Anger in Australian Indigenous and non-Indigenous Students

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This descriptive pilot study examined the cultural differences in the dimensions of self-reported anger in Indigenous and non-Indigenous (Caucasian) students aged 10-13 years in Far North Queensland, Australia. The Multidimensional School Anger Inventory – Revised (MSAI-R) was used to measure affective, cognitive, and behavioural components of anger. It was found that Indigenous students had significant but small differences on the “anger experience” (affective) and “destructive expression” (behavioural) subscales. Considerations for school staff, attempting to support and connect with Indigenous students and future research are discussed.

Keywords: anger, Indigenous students, cultural difference, Multidimensional School Anger Inventory

INTRODUCTION

Indigenous Australian students face unique challenges in the classroom due to cultural difference, historical disadvantage and continued racism (Bradley, Draca, Green & Leeves, 2005; Hockey, 2008). While national data show that Indigenous youth demonstrate greater mental and behavioural problems than non-Indigenous youth (AIHW, 2008), limited data have been collected that explores differences between these two groups on their experience and expression of anger. The study reported in this paper sought to explore differences between Indigenous and non-Indigenous students in relation to self-reported school anger. Anger was measured within affective, cognitive, and behavioural dimensions. As culture has been found to impact on anger experiences (Greif-Green, Furlong, & Astor, 2008), it is important to examine anger within a cultural context. The results from this study may allow school staff to support both groups of students more effectively and with greater cultural sensitivity.
DEFINING ANGER

Anger, while an everyday term, has been defined in many different ways by many different researchers (Burney, 2006). Largely, definitions of anger have focused on negative outcomes; however, others have noted that anger is a normal emotional reaction that can be appropriately expressed (McCarthy, 1998). Novaco (1975, p. 3) stated that anger is “a strong emotional response to provocation,” which has four distinct components: affective, cognitive, behavioural and physiological. This underlying multidimensional nature of anger is also reflected within Spielberger et al.’s (1985) concept of the AHA (anger, hostility, aggression) Syndrome. The affective component, also referred to as anger experience or anger intensity, relates to the strength of emotional responses toward situations that may elicit anger. Essential to the understanding of anger is the fact that the experience of anger is reflective of an underlying cognitive component (Bernard, 1990).

This cognitive component echoes the types of negative beliefs that people have about the world and, in particular, refers to the negative attributions they hold towards others’ actions. Buss (1961) refers to this cognitive dimension as hostility and states that it is directly related to how a person behaves in, or copes with, anger producing situations. Hostility has also been described as a complex set of attitudes that motivate people to aggressive behaviour (Spielberger, Reheiser, & Sydeman, 1995).

Essentially, this behavioural component refers to positive or destructive coping mechanisms that people use to deal with feelings of anger. It is important to distinguish the expression of anger from the experience of anger. Anger experience is the feeling state and anger expression is the resultant behaviours from feeling angry. Additionally, anger expression has been defined as both anger-in – the suppression of anger – and anger-out – anger is expressed towards other people or the surrounding environment (Averill, 1982).

Finally, the physiological component depicts the body’s autonomic and central-nervous system responses to some circumstance or incident in the external environment (Bernard, 1990). Such a reaction produces effects such as sweaty palms, increased heart rate, and muscle tension (Novaco, 1975). Arousal through these involuntary physiological responses is affected by a person’s cognitive appraisals. It is the type of coping mechanisms utilised that increase or decrease the state of arousal (Lazarus & Averill, 1972). In developing the Novaco Anger Scale, Novaco (1994) included all four dimensions of anger. However, Spielberger, Krasner, and Solomon (1988) have suggested that the term “anger experience” is broad enough to encompass both the affective and physiological dimension of anger.

The current study, in seeking to use a multidimensional definition of anger, has embraced Deffenbacher’s (1999, p. 296) contention:

Anger is an experiential state consisting of emotional, cognitive, and physiological components that co-occur, rapidly interacting with and influencing each other in such a way that they tend to be experienced as a singular phenomenon. The individual also behaves in reaction to precipitating events and to experienced anger.

Anger is a complex issue that may be affected not only by the individual characteristics of a person but also by the cultural group to which they belong. A study by Davey et al. (2006) explored meanings of anger in an Indigenous context by asking Indigenous male prisoners in South Australia to tell stories around their anger experiences. The researchers noted that, “whilst some of the major themes reflected experiences of anger common to many offenders, it was evident that for these Indigenous men, anger was experienced within a broad social and political context” (p. 4).
Because the current study sought to examine differences in anger between Indigenous and non-Indigenous Australian students, it was important that a multidimensional definition of anger was used, and that the research instrument employed had been validated across cultural groups.

**DIFFERENT CULTURAL EXPERIENCES OF ANGER**

Thomas and Smith (2004) identified that few studies have examined cultural differences in anger and violent behaviour of young people. Of the few studies that have investigated this area, results have been mixed. Cultural differences in anger expression were reported by Hauber, Rice, Howell, and Carmon (1998), who found that African-American third-grade children (aged 7 to 11 years) in the US (N = 230) had higher trait anger (defined as an enduring personality characteristic) than White children. Reyes, Meininger, Liehr, Chan, and Mueller (2003) demonstrated that African-American and Hispanic-American middle and high school children (aged 11 to 16 years) self-reported higher hostility levels than European American children. Furthermore, Deffenbacher and Swain (1999) found that anger expression is significantly different between Mexican American and White non-Hispanic seventh- to twelfth-grade students (N = 6287) in relation to verbal abuse. More precisely, White non-Hispanic students were verbally more assaulting towards others than Mexican Americans, a finding replicated more recently by Greif-Green et al. (2008).

While a number of researchers have found different anger experiences across cultural groups, others have not. Wyatt and Haskett (2001) explored anger and attribution of intent among aggressive and non-aggressive African American and White middle school students (Grades 6 to 8) in America (N = 63; 56% African American). When presented with vignettes of a teacher being either overtly hostile or ambiguous, aggressive children attributed hostile intent to the teacher and rated her as having a higher level of hostility more often than non-aggressive children. The results, however, did not reveal an effect for race, indicating that African Americans and White students made similar attributions in relation to perceived teacher's intention. In relation to feelings of anger, White and African American students again revealed similar patterns of anger responses, with aggressive students from both groups feeling more anger in response to the overtly hostile vignette than non-aggressive students. Similarly, Thomas and Smith (2004) found no significant difference in self-reported anger between White, African-American, and Hispanic students (aged 7 to 19 years) in their experience of school connectedness, interpersonal relationships, and anger behaviour. When looking specifically at students from minority groups, research from various countries has demonstrated that these students experience anger toward, and a lack of connectedness within, their respective education systems (Bourke, Rigby & Burden, 2000; Edwards-Groves & Murray, 2008; Ramirez, Fujihara, & Goozen, 2001; Reyes, Meininger, et al., 2003; Thomas & Smith, 2004; Wyatt & Haskett, 2001).

**THE AUSTRALIAN CONTEXT – INDIGENOUS STUDENTS, SCHOOLING AND ANGER**

It has long been documented that Indigenous students are the most educationally and socially disadvantaged students in Australia's education system (Eades, 2000; Klenowski, 2009; Ritchie & Edwards, 1996). Beresford (2012) outlines the long history of abuse, segregation, low expectations, fear and expected assimilation that characterises the schooling experience of Indigenous students. Racism in Australian society continues to undermine the educational outcomes for Indigenous students (Mansouri, Jenkins, Morgan, & Taouk, 2009). Partington and Beresford (2012, p. 68) argue that while the impact of racism on Indigenous students in schools may be hard to determine and differs across the country, likely outcomes include the
failure to recognise Aboriginal learning styles and needs, the rigid enforcement of discipline policies that fail to take adequate account of the circumstances of Aboriginal life experiences, failure to include an Aboriginal perspective in the teaching about Australian history and society, and normalisation of attitudes about Aboriginal students poor school outcomes.

Indigenous students are more likely to attend school infrequently and exit school early (Burnett & Gittens, 2011; Gray & Partington, 2003; Hayes, Johnston, Morris, Power & Roberts, 2009). In addition, these students generally have lower levels of academic achievement than other students (Mitrou, Lawrence, & De Maio, 2006). When aligned with the research that links low academic achievement to emotional and behavioural disorders (see Reid, Gonzalez, Nordness, Trout, & Epstein, 2004), it is not surprising that Indigenous students are up to 40 percent more likely than their non-Indigenous peers to experience mental and behavioural problems (AIHW, 2008).

In an attempt to improve the educational outcomes of Indigenous students, the Department of Education, Training, and the Arts (2008) released a report outlining the strategic direction needed for Indigenous education. This report identified that cultural inclusiveness and collaboration between schools and Indigenous communities would enhance Aboriginal and Torres Strait Islander students' performance at school. In addition, the report outlined that for Indigenous students to succeed, school staff must have the same learning and achievement expectations for these students as for any other. The pivotal role that teachers’ and school administrators’ expectations have on the educational outcomes of Indigenous students has been identified by many researchers (Amosa, Ladwig, Griffiths & Gore, 2007; Pearson, 2009; Sarra, 2003).

Along with school staff holding high expectations for all students, the relationships students have with their teachers and peers is fundamental to students’ academic and social success (Hattie, 2003; Lovat, 2007). For Indigenous youth, in particular, the main factors that contribute to students attending and succeeding at school include having friends who provide an enjoyable and supportive learning environment (Lewis, 2007), having limited exposure to antagonistic non-Indigenous peers (Howard, 2002), having a culturally supportive school environment (Rahman, 2010), and having teachers who are willing to provide encouragement and support (Edwards-Groves & Murray, 2008; McDonald, 2004; McRae et al., 2005; MCEETYA, 2006; Rahman, 2010).

High expectations and positive school connections, however, are not the only factors that influence student success. It has long been accepted that a range of personal, social, and environmental factors impact on the ability of people to succeed (Bernard, 1990; DEST, 2002). In Australia, Indigenous Australians have been disadvantaged by intergenerational poverty, witnessing and experiencing violence and abuse, an inability to access essential medical services, and racial and ethnic discrimination (AIHW, 2008; Doyle & Hill, 2008; Mellor, 2003; Reynolds, 2001). In addition, historical governmental policies (such as the forced removal of children from their families) have resulted in a communal sense of trauma and anger within Indigenous communities (Hockey, 2008; Human Rights and Equal Opportunity Commission (HREOC), 1997).

The historical governmental policies enacted in Australia continue to have ramifications for current Indigenous students. Removal of Indigenous children from their homes resulted in a disconnection of spiritual, cultural, and familial ties. In addition, children who were removed often experienced abuse and neglect in their new surroundings (HREOC, 1997). Such trauma of separation leads to psychological distress that Gollan and Malin (2012) argue is apparent in Indigenous people of all ages today. Further, Indigenous parents may be intimidated by a schooling system that comprises predominantly White Australians if their experience of White Australians has been overwhelmingly negative. This ambivalence, distrust, and distress often result in behavioural and mental health issues for Indigenous students (Partington & Beresford, 2012).
Jorm, Bourchler, Cvetkovski, and Stewart (2012) undertook a systematic review of 11 studies published since the year 2000 that explored the mental health of Indigenous Australians. Of these 11 studies, four explored the mental health of Indigenous adolescents. While two studies did not find a higher prevalence of psychological distress in Indigenous adolescents compared to non-Indigenous adolescents (Morgan & Jorm, 2007; Zubrick et al., 2004), two studies using reports from parents and carers of Indigenous children and adolescents found a higher prevalence of overall behaviour problems than that reported by parents and carers of non-Indigenous children and adolescents (Department of Education and Early Childhood Development, 2010; Li et al., 2006). Due to the particular experiences that Indigenous Australians have encountered throughout history, and continue to encounter through intergenerational trauma and persistent racism – including discrimination faced at school – (Bradley et al., 2005; Hockey, 2008), it is important to explore whether Indigenous school students experience anger differently than non-Indigenous students. Recent studies with Indigenous Australian students have focused on retention, attendance, and achievement (Rahman, 2010); motivation and engagement (Munns, Martin, & Craven, 2008); perceptions of school experiences (Edwards-Groves & Murray, 2008; Lewis, 2007; Nelson & Hay, 2010); and peer interactions (Kickett-Tucker, 2008). To the authors’ knowledge, no Australian study has explored the ways in which Indigenous students experience anger, nor more specifically compared the school anger experiences of Indigenous students with non-Indigenous students.

DEVELOPMENT OF THE MSAI

The studies discussed in this paper, which have examined anger in students from diverse cultural backgrounds and age groups, offer a rich and complex picture of anger expression in children and adolescents. However, a methodological confound of these studies is that the results were arrived at using different instruments to assess different dimensions of anger. Due to this, it is difficult to make generalisations about and comparisons of the findings. Hence, the challenge of the present study was to use an instrument encompassing a multidimensional definition of anger that had been validated across cultural groups.

The Multidimensional School Anger Inventory (MSAI) was initially designed to assess the affective and cognitive (hostility), and the positive and destructive coping dimensions of anger and was first tested on a diverse sample of Hawaiian male high school students (Smith, Furlong, Bates, & Laughlin, 1998). Furlong, Smith, and Bates (2002) later extended its application and validated the inventory with a sample of female American high school students (Multidimensional School Anger Inventory – Revised (MSAI-R)). In relation to cross-cultural use, the MSAI-R has been validated using a sample of students from the US (California and Hawaii), Australia, Peru, and Guatemala (Furlong et al., 2004).

The MSAI-R (Australian version) has also been cross-validated using a sample of 1,400 Australian high school students from a broad socioeconomic background, with 18 percent of the students being of Asian origin and 16 percent Indigenous students (Boman, Curtis, Furlong, & Smith, 2006). Although the cross-validation of the MSAI-R to an Australian sample did not specifically consider ethnicity, the instrument was considered appropriate to investigate the differences between levels of school anger in Indigenous and non-Indigenous students due to its cross-cultural validation.

Overall, it appears that there is an absence of data in relation to the levels of anger that Indigenous students experience in schools and whether or not these levels differ from non-Indigenous students. To address this research gap, the present study investigated how young adolescent Indige-
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ous students differ from non-Indigenous students on four dimensions of anger (anger experience, hostility, positive coping, and destructive expression). Because Indigenous students are educationally and socially disadvantaged at school and experience lower levels of academic achievement than their Caucasian peers, it may be expected that Indigenous students would experience more school anger and hostility than non-Indigenous students. Additionally, Indigenous students may express their anger more destructively than other students, and use less effective coping strategies when dealing with their anger in the school environment.

**METHOD**

**Participants**

Data were collected from 211 Grade 6 and 7 students (age range 10 to 13 years, mean age = 11.4 years) in three Far North Queensland schools. Indigenous students comprised at least 20 percent of each school's student body. The sample was predominantly non-Indigenous (Caucasian) (68%, n = 144) with Indigenous students (Aboriginal and Torres Strait Islander) accounting for 32 percent (n = 67) of the sample.

**Measures**

The MSAI-RA (Boman et al., 2006) was used in this study. The MSAI-RA consists of the following subscales to measure the affective, cognitive, and behavioural components of anger respectively: Anger Experience (13 items) (affective), Hostility (6 items) (cognitive), Positive Coping (8 items) (behavioural), and Destructive Expression (9 items) (behavioural). Each subscale uses four response categories. Examples of Anger Experience items are “You didn’t notice that someone put gum on your seat and you sit on it,” “You ask to go to the toilet and the teacher says no”, and “Somebody calls you a bad name” with response options being “I wouldn’t be angry”, “I’d be a little angry,” “I’d be angry,” and “I’d be very angry.” Examples of Hostility items are “School is really boring,” “Rules at school are stupid,” and “Adults at school don’t care about students” with response options being “Strongly Disagree,” “Disagree,” “Agree”, and “Strongly Agree.” The response options “Never,” “Often,” and “Always,” are used for the Positive Coping subscale (“When I get Angry at school, I share my feelings,” “I talk it over with another person when I’m upset,” and “If something makes me angry, I try to find something funny about it”), and the Destructive Expression subscale (“I punch something when I’m angry,” “When I’m angry, I break things”, and “I get so angry that I want to hurt myself”). All questions ask about anger being felt or expressed within a school context.

**Procedure**

The MSAI-RA was administered to students in their usual classroom settings by the school Guidance Officers. Before administration, the guidance officers had asked permission of the communities and parents. Due to time pressures and availability of the Guidance Officers, only one administration took place at each school and only those students attending on the day were included. Appropriate ethical clearances were obtained from all relevant bodies.

**Results**

A series of one-way between-groups analyses of variance were conducted to explore the differences in the four dimensions of school anger between Indigenous and non-Indigenous students. Preliminary testing did not reveal serious violations of the assumptions of homogeneity of variance and normality. In relation to statistical significance, a Bonferroni adjustment (to .01) was
made to reduce the risk of a Type 1 error due to the use of a series of repeated ANOVAs (Pallant, 2001). Results for the anger experience subscale indicated a statistically significant difference for the two groups, $F(1, 210) = 16.38, p < .001$. The Indigenous students' mean score ($M = 37.01, SD = 6.95$) was significantly higher than that for non-Indigenous students ($M = 33.04, SD = 5.37$). The effect size was only moderate at .07.

There was a statistically significant difference for the two groups, $F(1, 210) = 15.66, p < .001$, on the destructive expression subscale. The mean score for Indigenous students ($M = 17.33, SD = 6.15$) was significantly higher than the mean score for non-Indigenous students ($M = 14.45, SD = 4.53$). The effect size was only moderate at .06.

There was no statistically significant difference in the hostility mean scores for Indigenous students ($M = 12.69, SD = 3.69$) and non-Indigenous students ($M = 11.84, SD = 3.34$). Similarly, no statistically significant difference was found in the mean scores for positive coping for Indigenous students ($M = 16.34, SD = 3.69$) and non-Indigenous students ($M = 16.8, SD = 3.87$).

**DISCUSSION**

As predicted, the results of the present study revealed that Indigenous students were more likely than non-Indigenous students to report experiencing higher levels of anger in response to school situations and were also more likely to report destructively expressing their anger in the school setting. Interestingly, and contrary to our predictions, it was also determined that there was no significant difference in Indigenous students' level of hostility or their ability to use positive coping strategies in dealing with their anger.

In essence, it is not unexpected that the results for Indigenous students reveal higher levels of anger experience and the more frequent use of destructive coping strategies considering that the AIHW (2008) reported high levels of anger related issues in Indigenous children and adolescents. It is also consistent with previous research that links social disadvantage with emotional and behavioural disorders (Reid et al., 2004). However, it is important to note that these same students when compared to non-Indigenous students do not have more hostile attitudes towards school and are just as able to access positive coping strategies to deal with their anger. Similarities in low levels of hostility toward school between the groups mirror Wyatt and Haskett's (2001) findings between African-American and White students.

While previous research has used dimensions of anger such as experience, hostility, and aggressive behaviour, no studies have examined all of these dimensions, in relation to the school context, at one time. This study provided valuable information, for the first time, regarding the positive coping strategies of Indigenous and non-Indigenous students in Australia. If schools are to build a sense of connectedness between school staff, Indigenous students and the wider Indigenous communities (DETA, 2008), understanding the underlying factors of anger, and in particular the factors that underlie Indigenous students’ anger, is important. Helping Indigenous students identify and manage their anger experiences needs to be part of a broad range of strategies to help reconnect these educationally and socially disadvantaged students. As Indigenous students were not generally hostile towards school, the learning environment could be a place where their ability to use and recognise positive coping strategies is enhanced and reinforced.

**STUDY LIMITATIONS**

An important limitation of the current study is the reliance on the MSAI-R without consideration
of other possible influencing factors of school anger, such as systemic and school-based influences. It is apparent from this study that even though differences in two of the school anger dimensions are significant, they only have moderate effect sizes. This suggests that, overall, a range of factors, in addition to anger, are impacting on Indigenous students’ mental health and behavioural problems. As this scale is a self-report questionnaire, it may be that responses students gave about what they would do or feel in particular situations may not reflect the reality of what they would do or feel in these situations. This is a limitation often noted with self-report research. Future research could include observations of students in a range of school situations reacting to challenging situations.

Finally, it is important to place the findings of this study within the context of the sample size used. It is unwise to make large generalisations about any group of students when the results obtained represent only a small number of a particular group. Future research needs to examine anger in Indigenous and non-Indigenous students on a much larger scale. In addition, Indigenous students in one part of Australia may have very different anger experiences to Indigenous students in other parts of the country. It is imperative that the complexity within groups is remembered. To extend our understanding of student anger, it would be valuable for future research to explore the construct in different Indigenous groups and other cultural groups that reside in Australia.

CONCLUSION

In conclusion, as these are the first data of this kind collected from Indigenous students, it can be considered a notable contribution. Moreover, if the results of this study are a reflection of the complex nature of anger in the school setting for Indigenous students, then it is important for schools to also consider the anger profile of Indigenous students in assessing their behavioural problems. Furthermore, it is important to realise that there are some possible strengths on which to build in helping these socially disadvantaged students reconnect to their respective education systems.

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