The Well-Being of Carers of Older Aboriginal People Living in the Kimberley Region of Remote Western Australia: Empowerment, Depression, and Carer Burden

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Abstract

Objective: To describe demographic features and well-being of carers of Aboriginal Australians aged ≥45 years in remote Western Australia. Method: Carer burden, empowerment, and depression were assessed in 124 Aboriginal carers in four remote Aboriginal communities. Results: Carers were aged 38.8 ± 15.0 years, 73.4% were female, and 75.8% were children or grandchildren of the person cared for. The mean Zarit-6 score was 3.7 ± 3.6. Attending high school (odds ratio [OR] = 0.3; 95% confidence interval [CI] = [0.1, 0.7]) and feeling empowered (OR = 0.2; 95% CI = [0.1, 0.8]) were inversely associated with carer burden; female carers were less likely to feel empowered (OR = 0.4; 95% CI = [0.2, 0.9]); and empowerment was inversely associated with depression (OR = 0.3; 95% CI = [0.1, 0.7]). Discussion: Aboriginal carers in remote communities are relatively young and most are children or grandchildren. Carer burden was lower than anticipated. However, existing tools may not adequately measure Aboriginal perspectives. Education and empowerment are key factors which support programs must consider.

Keywords
Aboriginal, carers, older people, carer burden, empowerment, Indigenous

Introduction

Aboriginal and Torres Strait Islander peoples are aging, with the proportion of older people predicted to double by 2025 (Australian Bureau of Statistics [ABS], 2013). Aboriginal and Torres Strait Islander peoples experience a burden of disease and injury more than twice that of all Australians, due to high rates of multimorbidity and chronic illness, and inequitable social and environmental factors based on a long history of traumatic policy decisions and racism (Vos et al., 2009). Recent research has highlighted high rates of dementia and frailty occurring at a younger age than expected (Hyde et al., 2016; LoGiudice, Smith, Fenner, et al., 2016). Other conditions such as functional disability and mental illness are disproportionately higher in Aboriginal and Torres Strait Islander communities (Randall et al., 2018; Vos et al., 2009). Carers of those with dementia, frailty, mental health disabilities, chronic conditions, and those requiring palliative care, often experience high levels of carer burden and depression (Bom et al., 2018; Brodaty et al., 2014; Choi &...
Seo, 2019; Lambert et al., 2017). However, there is limited data for Aboriginal and Torres Strait Islander peoples, particularly those living in remote and regional areas where factors such as overcrowded housing, poor health linkages, financial barriers, and poor service access may contribute to carer burden (Broe & Jackson-Pulver, 2007; Carroll et al., 2010).

As we have previously reported, carers of older Aboriginal Australians with dementia living in remote communities report considerable stress (Smith et al., 2011). Carers describe fulfilling multiple roles, including looking after several family members and maintaining cultural responsibilities as contributing to feelings of stress and burden. Limited services often culminate in a sense of isolation. To understand the carer role in Aboriginal and Torres Strait Islander communities, the importance of place and country as a “site of customary and relational belonging” must be considered, as well as traditional and cultural factors and responsibilities (Browne et al., 2014; Dal et al., 2014; Jervis et al., 2002; Kerse et al., 2016). Caring for an older family member at home enables that person to continue to fulfill their important cultural role as an Elder, benefiting the whole family.

Multiple caring roles, frequent deaths within families, illnesses, and accidents may impact on carer morale and well-being, with mental health issues such as depression being more clinically significant (Almeida et al., 2014) and less likely to be detected in remote communities (Senate Select Committee on Mental Health, 2006). Further burden stems from desire to support older people to remain in their communities (Ganesharajah, 2009; McGrath, 2006), because for many older people, returning to their country at their end of life has significant spiritual and cultural importance. This may not always be possible due to lack of appropriate services, and can lead to distress for the person requiring residential care, and their community and carers.

Models which take into account the multiple interactions within the social, economic, psychological, and physical aspects of caregiving have been developed (Pearlin et al., 1990; Ying et al., 2018). Programs and interventions with the aim of alleviating carer burden and depression and enhancing well-being and quality of life, particularly for carers of people with dementia, have been undertaken successfully (Gilhooly et al., 2016). However, relatively little research has been conducted with regard to the needs of Aboriginal and Torres Strait Islander carers living within their communities, and other First Nation peoples internationally (Hokanson et al., 2018). Programs most likely to be successful in these communities are those with a Community-Based Participatory Action Research (CBPAR) approach, which take into account culture and tradition and are based on genuine collaboration in design and implementation (Wallerstein & Duran, 2010). Community-based approaches lead to a greater sense of empowerment and well-being (Haynes et al., 2019; Laliberte et al., 2012). However, before culturally responsive programs for carers can be developed and evaluated, the unique needs of this population must be understood.

Important attributes in managing the carer role include resilience and empowerment, and the mastery of skills such as problem solving and adaptation as necessary (Chan et al., 2018; Petriwskyj et al., 2016; Sakanashi & Fujita, 2017; Teahan et al., 2018). Conversely, depression, anxiety, and perceived burden (Petriwskyj et al., 2016) are frequently measured outcomes in carer research and inversely related to positive notions of health, resilience, and empowerment. For Aboriginal and Torres Strait Islander Australians, the concept of empowerment has been commonly used in health as a strengths-based approach to healing and recovery in the socio-political setting of years of trans-generational trauma, racism, and social disadvantage (Fogarty et al., 2018).

This is the first study addressing the well-being of a representative group of carers of older Aboriginal people living in remote Western Australia. The data reported in this study are from a cluster randomized controlled trial called “Strong Carers Strong Communities; Keeping Kimberley Spirit Strong” addressing the needs of carers of older Aboriginal people utilizing a CBPAR approach. In this article, we describe the demographic features of carers of people aged ≥45 years living in remote communities. In addition, we describe levels of carer burden, depression, and sense of empowerment in this group and measure their associations with carer demographics and care recipient functional needs and service usage. Hypothesizing that the characteristics of Aboriginal carers would differ from their non-Aboriginal counterparts (owing to lack of appropriate services in remote areas and high disease burden at younger ages which may affect carer availability), we aimed to determine factors which can inform the development of culturally appropriate services.

Method

Setting and Participants

This study was undertaken in four communities (Ardyaloon, Looma, Warmun, and Wirrimanu) located in the Kimberley region of Western Australia. These communities were involved in a previous cohort study undertaken by the research team, called the Kimberley Healthy Adults Project (KHAP), documenting physical, mental, and functional needs of people aged ≥45 years (LoGiudice, Smith, Fenner, et al., 2016). The KHAP is a population-based study that utilized a semi-purposive sampling strategy to ensure representative coverage of the diverse language and cultural groups of the region. In each community, all people aged ≥45 years were invited to participate, with a response fraction of 74% achieved. In this study, carers were identified from KHAP participants and from lists provided by community-based aged care programs and local health clinics. In addition, a snowballing process was utilized asking community members “who else looks
Study Design

Research assistants (C.M.J. and R.M.) administered a structured questionnaire to carers. The engagement with communities and individuals was facilitated by research assistant R.M. who is a Kija Aboriginal woman from the region. The following domains were assessed:

1. Demographic details of the carer and care recipient, including the care recipient’s main health problems;
2. Assistance provided by the carer to the care recipient for functional activities;
3. Use of services including the community clinic, community aged care services, mental health services, hospital, carers respite, disability services, drug and alcohol services, family, friends, and traditional healer;
4. Carer burden—a six-item questionnaire adapted from the Zarit-6 (Bédard et al., 2001; Higginson et al., 2010) comprising questions with a five-item Likert-type response scale (never, little bit, sometimes, a lot, nearly always), with a possible total score of 30. A score ≥9 indicates high levels of caregiving-related burden (Yu et al., 2019). Face validity of the tool was assessed to ensure cultural and linguistic appropriateness;
5. KICA-Dep (Kimberley Indigenous Depression Scale)—adapted from the Patient Health Questionnaire and previously validated as a screening tool for depression in the region. The tool is an 11-item questionnaire, in which a score ≥8 out of a possible total of 33 points indicates caseness (Almeida et al., 2014). Where participants scored as caseness or indicated potential self-harm, research assistants facilitated referral to local mental health services;
6. The Growth and Empowerment Measure (GEM), which measures dimensions of empowerment important to Aboriginal and Torres Strait Islander Australians (Haswell et al., 2010). The wording was adapted with an Aboriginal reference group for local Kimberley language and culture. The GEM comprises two sections:
   a. A 14-item Emotional Empowerment Scale (EES-14) that aims to determine “the way you usually feel about yourself most of the time” with a Likert scale from 1 (least positive) to 5 (most positive), and mean total score ranging from 1 to 5 calculated;
   b. Twelve empowerment scenarios (12S) which measures functional aspects of empowerment. A six-item short form (Core6) of the 12S previously derived from confirmatory factor analysis (Fitzpatrick et al., 2019) with a mean total score ranging from 1 to 7 was calculated.

Higher GEM scores indicate greater empowerment.

Ethics

Approval to conduct this study was obtained from the communities involved; the Kimberley Aboriginal Medical Services Council; Kimberley Aboriginal Health Planning Forum Research Subcommittee; the Human Research Ethics Committee of the University of Western Australia; and the WA Aboriginal Health Ethics Committee. All participants provided written informed consent.

Statistical Analysis

We analyzed the data with the Stata statistical package, version 11.2 (StataCorp, College Station, Texas). Data for participants are presented as means and standard deviations for continuous variables, and as proportions for categorical variables. Missing data were not excluded when calculating proportions (i.e., the denominator is the entire sample) to avoid overestimation. We used Pearson’s Chi-square test to investigate associations between categorical variables, and the Mann–Whitney U test and Kruskal–Wallis equality-of-populations rank test for continuous variables. We used binary logistic regression analyses to explore factors associated with the outcomes of carer burden, empowerment, and depression. For each outcome, we initially entered all variables which were significant into a multivariable model, and then removed nonsignificant covariates in a manual, backward manner. We used Hosmer and Lemeshow’s goodness-of-fit test to assess model fit. For all statistical tests, we considered p values <.05 statistically significant.

Results

Demographics of Carers and Care Recipients

Table 1 shows the socio-demographic characteristics of the carers. There were 124 carers who participated, aged between 18 and 88 years, with mean age of 38.8 ± 15.0 years. Three quarters of carers were female, and almost all (97.6%) identified as Aboriginal (with none identifying as Torres Strait Islander). Eighty-one percent of carers were aged <50 years and only one fifth completed high school, although the majority (92.7%) completed primary school. Fifty-two (41.9%) carers were children of the care recipient, 42 (33.9%) were grandchildren, and 58.1% of carers lived with the care recipient. Six people had been carers for less than 1 year, while the remainder had been a carer for a mean period of 8.6 ± 8.4 years (range: 1–54 years). Twenty-three people...
(18.5%) had been carers for more than 10 years, and 32.3% cared for more than one person.

The majority (82.3%) of care recipients were aged ≥60 years, and 94 (75.8%) were female. The leading health problems reported were chronic illness (52.4%), dementia/cognitive impairment (36.3%), frailty (33.1%), and physical disability (30.7%). Functional assistance provided by carers is described in Table 1. Carers were assisting with an average of 8.0 ± 1.7 activities of daily living. Services used by the person being cared for are shown in Table 2. An average of 6.6 ± 2.2 services were used. Use of the community clinic, the only medical service within the community, was universal. Similarly, most people had made contact with community aged care services.

Carer Burden, Depression, and Sense of Empowerment

The mean adapted Zarit-6 score was 3.7 ± 3.6, with 20.2% of participants not describing any sense of carer burden, and 11.3% scoring ≥9 on the scale. Less than 5% answered “a lot” or “nearly always” to the questions comprising the scale, except for the item “You don’t have enough time to do things for yourself,” in which 6.5% responded in the affirmative.

The percentage of carers who answered either a “little bit” or “sometimes” are as follows: “Don’t have enough time to do things for yourself” (27%); “It’s too much humbug (too stressful) looking after the person when you have other responsibilities” (16.2%); “Feel upset or bothered when with the person” (22.6%); “The person is affecting your relationship with partner, family and friends” (7.7%); “Looking after the person has affected your health” (8.9%); and “Looking after the person has taken over your life” (8.5%).

The mean KICA-Dep score was relatively low at 4.5 ± 3.7. However, 16.9% scored ≥8, indicating clinically relevant depressive symptoms. There were significant differences between the mean scores for carer burden, EES-14, Core6, and KICA-Dep between carers of the four communities, with carers in Wirrimanu expressing greater carer burden, carers in Ardyaloon expressing overall greater sense of empowerment, and those in Looma reporting greater depressive symptoms (Table 3).

Factors Associated With Carer Burden, Empowerment, and Depression

Logistic regression analyses were conducted to determine associations with carer burden, EES-14, and Core6 score in the highest quartile, and KICA-Dep score ≥8. In multivariable models, carers who attended high school (odds ratio [OR] = 0.3; 95% confidence interval [CI] = [0.1, 0.7]) or reported greater empowerment as measured by Core6 score in the highest quartile (OR = 0.2; 95% CI = [0.1, 0.8]) were less likely to have a high carer burden score. Carers who were female (OR = 0.4; 95% CI = [0.2, 0.9]) or had higher KICA-Dep scores (OR = 0.8; 95% CI = [0.7, 0.9]) were less likely to feel empowered as measured by the EES-14. Those with a lower sense of carer burden (OR = 0.8; 95% CI = [0.7, 0.9]) or higher score on the EES-14 (OR = 7.2;

### Table 1. Characteristics of the Carers (n = 124).

| Characteristic | n (%) or M ± SD |
|---------------|----------------|
| Age (years)   |                |
| 18–29         | 37 (29.8)      |
| 30–39         | 33 (26.6)      |
| 40–49         | 31 (25.0)      |
| 50–59         | 10 (8.1)       |
| 60–69         | 6 (4.8)        |
| 70–79         | 4 (3.2)        |
| ≥80           | 3 (2.4)        |
| Sex           |                |
| Male          | 33 (26.6)      |
| Female        | 91 (73.4)      |
| Preferred language |         |
| English       | 92 (74.2)      |
| Other         | 32 (25.8)      |
| Interpreter present | 10 (8.1) |
| Completed primary school | 108 (93.9) |
| Years of high school |        |
| 0             | 22 (17.7)      |
| 1–2           | 20 (16.1)      |
| 3–4           | 56 (45.2)      |
| 5             | 26 (21.0)      |
| Further study |                |
| TAFE          | 53 (42.7)      |
| Apprenticeship| 1 (0.8)        |
| University    | 6 (4.8)        |
| Years as a carer |            |
| <1            | 6 (4.8)        |
| 1–5           | 60 (48.4)      |
| 6–10          | 35 (28.2)      |
| >10           | 23 (18.5)      |
| Look after another person | 40 (32.3) |
| Provide help  |                |
| Cooking       | 116 (93.6)     |
| Cleaning      | 112 (90.3)     |
| Showering and dressing | 11 (8.9) |
| Shopping      | 110 (88.7)     |
| Providing food| 119 (96.0)     |
| Keeping them company | 121 (97.6) |
| Activities they enjoy | 90 (72.6) |
| Transport     | 88 (71.0)      |
| When they are sick | 115 (92.7) |
| Taking medicine| 69 (55.7)    |
| Looking after money | 37 (29.8) |
| Number of ADLs helping with | 8.0 ± 1.7 |

Note. Percentages calculated without excluding missing data (i.e., denominator is entire sample). Numerals in superscript denote number of people with missing data for that variable. TAFE = Technical and Further Education (vocational education and training); ADLs = activities of daily living.
95% CI = [2.2, 23.7]) were more likely to have a Core6 score in the highest quartile. Finally, those carers reporting a higher sense of empowerment as measured by the EES-14 (OR = 0.3; 95% CI = [0.1, 0.7]) were less likely to score ≥8 on the KICA-Dep. There were no associations with carer age, age or sex of care recipient, time caring for the person, functional impairment, or number of services used with any of the outcome measures. In addition, there were no significant differences in any of the outcome measures in the case of dementia being present in the person cared for (data not shown).

### Discussion

Aboriginal carers of older people living in remote communities in Western Australia have a different profile to their non-Aboriginal counterparts, being on average 10 to 15 years younger, and three quarters identifying as children or grandchildren of the person cared for (compared with one-quarter in the general population). As in most populations, carers were more commonly female, although the proportion appeared higher: 75% compared with 56% nationally (ABS, 2015). Almost half described undertaking their carer role for more than 6 years and 20% for 10 years or more. On average, they provided assistance with eight activities of daily living.

The younger age of Aboriginal carers in remote areas has been previously documented (Hill et al., 2012). This is in keeping with earlier onset of disability and illness (such as dementia and frailty) in care recipients, as well as the overall younger demographic of Aboriginal and Torres Strait Islander peoples (ABS, 2013) compared with the general population. One third of carers reported that they did not have enough time for themselves, indicating they provided a high level of assistance. In addition, one third of carers reported caring for others in the community, reflecting the multiple roles that carers play.

Carer burden was measured by an adapted Zarit-6 scale. The Zarit-6 has been shown to be an effective screen for carer burden, including in the setting of dementia (Bédard et al., 2001). Compared with other populations, carer burden appeared relatively low with an average score of 3.7. One fifth of carers described no sense of carer burden, and only 11.3% scored ≥9 on the scale, which has been identified as the optimal cut-off for high levels of caregiving-related burden (Yu et al., 2019). In contrast, in a review by Higginson et al. (2010), mean Zarit-6 scores were noted as 6.4 for carers of those with cancer, 8.2 for carers of those with dementia, and 12.3 for those who cared for people with acquired brain injury. Those interviewed for our study were carers for a heterogeneous group of conditions, including dementia, frailty, chronic illnesses, intellectual disability, and combinations of these, hence numbers in many categories were small. However, overall this population of carers reported less burden than those in other studies which have used the Zarit-6. In particular, the Zarit-6 burden score for people caring for those with dementia was similar to other carers and substantially lower than reported elsewhere (Higginson et al., 2010).

Several reasons may explain the low scores in our study. First, Aboriginal and Torres Strait Islander peoples may not identify as carers in the same way as other populations and view the caring role as an integral part of family life (Hill et al., 2012). Second, carers may have minimized their reports of burden due to social desirability bias, potentially

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### Table 2. Characteristics of the Person Cared for (n = 124).

| Characteristic | n (%) or M ± SD |
|---------------|----------------|
| Carer’s relationship to person |                  |
| Daughter/son   | 52 (41.9)       |
| Husband/wife   | 10 (8.1)        |
| Brother/sister | 4 (3.2)         |
| Grandchild     | 42 (33.9)       |
| Niece/nephew   | 5 (4.0)         |
| Friend         | 0 (0.0)         |
| Other          | 11 (8.9)        |
| Age (years)²³  |                |
| 45–59          | 19 (15.3)       |
| 60–74          | 59 (47.6)       |
| ≥75            | 43 (34.7)       |
| Sex            |                |
| Male           | 30 (24.2)       |
| Female         | 94 (75.8)       |
| Aboriginal person | 124 (100.0) |
| Live with carer¹| 72 (58.1)      |
| Main health problem(s) |            |
| Physical disability | 38 (30.7)     |
| Frailty        | 41 (33.1)       |
| Dementia/cognitive impairment | 45 (36.3) |
| Mental illness | 3 (2.4)         |
| Intellectual disability | 2 (1.6)     |
| Head injury    | 6 (4.8)         |
| Chronic illness| 65 (52.4)       |
| Other          | 26 (21.0)       |
| Don’t know     | 13 (10.5)       |
| Services used  |                |
| Community aged care services | 103 (83.1) |
| Aboriginal medical service | 57 (46.0)   |
| Community clinic | 123 (99.2) |
| Hospital       | 107 (86.3)      |
| Mental health  | 20 (16.1)       |
| Disability services | 52 (41.9) |
| Carers respite | 67 (54.0)       |
| Drug and alcohol | 15 (12.1)    |
| Community office | 78 (62.9)    |
| Traditional healer | 43 (34.7)  |
| Other service/person | 42 (33.9)   |
| Number of services used | 6.6 ± 2.2    |

Note. Percentages calculated without excluding missing data (i.e., denominator is entire sample). Numerals in superscript denote number of people with missing data for that variable. Categories for health problems are not mutually exclusive.
exacerbated by the face-to-face questionnaire. In addition, those who felt most burdened by their role may have been reluctant to participate in the study due to their caring responsibilities. Alternatively, the Western concept of carer burden may not capture the complete picture for Aboriginal carers, where culture, land and place, traditions, community, and spirituality are essential contributors to carer well-being (Arkles et al., 2018; Gibson et al., 2018). A culturally responsive tool to assess carer burden which is developed from a community perspective and not simply adapted for language is required.

Our findings showed that carers who attended high school were less likely to score highly on the Zarit-6 scale. The majority of carers in our study completed primary school, but only one fifth completed high school. A multinational review of burden in carers of those with dementia living in low-middle income countries did not demonstrate an association between carers’ level of education and sense of burden as measured by the Zarit Burden Index (Prince et al., 2012). This finding was replicated in a large multiethnic study in Singapore addressing carer burden for older people with multiple disabilities (not only dementia), and in which 41% had completed high school (Vaingankar, Chong, Abdin, Picco, Jeyagurunathan, et al., 2016). However, a Spanish-based study of carers of people with dementia found that adult children who were live-in carers were less likely to be married, received a lower level of education, used fewer external resources, and expressed higher sense of burden as measured by the Zarit Burden Index (Prince et al., 2012). Surprisingly, depression scores were not associated with carer demographics, time spent caring, or number of services used. This could suggest that other, more general community factors may have contributed to the high proportion of individuals with depression, such as multiple stressful life events, lack of services, and high rates of poor health in carers themselves.

Observational studies of carers document high rates of psychological co-morbidity. For example, in a multiethnic community in Singapore, 8.8% of informal caregivers were identified with nonpsychotic psychological symptoms. The factors associated with psychological morbidity in that study included care recipient behavioral and psychological symptoms of dementia, and marital status (Vaingankar, Chong, Abdin, Picco, Shafie, et al., 2016). In our study, depressive symptoms were significantly higher in those caring for someone recognized as frail by the carer (mean 5.5 vs. 4.0), but not for other conditions, including dementia. Ringer et al. (2016) recently reported that physical frailty is a significant contributor to carer anxiety and depression. However, high quality data on carer burden and frailty is lacking compared with dementia.
We found that depression was associated with lower sense of empowerment. Empowerment and depression are interlinked (Berry et al., 2012; Haswell et al., 2010), and those who feel disempowered are less likely to be able to strategize and cope with the role of carer and vice versa. In our study, females reported a lower sense of empowerment, consistent with the overall carer literature. Women often bear the burden of informal caring, commonly related to traditional and cultural factors and higher levels of socioeconomic disadvantage (Alpass et al., 2013; Bom et al., 2018). Women are often caught in the middle of multiple caring roles, and the support afforded by a parent or grandparent may be unavailable if the latter are themselves disabled or cognitively impaired. The multiple losses experienced by Aboriginal and Torres Strait Islander people is associated with higher levels of stressors and mental health problems, and depression has been found to be more prevalent among Aboriginal women than men in the Kimberley (Almeida et al., 2014). Effective management of depression or carer burden will likely require strategies that incorporate ways to optimize sense of empowerment at both the individual and community level.

Cognitive impairment including dementia was the second most common health problem identified, affecting over one third of care recipients. This is noteworthy, because of the unique and often stressful challenges experienced by carers of people with dementia (e.g., managing behavioral and psychological symptoms of dementia), and the increased risk of requiring residential care. Dementia is 5 times more prevalent among Aboriginal Australians compared with their non-Aboriginal counterparts, yet service provision to this population is poor. We have previously documented that carers in remote Aboriginal communities are struggling to cope and have requested better, and culturally safer, community care (Smith et al., 2011). Strategies to improve care have been identified and successfully trialed in a pilot model for disability and aged care in this population (LoGiudice, Smith, Shadforth, et al., 2012). This model could serve as a template for both policy makers and service providers and help reduce carer burden.

Although the community clinic and community aged care services were well-utilized, in practice these services are limited by under-resourcing and, especially for aged care services, long distances from the remote communities served. Other barriers such as lack of education and training, intolerant workforce attitudes, insufficient interpreting services, and a lack of clear clinical pathways and protocols negatively impact service provision (Smith et al., 2011). Thus, while some services were well-utilized, this may reflect lack of choice, and not necessarily satisfaction with service providers. We did not measure satisfaction with services received in this study, but have noted in previous works there is significant scope to improve service delivery in this region (Smith et al., 2011). Still, given ubiquitous use of the community clinic and high prevalence of depression identified, relatively simple interventions such as depression screening could be of benefit. However, this will require appropriate service provision to make a difference. Screening for mental health problems will be of limited benefit unless appropriate services are available. Unfortunately, mental health services were accessed by only 16% of care recipients, despite cognitive impairment and dementia being the second most common health issue identified.

The strength of this study is that it describes a representative group of carers living in remote Aboriginal communities in Western Australia, derived from a previous community-based survey of people aged ≥45 years. In addition, the outcome measures for depression and empowerment were adapted and validated for Aboriginal and/or Torres Strait Islander people. Limitations include the single geographic focus and relatively small sample size. With regard to the latter, this may explain why we did not find statistically significant associations between factors such as time spent in the caring role and carer burden. Larger studies are needed to further explore factors associated with carer well-being. In addition, the Zarit-6 was adapted for language only and may not fully capture the concerns and responsibilities of Aboriginal carers.

Our findings suggest that carer support programs should focus on predominantly younger women caring for their parents or grandparents, and often undertaking multiple caring roles. One such program has already arisen from the high number of referrals of female participants from one remote community to the Kimberley Mental Health and Drug Service. A weekly women’s craft group was formed, incorporating a weekly visit by the town-based mental health worker. Support for Aboriginal carers requires an empowering, holistic approach, responsive to traditional ways of seeking help and support, including traditional healers, given that one third of carers had approached them for support.

In conclusion, this study provides insight for the planning of future support for Aboriginal carers. Depression and empowerment are inversely related; hence education and support to improve confidence in seeking support, feeling strong in self, and feeling supported by the community are key factors policy makers must consider when addressing the needs of carers.

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Note
1. It should be noted that Aboriginal people focus on maturity and life stage rather than chronological age, and that Elders and older people are not always one and the same (Lohoar et al., 2014).

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