Also of interest in this study were the lowest scoring community assets from among those examined – transport and employment opportunities. These two community assets were scored by community participants as providing 'little benefit' and were scored significantly lower than almost all other factors. This finding contrasts sharply with findings of the World Health Organisation (2003, 2008) regarding social determinants of health. The lack of perceived importance of employment opportunities in this context may reflect the finding of the Productivity Commission (2008) that agricultural industries are facing a skilled labour shortage due to the mining boom. It might also suggest that employment opportunities were few and, therefore, provided little benefit to the communities. It is unclear why transport was scored as low as it was by community participants, but this might suggest that transport was either readily available or unavailable to most participants. In future research, examination of the 'factor influence variables' identified by Mowbray et al. (2007), including level, proximity, accessibility, and trajectory of specific community assets, should be incorporated in order to elucidate these important issues.

Another notable finding was the benefit to the community ascribed to hospitals/doctors, with a score of just 'some benefit'. However, it was notable that the spread of scores for this factor (as measured by a standard deviation) was large (SD = 1.41), relative to other community assets.

A large standard deviation indicates a considerable disparity of views across respondents. This may reflect differences between communities, and particularly differences between smaller communities, which have never had local medical facilities, and larger rural communities, which are perhaps at risk of losing their medical personnel or facilities. Once again, future research should examine the factor influence variables associated with these community assets (Mowbray et al., 2007), in order to elucidate the reasons for this finding. However, it is also interesting to see that the community participants in this study perceived hospitals and doctors to be just one type of community asset that brings benefit to their community. A range of other assets – viewed by the World Health Organisation as key social determinants of health and by other experts (Davis et al., 2005; Norris et al., 2008; Scales & Streeter, 2004) as important in building resilience and community well-being – were perceived by participants to provide greater or similar benefit to their communities. This indicates a surprisingly balanced view, among these rural community participants, of the wide range of determinants of community well-being – a balanced and insightful view that even service providers often struggle to maintain.

Self-assessed personal well-being

The second aim of this study was to examine the self-assessed personal well-being of the participants from the selected small rural communities. This was of particular interest in light of the findings indicating active and highly valued social assets in these communities, which could be expected to support well-being, even in the face of stressful circumstances (World Health Organisation, 2003, 2008). Indeed, the participants scored at a comparable level with the Australian norm on the PWI (International Wellbeing Group, 2006), indicating that, despite the stressful circumstances in which they found themselves at the time of the study, their sense of well-being was no less than that of the Australian population as a whole. As well-being is an indicator of community resilience (Norris et al., 2008), this finding suggests these small rural communities were, in fact, resilient.

While females scored lower than males on the PWI, this difference did not reach statistical significance and is again very similar to normative Australian data where genders were also found to be equivalent in terms of PWI (International Wellbeing Group, 2006). It should also be noted that, while regional centres tend to have a higher sense of well-being than the Australian norm (International Wellbeing Group, 2006), more remote communities generally have PWI scores that are lower than the Australian norm. The current data was collected from communities classified as outer regional or remote, and the observed mean PWI score (which was no different to the Australian norm) perhaps reflects this diversity in degree of remoteness in the current sample.

Perhaps more notable were the higher and lower PWI satisfaction categories. Supporting the importance of social assets in these small communities is the finding from the PWI that personal relationships, safety and being part of the community were scored higher by participants from these communities than the Australian norm. However, standard of living, health and future security were scored lower on the PWI for these communities than the national average. These results are consistent with findings from previous work compared with rural and metropolitan populations (International Wellbeing Group, 2006). Together, the findings are important as they highlight the importance of social relationships in addressing the ongoing impact of economic conditions on rural communities.

Limitations

There are several limitations to this research. First, as discussed above, the categories of community assets were somewhat overlapping. For example, schools (service agencies) were classified in a general category distinct from that containing the P&C association (social assets). However, to many participants of this study, the roles and meanings of these two asset types are potentially overlapping.

Second, although the overall social asset *category* was well represented, many specific social assets were perhaps missing or unfortunately combined with other important factors (e.g. NER6 – ‘Restaurants, churches, pubs, town halls, club

rooms & other meeting places”) leading to some important ecological factors (such as community working bees, school canteen duty, local fire brigade, community halls and associated committees) not being assessed as distinct assets. This limitation was also true in this study of the other categories of community assets and risks, and means that, although conclusions drawn from the study about the four general categories of community assets and risks should be reasonably robust (subject to consideration of the other limitations noted here), conclusions drawn regarding individual assets and risks should be considered with caution and only as preliminary findings, which require further research.

Third, as discussed in the method section, the data collection relied upon individuals who volunteered to attend a community meeting. As a consequence, findings are likely to have been affected by sampling bias and represent the views of community-minded individuals who like to attend community meetings and are notionally interested in community development, rather than the views of the broader community. The findings may also have been influenced by the completion of the questionnaires in a group environment, though individually.

Fourth, the current data provide a brief cross-sectional snapshot of these communities and does not necessarily indicate a predictive or causal relationship between the identified assets and well-being, or indicate enduring or reliable characteristics of the selected communities. Rural communities are also highly variable, and the findings of this study should not be assumed to represent results that would be found in a similar study of other communities.

Finally, as noted earlier in the paper, in order to avoid excessive complexity and participant overload in this initial study, this study deliberately did not consider the ‘factor influence variables’ identified by Mowbray et al. (2007), including level, proximity, accessibility and trajectory of specific community assets. Future studies should attempt to address each of these limitations and extend on the current research findings.

Conclusions

The findings of this study, particularly the identification of schools, sporting and other clubs

as key social assets, are important for three distinct reasons. The first is that an important predictor of individual resilience and well-being is the sustaining of connectedness with others (Australian Unity & Deakin University, 2008; Fuller et al., 1999; Norris et al., 2008; World Health Organisation, 2003, 2008). The current findings suggest that specific rural social assets such as schools provide important conditions for building and sustaining social and community relationships and functioning. These assets allow rural communities to share, care and support each other in times of climatic despair or other difficult circumstances. Unfortunately, the findings are important for a second reason, outlined by the Drought Policy Review Expert Social Panel (2008). When school student numbers drop below critical levels, this leads to school closures. The current study clearly highlights the non-educational significance of schools to those other than children. The current data suggest that closing rural schools (and similarly beneficial community assets) may have a much greater social impact upon communities than just the loss of access to local education for children. Overall, these findings suggest that program and policy makers should recognise the social assets that contribute to the resilience of rural environments when developing interventions or support services for such communities, or when considering the closure of local services.

Thirdly, the finding that social assets were even more highly valued, and perceived to deliver greater benefits to these small rural communities than hospitals and doctors, serves as a reminder that health and well-being have many important social determinants, of which access to health care services is just one. The full range of determinants must be addressed if communities are to maintain health and well-being, and this is easy to overlook in the rural context where the health workforce is particularly scarce and a constant concern.

The findings of this study also suggest that the model of community resilience proposed by Mowbray et al. (2007) is well supported by the broader community development, resilience and well-being literature and constitutes a valuable, practical framework for further research and development, designed to investigate optimal approaches to building community assets, resilience

and well-being. Future research should build upon and address the acknowledged limitations of the current study, and so extend the available knowledge in this area, for the Australian rural context.

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Endnote

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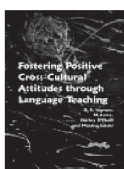
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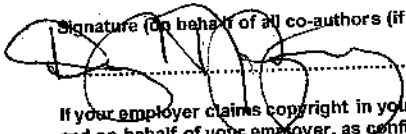
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