SELF-REPORT VERSUS INFORMANT-REPORT IN THE MEASUREMENT OF MĀORI OFFENDERS' WELLBEING

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Abstract

Wellbeing has predominantly been measured using self-report. However, methodological issues have led to an increased interest in informant-report. Māori literature suggests wellbeing measures should involve the self and others, providing a holistic view of Māori experience. Given the potential for differing impressions, and the implications of this for Māori, self-report versus other-report approaches to assessing wellbeing is an important area of exploration. This study administered the Hua Oranga wellbeing measure to 60 Māori male offenders and 11 officers at Waikeria Prison, to investigate the relationship between self-reported and informant-reported wellbeing. Data were analysed via correlation coefficients and a generalised linear model. Results indicated significant differences between stakeholders, with offenders reporting higher wellbeing, and greater change in wellbeing over time, than informants. This study may inform future assessments of Māori offenders' wellbeing, in terms of the complexities, issues and implications that exist in the differing methods of measurement.

Keywords

Māori wellbeing, informant-report, self-report, convergence, Hua Oranga, Te Ao Marama

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Introduction

Self-report allows participants to give first-hand information about their thoughts or feelings, enabling investigation of individuals' internal states (Russell & Lawson, 2010). It seems appropriate that the assessment of wellbeing should be made by "whoever lives inside a person's skin" (Myers & Diener, 1995, p. 11). Self-report measures commonly contain questions that have good face validity (the extent to which an assessment appears to measure what it is intended to measure). However, given that high face validity may make the purpose of the scale obvious to the participant, selfreport wellbeing measures tend to have a high prevalence of both under-reporting and overreporting responding biases (Nisbett & Wilson, 1977).

Lucas, Diener and Suh (1996) argued that self-report wellbeing measures tend to be affected by social desirability, with individuals over-reporting happiness and under-reporting unhappiness. Congruent with this, Harvey, Barry, Fitzgerald, Evans and Bennett (2007), who investigated the wellbeing of young persons with complex needs, found participants minimised difficulty in an attempt to be perceived positively, and to engage in impression management (a process by which individuals attempt to influence others' perceptions of them in satisfying their needs and goals; Aronson, Wilson, & Akert, 2009). Conversely, their study found some participants exaggerated reported problems in order to obtain some secondary gain, consistent with malingering (the fabrication or exaggeration of symptoms with the goal of receiving a reward; American Psychiatric Association, 2013).

Responding biases could have significant implications. In self-reports, under-reporting of difficulty may result in service providers overlooking psychological difficulty when it is present (false negative), and over-reporting may result in diagnoses of psychological difficulty when it is not present (false positive) (Banerjee,

Chitnis, Jadhav, Bhawalkar, & Chaudhury, 2009). Concerns surrounding the use of self-report measures led to increased interest in the application of informant-reporting.

Vazire (2006) described informant-reporting as a valid gauge of psychological functioning that may address questions unable to be examined through self-reporting. Sandvik, Diener and Seidlitz (1993) suggested that, while respondents may misreport their internal experience, they are less likely to be able to hide their feelings from knowledgeable others. Informantreports have often been considered "objective" (judgements based on personal neutrality), while self-reports have been considered "subjective" (judgements influenced by individual personal impressions, feelings and opinions rather than external facts) (Kolanowski, Hoffman, & Hofer, 2007; Lepper, 1998; Pavot & Diener, 1993). Therefore, informant-reporting is considered less likely to be affected by responding biases (Sandvik et al., 1993).

However, this does not consider the potential for informant responding to be influenced by outcome. Specifically, social desirability may influence informant-report when the informant has vested interests in what is being measured, such as the impact of an intervention when the informant is central to its delivery (Sonuga-Barke et al., 2013; Thapar et al., 2015). Furthermore, power differentials between individuals and their informants, and the culture of the environment, may influence informant responding (Gibson et al., 2014; Roloff & Cloven, 1990). Goodwin, Gubin, Fiske and Yzerbyt (2000) suggested that, when making judgements of others in environments that have hierarchical structures, powerful people might make an effort to maintain stereotypes of their subordinates, fulfilling motivational pressures that accompany power holders' positions of control and unique authority to judge. For example, in a prison setting, a correctional officer's perception of an inmate's wellbeing is likely to be affected by the institutional culture of prisons, in which the role of officer versus offender implies a "law-enforcer versus law-breaker" or "us versus them" relationship, and the significant power differentials between officer and inmate, the officer being "superior" and the offender "inferior" (Broomfield, 2008; Grunseit, Forell, & McCarron, 2008). Therefore, informant responses may (consciously or unconsciously) function to maintain the dynamic of power positioning and the status quo of the prison culture (Goodwin et al., 2000).

Furthermore, the way in which we construe and perceive information may be a result of our past experiences and exposure to new experiences, which builds our knowledge bases and continues to shape our perspectives over our lifetime (Meiser-Stedman Smith, Glucksman, Yule, & Dalgleish, 2007). Therefore, individuals' perceptions of others may be substantiated by their own pre-existing experiences, with the notion of objective assessment, or "objectivity" more broadly, actually referring to a different constructed subjectivity (Campbell & Fiske, 1959).

Limitations in the use of self-reports or informant-reports alone led to efforts to use both methods in the measurement of wellbeing (Meiser-Stedman et al., 2007; Sandvik et al., 1993). The research of Stasiak et al. (2012), which explored the measurement of young persons' mental health outcomes in New Zealand, found that Māori and non-Māori participants acknowledged the value of including both a self-report and a familiar person's perspective in the measurement of psychological functioning. Similarly, Durie and Kingi (1997) suggested that Māori wellbeing should be measured by incorporating several stakeholders' perspectives. This subsequently led to Kingi's (2002) development of the Hua Oranga Māori wellbeing measure, which amalgamated ratings of the self and others in producing an overall wellbeing score. The incorporation of both selfreport and informant-report in psychological measurement resulted in the desire for research to establish the level of convergence between stakeholder perspectives (Lucas et al., 1996).

Convergence may be established when two measures of the same trait are highly correlated (Campbell & Fiske, 1959). Cohen's (1988) criteria for interpreting Pearson product-moment correlation coefficients suggest that, in a positive or negative direction, 0.10–0.29 is a small/weak correlation, 0.30-0.49 is medium/moderate and 0.50–1.0 represents a large/strong correlation. Lyubomirsky and Lepper (1999), who developed the Subjective Happiness Scale (SHS), explored the convergence between self-reporting and informant-reporting. They indicated moderate to strong agreement between stakeholders' ratings on the SHS, with correlations ranging from 0.41 to 0.66. Similarly, several studies have demonstrated moderate correlations between self-reported and informant-reported wellbeing (see Diener, Smith, & Fujita, 1995; Goldings, 1954; Hartmann, 1934; Lucas et al., 1996). While these studies suggest some consistency between self-reports and informant-reports, the majority of the research demonstrated low to nil correlations between perspectives (see F. M. Andrews & Withey, 1976; Bosson, Swann, William, & Pennebaker, 2000; Funder, 1989; Leathem, Murphy, & Flett, 1998; Schimmack & Diener, 2003).

However, the "need" for stakeholders' perspectives to converge may undervalue the significance of differing perspectives in psychological measurement. Diener (2009) argued that stakeholder incongruence may provide deeper insight into the nature of wellbeing and its causes than stakeholder congruence. Further, a lack of convergence may suggest that stakeholders approach the assessment process from different perspectives, experiences and knowledge bases, bringing a "multidimensional" aspect to the assessment process (Campbell & Fiske, 1959; Meiser-Stedman et al., 2007).

With regard to the measurement of wellbeing, the incongruence between self-reports and informant-reports demonstrated in the literature suggests that using a single source of measurement may miss vital information, while measures that amalgamate self-reporting with informant-reporting may produce an inaccurate presentation of an individual's wellbeing. The implications of this could be significant. Limited wellbeing measurement may indicate higher happiness than experienced, missing low, depressed mood and the need for therapeutic intervention. This is an important issue given that wellbeing has been found to predict suicidality (Koivumaa-Honkanen, Honkanen, Koskenvuo, & Kaprio, 2003). Conversely, limited measurement may also predict lower happiness than experienced, resulting in misdiagnosis and the inappropriate allocation of support resources. Furthermore, limited and inaccurate measurement may result in clients feeling patronised and misunderstood, subsequently damaging client-practitioner rapport (Mosterman & Hendriks, 2011).

Accurate measurement of wellbeing may be of significance within a Māori offending population. Failing to measure Māori wellbeing through a holistic approach, which considers the perspective of the offenders themselves, may strip individuals of tino rangātiratanga, a key concept of the Tiriti o Waitangi, which may subsequently serve to reduce the wellbeing of Māori offenders (Wikiriwhi, 1998). Furthermore, given that psychological difficulty is significantly higher among prisoners than among the general population (Indig, Gear, & Wilhelm, 2016), and Māori are over-represented in prisons (Ministry of Justice, 2009), accurate measurement of Māori offenders' wellbeing is essential. Moreover, since Māori wellbeing has been found to negatively relate to antisociality (Chalmers, 2014; Kupenga-Wanoa, 2004; Lawson-Te Aho, 1998; Maynard, Coebergh, Anstiss, Bakker, & Huriwai, 1999) and Māori consistently exhibit disproportionately high rates of offending and recidivism (Department of Corrections, 2001; Ministry of Justice, 2009; Statistics New Zealand, 2012), a valid and holistic gauge of this construct may be fundamental in further exploring the relationship between Māori wellbeing and offending.

The current study aimed to investigate self-report versus other-report approaches to assessing wellbeing in a Māori offender population. This was conducted by exploring whether self-reported and informant-reported wellbeing ratings from offenders and officers in Waikeria Prison's Māori Focus Unit (MFU), Te Ao Marama, were convergent or whether they represented differences in perspectives. Given the potential for variation in impressions, and the implications this may have for Māori, this was considered an important area of exploration. This study may inform future research regarding the complexities and issues that exist in the differing methods of Māori wellbeing measurement.

Method

Te Ao Marama

Te Ao Marama is one of five MFUs within the New Zealand prison system. It is a 60-bed custodial unit operating with a 6-month minimum length of stay and a 24-month maximum length of stay (Department of Corrections, 2009). Te Ao Marama focuses on developing an offender's Māori identity by enhancing tikanga, encouraging participation in culturally meaningful rituals and ceremonies, incorporating courses on Māori culture and language, involving respected Māori elders and renewing whānau affiliations (Byers, 2002; Department of Corrections, 2009; Ministry of Justice, 2005). Developments in these areas are suggested to contribute to strengthened Māori wellbeing—a construct found to be negatively correlated with antisociality (Chalmers, 2014; Kupenga-Wanoa, 2004; Lawson-Te Aho, 1998; Maynard et al., 1999).

Participants: Offenders

Participants consisted of 60 male Māori offenders who were housed in Te Ao Marama from

November 2011 to April 2012, and who identified with a range of iwi. They were between 18 and 69 years old, with the average age of the sample being 30 years old, congruent with the average age of the general prison population (M = 31 years; Department of Corrections, 2003). Offenders had spent an average of 7.9 months in Te Ao Marama at the commencement of the study.

The Risk of Reconviction and Risk of Imprisonment tool (RoC*RoI) is a secondgeneration actuarial risk assessment, developed from statistical information based on the case histories of 133,000 New Zealand offenders, designed by Bakker, O'Malley and Riley (1999). The tool uses a mathematical formula (static facts about the offenders and each offence they have committed) to calculate a probable estimate of offenders' risk of re-imprisonment five years following release, and can range from 0 (indicating a very low probability of recidivism) to 1 (indicating a very high probability of recidivism), with a score of between 0.3 and 0.7 indicative of medium risk (Bakker et al., 1999). RoC*RoI scores are used to guide decisionmaking about prioritising effective correctional rehabilitation (D. A. Andrews & Bonta, 2010). Research suggests that for optimum effectiveness interventions should be based on the level of risk of re-offending, with high-risk offenders receiving greater intervention and low-risk offenders receiving minimum or no intervention (Wikiriwhi, 1998).

The offenders' RoC*RoI scores in the current

study ranged from 0.06 to 0.89, with the average RoC*RoI being 0.50 (medium risk). While this indicates that some participants' risk levels fell below the requisite risk threshold for rehabilitative programmes, the Waitangi Tribunal's (2005) report asserted that the MFU would be made available to lower-risk offenders, and would generally target offenders with a medium risk of recidivism.

Participants: Officers

Eleven Department of Corrections officers participated in the study: 10 male and 1 female who were working in Te Ao Marama from November 2011 to April 2012. They held various roles within Te Ao Marama, including principal correctional officer (× 1), residential manager officer (× 1), whānau liaison officer (× 1) and correctional officers (× 8). Nine identified as Māori and two identified as New Zealand European. Officers were selected by the participating offenders, who nominated a staff member they felt knew them well and would be suitable to comment on their experiences within the unit. Their responses constituted the informant-reports.

Measure: The Hua Oranga measure of Māori wellbeing

The current study adopted a Māori concept of wellbeing stemming from Te Whare Tapa Whā (Durie, 1994). Te Whare Tapa Whā is based on

TABLE 1 Te Whare Tapa Whā model (adapted from Durie, 1996).

Focus	Taha Wairua: Spiritual	Taha Hinengaro: Mental	Taha Tinana: Physical	Taha Whānau: Extended Family
Key aspects	The capacity for faith and wider communion	The capacity to communicate, to think and to feel	The capacity for physical growth and development	The capacity to belong, to care and to share
Themes	Health is related to unseen and unspoken energies	Mind and body are inseparable	Good physical health is necessary for optimal development	Individuals are part of wider social systems

a four-part health model pertaining to the four walls of a house, with each construct representing a different paradigm—taha wairua, taha hinengaro, taha tinana and taha whānau—all of which are necessary for strength and symmetry (see Table 1; Durie, 1985).

In 1997, an initial framework, which identified a number of fundamental principles for measuring Māori mental health outcomes stemming from Te Whare Tapa Whā, was developed (Durie & Kingi, 1997). Building on the work conducted in 1997, Kingi's (2002) research transformed the framework into a Māori mental health outcome measure named the Hua Oranga.

The Hua Oranga model encompasses a triangulated approach, presenting the opportunity for views from three stakeholders to be explored: the service users themselves, their whānau and a clinical perspective (Durie & Kingi, 1997). It consists of a questionnaire for each stakeholder, producing subscale scores and an overall wellbeing score for each respondent (Durie & Kingi, 1997). The four Hua Oranga subscales consist of four items each, which each respondent scores in regard to the degree of change the subject has experienced as the result of an intervention. This ranges from +2 to -2, representing Much More, More, No Change, Less and Much Less, respectively. It is suggested that the total scores from each stakeholder should then be merged and averaged to produce a subject's overall wellbeing score (Durie & Kingi, 1997). The Hua Oranga has a maximum overall score of 32 and a minimum overall score of -32, with a high score indicating higher wellbeing and a more positive outcome, and a low or negative score suggesting lower wellbeing and a less satisfactory outcome.

In the present study, the clinical and whānau stakeholder positions were merged into a nominated person's "informant-report". This was due to offenders having limited clinical exposure, and many offenders reporting fragmented relationships with immediate whānau. When offenders were asked who they perceived to be

the most suitable to comment on their experience of wellbeing while housed in Te Ao Marama, their responses predominantly indicated Te Ao Marama officers as most suitable. This merging of stakeholders can be seen as incorporating the perspective of a service delivery professional (given that the officers are Te Ao Marama staff members), alongside a kaupapa-based whānau perspective (given that the officers and offenders in Te Ao Marama do not have direct blood relationships, but have shared purpose, commitment, values and obligations to one another) (Durie, 1997; Metge, 1995). The combination of self-report and informant-report is suggested to provide an accurate, holistic impression of Māori wellbeing (Durie & Kingi, 1997).

While the few published, peer-reviewed studies using Hua Oranga as an outcome measure primarily relate to Māori with mental illness (see Adamson, Deering, Moana-o-Hinerangi, Huriwai, & Noller, 2010; Bennett, 2009; Kingi, 2002), Hua Oranga's applicability has been suggested to encompass a wide range of Māori services beyond the mental health sector (Levy, 2007). Wikiriwhi's (1998) research stipulated that Te Whare Tapa Whā may be an effective tool in addressing Māori offending. Further, given the centrality of its four core components to health and wellbeing, Harwood et al. (2012) argued that there is no particular reason why the tool, if psychometrically sound and valid, could not be used across a range of areas.

With regard to psychometric properties, the reliability and validity phase of the Hua Oranga tool was completed in 2010, when the measure was trialled in 43 subjects with mental health problems (see McClintock, Mellsop, & Kingi, 2011). This study presented the views from three stakeholders: the client, the clinician and a whānau member. Two versions of the questionnaire were used, with the first option being the 16-item version used in the current study, and the second being a shortened version that condensed the instrument down to four items. In terms of inter-rater reliability, version one results indicated limited correlations

between stakeholders, with significant correlation coefficients only between self-report and informant-report (clinician) in two areas: hinengaro and wairua. All other correlations were low. Inter-rater reliability results for version two indicated generally higher correlations between stakeholders than version one, with three significant correlation coefficients found between the three stakeholders on the tinana paradigm. Although the second option produced slightly better correlations between stakeholders than version one, the four-item version may be too limited to be useful (Harwood et al., 2012). No further information regarding the Hua Oranga's psychometric properties were provided.

One recent intervention study using the 16-item version of the Hua Oranga explored the psychometric properties of the measure with Māori and Pacific people following stroke (Harwood et al., 2012). Results showed good responsiveness and adequate psychometric properties. While the study found that the Hua Oranga did appear to be measuring the construct of Māori wellbeing, factor analysis suggested that it may measure two rather than four separate factors: one physical-mental and one spiritual-family. However, it was reported that this may have been influenced by the strong "physical" nature of stroke recovery, and that results may differ in a population experiencing other difficulties. The study concluded that the Hua Oranga's simplicity, relative brevity, minimal cost and adequate psychometric properties should favour its use in future Māori health outcomes research.

In the current study, the Hua Oranga self-report and informant-report measures both displayed acceptable reliability in accordance with George and Mallery's (2003) Cronbach's alpha reliability ratings (> .9 = Excellent, > .8 = Good, > .7 = Acceptable, > .6 = Questionable, > .5 = Poor and < .5 = Unacceptable). Specifically, the Hua Oranga self-report subscales and total score displayed "good" Cronbach's alpha reliability ratings: Taha Wairua (a = 0.80), Taha Hinengaro (a = 0.86), Taha Tinana (a = 0.85),

Taha Whānau (a = 0.83), Hua Oranga Total (a = 0.87). The Cronbach's alpha reliability ratings for the informant-report indicated that the subscales and total score fell within the "good" to "excellent" range: Taha Wairua (a = 0.83), Taha Hinengaro (a = 0.86), Taha Tinana (a = 0.93), Taha Whānau (a = 0.90), Hua Oranga Total (a = 0.81). While these results suggest that the Hua Oranga may have sound reliability, the lack of peer-reviewed literature evaluating the instrument's psychometric properties indicates the necessity for further research.

Procedure

Ethical approval for this study was granted by the Massey University Human Ethics Committee and the Department of Corrections. Participants were a convenient sample allocated via opportunity sampling, in that they were offenders and officers in Te Ao Marama who chose to take part in the research, and there was no manipulation in allocating participants. All participants consented to participate in the study.

The measures were applied four times, at 6-week intervals: Time 1: 5 December 2011, Time 2: 17 January 2012, Time 3: 27 February 2012, Time 4: 9 April 2012. The multiple time points for data gathering accounted for "dropouts" and provided rich information regarding the relationship between changes experienced and time spent in Te Ao Marama. Offenders who exited Te Ao Marama prior to the last data collection period and offenders who joined Te Ao Marama after the initial data collection period completed measures at any of the four data gathering points at which they were present.

Data analysis

Convergence between self-reported and informant-reported wellbeing was examined using Pearson product-moment correlation

coefficients (Cohen, 1988). Data analyses for self-reported and informant-reported wellbeing were conducted using a generalised linear model (GLM). The GLM is a mixed model ANOVA: a combination of regression to calculate patterns of change within the participant over the period of the investigation and ANOVA to account for patterns of change across participants and regular trends over time (Madsen & Thyregod, 2010). The GLM was preferred to a one-way repeated measures ANOVA as the ANOVA picks up differences between groups but does not detect trends (Pallant, 2005), whereas the GLM finds differences between groups, and through regression analysis, is also able to show trends between these groups (Berridge & Crouchley, 2011). Preliminary analyses indicated no violations of the assumption of normality, linearity or outliers.

Results

When exploring the relationships within the subscales of each stakeholder, the Hua Oranga

self-report and Hua Oranga informant-report both had large to moderate correlations between their own subscales and their own total scores, suggesting good internal consistency (see Table 2). With regard to convergence, product-moment correlation coefficients between the Hua Oranga self-report and informant-report suggested very poor consistency between the two stakeholders' total scores and all subscale scores, with no significant correlations found (see Table 2).

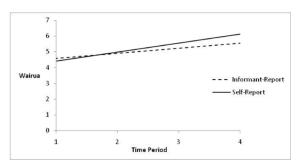
The Hua Oranga GLM results suggested that offenders' self-reported experience of wellbeing significantly increased over the time spent in Te Ao Marama for taha wairua, taha hinengaro, taha tinana and overall wellbeing, but not for taha whānau, which increased but not at a significant level (see Figures 1–5). The Hua Oranga informant-reported wellbeing results were not consistent with the offenders' self-reported wellbeing, with taha wairua, taha tinana and overall wellbeing increasing, but not at a significant level, and taha hinengaro and taha whānau decreasing, but not at a significant level (see Figures 1–5).

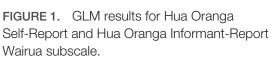
TABLE 2 Pearson correlation coefficients and significance for the Hua Oranga self-report and informant-report subscales and total scores (N = 60).

Measure subscale	1	2	3	4	5	6	7	8	9	10
1. Wairua SR	_	**.68	**.59	**.59	**.71	08	08	09	15	13
2. Hinengaro SR		_	**.62	**.72	**.79	.02	.01	00	.09	.04
3. Tinana SR			_	**.60	**.68	.01	06	.07	03	.00
4. Whānau SR				_	**.73	.04	05	.01	.03	.01
5. SR Total					_	00	05	.00	02	02
6. Wairua IR						_	**.60	**.51	**.52	**.65
7. Hinengaro IR							_	**.40	**.60	**.63
8. Tinana IR								_	**.55	**.58
9. Whānau IR									_	**.68
10. IR Total										

^{*} p < 0.05 (two tailed), **p < 0.01 (two tailed)

Note. SR is the self-report scale and IR is the informant-report scale. Black digits represent correlation coefficients between each informant's own scores. Red digits represent correlation coefficients between self-report and informant-report. In a positive or negative direction, 0.10–0.29 is a small/weak correlation, 0.30–0.49 medium/moderate and 0.50–1.0 large/strong correlation (Cohen, 1988).





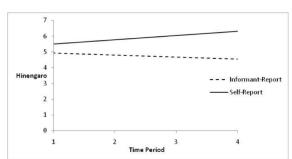


FIGURE 2. GLM results for Hua Oranga Self-Report and Hua Oranga Informant-Report Hinengaro subscale.

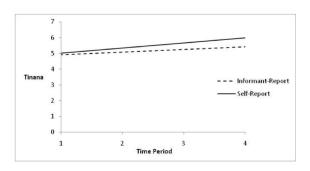


FIGURE 3. GLM results for Hua Oranga Self-Report and Hua Oranga Informant-Report Tinana subscale.

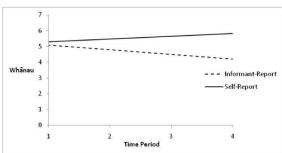


FIGURE 4. GLM results for Hua Oranga Self-Report and Hua Oranga Informant-Report Whānau subscale.

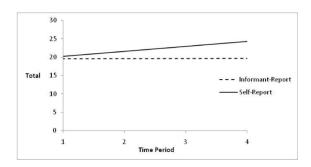


FIGURE 5. GLM results for Hua Oranga Self-Report and Hua Oranga Informant-Report Total.

Discussion

This exploratory study investigated the relationship between self-reported and informant-reported Māori wellbeing in offenders housed in Te Ao Marama, with the aim of informing future research on the complexities and issues that exist in the differing methods of Māori wellbeing measurement. This was examined by investigating whether time spent in Te Ao Marama resulted in change in offender self-reported wellbeing and informant-reported wellbeing. Results suggested incongruence between the stakeholders' perspectives. Specifically, offenders reported statistically significant higher ratings of overall wellbeing, and greater change in wellbeing over time, than informants. This finding was consistent with McClintock et al.'s (2011) study, which found low correlations between stakeholder agreement on the Hua Oranga measure.

The incongruence between stakeholder perspectives suggests that the Hua Oranga's construct validity—the degree to which a test measures what it claims to be measuring (Cronbach & Meehl, 1955)—may be questioned, with offenders and informants potentially rating two different things. However, since past research has indicated that the Hua Oranga appears to be measuring the construct of Māori wellbeing (Harwood et al., 2012), and numerous peer-reviewed studies, which used psychometrically sound measures, have reflected a lack of convergence between self-reported and informant-reported wellbeing (F. M. Andrews & Withey, 1976; Leathem et al., 1998; Schimmack & Diener, 2003), it is likely that the incongruence between wellbeing ratings found in the current research may be more reflective of differences in perspectives than differences in the construct being measured.

The differences in perspectives found may be attributed to offender social desirability, with self-reported ratings indicating higher wellbeing than informant counterparts, due to offenders' desire to be perceived positively (Lucas et al., 1996). Results may also reflect impression management, with offenders inclined to report positive change as a result of a prison intervention because this may influence officers' impressions of them, and their subsequent behaviour towards them, which may fulfil offenders' needs and goals (Aronson et al., 2009; Harvey et al., 2007). Further, results may be affected by the institutional culture of prison and power differentials, with staff members less likely to report (or see) positive changes in inmates in a bid to (consciously or unconsciously) maintain the dynamic of power positioning and authority, and the status quo of the prison culture (Broomfield, 2008; Goodwin et al., 2000; Grunseit et al., 2008). Moreover, the inconsistency between perspectives may suggest that officers and offenders approached the assessment from different processes, perspectives, experiences and knowledge bases, providing deeper insight, and useful information about the nature of wellbeing (Campbell & Fiske, 1959; Diener, 2009; Meiser-Stedman et al., 2007).

Results from the current study suggest that using one source of assessment could be hazardous. If wellbeing was measured via informant reports alone, this could indicate that offenders experienced lower wellbeing, and less change in wellbeing over time, than what the inmates actually experienced. This could potentially result in the diagnosis of psychological difficulty when it is not present (false positives), and individuals receiving treatment and support when it is not necessary. Further, informant-report alone may strip Māori participants of tino rangātiratanga, which may subsequently reduce the wellbeing of Māori offenders, damage client-practitioner rapport and maintain power positioning (Mosterman & Hendriks, 2011; Wikiriwhi, 1998). Conversely, the current study suggests that if wellbeing was measured via self-report alone, results may be affected by under-reporting responding biases, with offenders reporting higher wellbeing (or less difficulty) than what they are perceived to be experiencing by others. This could potentially result in overlooking psychological difficulty when it is present (false negatives), and individuals missing treatment and support when it is actually necessary (Banerjee et al., 2009).

It has been suggested to merge self-report ratings with informant-report ratings to gain a holistic perspective of Māori wellbeing (Kingi, 2002). However, given that the individual and the informant have differing perspectives, amalgamating ratings may result in an inaccurate presentation of the individual's wellbeing, also giving rise to the potential for false positives and false negatives. This reflects the importance of obtaining both self-reports and informantreports in the measurement of wellbeing (Durie & Kingi, 1997; Meiser-Stedman et al., 2007; Sandvik et al., 1993; Stasiak et al., 2012), but allowing perspectives to remain separate so differences can be visible. This may reduce the effect of measurement biases and the subsequent implications of this for Māori, while providing a holistic view of Māori experience.

Conclusion

This research explored the relationship between self-reported and informant-reported Māori wellbeing in an offending population. Results indicated inconsistency between stakeholder perspectives; this is a clinically significant finding, since differing wellbeing ratings may result in differing implications for Māori offenders.

To the best of the authors' knowledge, this was the first empirical study to investigate self-reported versus informant-reported Māori wellbeing in an offender population. Therefore, a replication of the current study, alongside investigation in a female offender population, would be beneficial in providing a greater understanding of the relationship between stakeholder perspectives and adding to the limited research pool. Further, since this study was limited to an incarcerated population, it

would be valuable for future research to explore whether the incongruence between stakeholder perspectives is restricted to correctional settings or whether discrepancies are reflected across other environments, such as the Māori health sector, where the measurement of wellbeing is common.

This study represents an initial exploration into the relationship between self-reported and informant-reported Māori wellbeing. However, given the impact that these practices can have on the lives and futures of Māori and the professional staff charged with assessing their wellbeing, these findings need to be replicated and followed up with further research.

Acknowledgements

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Prior to initial data collection, groups of participants were provided with an information sheet outlining the purpose and procedures of the research, as well as the confidentiality of their disclosures. Any questions or concerns regarding participation in the study were addressed. Participants were then given the opportunity to sign a separate attachment, acknowledging their informed consent to participate. Participants could withdraw their consent at any time during the study.

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Glossary

Hua Oranga Māori mental health outcome measure

iwi tribe

kaupapa-based whānau	family relationship based on shared purpose,	References
	commitment, values and obligations to one another, rather than direct blood relationships	Adamson, S., Deering, D., O-Hinerangi, M., Huriwai, T., & Noller, G. (2010). An evaluation of the Moana House Residential Therapeutic Community. Wellington, New Zealand: Alcohol Advisory Council of New Zealand.
Māori	Indigenous people of New Zealand	American Psychiatric Association. (2013). <i>Diagnostic</i> and statistical manual of mental disorders (5th ed.). Washington, DC: Author. http://doi.org/
taha hinengaro	the mental side of an individual	brfw Andrews, D. A., & Bonta, J. (2010). The psychol-
taha tinana	the physical side of an individual	ogy of criminal conduct. Burlington, Canada: Elsevier Science.
taha wairua taha whānau	the spiritual side of an individual the family side of an	Andrews, F. M., & Withey, S. B. (1976). Social indicators of well-being: Americans' perceptions of life quality. New York, NY: Plenum Press. http://
Te Ao Marama	individual one of the five Māori	doi.org/cnn3 Aronson, E., Wilson, T. D., & Akert, R. M. (2009). Social psychology (7th ed.). Upper Saddle River,
re Ao Marama	Focus Units within New Zealand prisons	NJ: Prentice Hall. Bakker, L., O'Malley, J., & Riley, D. (1999). RoC, risk
Te Whare Tapa Whā	a four-part health model pertaining to the four walls of a house,	of reconviction: Statistical models which predict four types of re-offending. Christchurch, New Zealand: Psychological Service, Department of Corrections.
	with each construct representing a different paradigm: taha wairua, taha hinengaro, taha	Banerjee, A., Chitnis, U. B., Jadhav, S. L., Bhawalkar, J. S., & Chaudhury, S. (2009). Hypothesis testing, type I and type II errors. <i>Industrial Psychiatry Journal</i> , <i>18</i> (2), 127–131. http://doi.org/dpz7c9 Bennett, S. T. (2009). <i>Te huanga o te ao Māori:</i>
tikanga	tinana and taha whānau Māori customs and traditions	Cognitive behavioural therapy for Māori clients with depression—Development and evaluation of a culturally adapted treatment programme
tino rangātiratanga	self-determination	(Unpublished doctoral thesis). Massey University, Palmerston North, New Zealand.
Tiriti o Waitangi	Treaty of Waitangi, the founding document of New Zealand	Berridge, D. M., & Crouchley, R. (2011). <i>Multivariate</i> generalized linear mixed models using R. Boca Raton, FL: CRC Press. http://doi.org/dts8bw Bosson, J. K., Swann, J., William, B., & Pennebaker,
Waikeria Prison	one of New Zealand's largest male prisons, situated in the centre of the North Island	J. W. (2000). Stalking the perfect measure of implicit self-esteem: The blind men and the elephant revisited? <i>Journal of Personality and Social Psychology</i> , 79(4), 631–643. http://doi.
Waitangi Tribunal Report	report of recommendations on Māori claims relating to omissions of the Crown which potentially breach the Treaty of Waitangi	org/dqc62g Broomfield, K. (2008). Challenges psychologists encounter working in a correctional setting (Unpublished master's thesis). Campus Alberta, Canada. Byers, M. (2002). Correctional initiatives for Maori in New Zealand. Corrections Today, 64(1), 25–29.
whānau	family	Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the

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