

Miseries Suffered, Unvoiced, Unknown? Communication of Suicidal Intent by Men in “Rural” Queensland, Australia

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It has long been argued that suicide prevention efforts in rural locations face not only structural barriers, such as a lack of accessible health care and specialized mental health services, but also a range of cultural barriers. A commonly discussed cultural factor that may contribute to higher rural suicide rates is low levels of help-seeking behavior, which in turn act as a barrier to accessing and receiving care. However, the assumption that suicide by rural men is more likely to be accompanied by low help-seeking behavior, relative to urban men, has not been well tested. Using data from the Queensland Suicide Register, this study evaluates one form of help-seeking behavior—communication of suicidal intent—among men who died by suicide. Contrary to the expectation that suicide in rural areas would be associated with lower levels of help-seeking behavior than suicide in urban areas, it was found that communication of suicidal intent was broadly comparable across rural and urban settings. The implications for suicide prevention policies and service delivery strategies are discussed.

They toiled and they fought through the
shame of it —
Through wilderness, flood, and drought;
They worked, in the struggles of early
days,
Their sons' salvation out.
The white girl-wife in the hut alone,
The men on the boundless run,
The miseries suffered, unvoiced, un-
known —
And that's how the land was won.
(*How the Land was Won*—Henry Lawson,
1899)

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Henry Lawson's characterizations of colonial Australia have found an enduring place in Australia's social history, and his depiction of pioneering men captures what has become a great Australian stereotype: the tough and self-sufficient rural man, isolated, suffering in silence against great personal and environmental adversity. Moving to the present, Lawson's Australian rural man has become a subject of enduring concern within health research, policy, and practice. Reducing the higher rates of suicide among rural men, relative to their urban counterparts (Andersen, Hawgood, Klieve, Kolves, & De Leo, 2010; Page & Frager, 2002), remains a significant challenge. Structural and cultural barriers to suicide prevention are frequently raised, such as lack of access to health and other support services as well as stigma (e.g., Baume & Clinton, 1997; Judd et al., 2006; Murray et al., 2004; Sartore et al., 2008), but there is considerable speculation about

other factors influencing rural suicides, and which factors matter most. Typically identified psychosocial stressors in rural areas include prolonged drought and financial hardship (Alston & Kent, 2004; Fuller & Broadbent, 2006; Hall & Scheltens, 2005; Morrissey & Reser, 2007; Weisler, Barbee, & Townsend, 2006), changing demand for agricultural commodities, and a shift away from rural industries (Archer, 2000; Talbot & Walker, 2007). Also, factors relating to strongly rural occupations such as farming—like long working hours, difficulty separating work and home life, geographic isolation, fear of loss of livelihood, and relationship strain due to financial and other pressures—are often raised in the context of suicide (e.g., Fraser et al., 2005; Hossain, Eley, Coutts, & Gorman, 2008; Judd et al., 2006; Kolves, Milner, McKay, & De Leo, 2012; McShane & Quirk, 2009; Simkin, Hawton, Fagg, & Malmberg, 1998).

In addition, it has been proposed that efforts to prevent suicide among rural men are challenged by the maintenance of “traditional masculinity” (Alston, 2012; Alston & Kent, 2008). While the concept of traditional masculinity is not well defined, it usually refers to attributes such as individualism and self-reliance. The notion of traditional masculinity has been put forward as partially explaining higher suicide rates in rural areas, because it has been linked with lower help-seeking behavior. The theory runs that over and above other barriers to help-seeking that rural men may experience, their propensity to seek help if they are feeling suicidal will be impeded by their notions of masculinity. This theory is most commonly applied to farmers and farm workers, but is often generalized to men in rural locations, irrespective of occupation (e.g., Campbell, Bell, & Finney, 2006; Noone & Stephens, 2008).

A key part of this theory is the assumption that rural male suicide is necessarily characterized by lower help-seeking behavior. However, help-seeking behavior among rural men has not been comprehensively

assessed in the context of suicide. Existing work typically conceptualizes help-seeking behavior in the context of seeking professional assistance for mental illness and/or suicidal ideation (noting that the two are not synonymous and that suicide can occur in the absence of any psychiatric conditions; e.g., Pouliot & De Leo, 2006; Zhang, Xiao, & Zhou, 2010). Although this approach is useful in terms of understanding patterns of service access as well as the implications of a lack of formal services in some areas, it overlooks other behaviors that may have practical implications for suicide prevention—such as communication of suicidal intent (De Leo & Klieve, 2007).

While communication of intent is usually treated as an important—if not the most important—warning sign for suicide, it can also entail the prospect of intervention. This contrasts, for example, with suicidal individuals who do not communicate intent because they actively want to avoid any possibility of intervention. Seen in this light, communication of intent can represent a form of help-seeking behavior, even if the individual communicating intent does not explicitly link their expressing suicidal intent with a desire to receive help, or communicate their intent in a way that implies they are seeking help. While communication of intent may not necessarily occur as an explicit form of help-seeking, gaining a better understanding of locational differences in communication of intent prior to completed suicides may nonetheless provide insight into potential avenues for improved suicide prevention in rural areas.

In this study we examined help-seeking behavior in the form of communication of suicidal intent among rural and urban Queensland men who died by suicide. Based on previous studies regarding help-seeking among rural men (e.g., Judd et al., 2006) as well as the theory of “traditional masculinity,” it would be expected that the percentage of completed suicides accompanied by a past expression of suicidal intent would be lower in rural loca-

tions, relative to nonrural locations, and that locational differences would persist once demographic and other variables were controlled for.

METHODS

Data Source and Sample Selection

Suicide data were extracted from the Queensland Suicide Register (QSR), a comprehensive database designed by the Australian Institute for Suicide Research and Prevention (AISRAP) that details Queensland suicide cases from 1990 to the present (see De Leo & Svetlicic, 2012, for further description). All information in the database is drawn from postmortem, coronial, police, and psychologic autopsy reports, which include a wide range of demographic, medical, and psychiatric information regarding the deceased. For the purposes of the current study, only Caucasian adult men recorded as being aged 18 and above at the time of death were included.

Location

Geographic location was categorized using Accessibility/Remoteness Index of Australia (ARIA) information within the QSR. The ARIA defines remoteness as the distance people must travel along a road network to get to service centers (areas where they can access goods, services, and opportunities for social interaction; Australian Bureau of Statistics, 2001). The ARIA is based on 2001 Census information collected by the Australian Bureau of Statistics (2001) and categorizes location as follows: major city, inner regional, outer regional, remote, and very remote. Other locations of residence (including, for example, persons with no fixed address or from a different state or country) and cases where the location of usual residence was unknown were excluded. A dichotomous location variable was created: "urban" location included major cities, with inner and outer regional

and remote and very remote locations categorized as "rural."¹

Demographic and Socioeconomic Variables

A range of demographic and socioeconomic variables were analyzed to discern potential differences in sample characteristics between urban and rural locations. These were age at time of death, marital status, employment status at time of death, and living arrangements at time of death. Marital status was coded into one of five categories: married/de facto, divorced/separated, single/never married, widowed, and unknown. Employment status was categorized as employed (which included full-time, part-time/casual, and unknown modes of employment), unemployed, not in the labor force (including, for example, students, full-time carers, retirees, and persons with disability who were not in work), and unknown. Living arrangements consisted of the following: with spouse, with parents, shared accommodation (with a friend/relative/other person or persons), alone, in an institution, homeless, temporarily away from home, and unknown.

Communication of Suicidal Intent

The QSR contains information drawn from police and psychologic autopsy reports about whether the deceased had communicated suicidal intent in the 12 months before death. This information is coded into one of four categories: once or twice, several times, no, and unknown. A dichotomous no/yes item was created, where the "yes" category included any communication of intent irrespective of

¹The definition of *rural location* varies considerably across existing literature, as does the system chosen to classify locations as rural; the ARIA system used in this study was selected due to its objectivity and wide usage as well as the practicality of using a classification system that specifically takes into account proximity to service centers.

frequency (i.e., once or twice, and several times). It should be noted that the coding “no” does not necessarily mean that the deceased did not communicate suicidal intent to any person; it may also indicate, for instance, that suicidal intent was not communicated to whomever provided information about the deceased or that no information was available. Similarly, the “unknown” category does not necessarily denote the presence of an overt response of not knowing about intent; it may simply indicate that no information was recorded in regard to communication of intent (or, in some instances, that no complete investigation was performed). As such, it is likely that randomly distributed underreporting occurs on this indicator.

Communication of suicidal intent, while representing a warning sign associated with elevated risk of suicidal behaviors, was treated separately from indicators of suicide risk (such as the presence of a psychiatric diagnosis, or current or past treatment for any psychiatric condition). These were included as statistical controls in regression analysis (discussed later). This differentiation recognizes that not all persons who communicate suicidal intent will necessarily have a diagnosable psychiatric condition, despite exhibiting behaviors that indicate elevated risk of suicide; that is, communication of suicidal intent is treated in this context as a qualitatively (and clinically) separate issue to the presence of a mental illness.

Psychiatric Conditions

Psychiatric history variables included the following: contact with a mental health professional (whether the deceased had consulted with a mental health care professional for a psychiatric condition in the 3 months prior to death); the presence of a diagnosed psychiatric condition; current or past treatment for a psychiatric disorder; and evidence for an untreated psychiatric condition.

Information in these variables was coded to the categories “yes,” “no,” and

“unknown.” The coding “no” does not necessarily mean that the variable did not apply to the deceased; it may also indicate, for instance, that information about the variable of interest was not communicated or that no relevant information was recorded. Similar caveats apply to the “unknown” category, which may simply indicate that no information was recorded. Again, this is likely to result in randomly distributed underreporting.

For the purpose of the current study, all “unknown” responses were treated as missing data on a variable-by-variable basis.

Analyses

Bivariate differences in demographic/socioeconomic and psychiatric history variables were assessed using chi-squared tests. Following this, stepwise logistic regression was used to examine crude associations between location and help-seeking (step 1) and then to adjust for demographic factors (step 2) and psychiatric history (step 3).

RESULTS

The final sample consisted of 3,203 men for whom communication of intent data were available, from 1990 to 2008 (inclusive). Of these, 1,785 (55.7%) men were from nonrural locations, and 1,418 (44.3%) were from rural locations. Among urban men who died by suicide, 1,020 (57.1% of cases where information about intent was recorded) had expressed suicidal intent in the 12 months prior to death; whereas 849 rural men (59.9% of cases where information about intent was recorded) expressed intent. Of these, rural men who died by suicide were older, on average, than urban men (rural men: 44.5 years \pm 17.9; urban men: 42.8 years \pm 17.4; $t = 2.74$, $p < .01$). Additional descriptive data is provided in Table 1.

Crude and adjusted associations between location and communication of intent are shown in Table 2. It is important

TABLE 1
Demographic and Psychiatric Descriptive Data

	Urban		Rural		χ^2	<i>p</i> value
	<i>n</i>	% (within location)	<i>n</i>	% (within location)		
Marital status						
Married/de facto	635	39.0	543	41.2	1.45	.23
Single/never married	425	26.1	351	26.6	0.10	.75
Divorced/separated	501	30.8	368	27.9	2.86	.09
Widowed	68	4.2	57	4.3	0.04	.84
Living arrangements						
With spouse	509	31.4	439	33.3	1.16	.28
Friends/other shared	342	21.1	235	17.8	5.00	.03
With parents	242	14.9	193	14.6	0.05	.82
Alone	484	29.9	409	31.0	0.44	.51
Temporarily away from home	16	1.0	22	1.7	2.64	.10
Institutionalized	23	1.4	18	1.4	0.02	.90
Homeless ^a	4	0.2	3	0.2	–	–
Employment status						
Employed	790	47.7	645	48.1	0.04	.85
Unemployed	432	26.1	298	22.2	6.06	.02
Not in the labor force	434	26.2	399	29.7	4.59	.03
Psychiatric history						
Contact with a mental health professional	498	45.8	361	40.8	4.83	.03
Diagnosed psychiatric condition	791	44.3	557	39.3	8.21	<.01
Treatment for a psychiatric condition	803	59.0	578	53.6	7.21	<.01
Evidence for an untreated psychiatric condition	360	36.6	267	34.5	0.89	.35

^aGiven the small number of cases in each cell, statistical comparisons were not performed and this variable was not subject to any further analysis.

to note that these indicators do not provide information about suicide risk, but about whether particular characteristics were associated with communication of suicidal intent prior to death by suicide.

Based on crude logistic regression, there was no significant association between location and communication of intent. When demographic differences and other potential confounds were controlled for, location became a significant predictor of communication of intent, with rural location associated with higher levels of reported communication of intent. Aside from location, being single/never married, unemployment, and treatment for a psychiatric condition/evidence for an untreated psychiatric condition were each indepen-

dently associated with communication of intent.

As indicated in Table 2, when locational differences in engagement with formal help and psychiatric history were taken into account, rural location was associated with higher communication of intent. If communication of intent was occurring mainly in the context of formal mental health help (e.g., as a facilitator to formal help and/or during the course of consultation with a mental health professional), it would be anticipated that rural location would in fact relate to lower recorded communication of intent, due to the lower reported levels of engagement with formal mental health help reported in other research (e.g., Judd et al., 2006).

TABLE 2*Logistic Regression—Crude and Adjusted Associations between Rural Location and Communication of Intent*

	Crude OR (95% CI)	Step 1 OR (95% CI)	Step 2 OR (95% CI)
Communicated suicidal intent			
Rural location	1.12 (0.97–1.29)	1.23 (1.05–1.44)*	1.35 (1.04–1.77)*
Age at time of death		0.99 (0.98–1.00)**	0.99 (0.98–1.00)*
Marital status			
Married/de facto		Reference	Reference
Single/never married		1.33 (1.00–1.75)*	1.65 (1.01–2.70)*
Divorced/separated		0.85 (0.63–1.14)	0.82 (0.48–1.40)
Widowed		0.70 (0.44–1.11)	0.67 (0.31–1.48)
Living arrangements			
With spouse		Reference	Reference
Friends/other shared		0.96 (0.72–1.30)	0.84 (0.50–1.39)
With parents		0.70 (0.50–1.00)	0.72 (0.39–1.31)
Alone		1.23 (0.93–1.64)	1.19 (0.71–2.00)
Temporarily away from home		0.54 (0.26–1.13)	0.24 (0.04–1.42)
Institutionalized		1.62 (0.72–3.65)	0.74 (0.24–2.29)
Employment status			
Employed		Reference	Reference
Unemployed		1.89 (1.54–2.31)**	1.74 (1.23–2.47)**
Not in the labor force		1.54 (1.22–1.94)**	1.39 (0.94–2.05)
Psychiatric history			
Contact with a mental health professional			1.23 (0.70–2.15)
Diagnosed psychiatric condition			0.87 (0.22–3.39)
Treatment for a psychiatric condition			4.39 (1.15–16.77)*
Evidence for an untreated psychiatric condition			2.14 (1.58–2.90)**

Step 1: Demographic factors controlled for.

Step 2: Demographic and psychiatric history factors controlled for.

*significant at $p < .05$; **significant at $p < .01$.

To investigate this further, the subset of men who communicated intent but had no recorded involvement with formal mental health care was considered. This group had no recorded recent contact with a mental health professional, no current or former psychiatric diagnosis, and no current or former treatment. The subset consisted of 418 of 1,418 rural men (29.5%) and 464 of 1,785 urban men (26.0%) who had no recorded contact with a mental health professional/no diagnosis/no current or former treatment. Of those men who had no contact, 169 rural

men (40.4% of 418 men) and 152 urban men (32.8% of 464 men) expressed intent; this difference was statistically significant ($\chi^2 = 5.59$, $p < .05$) and indicates that in rural areas, communication of intent without any engagement with formal help is comparatively higher than in urban areas. Of those men who had no contact and who expressed intent, 83 rural men (58.5% of 169) and 75 urban men (60.5% of 152) had shown no indicators of an untreated psychiatric condition. This difference was not statistically significant ($\chi^2 = 0.11$, $p = .42$).

DISCUSSION

The current results are partially consistent with earlier studies that examine rural male behavior in the context of service access. In our study, rural men were less likely to have contact with a mental health professional in the 3 months prior to death, which accords with prior observations about rural male behavior in terms of formal service access as well as limited service availability (Australian Institute for Health & Welfare, 2010; Caldwell, Jorm, & Dear, 2004; Judd et al., 2006; Sartore et al., 2008). However, the current findings do not support the expectation that suicide among rural men in Queensland would be characterized by lower levels of communication of suicidal intent than suicide among men in major cities.

These findings have implications for rural suicide prevention policies and programs. Where information about communication of intent was available, a substantial proportion of rural men who died by suicide—around 6 of 10—had communicated suicidal intent prior to death. However, those men nonetheless went on to die by suicide. This raises questions about what occurred—or did not occur—in those men's lives in the time between their communication of intent and their subsequent suicide. It is not unreasonable to suggest that there may be opportunities for intervention in rural areas, but that these opportunities are overlooked or hampered by insufficient awareness among significant others of how to assist men in need, as well as by a lack of services specifically targeting men in rural areas (Arnautovska, Ide, Doessel, Kolves, & De Leo, 2011). Also, it is possible that communication of intent is not taken seriously or that the persons to whom intent is communicated feel that there is nothing they can do to prevent suicide.

It should also be taken into account that a considerable proportion of the rural men in this study—over 40 percent—did have contact with a mental health professional (potentially facilitated by communi-

cation of intent and/or providing a setting in which communication of intent occurred) and still died by suicide. In addition, a number of men who expressed intent but had no contact with mental health help seemingly displayed no indicators of untreated mental illness. This strongly suggests that access to formal mental health help is not necessarily the key issue in rural suicide prevention. Rather, once contact with a formal help service is made, factors such as the effectiveness of support provided, the type of support provided, and the intensity and level of care came into play. Hence, the adequacy and appropriateness of the supports that can be offered to rural men at risk of suicide may be a crucial contributor to suicide and suicide prevention.

Factors such as whether men could access a sustained program of support, whether the current mental health workforce and services in rural areas match well to rural men's specific characteristics and needs, and whether mental health help was of assistance in addressing the underlying factors contributing to an individual's suicidality (e.g., relationship breakdown or financial stress) should be considered. Equally, it is important to note that there were a considerable number of men in the sample (both rural and nonrural) who seemingly did not have any current or past psychiatric conditions (whether diagnosed, treated, or untreated) who died by suicide. It may be the case that common suicide prevention strategies, such as encouraging greater use of mental health services by men and focusing on raising awareness of links between mental illness and suicide, are unlikely to lead to effective interventions for such individuals. This highlights the need to adopt a whole-of-life perspective to suicide prevention, which takes into account the full spectrum of experiences men may have that may lead to, or occur quite independently of, mental illness. These experiences are likely to differ across urban and rural settings. For example, both urban and rural men may become suicidal in the context of financial stress due to business

collapse. However, if an urban business collapsed due to changing demand, whereas a rural business collapsed due to crop failure over successive years, then effective suicide prevention interventions would need to take these entire chains of events into consideration, as they are likely to require different strategies to overcome.

This study contains a range of limitations that should be noted. First, this work did not undertake locational comparisons between men who communicated intent but did not go on to die by suicide. While this is an important piece of information, it was not possible to obtain with the available data set and was outside the specific purpose of the study—namely, to look at locational differences in help-seeking among those men who did die by suicide. Second, the data were not longitudinal, so this study was not able to take into account when the expression of intent occurred and whether the temporal relationships between communication of intent and death by suicide differed by location. For instance, it would be useful to have been able to reliably determine whether communication of intent occurred immediately prior to death or in the weeks or months before death. Understanding the temporal aspects of communication of intent could provide insight into rural needs in terms of crisis response (to those who express intent immediately prior to engaging in suicidal behavior) versus longer duration support and care for men at risk of suicide (who may express some

degree of intent, but have not yet reached a crisis point).

To attempt to answer this, future research will need to consider qualitative information about the men in the current study. This will also help identify who rural men are telling about their suicidal thoughts (e.g., a spouse or a friend). Gaining more in-depth knowledge of who men communicate suicidal intent to can in turn identify target groups who may have a particularly high likelihood of becoming aware of an individual's suicidality, and inform the design of education strategies for that group. It will also be necessary to consider possible locational differences in associations between communication of intent, previous suicide attempts, and suicide. This question, although important, was outside the scope of the current work.

In summary, the current findings do not support the view that suicide among rural men in Queensland is characterized by lower levels of communication of intent than suicide among men in major cities, and thus indicates that many rural men who die by suicide are not suffering "miseria, unvoiced, unknown." They are voicing their suicidal intentions. In terms of policy and practice, it is important to highlight the need to look beyond the notion that rural men at risk of suicide do not seek help, and to instead focus on how they may be expressing a need for help, who they are talking to, and what types of help they may actually require.

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