

GEOGRAPHIC DIFFERENCES IN SUBJECTIVE WELL-BEING AMONG INDIGENOUS AND NON-INDIGENOUS AUSTRALIAN ADOLESCENTS AND ADULTS

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Published data that describe the subjective well-being (SWB) of Indigenous people across Australia are scarce. This study reports differences in the SWB of 3 sample groups—mainstream Australian adults, Indigenous adolescents, and non-Indigenous adolescents—in 5 geographic areas classified by remoteness. Both groups of adolescents were participating in a national program for disengaged youth. Consistent with results from general population samples, the SWB for people living in rural centers was higher than for those in either major cities or very remote areas. This suggests that there may be an optimum size of community that acts as a buffer to the well-being of both Indigenous and non-Indigenous adolescents and adults. This may be achieved through greater community connection, as well as having a reasonable level of amenities available. The results of this study are likely relevant to Indigenous populations in other countries, and the implications of these findings for service delivery are discussed.

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INTRODUCTION

The Human Development Index (Malik, 2013) is a composite measure of average achievement in three basic dimensions of human life: life expectancy, educational attainment, and command over the resources needed for a decent living (e.g., income). The 2013 edition of the index places Australia second highest in the list of 186 nations, but not all Australians are doing so well.

The relative disadvantage of Indigenous people within the Australian population has been well documented and manifests broadly. According to the Australian Bureau of Statistics (ABS; 2013), average life expectancy is 10.6 years lower for males and 9.5 years lower for females than the national averages. Infant mortality rates are more than twice those of the general population (ABS, 2010a) and, consistent with higher hospitalization rates from preventable diseases and accidents, Indigenous adults are twice as likely as non-Indigenous to report their health as being poor (ABS, 2010a).

In other spheres of life, Indigenous people are also evidently disadvantaged. They are half as likely to complete high school as non-Indigenous people, have an unemployment rate of 16%, which is three times the long-term national average (approximately 5.0%), and family incomes are on average two-thirds those of non-Indigenous families (ABS, 2006; Steering Committee for the Review of Government Service Provision [SCRGSP], 2014). Indigenous adults are 13 times more likely than non-Indigenous to be in prison, with Indigenous juveniles aged 10–17 years 28 times more likely than non-Indigenous to have been detained (Taylor, 2009). Finally, in this depressing list, the proportion of Indigenous people living in overcrowded housing (27%) is five times the proportion of non-Indigenous (SCRGSP, 2014).

Australia's Indigenous population is around 517,000 people, or 2.5% of the total population (ABS; 2010b). More than half of this population, which has a more rural distribution than the non-Indigenous population, are children or adolescents. Whereas only 2% of the general population in Australia live in regional and remote areas (ABS, 2010b), about 25% of Indigenous children and young adults do so. This distribution may cause further disadvantage. Indeed, the relatively lower life quality of Indigenous people in remote areas, compared with those living in cities, has been well documented (e.g., Hunter, 2007). This difference extends over the full range of economic, physical, and social disadvantage. For example, according to the ABS (2010c), although 63% of Indigenous young people in cities were fully engaged with education or work, this compared with only 41% and 53% of those living in remote and regional areas, respectively. There is a similar geographic disparity in average earnings and overcrowding within dwellings (ABS, 2010c).

In summary, not only are Indigenous Australians relatively disadvantaged, but those living in remote areas are even more so. However, it has been proposed that there are also advantages to rural or remote living, at least for the population as a whole (Cummins, Hamilton, Woerner, & Weinberg, 2008).

Geographic Considerations

Accumulated data from the first 18 surveys ($N = 35,057$) of the Australian Unity Wellbeing Index (Cummins, Hamilton, Lai, Woerner, & Weinberg, 2008) reveal that average levels of subjective well-being (SWB) in Australia's mainstream population varies according to geographic location.

Data were analyzed for statistical subdivisions (SSDs), defined according to the Australian Standard Geographical Classification (ASGC, <http://www.abs.gov.au/Ausstats/abs@.nsf/0/0D204FD3DCD90564CA256F19001303A2?opendocument>). These SSDs form an intermediate-sized spatial unit for the presentation of data. Cummins et al. (2008) found that the five SSDs with the highest average SWB are characterised as being within less accessible parts of Australia (e.g., Shire of Glenelg, in the state of Victoria; Upper South East, in the state of South Australia [SA]; Kangaroo Island / Yorke, SA; Litchfield Shire, in the Northern Territory [NT]; and Barkly / Lower Top End, NT). Moreover, the five SSDs with the lowest average SWB are highly accessible, inner-city locations (e.g., Fairfield-Liverpool, New South Wales; South Canberra, Australian Capital Territory; inner Sydney, New South Wales; Greater Dandenong City, Victoria; and Logan City, Queensland).

These differences, based on analysis of responses to the Personal Wellbeing Index (PWI; International Wellbeing Group [IWG], 2013) can be attributed, in large part, to lower scores on the domains of safety and community connection for people living in cities. Based on these data, Cummins et al. (2008) concluded that among Australia's general population, it is evident that high-density living results in less interpersonal connection and a diminished sense of personal safety, which appears to compromise overall SWB.

It is not known whether these SWB differences also apply to Indigenous people. It could be argued that Indigenous people living in remote areas would have higher SWB because they are likely to have easier access than their urban counterparts to their traditional lands, and that this enhances their opportunity to maintain links with their culture. Indeed, the importance of access to traditional lands to well-being was well demonstrated in the landmark 1992 Mabo (High Court of Australia, 1992) and the 1996 Wik High Court land rights cases.

The importance of community to Indigenous people has been widely discussed, with Henderson et al. (2007) suggesting that Indigenous people do not make the Platonic and Cartesian divide between mental and physical being. Rather, "health includes the physical, social, emotional, cultural and spiritual wellbeing . . . and this is not only of the individual but of the whole community" (Anderson, 1996, p. 68). In a similar vein, McCoy (2004, p. 220) has pointed out that "a desert person is healthy or *palya* when their body (*yarnangu*) is in a right relationship with their inner spirit (*kurrun*) and with others (*walytja*)." Thus, these authors claim, Indigenous people who live in remote locations have a greater opportunity to not only be part of a strongly functioning community but also enjoy better (holistic) health than those who live in cities. Consequently, they may have enhanced well-being relative to their regional and urban counterparts, even though the latter may enjoy better access to modern day services.

In partial support of these propositions, the 2008 National Aboriginal and Torres Strait Islander Social Survey (ABS, 2010d) found that among Indigenous Australians aged 15 years or older, the proportion reporting being "a happy person all or most of the time" was slightly higher among people living in remote areas (78%) than non-remote (71%).

It is also pertinent to note that the general direction of these results is consistent with the incidence of reported exposure to racism. Racial discrimination is related to a range of adverse psychological outcomes, including low self-esteem, substance abuse, emotional and behavioral disturbances, anxiety, depression, and suicide risk (Priest, Paradies, Gunthorpe, Cairney, & Sayers 2011; Williams & Mohammed, 2009; Zubrick et al., 2010). So, it is interesting to observe that two studies of racism in Australian cities (Mellor, 2003; Paradies & Cunningham, 2009) document high levels of experienced racism among

Indigenous people. Moreover, Paradies and Cunningham found the participants who most strongly identified with their Indigenous heritage and culture were at greatest risk of experiencing racism.

However, the experience of Indigenous people in more remote areas may be different. In their analysis of data from over 7,000 Indigenous Australian adults participating in the 2008–2009 National Aboriginal and Torres Strait Islander Survey, Paradies and Cunningham (2013) reported that remoteness is associated with lower levels of self-reported racial discrimination. These authors argue that living together in larger numbers, rather than living together as a small minority within larger cities, may serve as a protective factor. It might thus be expected that Indigenous people living in cities would have their SWB threatened relative to those living in more remote areas. However, this proposition remains to be tested empirically.

SBW and Homeostasis Theory

A theoretical framework that allows for understanding of possible differences in SWB is homeostasis theory (Cummins, 1995, 2010, 2016). Over the last four decades, considerable progress has been made toward understanding the SWB construct. Two of the most important discoveries concerning this construct are that it is normally positive and it is stable across time for both individuals (e.g., Headey & Wearing, 1989, 1992) and populations (e.g., Cummins, 1995). Homeostasis theory (Cummins, 2010) offers a theoretical explanation for these findings. This theory asserts that SWB is maintained around a “set point” by homeostatic forces, analogous to the maintenance of steady core body temperature.

Most recently it has been demonstrated that, with results standardized onto a 0–100 point scale, *individual* set points for people comprising general population samples have a normal distribution between 70 and 90 points, with an average of 80 points (Cummins, Li, Wooden, & Stokes, 2014). According to the theory, the goal of homeostasis is to defend the dominantly affective composition of SWB, *termed homeostatically protected mood* (HPMood; see Cummins, 2010, for a review), thereby maintaining a positive view of self.

Homeostasis theory also concerns the mechanisms underpinning the maintenance of SWB. That is, the affect generated as HPMood is proposed to be constant; our conscious experience of affect is highly variable, for example, in response to personal exchanges with one’s environment (Cummins & Wooden, 2014). Provided these exchanges are of moderate intensity or duration, deviations from HPMood will be rapidly absorbed by, for example, the unconscious processes of adaptation (Helson, 1965) and habituation. However, more noxious and persistently threatening conditions (e.g., poverty, chronic illness, interpersonal conflict and abuse, or experiences of racism) can severely threaten conscious experience. Under these circumstances, stabilizing forces, which include behaviour (e.g., action and avoidance), adaptation, and a system of cognitive buffers (e.g., self-esteem, perceived control and optimism), become activated in an attempt to restore SWB within its normal set point range (Cummins & Wooden, 2014).

Supporting these psychological processes are objective resources, most notably, personal relationships and money. Although an intimate personal relationship can enhance a person’s ability to adapt to challenge through the provision of emotional support, money may be used as a flexible resource that may help to alleviate and prevent damage caused by misfortune (see Cummins, 2000, for a review). However, when the strength of challenge exceeds a person’s resources to cope, homeostasis can be chronically defeated. Then HPMood is lost to consciousness because SWB is dominated by the negative affect

generated by the challenging agent. This provides an experience typical of depression (see Cummins, 2010, and Cummins et al., 2014, for an extended description of these processes).

Summary and Hypotheses

There are no known published data describing the relationship between geographic location and SWB among Australia's Indigenous population. This is concerning given the objective disadvantage experienced by this group and their high representation within rural and remote communities. The aim of this study is compare data from Indigenous adolescents and non-Indigenous adolescents. Comparison is also made with normative adult data. This is done to capitalize on knowledge of normal ranges for SWB and the PWI domains in Australia's mainstream adult population. The adolescent and adult forms of the PWI have been demonstrated to be invariant (Tomyn, Fuller-Tyszkiewicz, & Norrish, 2014).

In keeping with the general population results, it was hypothesized that people living in rural, but not remote, parts of the country will have higher SWB than people living in cities. It is also hypothesized that satisfaction with the interpersonal domains of community connection and relationships will be lower for people living in cities, compared with people living in more remote parts of the country, within each of the adolescent and adult groups.

METHOD

Participants

Adult normative sample. Participants were a nationally representative sample of 53,952 adults living in Australia aged 18 to 94 years (mean [M] = 49.86 years; standard deviation [SD] = 17.31 years). Participants were recruited as part of the Australian Unity Wellbeing Index surveys. A slight majority were female (51.5%). Participants were recruited on a geographical basis proportional to population density, from all Australian states and territories: New South Wales (31.4%), Victoria (24.0%), Queensland (18.3%), Western Australia (8.9%), South Australia (8.4%), Tasmania (2.4%), Australian Capital Territory (1.9%), and Northern Territory (.9%); with 3.8% data missing for this variable.

The Indigenous adolescents were young people participating in a program funded by the Australian Federal Government Department of Education. The program targeted young people deemed to be at risk of or who have already disengaged from education, employment and training, their families, or their communities. The comparative group of non-Indigenous adolescents were enrolled in the same government program.

Indigenous adolescents. The participants were 4,222 Indigenous adolescents aged 12 to 19 years (M = 15.15 years; SD = 1.70 years). A slight majority were male (52.8%). Participants represent young people from all Australian states and territories: New South Wales (52.2%), Queensland (24.1%), Victoria (9.4%), Western Australia (5.1%), South Australia (4.0%), Tasmania (3.0%), Northern Territory (2.0%), and the Australian Capital Territory (0.2%). It can be seen that, compared with the adult sample, these adolescents are overrepresented from New South Wales and Queensland, and underrepresented from

Victoria, Western Australia, and South Australia. Recruitment for both this sample and the non-indigenous sample is described in more detail in the Procedure section below.

Non-Indigenous adolescents. Participants were 20,217 non-Indigenous adolescents aged 12 to 19 years ($M = 15.39$ years; $SD = 1.60$ years). A slight majority were male (53.2%). Participants represent young people from all Australian states and territories: New South Wales (36.5%), Victoria (25.2%), Queensland (19.8%), Western Australia (8.8%), South Australia (6.5%), Tasmania (2.7%), Australian Capital Territory (0.4%), and Northern Territory (0.2%); with 3.9% missing data for state of residence. These proportions are commensurate with the distributions of the adult data.

Table 1 shows the age and gender distribution of Indigenous and non-Indigenous adolescents.

Table 1. Age and Gender Distribution of Indigenous and Non-Indigenous Adolescents

Age in years	Indigenous			Non-Indigenous		
	Male (n)	Female (n)	Total	Male (n)	Female (n)	Total
12	149 (6.7%)	116 (5.8%)	265 (6.3%)	394 (3.7%)	257 (2.7%)	651 (3.2%)
13	274 (12.3%)	219 (11.0%)	493 (11.7%)	927 (8.6%)	749 (7.9%)	1676 (8.3%)
14	433 (19.4%)	371 (18.6%)	804 (19.0%)	1926 (17.9%)	1781 (18.8%)	3707 (18.3%)
15	437 (19.6%)	391 (19.6%)	828 (19.6%)	2603 (24.2%)	2269 (24.0%)	4872 (24.1%)
16	467 (20.9%)	427 (21.4%)	894 (21.2%)	2207 (20.5%)	2060 (21.8%)	4267 (21.1%)
17	275 (12.3%)	311 (15.6%)	586 (13.9%)	1602 (14.9%)	1489 (15.7%)	3091 (15.3%)
18	145 (6.5%)	111 (5.6%)	256 (6.1%)	781 (7.3%)	573 (6.1%)	1354 (6.7%)
19	50 (2.2%)	46 (2.3%)	96 (2.3%)	308 (2.9%)	291 (3.1%)	599 (3.0%)
Total N	2,230 (52.8%)	1,992 (47.2%)	4222	10,748 (53.2%)	9,469 (46.8%)	20,217

Measures

SWB. SWB in the adult sample was measured using the PWI (IWG, 2013). The PWI generates a composite variable, calculated by averaging life satisfaction scores on seven life domains: standard of living, health, achieving in life, Relationships, safety, community connection and future security. These seven domains are theoretically embedded, as representing the first level deconstruction of the global question: “How satisfied are you with your life as a whole?” which is an adaptation from Andrews and Withey’s (1976) original single-item measure of life satisfaction. Scores on these seven domains are averaged and then converted into a single, composite, percentage of scale maximum score (%SM), which has a range of 0–100 points. The conversion formula is presented in the PWI manual. The PWI exhibits adequate psychometric properties in Australia and overseas and is currently used by researchers in over 50 countries (IWG, 2013).

The items comprising the PWI-School Children (PWI-SC; Cummins & Lau, 2005) are based on the PWI for adults and have been modified for use with high-school students aged between 12 and 19 years. Several items have been reworded to increase understanding and relevance for adolescents while maintaining the essence of the original adult scale. For example, the item “How satisfied are you with your future security?” is modified to “How happy are you about what may happen to you later on in your life?” The PWI-SC also differs from the adult PWI in that respondents indicate their level of *happiness* rather than *satisfaction*. The adjective *happy* is argued to be less abstract and more comprehensible

Table 2. ABS Classifications of ARIA Into Remoteness Areas

ARIA++	ABS remoteness area	Description
0–0.2	Major cities	Relatively unrestricted accessibility to a wide range of goods, services, and opportunities for social interaction
> 0.2 ≤ 2.4	Inner regional	Some restrictions to accessibility of some goods, services, and opportunities for social interaction
> 2.4 – ≤ 5.92	Outer regional	Significantly restricted accessibility of goods, services, and opportunities for social interaction
> 5.92 – ≤ 10.53	Remote	Very restricted accessibility of goods, services, and opportunities for social interaction
> 10.53	Very remote	Very little accessibility of goods, services, and opportunities for social interaction

Note. ABS = Australian Bureau of Statistics

for school-age children. The PWI-SC has been validated for use with Indigenous and non-Indigenous young people and has been demonstrated to function equivalently to the adult-form PWI (see Tomy, Fuller-Tyszkiewicz, et al., 2014).

Level of remoteness. The Australian Standard Geographical Classification (ABS, 2006b) includes a remoteness classification. This defines geographic areas based on the National Centre for Social Applications of Geographical Information Systems (GISCA's) ARIA++ (2006) classification (GISCA, 2008). The ARIA++ gives a score (continuous between 0 and 15) based on the road distance to service towns of different sizes. Scores for regions are derived by averaging participant scores based on a 1 km² grid.

For this project, the classification was applied to the Indigenous well-being dataset at the Collection District level (the smallest geography available for this dataset) and to the Australian Unity Wellbeing Index dataset at the postcode level (the smallest geography available on this dataset). This means that the ARIA++ data are merged onto the smallest geography available on each of the datasets.

The advantage of merging onto the smallest geography available is that the results represent the most accurate geographical estimates of SWB. While the geographic basis for this allocation was made differently on each dataset, testing of a postcode level allocation of the ARIA++ onto the Indigenous dataset, using Collection District data aggregated to postcode, showed similar results.

The ARIA++ was then converted to ABS remoteness areas using the standard ABS classification shown in Table 2 (ABS, 2006).

Only a few items asked respondents to indicate other demographic characteristics, such as age, gender, and year level at school. The questionnaire was intentionally kept brief in an attempt to engage young people and not overburden them.

Procedure

The adolescent data were collected in conjunction with a program for disengaged youths, as described in Tomy, Cummins, and Norrish (2014) and Tomy, Fuller-Tyszkiewicz, et al. (2014) and funded by the Australian Federal Government Department of Education. The program provides youths with case managed supportive services and its objective is to assist young people at risk of not attaining Year 12 or equivalent or who have already disengaged from their high school education, employment and training, families, and/or

communities. The aim is to encourage these youths to make better life choices and reengage with their education and postsecondary training and employment.

The current study draws on data collected for Tomy, Norrish, and Cummins (2014) and Tomy et al. (2014), following ethics approval from the partner university. The project leader then worked closely with the Department of Education staff to ensure that prospective participants were informed as to the nature of the intended research. Once informed consent was obtained from young people and their parent or guardian, the PWI-SC was administered.

The testing procedure involved showing participants the 0–10 happiness rating scale as a visual aid to guide their responses. Case managers working at one of a number of service provider centers across the country then verbally administered the single-item measure of the Global Life Happiness and the PWI-SC. They recorded the participants' responses and entered the data into the online government database that comprised the adolescents' complete records and details (e.g., gender, age, state of residence, indigenous heritage, and year level at school). A secondary, deidentified dataset was then sent from the government database to the project leader in the form of a Microsoft Excel spreadsheet. These data, in turn, were then exported to the IBM SPSS (version 20) for analysis. Data collection took place between March 1, 2011, and January 9, 2014.

The adult data were taken from the first 30 surveys of the Australian Unity Wellbeing Index conducted between 2001 and 2013 (Cummins et al., 2013). The Australian Unity Wellbeing Index is a barometer of SWB in Australia, with each telephone interview survey involving a new and geographically representative sample of 2,000 Australian adults. Interviewers asked to speak to the person in the house who had the most recent birthday, was at least 18 years of age, and fluent in English.

RESULTS

Data Cleaning and Preparation

Data cleaning began with all cases examined for response set, which is deemed to occur when a respondent consistently scores at the scale minimum (0) or maximum (10) for all seven of the PWI domains. These cases are considered unreliable and subsequently removed before the main analyses (Cummins & Lau, 2005). Missing data were evident for the area-grouping variable for the sample as a whole. However, as missingness was not reliably related to any of the domains of the PWI (all $r_s < .05$); these cases were deleted rather than imputed. Univariate outliers ($< 5\%$) did not significantly influence mean scores on key variables and so were retained for subsequent analyses (Pallant, 2001). Absolute skew and kurtosis values were within the acceptable ranges (Curran, West, & Finch, 1996).

A 5 (remoteness classification: major city, inner regional, outer regional, remote, and very remote) \times 3 (group: adult, Indigenous adolescent, non-Indigenous adolescent) multivariate analysis of variance was conducted to evaluate potential regional differences in domain happiness/satisfaction scores, and whether these patterns based on region differed by group. Significant main effects were observed for remoteness, $F(28, 313468) = 5.56, p < .001$, and group, $F(14, 156730) = 118.44, p < .001$, and for the interaction between remoteness and group, $F(56, 548590) = 9.183, p < .001$, suggesting that region-related differences in SWB varied across the three groups.

Simple effects testing revealed significant differences for remoteness for each of the three groups: for the adult sample, $F(28, 215776) = 34.96, p < .001$; for the adolescent

Indigenous sample, $F(28, 80816) = 2.81, p < .001$; and for the adolescent non-Indigenous sample, $F(28, 16852) = 3.50, p < .001$. Means, standard deviations, and univariate effects are reported in the Appendix (Tables A1–A3). For the adult sample, the domains of relationships, safety, community, and future security differed by remoteness. The domains of health and future security differed for the adolescent Indigenous group, whereas all domains except community differed by remoteness for non-Indigenous adolescents.

Group Comparisons Compared With Australian Adult Normative Ranges

In Figures 1–3, the vertical boxes show the normal ranges for the PWI and each domain, with values derived from Cummins et al. (2013). Mean scores for each variable for each of the five comparison groups are shown as referenced by the legend in each figure.

Mean SWB for each ARIA group, represented by PWI, is within the Australian adult normative range. With respect to the domains, means for all five groups are within the normal range for all domains except for community connection, where very remote, remote, and outer regional groups are above this range.

The mean SWB for Indigenous young people in both remote location groups are at or above the adult normative range. Interestingly, means for both groups are above the normative range on the domain of health, while the city and inner regional groups are below the normal range for this domain. The two remote groups also scored at the upper end of the normal range on achieving in life, while the major city and inner regional groups again scored below. All five groups scored above or at the upper end of the normal ranges on relationships, safety, and community connection, with the remote group scoring the highest on all three of these domains. Finally, the means for all five groups are below the adult normal range on standard of living.

For non-Indigenous adolescents, the mean SWB for all five groups lies within the narrow range of 71.8 to 73.9 points, which is at the base of or below the normal range. All group means are also below the normal ranges on the domains of standard of living, health, achieving in life, and future security. They are within the normal range on relationships and safety, and above the normal range on community connection.

Within-Group Comparisons With Major City As the Reference Category

Comparisons that evaluated group differences within the context of established normative data were followed-up with pairwise comparisons presented in Tables 3–5, using major city as the reference group. These comparisons differ from those presented in Figures 1–3 in that they compare within group variations in mean SWB and domains scores for each of the five geographic locations.

In the adult sample, the city group scored significantly lower than each of the other four groups on the SWB composite, as well as lower on the PWI domains of safety and community connection. The city group also scored lower than the inner regional and outer regional groups on the domain of future security and relationships, and lower than the outer regional group on achieving in life. However, their mean was higher than the very remote group on the domain of health.

In the Indigenous adolescent sample, the city group scored significantly lower on SWB than all other groups with the exception of inner regional, which also showed no domain differences. Compared with the city area, the remote area has the highest level of SWB, with all domains except community being higher. The domain with the highest SWB within the outer and remote groups is health.

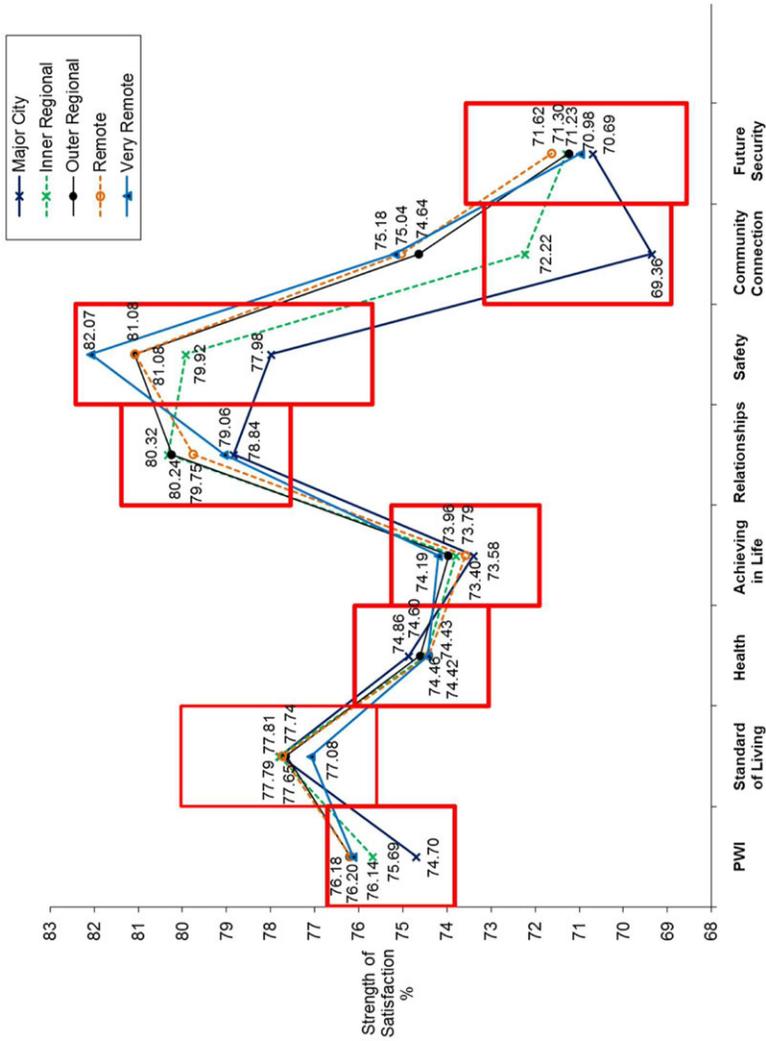


Figure 1. Means scores for adult sample compared to Australian adult normative ranges. >

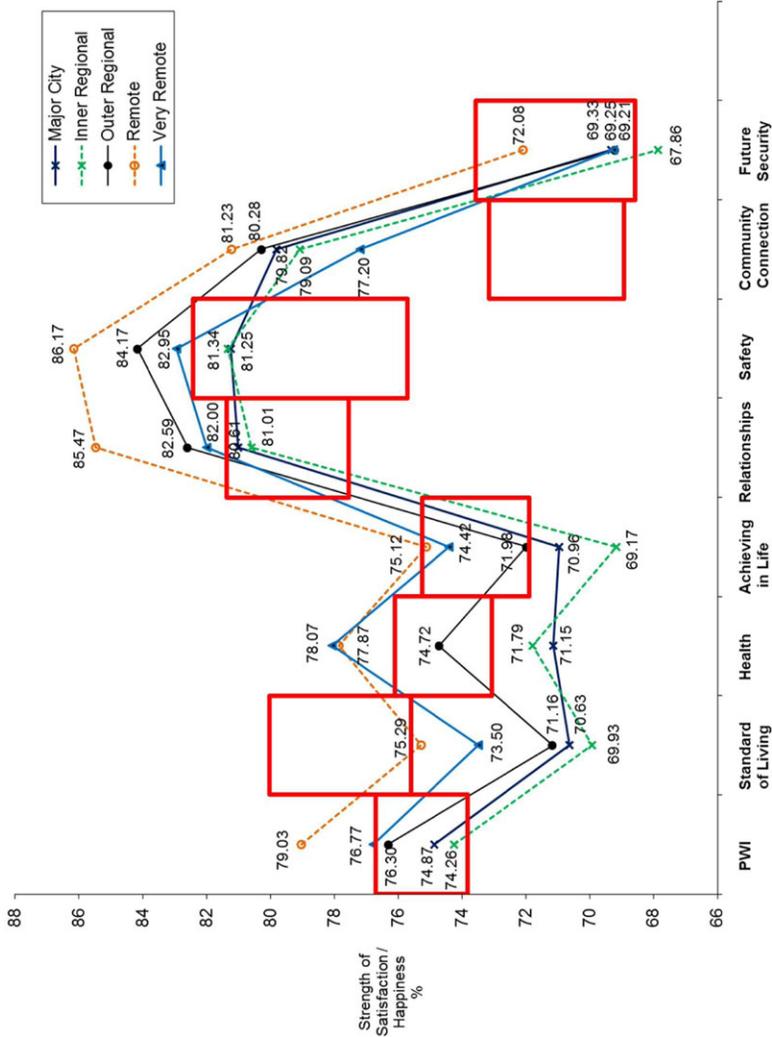


Figure 2. Means scores for Indigenous youth compared to Australian adult normative ranges.

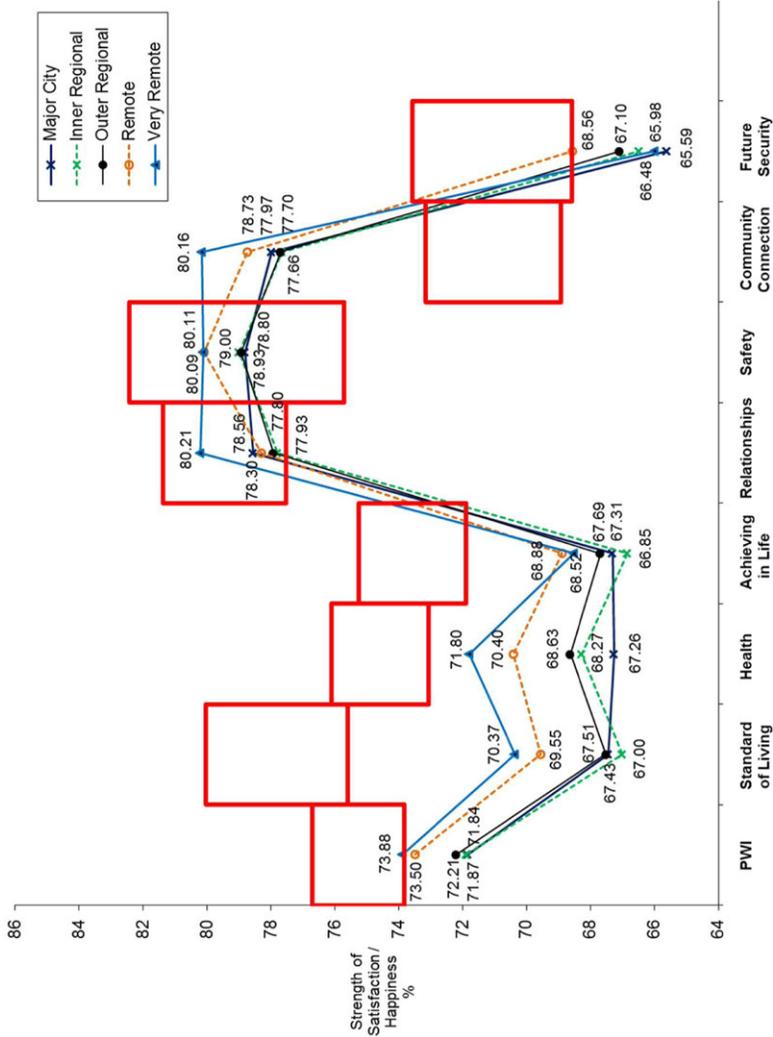


Figure 3. Means scores for Non-Indigenous sample compared to Australian adult normative ranges.

Table 3. Paired Comparisons Against “City” for Domains and SWB for Adults

ARIA df=	Inner regional 43,863		Outer regional 39,998		Remote 33,623		Very remote 33,039	
	<i>t</i>	<i>d</i>	<i>t</i>	<i>d</i>	<i>t</i>	<i>d</i>	<i>t</i>	<i>d</i>
1. Standard of living	-0.11	-.00	0.66	.01	0.11	.00	1.22	.01
2. Health	1.90	.02	1.06	.01	0.84	.01	3.31***	.04
3. Achieving in life	-0.05	-.00	-2.43*	-.02	-0.37	-.00	-1.26	-.01
4. Relationships	-6.49***	-.06	-5.25***	-.05	-1.60	-.02	-0.30	-.00
5. Safety	-10.15***	-.10	-13.82***	-.14	-6.46***	-.07	-6.61***	-.07
6. Community	-13.48***	-.13	-21.39***	-.21	-10.71***	-.12	-8.51***	-.09
7. Future security	-2.89**	-.03	-2.18*	-.02	-1.77	-.02	-0.42	-.00
PWI total	-7.39***	-.07	-9.58***	-.10	-4.43***	-.05	-3.34***	.04

Note. All groups are compared against city participants. SWB = subjective well-being; PWI = Personal Wellbeing Index; ABS = Australian Bureau of Statistics; df = degree of freedom; t = t test value; d = Cohen’s d, with positive values indicating that major city participants scored higher.

*p < .05. **p < .01. ***p < .001.

Table 4. Paired Comparisons Against “City” for Domains and SWB for Indigenous Adolescents

ARIA df=	Inner regional 1,938		Outer regional 2,418		Remote 1,234		Very remote 1,306	
	<i>t</i>	<i>d</i>	<i>t</i>	<i>d</i>	<i>t</i>	<i>d</i>	<i>t</i>	<i>d</i>
1. Standard of living	0.66	.03	-0.53	-.02	-3.19**	-.18	-2.01*	-.11
2. Health	-0.60	-.03	-3.70***	-.15	-4.64***	-.26	-5.04***	-.28
3. Achieving in life	1.87	.08	-1.16	-.05	-3.18**	-.18	-2.77**	-.15
4. Relationships	0.45	.02	-1.97*	-.08	-3.74***	-.21	-0.81	-.04
5. Safety	-0.09	-.00	-3.39***	-.14	-3.80***	-.21	-1.33	-.07
6. Community	0.75	.03	-0.51	-.02	-1.04	-.06	1.98*	.11
7. Future security	1.51	.07	0.13	.00	-2.02*	-.12	0.06	.00
PWI total	0.91	.04	-2.35*	-.10	-4.53***	-.26	-2.08*	-.12

Note. All groups are compared against city participants. SWB = subjective well-being; PWI = Personal Wellbeing Index; df = degree of freedom; t = t test value; d = Cohen’s d, with positive values indicating that major city participants scored higher.

*p < .05. **p < .01. ***p < .001.

Table 5. Paired Comparisons Against “City” for Domains and SWB for Non-Indigenous Adolescents

ARIA df=	Inner Regional 15,828		Outer Regional 13,239		Remote 10,100		Very Remote 9,760	
	<i>t</i>	<i>d</i>	<i>T</i>	<i>d</i>	<i>t</i>	<i>d</i>	<i>t</i>	<i>d</i>
1. Standard of living	1.12	.02	-0.17	-.00	-2.00*	-.04	-1.69	-.03
2. Health	-2.60**	-.04	-2.97**	-.05	-2.95**	-.06	-2.58**	-.05
3. Achieving in life	1.33	.02	-1.16	-.02	-1.64	-.03	-0.77	-.02
4. Relationships	2.25*	.04	1.56	.03	0.28	.00	-1.08	-.02
5. Safety	-0.56	-.01	-0.31	-.00	-1.33	-.03	-0.82	-.02
6. Community	0.87	.01	0.63	.01	-0.78	-.02	-1.36	-.03
7. Future security	-2.49*	-.04	-3.53***	-.06	-3.02**	-.06	-0.24	-.00
PWI total	-0.12	-.00	-1.25	-.02	-2.45*	-.05	-1.83	-.04

Note. All groups are compared against city participants. SWB = subjective well-being; PWI = Personal Wellbeing Index; df = degree of freedom; t = t test value; d = Cohen’s d, with positive values indicating that major city participants scored higher.

*p < .05. **p < .01. ***p < .001.

In the non-Indigenous adolescent sample, the city group scored significantly lower than the remote group on the SWB composite, as well as the domains of future security, health, and standard of living. The city group also scored lower than the other three groups on health and lower than the inner regional and outer regional groups on future security. The city group did, however, score significantly higher than the inner regional group on the domain of relationships.

DISCUSSION

The aim of this study was to test two linked hypotheses. The first is that, following the results of Cummins et al. (2008), people living in rural but not remote parts of the country will have higher SWB than people living in cities. This hypothesis is partially supported. For adults, all four regional and remote areas had higher SWB than cities. The results for adolescents were more mixed. Although the Indigenous adolescents showed a similar result to adults, with the exception of inner regional, the non-Indigenous adolescents showed no systematic advantage over the four geographic areas. It is interesting to demonstrate the different perceptions of adults and adolescents and is discussed in more detail (below) relating to domain differences.

These further insights into domain-level geographic differences come from Tables 3–5, which comprise a total of 84 domain comparisons (7 domains x 4 regions x 3 groups). Only one of these shows a reliably ($p < .01$) higher value for city living. This concerns the lower health satisfaction of people living in very remote areas, which is likely linked to the paucity of available medical services.

A second observation concerning these domains is that the 36 comparisons significant at $p < .05$ are not equally distributed between the regions. Relative to city dwelling, the significant comparisons are located in the following areas: inner regional (7), outer regional (10), remote (11), and very remote (8). These results do confirm, in part, the first hypothesis and the trend reported previously by Cummins et al. (2008), using data from the first 18 surveys of the Australian Unity Wellbeing Index. That is, the highest levels of SWB most consistently occur in towns and centers located at a middle-range distance from larger cities. Once the distance becomes too great and the isolation and lack of amenities become a threat to life quality, SWB in very remote locations tends to fall back to more closely approximate the average level of SWB in cities.

The pattern of domain differences between the three groups also provides additional information to explain geographic differences in overall SWB. The within-group distribution of the 36 significant domain comparisons is adult (14), Indigenous adolescent (13), and non-Indigenous adolescent (9). Thus, although the first two groups benefit equally from rural living, this trend is far less marked for the non-Indigenous adolescents. The reason for this rural advantage is uncertain. For the adults in particular, it could be due to self-selection, such that people who desire a strong level of contact with neighbors and community seek rural settings. Or it could be that the rural settings engender a closer community. These questions are given some enlightenment from testing the second hypothesis, that satisfaction with the interpersonal domains of community connection and relationships will be lower for people living in cities, compared with people living in regional and remote parts of the country.

The distribution of the 36 significant within-domain differences is as follows: health (8), safety (6), future security (6), community connection (5), relationships (5), standard

of living (3), and achieving in life (3). However, there are both regional and group differences within this distribution, which adds complexity to testing the second hypothesis.

These results do show that satisfaction with community is higher for adults in all four regional and remote areas (Table 3). However, this does not apply to either of the adolescent groups, who show no reliable advantage over city. In terms of relationships, again, adults show a strong advantage over city, but only for inner and outer regional. The more remote adult groups show no advantage and the adolescent groups show no consistent pattern of difference from city. So, in summary, the second hypothesis is supported for adults in relation to community and for relationships, but only in relation to the two regional areas. These findings further highlight the important role that relationships play in facilitating important social bonds that supports well-being, which may offer a sense of safety and security, characteristic of regional and remote communities, and which are becoming less frequent in larger cities. The hypothesis, however, is not supported in relation to adolescents.

Interestingly, in contrast to the belief that Indigenous people who live in remote locations have greater opportunity to be part of a strongly functioning community as well as having greater access to their traditional lands and culture, the remote group did not score higher than the city group on the domain of community connection. In fact, contrary to our expectation, the city group scored higher than the very remote group on this domain, although this difference was not significant. Thus, the suggested link between access to lands and well-being among Indigenous peoples is not supported by these data. However, the advantage of remote living compared with city living in terms of supporting well-being appears to be facilitated by a greater sense of satisfaction with safety and relationships, perhaps arising from the connection with family and extended social support networks through the traditional kinship system.

Moving now to exploratory observations, from the overall distribution of domain differences from city listed earlier, it is evident that the domain of health shows the most consistent advantage of rural/remote living. This time, however, it is adolescents who show the advantage. Of the eight significant comparisons of health satisfaction, seven come from the two adolescent groups. Thus, while the preeminence of health fulfils folk wisdom concerning “healthier living” outside the cities, this is mainly confined to adolescents.

The final domain of interest is safety, which is consistently higher in regional and remote areas for adults. This result clearly links with their stronger sense of community satisfaction mentioned earlier. Notably, however, this effect is diminished for Indigenous adolescents and disappears for non-Indigenous.

Major Implications for Indigenous Policy

For several decades now, Australian governments have grappled with the response to Indigenous disadvantage. The most recent Indigenous Expenditure Report (Steering Committee for the Review of Government Service Provision, 2014) documents that \$AUS30.3 billion (6.1% of total direct government expenditure) was allocated for programs and services for Indigenous people. However, the report also suggests that improvements in the health and well-being of Indigenous people are slow and inconsistent. Our results add to understanding by showing that Indigenous adolescents experience higher subjective well-being if they live in rural settings. This suggests that either there may be buffering elements of rural life or city life carries a range of threats to their well-being. Moreover, these factors differentially influence the domain profile of these adolescents (Table 4). Further investigation of such threats to well-being is required to inform policy.

Limitations

One limitation of this study is the potential lack of representativeness of the Indigenous and non-Indigenous adolescent samples relative to the Australian population. This reflects the challenges researchers face in obtaining quantitative self-report data for children and adolescents, including informed consent and engagement with schools. Collecting such data from Australia's Indigenous adolescent population is even more difficult because of a complex political environment and even more complicated ethical and recruitment processes. Consequently, such data are rare and matched samples are, to our knowledge, nonexistent. This makes the collection of such data a challenge for the future. These data in the current study were collected through a government department and some demographic data were not captured. Although this lack of descriptive information does not make the comparisons unreliable or ungeneralizable, the comparisons are less sensitive to statistical differences.

Moreover, though not representative, these data presented throughout this study are valuable, particularly given that no other such data exist in Australia. These data will contribute greatly to our understanding of Australian Indigenous adolescents' SBW and to helping to facilitate further discussion on this important topic. For example, the need to collect and establish Australian adolescent SWB normative data for Indigenous and non-Indigenous samples, which would greatly promote our understanding of the subjective happiness of Australian adolescents, similarly to what the Australian Unity Wellbeing Index has achieved with Australia's adult population.

Finally, it should also be noted that the adult sample would have included some Indigenous adults. Based on general population data, this proportion of Indigenous adults would be no greater than 1.25%. It would not be expected that their inclusion would substantially influence our results.

Conclusions

This is the first published study to compare samples of Indigenous and non-Indigenous Australian residents living in five geographic areas classified by remoteness, using the same standardized measure of SWB. Comparing samples of Indigenous and non-Indigenous adolescents to Australian adults, the major results suggest that there may be advantages to rural living compared with major cities. In the Australian adult population, SWB in rural settings appears to be supported by a greater sense of community belonging compared with people living in densely populated areas. In Indigenous populations, the positive effect of living in rural settings may be founded in greater connections with kinship and extended family networks, which provide young people with a sense of safety and security. However, the results suggest that there may be an optimum size of community that acts as to buffer the well-being of both Indigenous adolescents and the general population through the mechanisms described, in addition to having access to a reasonable level of amenities.

REFERENCES

- Anderson, I. (1996). Aboriginal well-being. In C. Grbich (Ed.), *Health in Australia: Sociological Concepts and Issues* (pp. 58–75). Sydney: Prentice Hall.
- Andrews, F. M., & Withey, S. B. (1976). *Social indicators of well-being: American's perceptions of life quality*. New York: Plenum Press.

- Australian Bureau of Statistics. (2006). Statistical geography volume 1—Australian Standard Geographical Classification (Cat No. 1216.0) ABS: Australia. Retrieved from: <http://www.abs.gov.au/Ausstats/abs@.nsf/0/0D204FD3DCD90564CA256F19001303A2?opendocument>
- Australian Bureau of Statistics. (2010a). 1370.0. Measures of Australia's progress. Retrieved from: [http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~Aboriginal%20and%20Torres%20Strait%20Islander%20peoples%20\(3.5\)](http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~Aboriginal%20and%20Torres%20Strait%20Islander%20peoples%20(3.5))
- Australian Bureau of Statistics. (2010b). 1301.0—Year book chapter, Australia, 2009–10. Retrieved from: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/1301.0Feature+Article9012009%E2%80%9310>
- Australian Bureau of Statistics. (2010c). Australian social trends September 2010. Retrieved from: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features10Sep+2010>
- Australian Bureau of Statistics. (2010d). 4704.0—The health and welfare of Australia's Aboriginal and Torres Strait Islander Peoples. <http://www.abs.gov.au/AUSSTATS/abs@.nsf/lookup/4704.0Chapter400Oct+2010>
- Australian Bureau of Statistics. (2013). 4125.0—Gender indicators, Australia: Life expectancy. Retrieved from: <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4125.0main+features3110Jan%202013>
- Australian Bureau of Statistics & Australian Institute of Health and Welfare. (2008). The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples. Retrieved from: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442458617>
- Cummins, R. A. (1995). On the trail of the gold standard for subjective wellbeing. *Social Indicators Research*, 35, 179–200.
- Cummins, R. A. (2000). Personal income and subjective well-being: A review. *Journal of Happiness Studies*, 1, 133–158.
- Cummins, R. A. (2010). Subjective wellbeing, homeostatically protected mood and depression: A synthesis. *Journal of Happiness Studies*, 11, 1–17. doi:10.1007/s10902-009-9167-0
- Cummins, R. A. (2016). The theory of subjective wellbeing homeostasis: A contribution to understanding life quality. In F. Maggino (Ed.), *A life devoted to quality of life—Festschrift in Honor of Alex C. Michalos* (Vol. 60, pp. 61–79). Dordrecht, Netherlands: Springer.
- Cummins, R. A., & Lau, A. L. D. (2005). *Personal Wellbeing Index-School Children* (3rd ed.). Retrieved from http://www.deakin.edu.au/research/acqol/instruments/wellbeing_index.htm
- Cummins, R. A., Hamilton, L., Lai, L., Woerner, J., & Weinberg, M. (2008). The wellbeing of Australians: differences between statistical sub-divisions, towns and cities. Retrieved December from <http://www.acqol.com.au/reports/survey-reports/survey-019-1-report-part-a.pdf>
- Cummins, R. A., Li, N., Wooden, M., & Stokes, M. (2014). A demonstration of set-points for subjective wellbeing. *Journal of Happiness Studies*, 15(1), 183–206. doi:10.1007/s10902-013-9444-9
- Cummins, R. A., Woerner, J., Weinberg, M., Collard, J., Hartley-Clark, L., & Horfiniak, K. (2013). Australian unity wellbeing index survey 30.0 part A: The report. The Wellbeing of Australians: Social media, personal achievement, and work. Retrieved from <https://www.deakin.edu.au/research/acqol/auwbi/survey-reports/survey-030-report-part-a.pdf>
- Cummins, R. A., & Wooden, M. (2014). Personal resilience in times of crisis: The implications of SWB Homeostasis and set-points. *Journal of Happiness Studies*, 15(1), 223–235. doi:10.1007/s10902-013-9481-4
- Cunningham, J., & Paradies, Y. C. (2013). Patterns and correlates of self-reported racial discrimination among Australian Aboriginal and Torres Strait Islander adults, 2008–09: analysis of national survey data. *International Journal for Equity in Health*, 12(1), 47.
- Curran, P. J., West, G. W., & Finch, J. F. (1996). The robustness of test statistics to non-normality and specification error in confirmatory factor analysis, *Psychological Methods*, 1, 16–29.

- Headey, B., & Wearing, A. (1989). Personality, life events, and subjective wellbeing: Toward a dynamic equilibrium model. *Journal of Personality and Social Psychology*, 57(4), 731–739.
- Headey, B., & Wearing, A. (1992). *Understanding happiness: A theory of subjective wellbeing*. Melbourne: Longman Cheshire.
- Henderson, G., Robson, C., Cox, L., Dukes, C., Tsey, K., & Haswell, M. (2007). Social and emotional wellbeing of Aboriginal and Torres Strait Islander People within the broader context of the social determinants of health. In I. Anderson, F. Baum, & M. Bentley (Eds.), *Beyond band-aids: Exploring the underlying social determinants of Aboriginal health* (pp. 136–164). Victoria: Darwin Cooperative Research Centre for Aboriginal Health.
- High Court of Australia. (1992). *Mabo and Others v Queensland (No. 2)* [1992] High Court of Australia 23; (1992) 175 CLR 1. Retrieved from: <http://www.austlii.edu.au/au/cases/cth/HCA/1992/23.html>
- International Wellbeing Group. (2013). *Personal wellbeing index—Adult*. Retrieved from: <http://www.acqol.com.au/iwbg/wellbeing-index/pwi-a-english.pdf>
- Malik, K. (2013). *Human development report 2013*. New York: UNDP.
- McCoy, B. F. (2004). *Kanyirninpa: Health, masculinity and wellbeing of desert Aboriginal men*. Retrieved from: <https://minerva-access.unimelb.edu.au/handle/11343/39478#files-area>
- National Centre for Social Applications of GIS. (2008). *Accessibility Remoteness Index of Australia 2006*. Retrieved from: <https://www.adelaide.edu.au/apmrc/research/projects/category/aria.html>
- Paradies, Y. C., & Cunningham J. (2009). Experiences of racism among urban Indigenous Australians: Findings from the DRUID study. *Ethnic and Racial Studies*, 32(3), 548–573.
- Priest, N., Paradies, Y., Gunthorpe, W., Cairney, S., & Sayers, S. (2011). Racism as a determinant of social and emotional wellbeing for Aboriginal Australian youth. *Medical Journal of Australia*, 194(10), 546–550.
- Steering Committee for the Review of Government Service Provision. (2014). *2014 Indigenous Expenditure Report*. Retrieved from: <http://www.pc.gov.au/research/recurring/indigenous-expenditure-report/indigenous-expenditure-report-2014/indigenous-expenditure-report-2014.pdf>
- Taylor, N. (2009). *Juveniles in Detention in Australia, 1981–2007, Monitoring report no. 5*. Retrieved from: <http://www.aic.gov.au/publications/current%20series/tandi/401-420/tandi416.html>
- Tomyn, A. J., Cummins, R. A., & Norrish, J. M. (2014). The subjective wellbeing of ‘at-risk’ indigenous and non-indigenous Australian adolescents. *Journal of Happiness Studies*, 1–25. doi:10.1007/s10902-014-9535-2
- Tomyn, A. J., Fuller-Tyszkiewicz, M., & Norrish, J. M. (2014). The psychometric equivalence of the personal wellbeing index school-children for indigenous and non-indigenous Australian adolescents. *Journal of Happiness Studies*, 15(1), 43–56. doi:10.1007/s10902-013-9415-1
- Tomyn, A. J., Norrish, J. M., & Cummins, R. A. (2013). The subjective wellbeing of indigenous Australian adolescents: Validating the personal wellbeing index- school children. *Social Indicators Research*, 110(3), 1013–1031. doi:10.1007/s11205-011-9970-y
- Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioural Medicine*, 32(1), 20–47. doi:10.1007/s10865-008-9185-0
- Zubrick, S. R., Dudgeon, P., Gee, G., Glaskin, B., Kelly, K., Paradies, Y., & Walker, R. (2010). Social determinants of Aboriginal and Torres Strait Islander social and emotional wellbeing. In N. Purdie, P. Dudgeon, & R. Walker (Eds.), *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice* (pp. 200–250). Canberra: Commonwealth of Australia.

Appendix

Table A1. Differences in SWB for Each Remoteness Classification Group for the Adult Sample

ARIA N =	Major city 32,193		Inner regional 11,672		Outer regional 7,807		Remote 1,432		Very remote 848		ANOVA		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	df	F	P
1. Standard	77.79	16.66	77.81	17.43	77.65	17.81	77.74	17.90	77.08	19.02	4,53947	0.46	.766
2. Health	74.86	19.28	74.46	20.13	74.60	20.10	74.42	20.55	74.43	21.18	4,53947	1.14	.334
3. Achieving	73.40	18.06	73.79	18.72	73.96	19.22	73.58	19.54	74.19	18.80	4,53947	2.14	.073
4. Relationships	78.84	21.01	80.32	21.43	80.24	21.74	79.75	21.73	79.06	22.62	4,53947	14.10	.000
5. Safety	77.98	17.75	79.92	17.54	81.08	17.91	81.08	18.32	82.07	19.56	4,53947	72.45	.000
6. Community	69.36	19.63	72.22	19.65	74.64	19.32	75.04	19.73	75.18	20.69	4,53947	159.45	.000
7. Future	70.69	19.45	71.30	19.76	71.23	20.33	71.62	19.79	70.98	21.99	4,53947	3.10	.015
PWI total	74.70	12.34	75.69	12.57	76.20	12.73	76.18	12.73	76.14	13.67	4,53947	33.09	.000

Note. SWB = subjective well-being; PWI = Personal Wellbeing Index; SD = standard deviation; df = degree of freedom; ANOVA = analysis of variance.

Table A2. Differences in SWB for Each Remoteness Classification Group for the Indigenous Adolescent Group

ARIA N =	Major city 894		Inner regional 1,046		Outer regional 1,526		Remote 342		Very remote 414		ANOVA		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	df	F	P
1. Standard	70.63	23.41	69.93	23.09	71.16	24.22	75.29	21.88	73.50	25.24	4, 4216	4.39	.002
2. Health	71.15	22.91	71.79	23.72	74.72	22.88	77.87	22.43	78.07	23.50	4, 4216	11.68	.000
3. Achieving	70.96	20.13	69.17	21.77	71.98	21.39	75.12	21.68	74.42	22.73	4, 4216	7.81	.000
4. Relationships	81.01	19.21	80.61	20.11	82.59	18.96	85.47	17.49	82.00	23.13	4, 4216	4.88	.001
5. Safety	81.25	21.19	81.34	21.19	84.17	19.96	86.17	18.03	82.95	22.36	4, 4216	6.52	.000
6. Community	79.82	21.28	79.09	21.53	80.28	21.36	81.23	21.64	77.20	24.37	4, 4216	2.27	.059
7. Future	69.33	21.67	67.86	21.20	69.21	22.41	72.08	20.57	69.25	24.26	4, 4216	2.43	.045
PWI total	74.87	14.65	74.26	14.73	76.30	14.35	79.03	13.87	76.77	16.71	4, 4217	8.77	.000

Note. SWB = subjective well-being; PWI = Personal Wellbeing Index; SD = standard deviation; df = degree of freedom; ANOVA = analysis of variance.

Table A3. Differences in SWB for Each Remoteness Classification Group for the Non-Indigenous Adolescent Group

ARIA N =	Major city 9,574		Inner regional 6,257		Outer regional 3,668		Remote 529		Very remote 189		ANOVA		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	df	F	P
1. Standard	67.43	23.71	67.00	23.71	67.51	23.71	69.55	23.65	70.37	24.20	4,20207	2.30	.057
2. Health	67.26	23.91	68.27	23.79	68.63	23.47	70.40	22.50	71.80	25.39	4,20207	5.68	.000
3. Achieving	67.31	21.47	66.85	20.80	67.69	21.13	68.88	20.40	68.52	22.76	4,20207	1.90	.108
4. Relationships	78.56	20.89	77.80	20.64	77.93	20.59	78.30	20.54	80.21	20.47	4,20207	1.92	.104
5. Safety	78.80	21.74	79.00	22.00	78.93	21.89	80.09	20.42	80.11	21.44	4,20207	0.61	.653
6. Community	77.97	21.94	77.66	22.06	77.70	22.16	78.73	21.64	80.16	20.28	4,20207	0.96	.426
7. Future	65.59	22.08	66.48	21.88	67.10	21.92	68.56	20.16	65.98	21.08	4,20207	5.21	.000
PWI total	71.84	15.24	71.87	15.04	72.21	15.17	73.50	14.34	73.88	15.12	4,20211	2.58	.035

Note. SWB = subjective well-being; PWI = Personal Wellbeing Index; SD = standard deviation; df = degree of freedom; ANOVA = analysis of variance.