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Literature review: Mental health outcomes associated with exposure to ethnic discrimination, peer victimisation and peer rejection : Gender differences in internalising and externalising behaviour. Research project : Gender as a moderator of the relationship between perceived discrimination and problem behaviour among culturally and linguistically diverse children

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Literature Review: Mental Health Outcomes Associated with Exposure to Ethnic
Discrimination, Peer Victimisation and Peer Rejection: Gender Differences in
Internalising and Externalising Behaviour.

Research Project: Gender as a Moderator of the Relationship Between
Perceived Discrimination and Problem Behaviour Among Culturally and
Linguistically Diverse Children.

Jarrold Turner

A report submitted in Partial Fulfilment
of the Requirements for the Award of Bachelor of Arts Honours,
Faculty of Community Studies, Education and Social Sciences,
Edith Cowan University

November 2006

"I declare that this written assignment is my own work and does not include:

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I certify that this literature review and research project does not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due references is made in the text.

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Running head: ETHNIC DISCRIMINATION AND MENTAL HEALTH OUTCOMES

Mental Health Outcomes Associated with Exposure to Ethnic Discrimination, Peer
Victimisation and Peer Rejection: Gender Differences in
Internalising and Externalising Behaviour

Jarrold Turner

Abstract

In this review, recent research of ethnic discrimination and peer victimisation was examined to determine the outcomes associated with these types of social experiences. Research suggests ethnic minority groups are regularly exposed to discrimination and this exposure harms victim's mental health, typically demonstrated by increases in victim's internalising and externalising problem behaviour. The majority of this research involves African-American adults and adolescents; however there is research that suggests other ethnic minority groups and young children are similarly affected. In relation to young children, research on peer rejection and victimisation shows exposure leads to increases in problem behaviour. This tends to be differentiated by gender, such that externalising behaviour increases in boys and internalising behaviour increases in girls. Research of ethnic minority children's experiences of discrimination is sparse, however, and there is an opportunity for more investigation of the social experiences of this group.

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Submitted: August 2006

Mental Health Outcomes Associated with Exposure to Ethnic Discrimination, Peer
Victimisation and Peer Rejection: Gender Differences in Internalising and Externalising
Behaviour

Discrimination occurs when an individual or group is treated unfairly because of their group membership (e.g. gender or ethnic background) (Kreiger, 1999).¹ An expansive body of work has revealed that experiences of ethnic discrimination are a regular part of life for minority ethnic-groups (Clarke, Anderson, Clarke, & Williams, 1999; Goto, Gee, & Takeuchi, 2002; Williams, Neighbours, & Jackson, 2003). For example, Kessler, Mickelson, and Williams (1999) found 90% of African-Americans experienced discrimination on a daily basis. Similarly, Taylor and Turner (2002) found 75% of African-Americans had experienced ethnic discrimination in their lifetime and, although less regularly reported, there is evidence of discrimination against other American ethnic minorities including Asian-Americans (Goto et al., 2002) and Arab-Americans (Moradi & Hasan, 2004). In Australia, there is evidence of discrimination against Indigenous Australians (Henry, Houstens, & Mooney, 2004), Middle-Eastern Australians (Human Rights and Equal Opportunity Commission (HREOC), 2004), and Vietnamese-Australians (Mellor, 2004).

The prevalence of discrimination in contemporary society is of concern given that research has indicated perceived discrimination is an acute and chronic stressor related to poor physical and mental health and wellbeing (McKenzie, 2003; Williams et al., 2003), including depression, anxiety, distress, substance misuse, anger, aggression, violent behaviour, and poor education outcomes (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004; Clarke et al., 1999; Nyborg & Curry, 2003; Williams et al., 2003). In

¹ Within the literature the terms *racism*, *racial discrimination*, and *ethnic discrimination* are all used to refer to essentially the same concept. Accordingly, and to avoid any reader confusion, the terms *ethnic discrimination* and *discrimination* are used within this review.

light of the relationship between discrimination and poor physical and mental health, the experience of discrimination represents a major determinant of health.

Following the attacks in New York on September 11, 2001, there has been increased interest in the social experiences of people of Asian and Middle-Eastern background with recent reports suggesting a rise in incidences of discrimination against particular minority ethnic groups including Asian-Americans (Goto et al., 2002), Swedish Muslims (Sander, 2006), and Middle-Eastern Australians (HREOC, 2004; Noble, 2005). These reports of discrimination may be a measure of contemporary attitudes towards ethnic minorities. For example, Australian researchers investigating prejudicial attitudes towards refugees found sixty percent of university students measured above the mid-point in response to questions regarding hostile attitudes towards refugees (Schweitzer, Perkoulidis, Krome, Ludlow, & Ryan, 2005), and a telephone survey of 5056 residents found almost half (2275) identified ethnic minorities they believed did not belong in Australia and of those 2275 respondents, 28% identified Muslims, 28% identified people of Middle-eastern background, 33% identified people of Asian background, and the remaining referred to 'ethnics', 'foreigners' and Indigenous Australians as not belonging in Australia (Dunn, Forrest, Burnley, & McDonald, 2004).

Whether the recent increase in discrimination directed at people of Asian and Middle-Eastern background is attributable to the events of September 11 is difficult to ascertain. The Muslims involved in Sander's study (2006) reported increases in negative and discriminatory experiences subsequent to September 11, 2001 and Mason (2004) reported similar experiences among Arab-Australians. However, the increase in discrimination directed at ethnic minorities may also be due to increased numbers of new settlements in those countries with a majority White population. For example, the United Nations High Commission for Refugees (UNHCR, 2005) reported 56000 new asylum applications for the year 2004 in the

United States and 40600 in England, and those seeking asylum have backgrounds (e.g. Chinese, Iranian, Somalian, Pakistani, Mexican) that automatically place them within the minority population in their new country. Therefore, there would likely be increased expressions of social rule and power by the dominant ethnic majority, as suggested by social explanations of discrimination (Kreiger, 1999). Nonetheless, due to the associations between people with particular ethnic background and terrorism, the findings of discrimination post-September 11 have relevance to societies which have minority ethnic-groups of Asian and Middle-Eastern origin. However, direct research of the experiences of these groups is limited (Goto et al., 2002; Moradi & Hasan, 2004).

In addition, the study of ethnic discrimination has been conducted mainly with adults and adolescents, yet children may also be vulnerable to the harmful effects of ethnic discrimination (Simons et al., 2002) particularly because almost all children have an understanding of what discrimination is by the age of 10 (Verkuyten, Kinket, & van der Weilen, 1997). In Australia, a nation with multicultural migrant populations, it is likely that children of Asian and Middle-Eastern background will be experiencing discrimination and yet these children's experiences have seldom been examined. More direct research is required to fully understand the degree to which these children are experiencing discrimination and what outcomes occur as a result.

The study of children's experiences of peer victimisation may provide information relevant to the understanding of ethnic discrimination because, as is the case with peer victimisation, discrimination is a type of stressor on the victim (Williams et al., 2003). The status of children and adolescent's mental health has conventionally been measured across a spectrum of problem behaviour; internalising (e.g. depression, anxiety, withdrawal) and externalising (e.g. aggression, oppositional disorders, delinquency) (Achenbach, 1991), and studies of children's experiences of peer victimisation have consistently found associations

between victimisation and the development of internalising and externalising behaviours (Graham & Juvonen, 1998; Wilkins-Shurmer et al., 2003; Wolke, Woods, Bloomfield, & Karstadt, 2000). For example, middle school students who perceive themselves as the target of peer victimisation are more likely to experience emotional problems such as anxiety and loneliness (Graham & Juvonen, 1998). Therefore, it is likely children that perceive themselves as the victim of ethnic discrimination would experience similar emotional problems and, although few studies have directly measured the influence of ethnic discrimination upon children's mental health outcomes, there is some research that supports this view (e.g. Simons et al., 2002; Szalacha et al., 2003).

Finally, there may be gender differences in children's health outcomes associated with discrimination. Generally, internalising behaviour has been found to occur at higher levels in females (Gjone & Stevenson, 1997) and externalising behaviour is higher in males (Keiley, Lofthouse, Bates, Dodge, & Pettit, 2003). In response to victimisation and other distressing social experiences, girls tend to display increases in internalising behaviour and boys display increases in externalising behaviour (Guerra, Asher, & DeRosier, 2004; Leadbeater, Kuperminc, Blatt, & Hertzog, 1999). The differential relationship between perceived discrimination and behaviour outcomes by gender in children, however, is less clear and requires more direct research.

Therefore, the purpose of this review is to examine recent published works in relation to (a) psychological and behavioural outcomes associated with experiences of discrimination amongst adults and adolescents, (b) children's psychological and behavioural outcomes associated with experiences of discrimination and victimisation, and (c) differential outcomes by gender.

Psychological and behavioural outcomes associated with experiences of discrimination
among adults and adolescents

Research from the United States

In recent times there have been regular studies from the United States that show positive correlations between experiences of ethnic discrimination and psychological and behavioural problems in African-American adolescents. These include associations between perceived discrimination and smoking (Guthrie, Young, Williams, Boyd, & Kinter, 2002); low self-efficacy, low school achievement, and increased problem behaviour (Wong, Eccles, & Smeroff, 2003); and depression and stress (Sellers, Copeland-Linder, Martin, & Lewis, 2006). Similarly, studies with African-American adults show associations between perceived discrimination and increased likelihood of depression (Taylor & Turner, 2002); alcohol use and poor health perception (Kwate, Valdimardottir, Guevarra, & Boubjerg, 2003); and smoking (Landrine, Klonoff, Corral, & Fernandez, 2006).

These findings support those of earlier research. For example, African-American adults' experiences with discrimination were measured against scores on a symptom checklist that was composed of five subscales: (1) somatisation, (2) obsessive-compulsive, (3) interpersonal sensitivity, (4) depression, and (5) anxiety (Klonoff, Landrine, & Ullman, 1999). Data were also collected on the participant's age, gender, level of education, and income. Of the predictor variables, which included levels of perceived ethnic discrimination, generic stress (e.g. moving house, changing employment), and socio-economic status, regression analysis revealed that perceived discrimination was the best predictor of total symptom scores, somatisation, and anxiety, and significantly contributed to all regressions. Overall, the best model for predicting symptoms included gender (females reported more psychiatric symptoms compared to males), generic stressful events, and perceived discrimination. The researchers concluded experiences of ethnic discrimination increased the

likelihood of poor psychological health, even after accounting for potentially confounding variables (e.g. socio-economic status; non-specific stress). The harm of discrimination was therefore evident beyond that of any other variable.

More recently, perceived discrimination (e.g. 'being called names because of ethnicity' & 'being treated like a criminal') in African-American male adolescents was shown to be related to higher levels of parent-reported externalising behaviour, higher levels of self-reported externalising and internalising behaviour, higher levels of hopelessness, and poor self-evaluation (Nyborg & Curry, 2003). In addition, perceptions of institutional discrimination (e.g. 'poorer conditions in African-American communities because of racism') were associated with higher levels of parent- and self-reported externalising behaviour (Nyborg & Curry, 2003). Also, discrimination was associated with violent behaviour in African-American young adults and regression analysis revealed discrimination to be predictive of violent behaviours when accounting for participant's previous history of violent behaviour (Caldwell et al., 2004). Therefore, the association between discrimination and internalising and externalising behaviour is clear.

Studies also examined outcomes for African-American children whose parents have experienced ethnic discrimination (e.g. Caughy, O'Campo, and Muntaner, 2004; Gibbons, Cerrard, Cleveland, Wills, & Brody, 2004). For example, Gibbons et al. (2004) found the experience of discrimination among African-American adults increased the likelihood of substance use in both adults and their children. In relation to children's substance use, this may be explained by a positive linear relationship between parent's experiences with discrimination, parent's increased negative affect, and increased distress for the child(ren) leading to substance use. This shows that indirect exposure to discrimination can be as influential upon behaviour as direct experience.

Other researchers have examined discrimination among other minority ethnic groups in the United States. Mossakowski (2003), for example, found higher levels of depression in Filipino-Americans who reported perceived discrimination. Also, Gee (2002) found Chinese-Americans who reported discrimination had poor mental health and higher levels of psychological symptomatology. Similarly, Finch, Kolody, and Vega (2000) found a strong relationship between discrimination and depressive symptoms in Mexican-Americans. It is clear that the experience of discrimination in the United States is not unique to African-Americans but holds for other ethnic minorities, both in terms of prevalence and outcomes.

However, overall the amount of research on discrimination among American minority groups, other than that focused on African-Americans, is small. For example, although following the attacks on September 11, 2001, there has been increased interest in the social experiences of people of Middle-Eastern background; there is a dearth of relevant scientific literature. Moradi and Hasan's study (2004) may be alone in attempting to systematically evaluate the experiences of Arab-Americans following September 11, 2001. The study found experiences of discrimination to be commonplace among Arab-Americans and to be associated with greater psychological distress, low self esteem, and lower levels of environmental mastery – a dimension of wellbeing developed to assess a person's feelings of control over one's life and one's environment. More attention to the experiences of this group is warranted in the post-911 social environment.

Research from outside the United States

Although the larger part of research on ethnic discrimination relates the experiences of Americans, in particular African-Americans, there has been some examination of discrimination among minority ethnic groups in other countries. For example, 25% of ethnic minorities in England and Wales report living in fear of experiencing discrimination (Karlsen & Nazroo, 2004), and in Sweden, almost all (90%) Muslims have reported a negative change

in public attitudes towards Muslims, a negative change in the way Muslims are portrayed across Swedish media, perceived increases in discrimination against Muslims post – 911, and 65% of Muslims reported increases in personal experience of discrimination (Sander, 2006). Furthermore, Karlsen and Nazroo (2002) investigated discrimination and health among Caribbean, Indian, Pakistani, Bangladeshi, and Chinese migrants in England and found a 150% increase in approximate levels of psychosis and depression among those who reported experience of verbal abuse linked to their ethnicity, and the levels of psychosis and depression were 3 – 5 times higher among those who reported experience of physical assault or property damage linked to ethnicity (attribution regarding the motivation for the verbal and physical assault was made by the respondent). Also, amongst Dutch adolescents from Moroccan and Turkish backgrounds, exposure to personal and group discrimination was negatively correlated with personal self esteem and ethnic group self esteem, respectively (Verkuyten, 1998). The issue of discrimination, therefore, is not limited to North America and is not only at issue regarding the health of African-Americans but may be a risk to minority ethnic groups worldwide.

Similarly, in Australia research has highlighted the social status of minority ethnic groups in relation to discrimination. For example, in a recent study 60% of participants were found to hold unsympathetic and harsh attitudes towards refugees (Sweitzer et al., 2005). Also, Pederson, Contos, Griffiths, Bishop, and Walker (2000) evaluated the maintenance of prejudicial false beliefs regarding Indigenous Australians and found many of those surveyed hold such beliefs including 43.5% believing ‘Aborigines are more likely to drink alcohol than non-Aborigines’, 34% believing ‘Aborigines only have to pay a few car payments, and the government will meet the rest of the costs’, and 65.4% believing being ‘Aboriginal entitles you to more government benefits’. Additionally, Pedersen, Clarke, Dudgeon, and Griffiths (2005) underlined continuing negative attitudes towards Indigenous Australians and asylum-

seekers, and qualitative research of Vietnamese-Australian's social experiences outlined regular experiences of discrimination among this group (Mellor, 2004). In relation to Australians of Middle-Eastern background the Human Rights and Equal Opportunity Commission (HREOC, 2004) released a report on the social experiences of Arab and Muslim Australians that detailed increases in incidences of discrimination and vilification following September 11, 2001. In the same report community support organisations also reported increases in complaints of discrimination such as the verbal abuse of Muslim women. To date, despite these findings, there has been limited systematic evaluation of discrimination and health among minority ethnic groups in Australia, and clearly research of this contemporary issue is required.

Discrimination post-911

But are recent experiences of discrimination reported by Muslims, Arab-Americans, and others of Middle-Eastern background truly linked to the events of September 11, 2001, or are they demonstrative of ever-present prejudicial attitudes towards minority groups such as the continuous negative public attitudes towards Indigenous Australians? It would seem the post- 911 discrimination hypothesis is at the theoretical core of Sanders' research in Sweden (2006). Also, Mason (2004) and Noble (2005) examined the experiences of Australians of Middle-Eastern background using anecdotal evidence and reported troubling accounts of discrimination which the victims attributed to an environment in which Middle-Eastern ethnic groups are under greater scrutiny post – 911 and subsequent conflicts in Afghanistan and Iraq.

To this point, Bar-Tal and Labin (2001) provide support for the post-911 hypothesis in their study, which may be unique in that it directly examined the effects of “terrorist attacks” (Bar-Tal & Labin, 2001, p. 271) on the social cognition of 119 Israeli adolescents. The researchers surveyed participant's feelings, attitudes, and social engagement towards

Palestinians, Jordanians, and Arabs under three conditions: during a peaceful period in the Israeli/Palestinian relationship, one day after two separate bombings in Israel, and three months after the bombings. Following the attacks negative feelings towards Palestinians increased and positive feelings decreased, positive feelings towards Arabs decreased but negative feeling remained unchanged, and feelings towards Jordanians remained unchanged. After three months negative feelings towards Palestinians returned to pre-attack levels. This partially supports the argument for context-specific attitudes within intergroup relations but equally supports the argument that there are continuous prejudicial attitudes towards others in society based on other's ethnic background. In the case of continuing accounts of discrimination against African-Americans and Indigenous Australians it would be misleading to contend this discrimination was due to September 11, 2001, considering the perpetrators were of Middle-Eastern background and discrimination against African-Americans and Indigenous Australians and others was occurring long before 911.

Inconsistencies and methodology

Although most research of the relationship between ethnic discrimination and mental health shows discriminatory experiences to be harmful, there are inconsistencies in the findings that warrant attention. For example, Kessler et al. (1999) found both lifetime and daily experiences of discrimination to be positively related to depression and daily experiences of discrimination positively related to anxiety. Yet Klonoff et al. (1999), found lifetime experiences of discrimination were not predictive of depression, although daily experiences were, yet regression analyses showed that both lifetime and daily experiences of discrimination significantly contributed to the prediction of anxiety. Also, studies by Taylor and Turner (2002) and Sellers et al. (2006) found a link between discrimination and depression, yet Brown et al. (2000) did not. Another study found no association between parent-reported adolescent internalising behaviour and discrimination, yet there was a

correlation between self-reported adolescent internalising behaviour and discrimination (Nyborg & Curry, 2003). Finally, Bhuie et al. (2005) found Caribbean English migrants to be significantly more likely to report experiences of discrimination than White English, yet, compared to their English counterparts, Caribbean migrants were less likely to suffer mental disorders.

Nevertheless, there is an overall consistency with which studies indicate an association between discrimination and poor psychological outcomes and any inconsistencies may partly be explained by variation in methodology. Williams et al. (2003) proposed a valid and reliable self-report measure to be developed for use within the field, yet a variety of measures have been used including the Schedule of Racist Events (Klonoff et al., 1999), Perceived Racism Scale (Nyborg & Curry, 2003), and Lifetime/Everyday Discrimination Scales (Kessler et al., 1999). Furthermore, the reliance on self-report measures (e.g. Prelow, Danoff-Burg, Swenson, & Pugliano, 2004; Wong et al., 2003) may influence correlation coefficients as a result of shared method and source variance. For example, Nyborg and Curry (2003) use both parent- and self-report measures and as such results may vary according to response biases (e.g. socially desirable responses, negative recall bias). Also, given the nature of 'internalising' behaviour and the nature of adolescent-parent relationships (Wong et al., 2003), parent-reports may be of limited predictive ability and self-report may be a more appropriate measure.

Also, not all studies fully account for potentially confounding variables. For example, in one study, poor school performance was as effective in predicting violent behaviour in adolescents as experiences of discrimination and although regression analysis revealed discrimination to add to the overall predictive model, its' entry only accounted for an additional 3% variance in violent behaviours (Caldwell et al., 2004). Other studies fail to account for other variables that may influence poor mental health including neighbourhood

disadvantage (e.g. Mossakowski, 2003), and socioeconomic status (e.g. Sellers et al., 2006; Verkuyten, 1998). The more robust studies that account for variables such as education and income reveal the effects of discrimination to be discrete and unique and operate beyond other social disadvantage, and that poor psychological outcomes for African-Americans or Indigenous Australians, for example, are not simply a matter of low socio-economic status.

Secondly, almost all studies fail to provide evaluation of the victim's social cognition to the experience of discrimination such as emotional affect, perceptual biases and general understanding of discrimination, and the context in which the discrimination occurred. These other variables are important in understanding the exact nature of discrimination. Ethnic discrimination is not some omnipotent factor which automatically causes psychological harm to the victim, but is a risk to the victim's confidence, self esteem, sense of self (Verkuyten & Thijs, 2001), and causes distress (Williams et al., 2003) which can then end in the victim experiencing problem behaviour.

Finally, the use of correlation analysis creates difficulty in determining causal direction and the cross-sectional nature of the data means the ordering of the variables (e.g. perceived discrimination, self-esteem, anxiety, etc.) is also problematic. For example, participants may be demonstrating recall bias such that those experiencing psychological problems (e.g. depression) may be more likely to interpret ambiguous social information as representing discrimination (Sellers et al., 2006). Therefore, longitudinal studies are required to fully examine discrimination and victim's psychological functioning, and when longitudinal research has been conducted the results have provided support for the proposition that discrimination increases the likelihood of poor mental health. For example, Sellers and Shelton (2003) found that, even after controlling for initial levels (T1) of psychological distress, T1 perceived discrimination remained a significant predictor of T2 distress amongst African-American college students. Furthermore, Wong et al. (2003)

examined African-American students from the beginning of 7th grade until the end of 8th grade and found the interaction of perceived discrimination and low ethnic identity to negatively correlate with self-competency beliefs, academic achievement, perception of friends positive school characteristics, and positive correlate with increased problem behaviour (this interaction effect was reduced the higher the victim's ethnic identity, though not completely). Thus, longitudinal research provides sequence to the variables that may affect participant's outcomes and establishes the impact of discrimination on victim's health and wellbeing beyond the initial exposure.

Summary

In summary, research suggests the experience of discrimination is real and ongoing for minority ethnic groups and that the victims are at significant risk of developing internalising and externalising behaviour. Although most of this research has involved African-American adolescents and adults, there is some evidence that other ethnic minority groups are also exposed to discrimination with similar outcomes. There is some methodological variance between studies that may influence findings, therefore the opportunity exists to develop and employ standard methods across future research. Also, there is a need for more research to be conducted on a greater range of minority ethnic populations.

Children's psychological and behavioural outcomes associated with experiences of discrimination and victimisation, and differential outcomes by gender

Children's understanding of discrimination

There is a limited amount of research that makes clear the experience of ethnic discrimination among children prior to adolescence. This is surprising given preschoolers display early signs of ethnic biases by demonstrating clear, although not necessarily negative, differentiation in attitudes toward their own and other ethnic groups from the age of three

(Kowalski, 2003); five year old children have demonstrated an understanding and a negative evaluation of gender discrimination (Theimer, Killen, & Stangor, 2001); and almost all children (92%) have an understanding of discrimination by age ten (Verkuyten et al., 1997).

Young children's understanding of discrimination, therefore, has been established. For example, Kowalski (2003) found three to five year old children were more likely to attribute positive qualities to dolls that matched their ethnicity and to select playmates that were of similar ethnicity, although it was more the case of demonstrating positive attitudes towards the child's own group, rather than negative attitudes towards other groups. Also, Theimer et al. (2001) found four to six year old children, following exposure to stories of gender discrimination, stated that exclusion based on gender was wrong and displayed understanding of gender stereotypes.

Finally, Verkuyten et al. (1997) found ninety-two percent of children responded affirmatively when asked if they knew what discrimination was and following the presentation of stories involving situations of ethnic discrimination, the children attributed the situation to skin colour, ethnicity, and personal characteristics. Formative understanding of what discrimination is, therefore, appears to feature early in child development. To this point, Brown and Bigler (2005) recognised that perception of discrimination is influenced by individual and developmental differences and proposed a model of children's perception of discrimination that includes age-related changes such as children's understanding of race, gender, others' cognitions, classification, social comparison, as well as contextual and individual differences.

Children's experience of ethnic discrimination

Of published research regarding children's experiences with ethnic discrimination, findings are similar to those found in research that involves adolescents and adults.

Verkuyten and Thijs (2001), for example, examined the relationship between personal and

ethnic peer victimisation and momentary self feelings in a group of Dutch children of Turkish background. Two versions of a questionnaire were used to elicit responses. One version presented the child with episodes of personal victimisation (e.g., one child refusing to play with another because of the other child's personal characteristics), and the other involved ethnic victimisation (e.g., one child refusing to play with another because the other child comes from a different country). Momentary self-feelings were measured by the children indicating their self-feelings on a seven point scale of faces (i.e., ranging from 'very sad' to 'very happy'). Irrespective of the child reporting high or low personal and ethnic self-esteem, exposure to accounts of personal victimisation was associated with negative momentary self-feelings and this association was significantly stronger when the child was exposed to accounts of ethnic victimisation.

In addition, Simons et al. (2002) found the majority of ten to twelve year old African-Americans reported experiences of discrimination and that there was a positive correlation between discrimination and depressive symptoms, although less than 2% of children actually met the criteria for clinical depression. Importantly, the study involved examination of many variables that potentially confound results within this type of correlation research (e.g. family income, ethnic identification, parenting style) and analysis revealed only uninvolvement and discrimination positively correlated with depressive symptoms. Accounting for variables that may also contribute to mental health outcomes in the study of discrimination is critical to understanding that the harm from discrimination occur above and beyond any outcome due to other life stressors.

The relationship between discrimination and mental health has also been examined in Puerto Rican children residing in the United States (Szalacha et al., 2003). Twelve percent of the seven to nine year old children reported having experienced discrimination; these children reported more depressive symptoms, more school-related stress, and parents reported more

difficulties in the child's adjustment. In the same study, however, almost half (49%) of thirteen to fourteen year old Puerto Rican adolescents reported having experienced discrimination. This leads to questioning of whether experiences with discrimination increase with age, whether discrimination is more readily perceived with age, or whether older children are more likely to report experiences of discrimination.

The difference between children and adolescent's reporting of discrimination in the study of Szalacha et al. (2003) may be due to either individual factors (e.g. different stages of development; Brown & Bigler, 2005) or methodology. For example, Szalacha et al. (2003) used different measurements of discrimination between children and adolescents. The child group were simply asked 'has any kid or adult treated you badly because you are Puerto Rican?', whereas the adolescents were asked questions from a nine item instrument which explored discrimination across a range of social situations. Krieger (1999) cautions against the usage of all-involving general questions and advocates use of specific situational prompts in questions in the study of discrimination which provide accurate estimates. The use of a single generalised question in relation to the experiences of discrimination among seven to nine year old children (e.g. Szalacha et al., 2003) may have resulted in underestimation of victim's exposure to discrimination.

In terms of development Brown and Bigler (2005) suggest that the perception of discrimination develops through childhood and into adolescence and later developmental stages, although Verkuyten et al. (1997) suggests most children have an understanding of discrimination by the age of ten. Verkuyten et al. (1997), however, in reaching that figure simply asked respondents if they knew what discrimination is (i.e. as a yes/no question); 98% of Dutch respondents answered yes, compared with 84% of ethnic minority respondents. On that point the respondents were not directly asked about their experiences with discrimination, only if they knew what discrimination was.

This underlines the need for development of instruments specifically to measure experiences of discrimination in children. As a function of limited research with children regarding discrimination the development and application of age-appropriate measures for children has been restricted. For example, Simons et al. (2002) used the Schedule of Racist Events Scale to measure experiences of discrimination in ten to twelve year olds and although this instrument has well established psychometric properties (Landrine & Klonoff, 1996), its main application has been for use in older populations (Klonoff et al., 1999; Landrine & Klonoff, 1996).

Children's experience of peer victimisation

Although there has been limited investigation of children's experiences of ethnic discrimination and mental health, there have been more studies of children's experiences of non-ethnicity-specific peer victimisation. Williams et al. (2003) suggest that ethnic discrimination is a stressful life experience and therefore places the victim's health and wellbeing at increased risk of harm. Mossakowski (2003) also frames the experience of discrimination within the life-stressor paradigm. Similarly, peer victimisation, defined by Kochenderfer and Ladd (1997) as 'being bullied/harassed by agemates', also presents significant stress to the victim. Therefore, outcomes identified within research on peer victimisation may provide an indication of what outcomes might be found from investigation of ethnic discrimination. This is not to suggest that ethnic discrimination is reducible or equivalent to peer victimisation, only that both may operate via similar psychological processes to harm victim's functioning and mental health and both fields of study employ similar methodological approaches.

For example, one study focussed on children's scores on psychological adjustment measures (e.g. loneliness, social anxiety, self worth), victimisation, and self blame. Graham and Juvonen (1998) found those children who perceived themselves to be victimised were

more likely to experience loneliness, social anxiety, and low self worth, and this relationship was strengthened if the victim blamed his/herself for being victimised. Similarly, Hodges and Perry (1999) employed a longitudinal design and found that victimisation is predictive of internalising problems in children. Unfortunately, the researchers also found internalising and externalising behaviours in children are predictive of future victimisation, thereby highlighting a potentially 'vicious circle' for victimised children.

Children's peer victimisation experiences, gender, and mental health outcomes

To the point of gender, research has tended to show that the development of problem behaviour is differentiated by gender, such that internalising behaviour is more likely to develop at higher levels in females and externalising behaviour at higher levels in males (Keily et al., 2003); although both behaviours can co-occur in both sexes (Lumley, McNeil, Herscell, & Bahl, 2002). Prior, Smart, Sanson, and Oberklaid (1993), for example, found Australian mothers reported more externalising behaviour in boys at infancy, toddlerhood, and childhood than for girls. Also, Gjone and Stevenson (1997) found Norwegian parents of identical and fraternal twins reported higher levels of externalising behaviour for boys compared to girls, and higher levels of internalising behaviour for girls compared to boys. Leadbeater et al. (1999) used self-report data from American boys and girls of ages eleven to fourteen years and found similar differences. Investigation of victimisation would be expected, therefore, to illustrate the aforementioned gender differences.

For example, in relation to gender and negative social experiences Kochenderfer and Ladd (1997) used self and observer-reported data to determine boys were more likely than girls to "fight back" and girls were more likely to "walk away" in response to victimisation. This relationship between violent behaviour, gender, and victimisation has also been found in relation to ethnic discrimination and young African-American males (Caldwell et al., 2004). Also, Kochenderfer and Ladd (1997) (whose study predominately involved White

Americans) found boys reported more physical victimisation than girls and Sullivan, Farrell, and Kwiewer (2006) (whose study predominately involved African-Americans) also found that boys reported more experiences of physical victimisation. Therefore, research in the areas of victimisation and discrimination share some commonality.

More recently, Dodge et al. (2003) employed a longitudinal design to examine boys and girls' social experiences from preschool to grade seven. Children who experienced peer rejection in grade one were teacher-rated, when the children had reached grade five, as displaying twice the amount of aggression in comparison with children who had not experienced peer rejection in grade one. Furthermore, children who experienced peer rejection in grade two were teacher-rated, in grade five, as displaying three times the amount of aggression than children who had not experienced peer rejection. Also, although there were no gender differences in experiences of peer rejection, between preschool and grade five boys were more likely than girls to display aggressive behaviour following experiences of peer rejection. Although closer analysis revealed only those children who were at or above the median in the initial amount of observed aggression and who were rejected by peers tended to display more aggression over time, the findings support previous findings which link negative social experiences to externalising behaviour (e.g. Caldwell et al., 2004; Sandstrom, Cillessen, and Eisenhower, 2003).

Dodge et al. (2003), however, found no relationship between peer rejection and internalising behaviour for either gender. This was also the case in Wolke et al.'s study (2000) which investigated experiences of bullying and problem behaviour in children aged six to nine. All children involved in direct bullying and all children who were victims of bullying displayed increased levels of externalising behaviour, yet there were no increases in children's internalising behaviour. Yet, others have found a relationship between victimisation and internalising behaviour (Graham & Juvonen, 1998; Hodges & Perry, 1999).

These inconsistencies may be partly explained by the age of the participants. Graham and Juvonen (1998) and Hodges and Perry (1999) assessed twelve and eleven year old children respectively whereas Dodge et al. (2003) and Wolke et al. (2000) assessed six to twelve and six to nine year old children respectively and increases in internalising behaviour associated with victimisation in children may occur at a later age.

Indeed, the developmental chronology of internalising disorders suggests that late childhood is the main period for the onset of depression symptoms and the concurrence of externalising behaviour is typical such that current externalising behaviour may mask displays of internalising behaviour, while also being an indicator of future internalising behaviour (Kovacs & Devlin, 1998). Alternatively, the findings of Dodge et al. (2003) and Wolke et al. (2000) in relation to victimisation and internalising behaviour may be considered anomalous, especially in light of a meta-analytic review of victimisation studies prior to 1997 (Hawker & Boulton, 2000) which found a clear relationship between victimisation and internalising behaviour.

More recently, researchers examined the relationship between perceived peer rejection and aggression in a longitudinal study involving a sample of grade three children (Guerra et al., 2004). Data were collected at autumn (T1) from assessment of children's social preferences, peer reports of children's aggression, children's perceived rejection, and children's attributions for social successes and failings, and used to predict aggression in the spring (T2). Boys who scored high on both aggression and peer rejection and who reported external attributions (i.e. they blamed others/circumstances for social failure) at T1 had elevated aggression scores at T2. By comparison, boys who scored high on aggression and peer rejection, but who reported internal attributions (i.e. they blamed themselves for social failure) at T1 had lower aggression scores at T2. These results suggest boys are more likely to

display externalising behaviour and negative social experiences are likely to elevate this behaviour, although this may be moderated by attribution processes.

For girls, however, the relationship is less clear (Guerra et al., 2004). For girls who were both aggressive and reported internal attributions at T1, there was no relationship between peer rejection in autumn and aggression at T2. Furthermore, compared with boys, girls who scored high on aggression and peer rejection and who reported external attributions at T1 had lower aggression scores at T2. In response to stressful social experiences, girls tend to display increases in internalising behaviour (Leadbeater et al., 1999), and because Guerra et al. (2004) did not assess internalising behaviour it is plausible that boys displayed externalising behaviour as a consequence of perceived rejection, yet there was no adequate measure to completely determine the relative outcomes for girls. On the other hand, others have suggested the onset of internalising disorders such as depression is more likely at later ages for females (Kovacs & Devlin, 1998), and therefore any measure of internalising behaviour may have been inappropriate for girls in Guerra et al's. (2004) study.

In summary, there is limited research that has investigated the experience of ethnic discrimination for pre-adolescent children. This is remarkable given studies show children begin forming an understanding of discrimination from three years old and most understand discrimination by age ten. Of the conducted research it seems that minority ethnic children face similar difficulties to adolescents and adults in relation to discrimination and internalising and externalising behaviour. Research of peer victimisation and children may provide insight into children's experiences of ethnic discrimination. This area of research has found that peer victimisation and rejection is associated with increased internalising and externalising behaviour, although the association with internalising behaviour is less clear than externalising behaviour. The findings suggests that, generally, internalising behaviour is more likely displayed by females and externalising behaviour by males and problem

behaviour may increase differentially by gender when children are exposed to negative social experiences. This interaction, however, is under researched particularly in relation to ethnic discrimination. Presently, therefore, there is an opportunity for more direct investigation of the experience of ethnic minority children in relation to discrimination.

Conclusion

It is becoming increasingly clear, through an expanding body of research, that ethnic discrimination is a daily stressor for individuals and groups and that the exposure to discrimination is harmful to the victim's health and wellbeing. This is demonstrated by displays of internalising and externalising behaviour, but is also evident in loneliness, low self-esteem, and feelings of helplessness. Most of this research, however, has been conducted with African-American adolescents and adults and the research has inadequately addressed the social experiences of other minority ethnic groups even though evidence suggests ethnic discrimination is an ongoing social reality for many people. Furthermore, young children have an understanding of discrimination from a very early age, yet their experiences seldom have been explored. When children's experiences have been examined, discrimination has been shown to increase the likelihood of the victim developing problem behaviour; usually externalising and behavioural problems for boys and internalising and emotional difficulties for girls. This has also been found with peer victimisation and children, with a differential gender response such that externalising behaviour increases for boys compared to girls and internalising behaviour increases for girls compared to boys. Direct examination of ethnic discrimination and children, however, is rare and an opportunity exists for further examination of this group.

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Running head: PERCEIVED DISCRIMINATION AND PROBLEM BEHAVIOUR
AMONG CULTURALLY AND LINGUISTICALLY DIVERSE CHILDREN

Gender as a Moderator of the Relationship Between Perceived Discrimination and Problem
Behaviour Among Culturally and Linguistically Diverse Children

Jarrold Turner

Abstract

The aim of the present study was to examine the relationship between gender, perceived discrimination, and mental health among young ethnic-minority children. To address this aim, 32 participants (mean age = 10.8 years), with an even sample across gender and cultural backgrounds, were asked questions relating to two types of discrimination (day to day and lifetime experiences) and their primary caregiver was asked questions relating to child internalising (e.g. anxiety, withdrawal) and externalising (aggression, breaking things) behaviour. Almost all participants reported exposure to at least one type of discrimination. Girls, on average, scored higher on all measures compared to boys. Regression analysis showed higher levels of day to day discrimination were associated with increased internalising and externalising behaviour for boys and girls, although the relationship was stronger for girls. Higher levels of lifetime discrimination were associated with increased internalising behaviour for girls, little variance in externalising behaviour for girls, and decreased externalising and internalising behaviour for boys. Findings partially support those of previous research. Limitations are discussed as well as implications for future research.

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Gender as a Moderator of the Relationship Between Perceived Discrimination and Problem Behaviour Among Culturally and Linguistically Diverse Children

Research suggests perceived ethnic discrimination (i.e. being treated unfairly/negatively because of ethnic background) represents major life stress to the victim and is related to poor physical and mental health and wellbeing (McKenzie, 2003; Williams, Neighbours, & Jackson, 2003). For example, recent studies with African-American adults and adolescents have found positive correlations between experiences of ethnic discrimination and anxiety (Kessler, Mickelson, & Williams, 1999); depression and stress (Sellers, Copeland-Linder, Martin, & Lewis, 2006; Taylor & Turner, 2002); smoking (Guthrie, Young, Williams, Boyd, & Kinter, 2002; Landrine, Klonoff, Corral, & Fernandez, 2006); alcohol use (Kwate, Valdimardottir, Guevarra, & Boubjerg, 2003); and low self-efficacy and low academic achievement (Wong, Eccles, & Smeroff, 2003). Exposure to ethnic discrimination, therefore, is increasingly being recognised as an important determinant of health for ethnic minority populations.

Furthermore, there is evidence to suggest ethnic discrimination has a harmful effect beyond other factors that may also impact on a person's mental health and wellbeing. For example, in a study that measured African-American adults' levels of perceived discrimination, age, gender, level of education, income, and generic stress (e.g. moving house, changing employment), Klonoff, Landrine, and Ullman (1999) found that perceived discrimination was the best predictor of participant's total psychological symptomatology, somatisation, and anxiety scores. Also, others have found violent behaviour in African-American young adults is predicted by experiences of discrimination, even when accounting for previous history of violent behaviour (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004). These findings further support contemporary understandings of the harmful effects of discrimination.

Although not as widely studied as the experiences of African-Americans, other researchers have examined discrimination among other minority ethnic groups in the United States and found similar outcomes. Mossakowski (2003), for example, found higher levels of depression amongst Filipino-Americans who reported perceived discrimination compared to those reporting little or no exposure to discrimination; Gee (2003) found higher levels of psychological symptomatology among Chinese-Americans who reported discrimination; and, Finch, Kolody, and Vega (2000) found a strong relationship between discrimination and depression in Mexican-Americans. Therefore, discrimination experiences are not isolated to the African-American community in the United States.

Furthermore, the relationship between discrimination and poor mental health is not unique to the United States and similar outcomes also have been found in other countries. For example, researchers found exposure to discrimination among Dutch adolescents from Moroccan and Turkish backgrounds was associated with low self esteem (Verkuyten, 1998). In England, migrants (e.g. Bangladeshi, Indian, Pakistani) were significantly more likely to experience high levels of psychosis and depression having been exposed to ethnic discrimination (Karlsen & Nazroo, 2002). Yet, overall, the social experiences of minority ethnic groups outside of the United States have been relatively under-investigated.

The potential psychological problems experienced by victims of ethnic discrimination become even more concerning in light of findings suggesting a significant proportion of minority ethnic group members are exposed to discrimination. For example, Kessler et al. (1999) found 90% of African-Americans experienced discrimination daily and Taylor and Turner (2002) found one in every two African Americans reported experiencing major ethnic discrimination at some point in their lives (e.g. fired from job, hassled by neighbours). Although less studied, there is also evidence of discrimination against Asian-Americans (Goto, Gee, & Takeuchi, 2002), Arab-Americans (Moradi & Hasan, 2004). This incidence of

discrimination is not limited to the United States. In Australia, Indigenous Australians (Telethon Institute for Child Health Research, 2005), Middle-Eastern Australians (Human Rights and Equal Opportunity Commission (HREOC), 2004), and Vietnamese Australians (Mellor, 2004) are also exposed to incidences of discrimination. Additionally, there is evidence that suggests an increase in discrimination against certain ethnic groups following the attacks in New York on September 11, 2001 including Asian-Americans (Goto et al., 2002), Swedish Muslims (Sander, 2006), and Middle-Eastern Australians (HREOC, 2004; Mason, 2004; Noble, 2005). However, direct research on the social experiences of ethnic minority groups outside of the United States is limited.

Another important limitation of the research efforts to date is that the study of the health impact of ethnic discrimination has been conducted mainly with adults and adolescents, yet children may also be vulnerable to the harmful effects of discrimination (Simons et al., 2002). It has been shown that preschoolers display early signs of ethnic biases (Kowalski, 2003), five year old children demonstrate an understanding of gender discrimination (Theimer, Killen, & Stangor, 2001) and almost all children, irrespective of actual experience, have an abstract conceptualised understanding of what discrimination is by the age of 10 (Verkuyten, Kinket, & van der Weilen, 1997). Therefore, it is likely that young children are able to perceive discrimination if they are exposed to such experiences.

When young children have been the focus of research their mental health-related correlates are similar to adults. For example, Simons et al. (2002) found the majority of ten to twelve year old African-Americans reported experiences of discrimination and there was a positive correlation between the extent to which children reported discrimination and the children's depressive symptoms. Also, Verkuyten and Thijs (2001) found exposure to discrimination was associated with negative momentary self-feelings among ten to twelve year old Dutch children of Turkish background, and Szalacha et al. (2003) found higher

depressive symptoms, reported school-related stress, and adjustment difficulties among seven to nine year old Puerto Rican children who reported experiencing discrimination. Therefore, if ethnic minority children are experiencing discrimination in their lives, there is an increased likelihood that they may also be experiencing psychological problems.

Although there has been limited investigation directly examining the relationship between perceived discrimination and mental health in young children, there have been more studies of children's experiences of non-ethnicity-specific overt (i.e. being bullied or threatened by school mates) and covert (i.e. exclusion from playgroups or spreading of hurtful rumours) peer victimisation that may be analogous to the study of ethnic discrimination. As is the case with experiences of ethnic discrimination, peer victimisation presents significant stress to the victim (Kochenderfer & Ladd, 1997). It is likely that both peer victimisation and discrimination operate via similar psychological processes (e.g. lowered self-esteem, increased feelings of hopelessness, increased stress reactivity) to harm victim's functioning and psychological health.

To this point, there is growing evidence to suggest that there is a relationship between children's experiences of peer victimisation and psychological health. For example, Graham and Juvonen (1998) found those children who perceived themselves to be victimised were more likely to experience loneliness, social anxiety, and low self worth. Similarly, Hodges and Perry (1999) conducted a longitudinal study and found that victimisation was predictive of internalising problems in children. Also, Dodge et al. (2003) found peer rejection (i.e. being excluded from playgroups) was predictive of later aggressive behaviour in young children, after controlling for prior aggressive behaviour. Finally, Hawker and Boulton (2000) reviewed a considerable number of studies of peer victimisation and showed that victimisation is linked with depression, anxiety, loneliness, and low self-esteem in children and adolescents. These outcomes are comparable to those associated with discrimination. In

Williams et al's. (2003) review of studies of ethnic discrimination, it was shown that exposure to discrimination is linked with depression, anxiety, psychological distress, and low self-esteem. Therefore, peer victimisation may be analogous to discrimination because the health outcomes are similar, and the potential psychological pathways that lead from the adverse social experiences to the health outcome may also be similar. Research of peer victimisation among child populations may inform the area of discrimination and child behaviour.

Gender differences in children's mental health outcomes associated with negative social experiences

Children's mental health status has conventionally been measured across a range of problem behaviour; internalising (e.g. depression, anxiety, withdrawal) and externalising (e.g. aggression, oppositional disorders, delinquency). Although both problem behaviours can occur in both sexes as well as in the same individual (Lumley, McNeil, Hercell, & Bahl, 2002), research has tended to show that internalising behaviour is more likely to develop at higher levels in females and externalising behaviour at higher levels in males (Keily, Lofthouse, Bates, Dodge, & Petti, 2003). Prior, Smart, Sanson, and Oberklaid (1993) found Australian mothers reported more externalising behaviours in boys at infancy, toddlerhood, and childhood than for girls; Gjone and Stevenson (1997) found Norwegian parents of identical and fraternal twins reported higher levels of externalising behaviour for boys compared to girls, and higher levels of internalising behaviour for girls compared to boys; as did Leadbeater, Kuperminc, Blatt, and Hertzog (1999) using self-reported behaviour data from American boys and girls. Therefore, prior research has shown boys are more likely to display externalising behaviour compared to girls, and girls are more likely to display internalising behaviour compared to boys.

When there are observed increases in children's problem behaviour following exposure to negative social experiences, research suggests the relationship between gender and internalising and externalising behaviour persists. Thus, girls tend to display increased internalising behaviour, and boys tend to display increased externalising behaviour, in response to negative social experiences. For example, in relation to internalising behaviour Leadbeater et al. (1999) found girl's levels of internalising behaviour increased, relative to boys, following stressful events (e.g. arguments or fights with peers). Paquette and Underwood (1999) found that although both girls and boys reported feeling worse about themselves following peer victimisation (e.g. being gossiped about), girls reported feeling more hurt such that the relationship between negative self-feelings and victimisation was stronger for girls than boys. Also, within the familial social structure Grant et al. (2003) found the positive relationship between negative parenting and internalising behaviour was significantly stronger in girls compared to boys. Therefore, the relationship between negative social experiences and mental health outcomes is different for girls and boys.

In relation to gender and externalising behaviour Kochenderfer and Ladd (1997) found boys were more likely than girls to "fight back" and girls were more likely to "walk away" in response to victimisation. Also, Hodges and Perry (1999) found boys in the spring of one year were more aggressive in the spring of the next year following experiences of peer victimisation and Dodge et al. (2003) found young boys were more likely than girls to display aggressive behaviour following experiences of peer rejection. Leadbeater et al. (1999) found girl's levels of internalising behaviour increased, relative to boys, following stressful events (e.g. arguments or fights with peers). More recently, Guerra, Asher, and DeRosier (2004) found boys who scored high on both aggression and peer rejection and who reported external attributions (i.e. blaming peers for social failure situations) at autumn (T1), had elevated aggression scores in the spring (T2). For girls, however, those who scored high on aggression

and peer rejection and who reported external attributions at T1 had lower aggression scores at T2.

In these instances, then, gender can be conceptualised as a moderator of the relationship between victimisation and the development of problem behaviour. Within social psychological research, a moderator variable is defined as a variable (e.g. gender, socioeconomic status) that changes the relationship between a predictor variable (e.g. discrimination) and an outcome variable (e.g. anxiety) (Baron & Kenny, 1986). For girls, it is more likely that increases in internalising behaviour will be observed following exposure to victimisation, peer rejection, and other negative social experiences. For boys exposed to such conditions, increases in externalising behaviour are likely to be observed.

Therefore, although limited, existing research on discrimination and other negative social experiences such as peer victimisation suggests that young ethnic minority children who perceive that they have been the victims of ethnic discrimination may be at risk of experiencing poor mental health outcomes and these outcomes may be reflected in high scores on inventories of internalising and externalising problem behaviour. The current study was conducted with a sample of Asian and Middle-Eastern families with young children (ages seven to eighteen) to: (a) determine any differences in internalising and externalising behaviour in ethnic minority girls and boys; (b) determine if internalising and externalising behaviours in ethnic minority girls and boys are influenced by perceived discrimination; and, as the primary goal (c) to determine if the relationship between perceived discrimination and internalising and externalising behaviour is differentiated by gender.

Consistent with the findings of prior research (e.g. Keiley et al., 2003; Leadbeater et al., 1999), it was hypothesised that internalising behaviour would be found to occur at higher levels with girls compared to boys and externalising behaviour would be found to occur at higher levels with boys compared to girls. Also, accordant to prior research findings (e.g.

Kessler et al., 1999; Turner & Taylor, 2002) and more recent anecdotal evidence (HREOC, 2004), it was expected that the children would report exposure to ethnic discrimination.

Furthermore, consistent with prior research (e.g. Nyborg & Curry, 2003; Simons et al., 2002; Szalacha et al., 2003), it was hypothesised that perceived discrimination would be related to levels of problem behaviour for both boys and girls.

Finally, it was hypothesised that gender would moderate the relationship between perceived discrimination and problem behaviour such that the relationship between perceived discrimination and internalising behaviour would be stronger for girls compared to boys and the relationship between perceived discrimination and externalising behaviour would be stronger for boys compared to girls. This relationship has not been directly investigated in this population although, previously, Kochenderfer and Ladd (1997), Leadbeater et al. (1999), Paquette and Underwood (1999) and Guerra et al. (2004) all studied the relationship between victimisation, children, and problem behaviour and findings suggested that gender may moderate the relationship between negative social experiences (e.g. discrimination) and problem behaviour.

To accomplish the research objectives, measures were used to assess children's individual levels of perceived discrimination and internalising and externalising behaviour. The relationships between gender, perceived discrimination (predictor variables), and internalising and externalising behaviour (outcome variables) were tested using regression techniques designed to detect interaction effects (Aiken & West, 1991). Also, bivariate correlations, chi-square tests, and t-tests were conducted. This allowed for the analysis of the relationship of the predictor variables to the outcome variables as well as determining any interaction between the predictor variables relative to the outcome variables.

Method

Participants

Participants were from Perth, Australia. The sample was evenly divided in gender (16 girls and 16 boys), ages 7 to 18 ($M = 10.8$) (see Table 1) and their primary caregiver. According to their self-identified ethnic background, the sample was approximately 59% Asian and 41% Middle-Eastern (see Table 2). Only those families who returned written consent forms were included as participants in the study and recruitment was concentrated on participants from Asian and Middle Eastern backgrounds.

Procedure

The data presented here were collected as part of a larger, ethics approved, formative study of discrimination and mental health of minority ethnic Australian children conducted at Edith Cowan University in conjunction with the Telethon Institute of Western Australia. Potential participants were identified following consultation with an Asian and Middle Eastern advisory committee comprised of key community organisations as identified through consultation with the Office of Multicultural Interests of the Government of Western Australia, the Metropolitan Migrant Resource Centre, the ISHAR Multicultural Centre for Woman's Health, the Thai Cultural Community of WA, Dar Al Shifah, and the Ethnic Communities Council of Western Australia. Additionally, participants were recruited by sending packages containing information letters and consent forms regarding the study to 12 Perth primary schools that had relatively high numbers of students of Asian and Middle Eastern background, which would then pass on the packages to eligible participants. Attempts were made to over-represent families of Middle Eastern background because they may be more at-risk of experiencing ethnic discrimination due to current socio/political events (Mason, 2004) and noticeable cultural attire (HREOC, 2004). Both the primary caregiver and the child were required to sign and return the consent forms to participate in the study.

Questionnaires were administered, and all data were collected, by trained research assistants at the participants' homes. Where necessary, some questionnaires were left with participants to complete and return by mail. All measures within the questionnaires were successfully pilot-tested with 10 children and their parents prior to their use in data collection for this study.

Measures

Krieger, Smith, Naishadham, Hartman, and Barbeau (2005) have recommended the use of validated, multiple-item instruments to measure self-reported experiences of ethnic discrimination. Therefore, two instruments within the questionnaires were designed to measure children's self reported experiences of discrimination: (1) day to day experiences of discrimination, and (2) lifetime experiences of discrimination. Children were also asked to nominate the main reason for daily experiences of discrimination from a list of 11 possible reasons (e.g. "your ancestry or national origins or culture", "your religion"). Children's behaviour was assessed using a behavioural checklist completed by the primary caregiver.

Day to day experiences of discrimination. The day to day experiences of discrimination scale for children (see Appendix A) was derived from Williams, Yu, Jackson, and Anderson's (1997) scale which was used among African-Americans, other minority ethnic Americans (e.g. Hispanic), and "White-Americans" to measure routine and relatively "minor" experiences of discrimination (e.g. "In your day to day life"... "how often have you been treated with less respect than other people?", and "how often have you been called names or insulted?"). The scale contains ten questions. Response options ranged from 0 (never) to 3 (four or more times). Williams et al. (1997) reported strong psychometric properties for the original instrument (Cronbach's $\alpha = .88$).

Lifetime experiences of discrimination. The lifetime experiences of discrimination scale for children (see Appendix B) was derived from Murry, Brown, Brody, Cutrona, and

Simons' (2001) scale which was used among a predominately African-American sample. The scale was adapted for use among the present study's participants. This involved relatively minor changes of some original words and terms to those more appropriate (e.g. "How often has a store owner, sales clerk, or person working at a place of business treated you in a disrespectful way just because you are African American" was changed to "How often has someone like a sales assistant treated you in a disrespectful way just because you are", with blank spaces in all questions left for the participant to complete their own interpretation of ethnic background (e.g. "Thai-Australian"). This interpretation was based on participant's response to an item within the questionnaire (e.g. "Because your parents are from, and maybe you speak.....as well as English, your cultural background is....."). Response options ranged from 1 (never) to 4 (several times). Murry et al. (2001) reported strong psychometric properties for the original instrument (Chronbach's $\alpha = .92$).

Social Behaviour Questionnaire. A measure of child behaviour was developed for use within this study and was administered to the participant's primary caregiver. This 84-item scale (see Appendix C) is a composite of items from existing behaviour questionnaires measuring prosocial behaviour (Tremblay, Vitaro, Gagnon, Piche, & Royer, 1992) (e.g. "Within the past month, how often would you say that the child invited a child to join in a game"), and externalising (e.g. "Within the past month, how often would you say that the child got into fights") and internalising behaviour (e.g. "Within the past month, how often would you say that the child seemed to be unhappy or sad") (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Crick, Casas, & Mosher, 1997; Dodge & Coie, 1987). Response options ranged from 1 (never) to 3 (often).

Results

An examination of the age, gender, and ethnic background of the participants indicate the present study was successful in involving young Australian children (see Table 1) in the study with an even sample across gender (16 boys, 16 girls) and cultural backgrounds (see Table 2).

Table 1

Frequencies of Participants' Ages

Age	Frequency
7	1
8	6
9	1
10	7
11	4
12	4
13	4
14	1
15	1
18	1

Note. $M = 10.8$ years

Table 2

Self Identified Ethnic Background of Participants

Ethnic Background	Total	Percentage
Chinese	3	9.6
Egyptian	2	6.4

Table 2 continued

Self Identified Ethnic Background of Participants

<u>Ethnic Background</u>	<u>Total</u>	<u>Percentage</u>
Filipino	4	12.8
Indian	2	6.4
Iranian	1	3.2
Iraqi	2	6.4
Kuwaiti	1	3.2
Lebanese	2	6.4
Malay	2	6.4
Middle-Eastern	2	6.4
Pakistani	1	3.2
Palestinian	1	3.2
Singaporean	1	3.2
Thai	2	3.2
Vietnamese	3	9.6

Previously, Krieger (1999) has outlined the importance of using clear and reliable measures when investigating discrimination and health outcomes among at-risk populations (e.g. African Americans). Therefore, separate reliability analyses were conducted for all relevant scales and subscales of the questionnaires used within the present study and the results indicate strong psychometric properties for all scales and subscales (see Table 3). Across all items within the Day to Day Experiences of Discrimination scale (DPD), the Lifetime Experiences of Discrimination scale (LPD), and the Externalising (EXT) and Internalising (INT) subscales of the Social Behaviour Questionnaire, two items were

identified as having zero variance (scores of 0 for all participants). One item was within the DPD scale (“You have been followed around in shops by security people”). The other item was within the LPD scale (“How often have the police hassled you because you are”). Accordingly, both items were excluded from further analyses.

Table 3

Reliability Coefficients for Questionnaire Scales and Subscales

Scale/Subscale	Chronbach's Alpha
Day to Day Experiences of Discrimination	.82
Lifetime Experiences of Discrimination	.85
Social Behaviour Questionnaire (EXT)	.94
Social Behaviour Questionnaire (INT)	.93

Regarding the DPD scale, 87% of participants reported experiences of discrimination. There was a significant association with gender, $\chi^2(1) = 4.700, p < .05$, with the 3 participants who did not report discrimination on the DPD scale being girls. Also, there was some variance across items. For example, girls were almost twice as likely than boys to report having been “treated with less courtesy or politeness than other people” more than once (46.7% compared to 25%), and girls were almost twice as likely than boys to report having been “treated with less respect than other people” more than once (46.7% compared to 25%). Also, 46.7% of girls and 31.3% of boys reported having been “called names or insulted” more than once and 37.5% of boys and 33.3% of girls reported “people having acted as if they’re better than they are” more than once.

Regarding the LPD scale, 77% of participants reported experiences of discrimination. For example, 62.5% of boys and 46.7% of girls reported someone having “said something insulting to you just because you are ...” more than once, and 40% of girls and 37.5% of boys

reported encounters with “White Australians who are surprised that you, as an person, did something really well” more than once. Finally, there was a significant association with gender in relation to experiences of “having members of your family being treated unfairly just because you are” with 33.3% of girls, compared to 6.3% of boys, reporting this discrimination experience having occurred a few times or more in their lifetime, $\chi^2(1) = 3.886, p < .05$.

Bivariate correlations were conducted for all relevant variables including DPD, LPD, EXT, INT, and participant’s age. The results from the bivariate correlations indicate significant relationships between participant’s scores for both behaviour subscales and for both discrimination experiences scales (see Table 4).

Table 4

Bivariate Correlations for Variables in the Analysis

Variable	1	2	3	4	5
1. DPD	1	.582*	.066	.192	-.242
2. LPD		1	-.058	.163	.032
3. EXT			1	.789*	-.166
4. INT				1	-.235
5. Age					1

* $p < .01$

T tests comparing the means for the DPD, LPD, EXT, and INT variables by gender (boy/girl) were conducted to determine any significant differences. In relation to INT the tests did reveal a trend, $t(29) = -1.638, p < .10$, towards differences between scores for INT by gender such that, on average, girls’ INT scores were greater than boys. This represented a medium sized correlation $r = .35$. Similarly, the tests revealed a trend, $t(28) = -2.001, p < .05$,

towards differences between scores for LPD by gender such that, on average, girls' LPD scores were greater than boys. This also represented a medium sized correlation $r = .29$. Also, on average, girls' EXT and DPD scores were greater than boys.

Chi-square tests were also conducted to determine differences between variable scores by gender. Median points in the data (EXT = .128, INT = .109, DPD = .667, LPD = 1.3) were used to categorise high and low scores within each variable and then tests were performed to establish potential associations by gender. There was a significant association with gender in relation to high scores (> 1.3) of LPD, $\chi^2(1) = 4.801, p < .05$. This represents the fact that 9 girls scored higher than the median for the LPD variable compared to 3 boys.

Aguinis (2004) has suggested examining the distribution of the outcome variable data before regression analyses, in order to determine whether it is normally distributed. Therefore, examinations of the distribution of scores for outcome variables were conducted and revealed non normal (positively skewed) distributions for EXT (.798) and INT (1.03). Ideally, for analysis, scores would have zero skewness. Log transformations were conducted on both variables and the transformations were successful at reducing positive skewness for both EXT (.798 to .408) and INT (1.03 to .555).

Standard multiple regression analyses were conducted for all combinations of variables to determine if a regression model containing either DPD and gender, or LPD and gender, could accurately predict levels of either EXT or INT. All variables were entered at the first step in each specific analysis (see Tables 5 to 8). The results indicate all regression models failed to accurately predict levels of the outcome variable.

Table 5

Externalising Behaviour Regressed on DPD and Gender Variables

Variables	B	SE B	B
Gender	.006	.037	.032

Table 5 continued

DPD	.009	.028	.065
-----	------	------	------

Note. $R^2 = .005, p > .05$

Table 6

Internalising Behaviour Regressed on DPD and Gender Variables

Variables	<i>B</i>	<i>SE B</i>	<i>B</i>
Gender	.059	.042	.260
DPD	.031	.032	.181

Note. $R^2 = .104, p > .05$

Table 7

Externalising Behaviour Regressed on LPD and Gender Variables

Variables	<i>B</i>	<i>SE B</i>	<i>B</i>
Gender	.012	.040	.063
LPD	-.015	.039	-.081

Note. $R^2 = .007, p > .05$

Table 8

Internalising Behaviour Regressed on LPD and Gender Variables

Variables	<i>B</i>	<i>SE B</i>	<i>B</i>
Gender	.055	.046	.239
LPD	.018	.045	.079

Note. $R^2 = .077, p > .05$

Finally, hierarchical regression analyses were conducted to determine whether gender acted as moderator variable in the relationship between perceived discrimination and problem behaviour. For these analyses, both predictor variables (DPD, LPD) were mean centred and gender was dummy coded (boys 0/girls 1). Interaction variables were created by multiplying

gender by DPD, and gender by LPD. In the first step, gender and the discrimination variable were included. In step 2, the interaction variable was entered. These statistical strategies are well established and are recommended for use in the study of moderator variables (Aguinis, 2004; Aiken & West, 1991). Summaries of the results of the hierarchical regression analyses are presented in Tables 9 to 12.

Table 9

Hierarchical Regression Results of DPD, Gender, and Their Interaction on EXT

Variable	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Gender	.006	.037	.032
DPD	.009	.028	.065
Step 2			
Gender	.001	.060	.004
DPD	.006	.041	.042
DPD X Gender	.006	.057	.043

Note. R^2 change = .005 for step 1, .000 for step 2, $p > .05$

Table 10

Hierarchical Regression Results of DPD, Gender, and Their Interaction on INT

Variable	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Gender	.059	.042	.260
DPD	.031	.032	.181
Step 2			
Gender	.030	.068	.131
DPD	.013	.046	.074

Table 10 continued

DPD X Gender	.035	.064	.199
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Note. R^2 change = .104 for step 1, .010 for step 2, $p > .05$

Table 11

Hierarchical Regression Results of LPD, Gender, and Their Interaction on EXT

Variable	B	SE B	B
Step 1			
Gender	.011	.041	.060
LPD	-.013	.039	-.072
Step 2			
Gender	.051	.048	.268
LPD	-.254	.166	-1.368
LPD X Gender	.263	.177	1.272

Note. R^2 change = .006 for step 1, .084 for step 2, $p > .05$

Table 12

Hierarchical Regression Results of LPD, Gender, and Their Interaction on INT

Variable	B	SE B	B
Step 1			
Gender	.054	.047	.238
LPD	.018	.045	.083
Step 2			
Gender	.089	.056	.392
LPD	.018	.045	.083
LPD X Gender	.230	.206	.937

Note. R^2 change = .077 for step 1, .045 for step 2, $p > .05$

Although there were no significant findings in relation to the regression models, the interaction effect beta value is greater than 0 for all regression models and, therefore, the patterns of the interactions within each regression are able to be shown by plotting the interaction on graphs using a restructured regression equation: $Y = (b_1 + b_3Z)X + (b_2Z + b_0)$ (see Figures 1 to 4). By plotting the regression slopes, the graphs show how participants' EXT and INT behaviour varied depending on levels of DPD and LPD. Caution must be taken when interpreting the graphs however, as the results of the hierarchical regression analyses were non-significant.

Figure 1. Child Externalising Behaviour as a Function of Day to Day Experiences of Discrimination X Gender

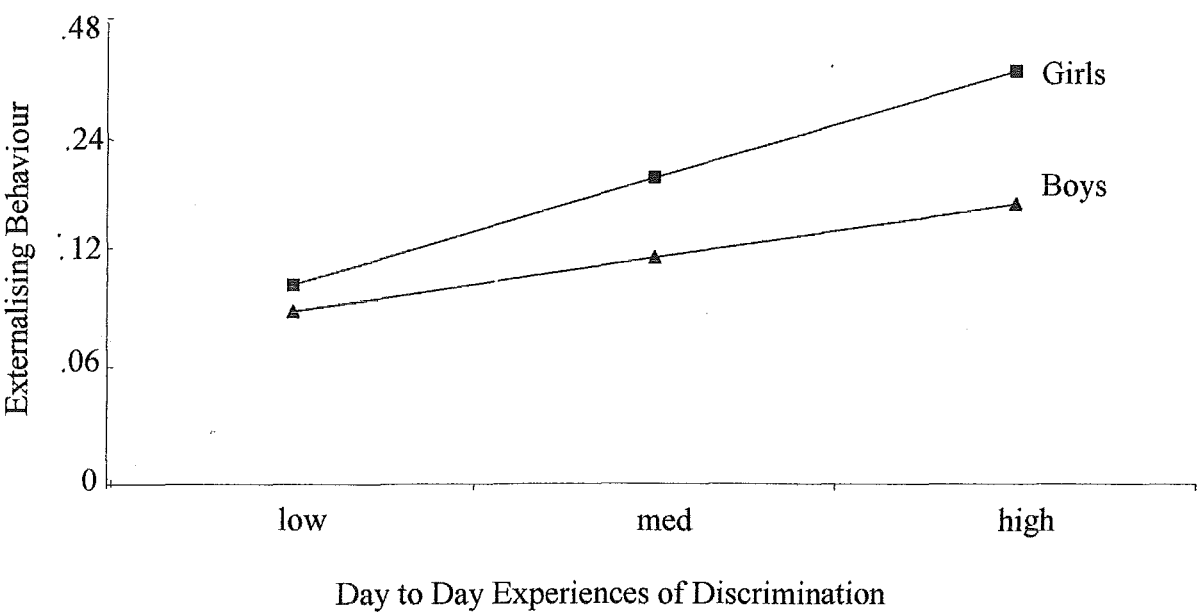


Figure 2. Child Internalising Behaviour as a Function of Day to Day Experiences of Discrimination X Gender

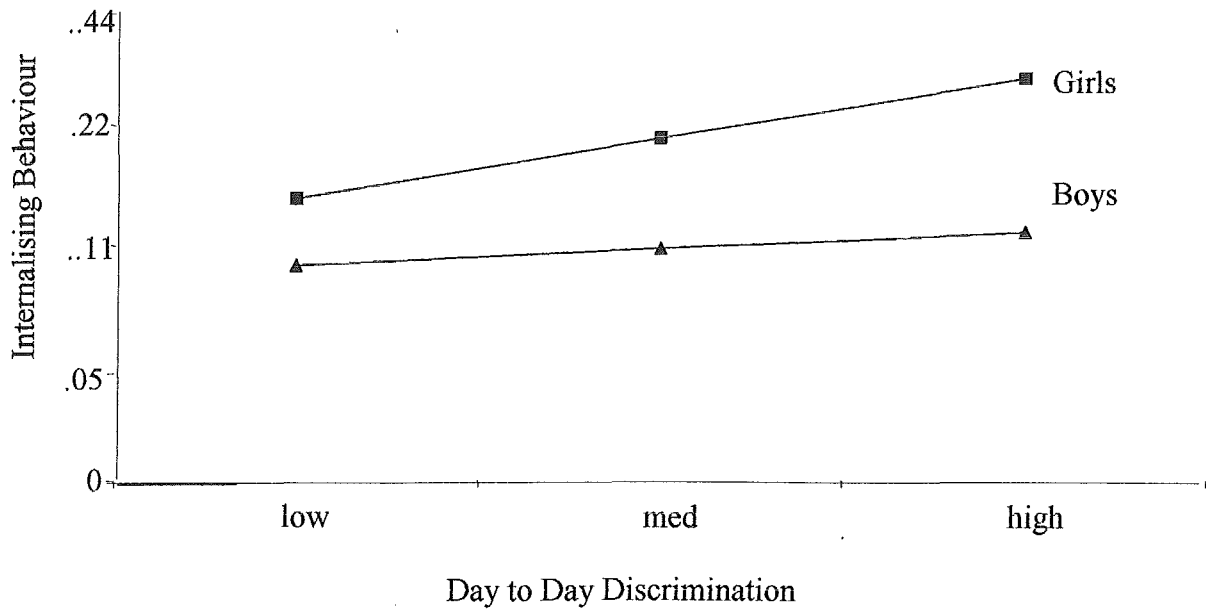


Figure 3. Child Externalising Behaviour as a Function of Lifetime Experiences of Discrimination X Gender

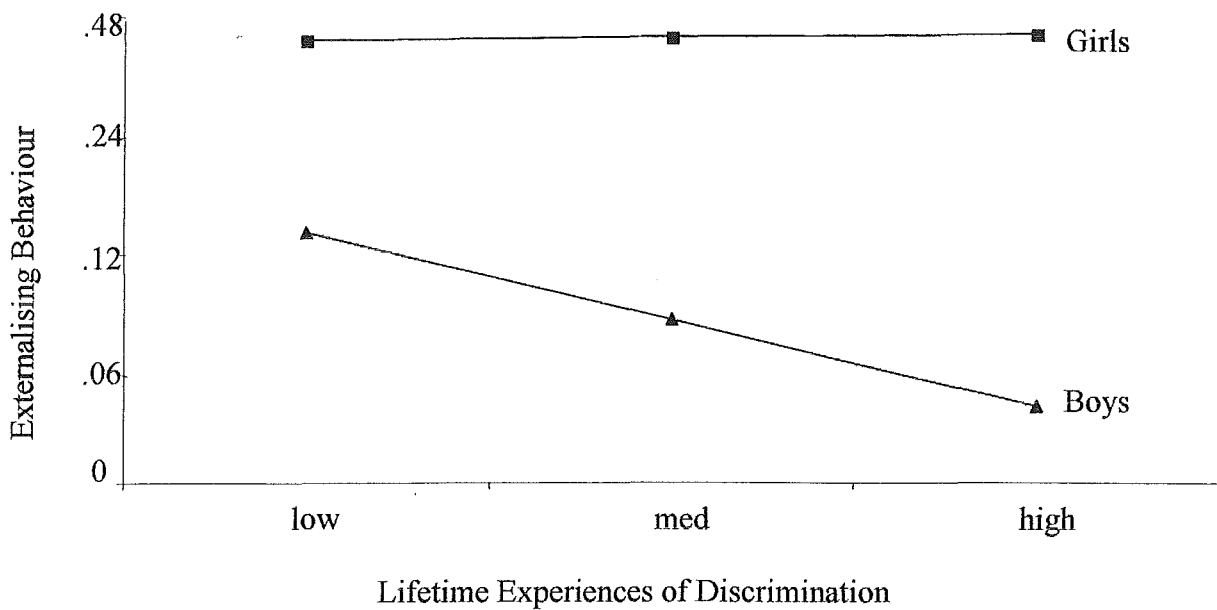
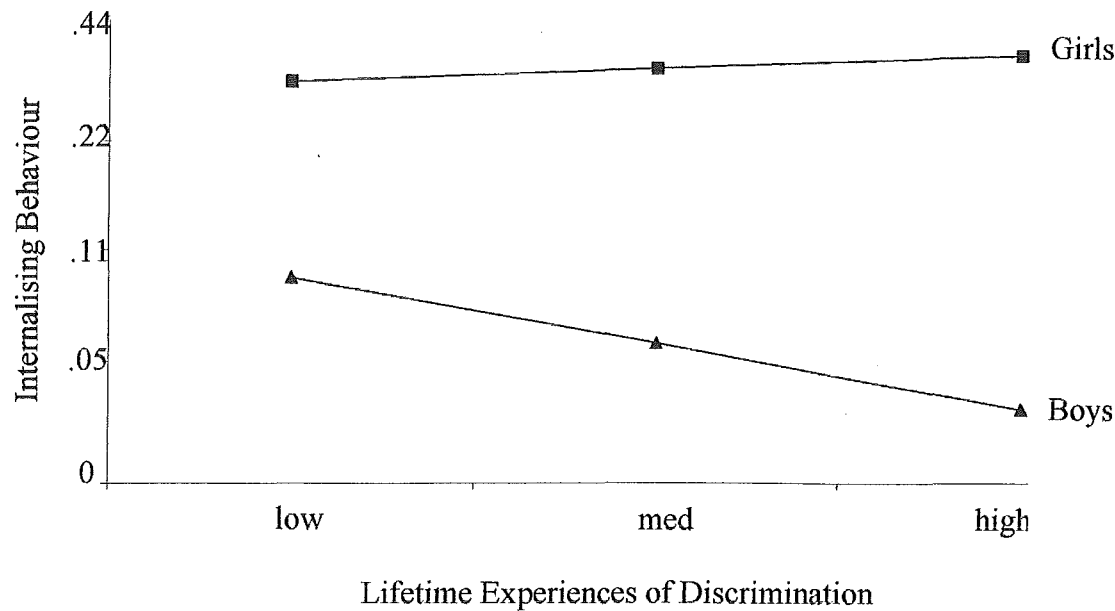


Figure 4. Child Internalising Behaviour as a Function of Lifetime Experiences of Discrimination X Gender



There are some behaviour patterns that are evident from viewing the graphs. Higher levels of DPD were associated with increased EXT for both boys and girls, but this relationship was stronger for girls. Higher levels of DPD were associated with increased INT for both boys and girls, but this relationship was stronger for girls. Girls' EXT was relatively unrelated to levels of LPD, but higher levels of LPD were associated with decreased EXT for boys. Higher levels of LPD were associated with increased INT for girls, but higher levels of LPD were associated with decreased INT for boys.

Discussion

The purpose of the present study was to examine the relationship between perceived discrimination and externalising (EXT) and internalising behaviours (INT) within a sample of young Australian children of Asian and Middle-Eastern background. Although there is an expanding body of research investigating the social experiences of adults and adolescents, few studies (e.g. Simons et al., 2002; Szalacha et al., 2003) have attempted to directly examine the incidences and consequences of discrimination among young children from

ethnic minority groups. The present study was successful in involving young Australian children as participants in the study with an even sample across gender and cultural backgrounds.

As expected, almost all participants reported experiences of either day to day or lifetime discrimination with girls, on average, reporting more experiences of discrimination compared to boys. It was hypothesised that, generally, higher levels of INT would be found for girls compared to boys. Also, higher levels of perceived discrimination would be associated with increased levels of INT for both boys and girls, yet the relationship would be stronger for girls. The results offer partial support for these hypotheses. On average, girls' levels of INT were higher than boys and the plotted regression slopes indicated that higher levels of day to day discrimination were associated with increased levels of INT for boys and girls, with a greater increase for girls' levels. However, in relation to lifetime discrimination, higher levels of perceived discrimination were associated with increased levels of INT only for girls. In fact, for boys, higher levels of lifetime discrimination were associated with decreased levels of INT.

It was also hypothesised that, generally, higher levels of EXT would be found for boys compared to girls. Also, higher levels of perceived discrimination would be associated with increased levels of EXT for both boys and girls, yet the relationship would be stronger for boys. Again, results only partially support these hypotheses. Higher levels of day to day discrimination were associated with increased EXT for both boys and girls, but this relationship was stronger for girls. In relation to higher levels of lifetime discrimination, girls' EXT was relatively invariant, but higher levels of LPD were associated with decreased EXT for boys. Also, on average, girls' levels of EXT were higher than boys.

The prevalence of discrimination reported within the present study is comparable to prior research findings (e.g. Prelow, Danoff-Burg, Swenson, & Pulgiano, 2004; Simons et al.,

2002) and also confirms anecdotal reports of discrimination against ethnic minority groups in Australia (HREOC, 2004; Mellor, 2004). Of interest, are previous findings from a study of young Puerto Rican-American children and adolescents that suggest only 12% of children and 49% of adolescents had experienced discrimination in the previous year (Szalacha et al., 2003). That study, however, as well as studying a different ethnic minority group, used a one item measure of discrimination for the child participants although a nine item measure was used for adolescents. The present study employed two multi-item scales to measure discrimination experiences and this approach has been recommended for population research on discrimination and health (Krieger, 1999; Krieger et al. 2005). By offering participants a range of social experiences from which to report on, researchers may be providing a more accurate measurement of actual discrimination experiences.

The finding indicating more reported INT for girls is consistent with previous research (Gjone & Stevenson, 1997; Keily et al., 2003). Furthermore, results indicting an increase in INT at higher levels of perceived discrimination for both girls and boys, with a greater increase for girls, confirms prior understandings of the relationship between INT and negative social experiences (Hawker & Boulton, 2000; Leadbeater et al., 1999). That relationship, however, was more obvious in relation to day to day discrimination compared with lifetime discrimination. Also, for boys, INT decreased at higher levels of lifetime discrimination. It is plausible that the chronic nature of experiencing discrimination on daily basis may create greater risk to the victim, as has been suggested (Williams et al., 1997), thereby resulting in poorer health outcomes. In addition, day to day and lifetime experiences of discrimination have been shown to differentially affect the victim's health (Kessler et al., 1999).

Interestingly, the findings in relation to EXT are largely inconsistent with previous research that shows, generally, higher reported EXT for boys compared with girls (Keily et

al., 2003) and increased levels of EXT for both girls and boys occurring at higher levels of negative social experiences (Dodge et al., 2003). Furthermore, previous findings suggest greater increases would be found in boys' EXT compared to girls (Hodges & Perry, 1999). Although the present study found boys' and girls' EXT increased at higher levels of day to day discrimination, the relationship was stronger for girls. It has been suggested that the onset of internalising behaviour may occur at late childhood and the concurrence of externalising behaviour may conceal displays of internalising behaviour (Kovacs & Devlin, 1998) and the present study was among young children. Also, the expression of externalising behaviour may differ for boys and girls (Leadbeater et al., 1999), resulting in non-equivalent assessments across gender. Yet, the relationship was different in relation to lifetime discrimination with girls' EXT remaining unchanged and boys' EXT decreasing at high levels of lifetime discrimination and this finding is unsupported by prior research. Furthermore, the present findings in relation to internalising behaviour have support in the published literature. It is plausible that in relation to externalising behaviour the findings may be an artefact from the parent-report measures used within the present study. Parents may not be the most reliable informants for child behaviour and may be less candid when completing questionnaires relating to problem behaviour (Keily et al., 2003), especially when answering questions that reveal undesirable behaviours such as hitting others or breaking objects.

Limitations

Several limitations of the present study should be noted. Firstly, the findings must be interpreted with caution as there was an overall lack of statistical significance to the results. This may be due to a relatively small sample size. Sample size is considered a critical important determinant of statistical power and, in the case of regression analysis for detection of moderator variables; a small sample (< 100) almost always results in failure to detect a significant effect (Aguinis, 2004). Therefore, the trends in child behaviour that emerged from

analysis within the present study may attain statistical significance if investigated in a larger sample. To this point, previous studies involving larger samples have reported similar findings in relation to problem behaviour and negative social experiences among young children (Leadbeater et al., 1999; Paquette & Underwood, 1999; Simons et al., 2002). In the present study, however, the sample participation rate most certainly places limits on the generality of the inferences that may be drawn from the findings.

Because the recruitment process in the present study was not as effective as planned, the sample size was somewhat less than anticipated. This may reflect the difficulties when conducting research among culturally and linguistically diverse populations. The present study was limited to English written questionnaires and English speaking research assistants, although the participants (primary caregivers) were of non-English speaking background. Mellor (2004), for example, employed Vietnamese-speaking research assistants when investigating the experiences of Vietnamese Australians and Szalacha et al. (2003) utilised instruments that were modified to the Spanish language for use among Puerto Rican children in the United States. Future research will benefit from improved recruitment procedures and larger sample size.

A further limitation regarding the present study is that the focus was on Asian and Middle-Eastern families living in the largest metropolitan city of Western Australia and may not be nationally representative. This is especially salient in relation to Middle-Eastern families because the greatest number of that group reside in Eastern Australia (HREOC, 2005). Also, only ethnic minority children were involved in the present study and there was no control group. However, it would be difficult to examine the consequences of ethnic discrimination among the dominant culture, because this experience is uncommon (Kessler et al., 1999). Furthermore, it is established practice (Gibbons, Gerrard, Cleveland, Wills, &

Brody, 2004; Simons et al., 2002) when investigating discrimination and health correlates among ethnic minority groups to focus on one ethnic group.

Another limitation is that all measures of internalising and externalising behaviour were collected from one source - the parents. Some findings, therefore, may be an artefact of shared method variance. Regression coefficients, for example, may be inflated or, conversely, understated. This has also been a concern of previous studies (e.g. Keily et al., 2003; Leadbeater et al., 1999) that employed single-respondent measures. Parents, for example, may not be the most reliable informants for child behaviour and may offer socially desirable responses when completing questionnaires relating to problem behaviour (Keily et al., 2003). Some studies (e.g. Kochenderfer & Ladd; Nyborg & Curry, 2003) utilise more than one report measures (e.g. self, teacher, and parent reports) to improve validity. This approach would strengthen future research efforts.

The data used to test hypotheses within the present study were cross-sectional, meaning causal inferences and ordering of the variables cannot be accurately established. Although it was hypothesised that discrimination experiences would precede increases in externalising and internalising behaviour, it may be the case that problem behaviour in some children precedes the risk posed by discrimination. In particular, it has been suggested that those experiencing poor mental health (e.g. depression) may be more likely to interpret ambiguous social information as discrimination (Sellers et al., 2006). Also, other risk factors related to increased problem behaviour, such as neighbourhood disadvantage (Prellow et al., 2004), peer relations (Leadbeater et al., 1999), and parents' discrimination experiences (Gibbons et al., 2004), were not included within the present study and should be considered in future research.

Finally, due to participant's incompleteness of some items within some of the questionnaires there were missing data. Also, the statistical analysis within the present study

did not provide for the intercorrelations between the predictor variables. Although statistically significant, the correlation was moderate in size and thus both day to day and lifetime experiences of discrimination were deemed suitable for separate regression modelling. This relationship between the two types of perceived discrimination is typical in social research, as is separate analysis involving each variable (Kessler et al., 1999). This technique allows for statements about each variable's effects on the outcome variables, but does not provide modelling of the covariances.

Conclusion

Despite limitations, the present study was successful in investigating the relationship between perceived discrimination and problem behaviour among young ethnic minority children – an area that is largely under-investigated. Overall, the findings partially support previous research that suggests ethnic minority groups are regularly exposed to discrimination and are at increased risk of developing mental health problems in the form of increased problem behaviour. Almost all respondents reported experiences of at least one type of discrimination. Also, higher reported levels of day to day discrimination were associated with increased externalising and internalising behaviour for girls and boys, with the greatest increases for girls. The relationship was less clear regarding higher levels of lifetime discrimination with girls' internalising behaviour slightly increasing, girls' externalising behaviour remaining invariant, and boys' internalising and externalising behaviour decreasing.

Caution must be given to interpretations of the findings, however, due mainly to the overall lack of statistical significance and the small, localised sample. Nonetheless, there are obvious trends in the data that offer support to previous research. Furthermore, given exposure to discrimination is regarded as a determinant of health (McKenzie, 2003; Williams, et al., 2003), the prevalence of perceived discrimination among the participants is of concern.

Without doubt, more community-based investigation of ethnic minority children's discrimination experiences is required and it is hoped that the efforts of the present study will, at least, provide some useful information to future research that attempts to extend the present findings.

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Appendix A: Day to Day Experiences of Discrimination Scale for Children

Q1) In your day to day life, how often have any of the following things happened to you?

(Please circle *one* answer for each item)

		Four or more times	Two or three times	Once	Never
a.	You have been treated with less courtesy or politeness than other people	3	2	1	0
b.	You have been treated with less respect than other people	3	2	1	0
c.	You have not been treated as well as other people at restaurants and shops	3	2	1	0
d.	People have acted as if they think you are not smart	3	2	1	0
e.	People have acted as if they are afraid of you	3	2	1	0
f.	People have acted as if they think you are dishonest	3	2	1	0
g.	People have acted as if they're better than you are	3	2	1	0
h.	You have been called names or insulted	3	2	1	0
i.	You have been threatened or harassed	3	2	1	0
j.	You have been followed around in shops by security people	3	2	1	0

What do you think were the **main** reasons for this/these experiences (circle them)? Please **rank them** in order of most likely reason 1= **most likely**; 2= **second most likely**

- a. Your ancestry or national origins or culture
- b. Your gender (because you are a boy or because you are a girl)
- c. Your race
- d. Your age
- e. Your religion
- f. Your height or weight
- g. Your shade of skin colour
- h. Your education or income level
- i. A physical disability
- j. The way you look
- k. Other: (For example?) _____

Appendix B: Lifetime Experiences of Discrimination Scale for Children

Please answer the following by circling the number that corresponds to your experiences of these questions. Where there is a blank space, fill it in with the cultural background that you figured out for the “**Children’s Cultural Background**” questions a couple of pages ago.

		never	once or twice	a few times	several times
1	How often has someone said something insulting to you just because you are [.....]?	1	2	3	4
2	How often has someone like a sales assistant treated you in a disrespectful way just because you are [.....]?	1	2	3	4
3	How often have the police hassled you because you are [.....]?	1	2	3	4
4	How often has someone ignored you or excluded you from some activity just because you are [.....]?	1	2	3	4
5	How often has someone suspected you of doing something wrong just because you are [.....]?	1	2	3	4
6	How often has someone yelled a racial insult at you?	1	2	3	4
7	How often has someone threatened to harm you physically just because you are [.....]?	1	2	3	4
8	How often have you encountered White Australians who are surprised that you, as an [.....] person, did something really well?	1	2	3	4
9	How often have you been treated unfairly just because you are [.....]?	1	2	3	4
10	How often have you encountered Whites who did not expect you to do well just because you are [.....]?	1	2	3	4
11	How often has someone discouraged you from trying to achieve an important goal just because you are [.....]?	1	2	3	4
12	How often have close friends of yours been treated unfairly just because you are [.....]?	1	2	3	4

Appendix C: Social Behaviour Questionnaire

SECTION 1: YOUR CHILD'S BEHAVIOUR

The following statements relate to a child's possible behaviour. We would like to ask you questions regarding how the child has felt or acted over the *past month*.

Using your knowledge of your child, indicate which answer, from your point of view, best describes his or her behaviours. Even if this seems difficult, it is important to respond to all of the statements. If the behaviour is never manifested, or if you are unable to evaluate the behaviour, answer *never or not true*.

Within the past month, how often would you say that the child...

(please circle one number for each statement)

		<i>NEVER</i>	<i>SOMETIMES</i>	<i>OFTEN</i>
1.1	If there was a quarrel or dispute, tried to stop it?	1	2	3
1.2	Could not sit still, was restless or hyperactive?	1	2	3
1.3	Damaged or broke his/her own things?	1	2	3
1.4	Gave up easily?	1	2	3
1.5	Tried to help someone who has been hurt?	1	2	3
1.6	Wanted to communicate with one of his/her parents while he/she was at school?	1	2	3
1.7	Was shy with children he/she didn't know?	1	2	3
1.8	Stole things?	1	2	3
1.9	Invited a child to join in a game?	1	2	3
1.10	Was defiant or refused to comply with your requests or rules?	1	2	3
1.11	When mad at someone, tried to get others to dislike that person?	1	2	3
1.12	Acted without thinking?	1	2	3
1.13	Didn't seem to feel guilty after misbehaving?	1	2	3

	Never	Sometimes	Often
1.14 Was not as happy as other children?	1	2	3
1.15 Readily approached children that he/she didn't know?	1	2	3
1.16 Avoided the company of other children?	1	2	3
1.17 Damaged or broke things belonging to others?	1	2	3
1.18 Reacted in an aggressive manner when teased?	1	2	3
1.19 Jumped from one activity to another?	1	2	3
1.20 Couldn't stop fidgeting?	1	2	3
1.21 Was feeling unwell, for example, had stomach aches, headaches, nausea, when separated from you?	1	2	3
1.22 Was hit or pushed by other children?	1	2	3
1.23 Was unable to concentrate, could not pay attention for long?	1	2	3
1.24 Was too fearful or anxious?	1	2	3
1.25 Offered to help out without being told or asked?	1	2	3
1.26 Tried to dominate other children?	1	2	3
1.27 Held a grudge for a long time towards a friend or another child after he/she had an argument with that child?	1	2	3
1.28 Was unable to wait when someone promised him/her something?	1	2	3
1.29 Has been insensitive to other people's feelings?	1	2	3
1.30 When mad at someone, became friends with another as revenge?	1	2	3
1.31 Didn't change his/her behaviour after punishment?	1	2	3

1.32	Took a long time to warm up to children he/she didn't know?	1	2	3
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		<i>Never</i>	<i>Sometimes</i>	<i>Often</i>
1.33	Interrupted conversations or games of others?	1	2	3
1.34	Was impulsive, acted without thinking?	1	2	3
1.35	Had no energy, was feeling tired?	1	2	3
1.36	Told lies or cheated?	1	2	3
1.37	Reacted in an aggressive manner when contradicted?	1	2	3
1.38	Was worried?	1	2	3
1.39	Scared other children to get what he/she wanted?	1	2	3
1.40	Had difficulty waiting for his/her turn in games?	1	2	3
1.41	When somebody accidentally hurt him/her (such as bumping into him/her), he/she reacted with anger and fighting?	1	2	3
1.42	Tended to do things on his/her own, was rather solitary?	1	2	3
1.43	Has not kept his/her promises?	1	2	3
1.44	When mad at someone, said bad things behind the other's back?	1	2	3
1.45	Physically attacked people?	1	2	3
1.46	Comforted a child (friend, brother or sister) who was crying or upset?	1	2	3
1.47	Cried a lot?	1	2	3
1.48	Committed any acts of vandalism?	1	2	3
1.49	Clung to adults or was too dependent?	1	2	3
1.50	Was called names by other children?	1	2	3
1.51	Sought the company of other children?	1	2	3

1.52	Couldn't settle down to do anything for more than a few moments?	1	2	3
1.53	Was nervous, high-strung or tense?	1	2	3
1.54	Hit, bit, or kicked other children?	1	2	3
1.55	Reacted in an aggressive manner when something was taken away from him/her?	1	2	3
1.56	Was inattentive?	1	2	3
1.57	Has made faces or mean gestures secretly behind another child's back?	1	2	3
1.58	Tried to make up with a child with whom he/she had an argument?	1	2	3
1.59	Had trouble enjoying him/herself?	1	2	3
1.60	Helped other children (friends, brother or sister) who were feeling sick?	1	2	3

These questions are about the child in general		Not True	A Little True	Very True
1.61	His/her emotions appeared superficial?	1	2	3
1.62	Can detect if someone lied?	1	2	3
1.63	Rarely smiles?	1	2	3
1.64	Can not guess the intentions of others?	1	2	3
1.65	Feels bad for others when they are hurt	1	2	3
1.66	Easily perceives the feelings of others?	1	2	3
1.67	Knows how to make others laugh?	1	2	3
1.68	Says that he/she is not as good as the other children?	1	2	3
1.69	Is nice to younger children?	1	2	3
1.70	Is able to persuade others to do what he/she wanted?	1	2	3
1.71	Shares things with other children?	1	2	3

1.72	Had trouble enjoying him/herself?	1	2	3
1.73	Helped other children (friends, brother or sister) who were feeling sick?	1	2	3
These questions are about the child in general		Not True	A Little True	Very True
1.74	His/her emotions appeared superficial?	1	2	3
1.75	Can detect if someone lied?	1	2	3
1.76	Rarely smiles?	1	2	3
1.77	Can not guess the intentions of others?	1	2	3
1.78	Feels bad for others when they are hurt	1	2	3
1.79	Easily perceives the feelings of others?	1	2	3
1.80	Knows how to make others laugh?	1	2	3
1.81	Says that he/she is not as good as the other children?	1	2	3
1.82	Is nice to younger children?	1	2	3
1.83	Is able to persuade others to do what he/she wanted?	1	2	3
1.84	Shares things with other children?	1	2	3