Ethnic Identity Buffers the Effect of Discrimination on Family, Life, and Health Satisfaction for Pacific Peoples in New Zealand

Sam MANUELA
Senior Lecturer, School of Psychology, University of Auckland, Auckland, New Zealand

ABSTRACT

Introduction: The effect of discrimination on health and wellbeing varies. Mixed findings show that greater ethnic identity can make one more susceptible to the harmful effects of discrimination, or that ethnic identity can protect one against discrimination. This study tests how ethnic identity moderates the relationship between ethnic discrimination and a range of wellbeing measures for Pacific peoples in Aotearoa New Zealand.

Methods: Two independent studies, The Pacific Identity and Wellbeing Study (N = 752) and the New Zealand Attitudes and Values Study (N = 472), surveyed Pacific peoples in New Zealand across measures of ethnic identity, perceived discrimination, family satisfaction, life satisfaction, and health satisfaction.

Findings: Moderated regression analyses for both studies showed a significant identity x discrimination interaction. Across all analyses, for those with lower ethnic identity scores, there was a significant negative relationship between discrimination and the health and wellbeing measures. For those with higher ethnic identity scores, there was no significant relationship between discrimination and wellbeing measures.

Conclusions: These results suggest that higher scores of Pacific ethnic identity buffer the negative effects of discrimination on satisfaction with family, life, and health. These findings offer support for the protective properties of Pacific ethnic identities. As such, initiatives that seek to bolster Pacific ethnic identities and culture will support a multifaceted approach for enhancing Pacific health and psychological wellbeing.

Keywords: Pacific; Ethnic identity; Discrimination; Wellbeing; Health

INTRODUCTION

Ethnic identity has been posited as a protective factor for the health and wellbeing of Pacific peoples in New Zealand. However, wider psychological research on the effects of ethnic discrimination and ethnic identity on psychological wellbeing has shown mixed findings across a diverse range of ethnic groups. This paper presents two studies that test how Pacific peoples’ ethnic identity moderates the relationship between perceived ethnic discrimination and ethnic identity on measures of wellbeing and health satisfaction.

Discrimination, health, and wellbeing

Meta-analyses across multiple ethnic groups internationally show that self-reported experiences of discrimination are associated with negative physical and mental health outcomes. Likewise, a recent systematic review of quantitative racism and ethnic discrimination research in New Zealand shows discrimination is associated with negative health outcomes. Overall, as Talaivaiaino et al. note, discrimination is a key determinant of health, and the differential experiences of ethnic discrimination endured by Pacific peoples in Aotearoa can explain health inequities that exist between ethnic groups.
Pacific peoples have contended with overt and subtle discrimination in NZ since the initial waves of migration. The 'Dawn Raids' during the 1970's saw Pacific peoples unfairly targeted in a government crackdown on immigration. Discriminatory acts are often fuelled by negative stereotypes in media\(^5\), and perceptions of Pacific peoples as generally warm peoples but with low competence\(^6\). Pacific students often experience discrimination, in spite of their academic success.\(^7\) In terms of health, those that report experiences of discrimination are more likely to report lower health satisfaction, poor mental health, more likely to report cardiovascular disease\(^8\) and more likely to report unfair health treatment.\(^9\) Pacific experiences of ethnic discrimination are also associated with increased psychological distress, lower subjective wellbeing, and lower self-esteem.\(^10\) These studies highlight Pacific peoples experience discrimination in Aotearoa across a broad range of contexts and settings, which have direct negative effects on health and wellbeing.

**Ethnic identity, health, and wellbeing**

Ethnic identity refers to a range of feelings and attitudes that one has about the ethnic group/s they belong to. Phinney\(^11\) describes ethnic identity as identification with an ethnic group, a sense of belonging, positive/negative attitudes towards that ethnic group, and ethnic behaviours. Ethnic identity is generally associated with positive outcomes such as self-esteem, academic achievement,\(^12\) and lower depressive symptoms.\(^13\) A meta-analysis of 184 studies of people of colour found an overall positive relationship between ethnic identity and multiple indicators of wellbeing.\(^14\) There is increasing interest in how ethnic identity can enhance health\(^15\) where it is likely that the relationships that inform identity also contribute to a social environment that facilitates support and agency.

Broader Pacific understandings of identity emphasise an interconnected self, with focus on relationships, family, and spirituality.\(^16\) Pacific identities can be understood through vā – the sacred relational space between that connects. Thus, the self is who you are in relation to others in a given context, and the nature of the relatedness between the self and the other. For instance, it is understanding the nature of the vā between, say, a husband and wife, and how this differs from the vā between a brother and sister. It is recognising one’s identity is a combination of the vā between the self and multiple others.\(^17\) Likewise, psychological wellbeing can be understood as the nature and quality of the vā. It is here that efforts to tauhi vā (Tongan) or teu le vā (Samoan), to nurture the space between, are a way to understand what wellbeing is. Because the self is consists of the vā between self and others, damage to the vā can result in damage to the self. It is through this understanding then, that wellbeing for Pacific can be understood through the quality of the relationships between self and others, where damage to the vā can be the same as damage to wellbeing, whilst efforts to repair or nurture the vā can be the same as bolstering or enhancing wellbeing.

**Ethnic Identity and Discrimination**

With general research consensus showing ethnic identity is positively related to health and discrimination negatively related to health, what happens when someone experiences discrimination on the basis of their ethnicity? The interaction between ethnic discrimination and ethnic identity has shown mixed findings; (i) ethnic identity buffers the effects of discrimination, (2) ethnic identity exacerbates the effects of discrimination. Yip’s\(^1\) synthesis of ethnic identity and discrimination research suggests that they both inform each other. Yip points out that identity can both protect and exacerbate the effects of discrimination on mental health, however this seemingly contradictory role of identity can be understood through how identity develops, and different dimensions of identity. For example, people who are exploring or trying understand what their identity means to them (identity exploration) might be more prone to the negative effects of discrimination. However, those that have a secured understanding of their identity and show a commitment to it (identity commitment) may be protected against it.\(^10\) Furthermore ethnic affirmation may also be positively related with mental health, which may be stronger for those that view their ethnicity as a more centrally defining aspect of the self, and have a secure ethnic identity.\(^19\)

**Overall Study Aims**

Two studies are presented here that will each test how ethnic identity moderates the relationship between perceived ethnic discrimination and a range of wellbeing indicators, for Pacific peoples in NZ. Study 1 will used data from The Pacific Identity and Wellbeing Study and will identify if and how ethnic identity can moderate the relationship between discrimination and wellbeing. Based on the review of literature above, it is hypothesised that ethnic identity will have a buffering effect. Study 2 will use data from an independent study (The New Zealand Attitudes and Values Study) to see if the same pattern of results in Study 1 will be replicated.
STUDY 1

METHOD

Participants and Procedure
Participants (N = 752, 166 male, 586 female, mean age = 29.65, SD = 10.50) responded to an email advertisement inviting them to be part of an online study on Pacific identity and wellbeing. Participants responded to an email advertisement inviting them to be part of an online study on Pacific identity and wellbeing. The email was sent to a variety of Pacific groups, organizations and community networks. A snowball sampling method was also used, where participants were asked to invite others in their networks to participate in the study, thus the data cannot be considered as representative of the Pacific population in NZ. Participants were entered into a draw to win $300 worth of grocery vouchers.

Measures

Ethnic identity
Ethnic identity was assessed using the identity related factors of the Pacific Identity and Well Being Scale. Participants were asked to rate how they agreed with statements on a 1 (strongly disagree) to 7 (strongly agree) Likert scale. Our identity factor of interest is the Group Membership Evaluation factor (5 items, α = .88). Example items participants responded to include: “Being a Pacific Islander gives me a good feeling” “Being an Islander is an important part of how I see myself” “I am proud to be a Pacific Islander”. Additional identity factors include Pacific Connectedness and Belonging (6 items, α = .79), Religious Centrality and Embeddedness (6 items, α = .84), and Cultural Efficacy (4 items, α = .74). Scores for each factor were created using the average scores of the items.

Discrimination
Perceived Discrimination was assessed using 1 item where participants were asked to rate the item "I feel that I am often discriminated against on the basis of my ethnicity" on a 1 (Strongly Disagree) to 7 (Strongly Agree) Likert scale.

Wellbeing measures
Perceived Familial Wellbeing (PFW) was assessed using the respective factor from the Pacific Identity and Wellbeing Scale. Participants were asked to rate how satisfied they were (1 completely dissatisfied, 7 completely satisfied) on seven domains of family relationships. Examples include satisfaction with “Communication with your family”, “Your family’s happiness” and “Your position within your family” (α = .86). PFW was calculated by averaging the responses to each item.

Satisfaction with Health was assessed using an item taken from the Personal Wellbeing Index. Participants were asked “How satisfied are you with ‘Your health’” and were instructed to respond on a 0 (completely dissatisfied) to 10 (completely satisfied) scale.

Demographics
Participants were asked to indicate their gender (coded as 0 = male, 1 = female), age in years and their country of birth (coded as 0 = born overseas, 1 = born in NZ).

Ethics
The Pacific Identity and Wellbeing Study was approved by The University of Auckland Human Participants Ethics Committee on 26 June 2009 and renewed on 3 June 2012 until 3 June 2015 Reference Number: 6071.

Analysis
A moderated, multivariate regression using Bayesian estimation was performed using MPlus (version 7.4). The key predictor variables of interest were Group Membership Evaluation (GME) and Perceived Discrimination (PD). An interaction term was created by first mean centering the two predictor variables, then multiplying them together (PD x GME). The mean centred GME, PD, and the PDxGME interaction term were all entered into the model as predictor variables. Demographic information (Gender, age, country of birth), and Group Discrimination were entered as covariates. Perceived Familial Wellbeing and Satisfaction with Health were simultaneously entered as outcome variables. An additional regression model was performed (Model 2), including the additional identity related measures of the Pacific Identity and Wellbeing Scale. These results are presented in Table 2.

RESULTS

STUDY 1

Perceived Familial Wellbeing
Descriptive statistics and correlations are presented in Table 1. Results of the moderated multivariate regression are presented in Table 2. As seen in Table 2, the effect of gender was...
significant, with males scoring lower than females. PD was associated with familial wellbeing. Of key interest, the PD x GME interaction was significant. Simple slopes were calculated and showed a significant negative slope for those with lower GME scores (bslope = -.094, Post.SD = .026, 95% CI [-.156, -.043], p < .001) and not significant for those with higher GME (bslope = -.014, Post.SD = .024, 95% CI [-.62, .034], p > .05). A plot of these slopes can be seen in the left panel of Fig 1. As shown in Model 2 in Table 2, when controlling for other facets of Pacific ethnic identity, CEF was positively associated with familial wellbeing. The GME x PD interaction also remained significant where the negative effect of perceived personal discrimination on familial wellbeing was significant for those with lower GME (bslope = -0.024, 95% CI [-0.024, 0.014], p > .05). A plot of these slopes can be seen in the right panel of Fig 1. As seen in Model 2 in Table 2, when controlling for other facets of Pacific ethnic identity, CEF was positively associated with familial wellbeing. The GME x PD interaction also remained significant where the negative effect of perceived personal discrimination on familial wellbeing was significant for those with lower GME (bslope = -.094, Post.SD = .026, 95% CI [-.156, -.043], p < .001) and not significant for those with higher GME (bslope = -.014, Post.SD = .024, 95% CI [-.62, .033], p > .05).

Satisfaction with Health
As shown in Table 2, there was a significant, negative main effect of both perceived and personal discrimination. A significant, positive main effect of GME was also found. The PD x GME interaction was significant. As shown in the right panel of Figure 1, the negative effect of perceived personal discrimination on satisfaction with health was significant for those with lower GME (bslope = -.135, Post.SD = .046, 95% CI [-.224, -.045], p = .002), and not significant for those with higher GME (bslope = -.016, Post.SD = .043, 95% CI [-.100, .068], p > .05).

When controlling for other facets of Pacific ethnic identity, the PD x GME interaction was not significant. However negative main effects were observed for perceived group and personal discrimination and a significant, positive main effect was found for CE.

Figure 1: The moderating effect of Group Membership Evaluation on the relationship between Personal Ethnic discrimination and Perceived Familial Wellbeing (left) and Satisfaction with Health (right). Note: the y axis on the right begins at 4.

Table 1: Descriptive statistics, bivariate correlations and Cronbach’s alphas for Pacific identity, wellbeing and discrimination variables

|                      | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. |
|----------------------|----|----|----|----|----|----|----|----|----|-----|-----|
| Gender (0M, 1F)      |    |    |    |    |    |    |    |    |    |     |     |
| Age                  | .04|    |    |    |    |    |    |    |    |     |     |
| NZ Born (0N, 1Y)     | .07| -.08*|   |    |    |    |    |    |    |     |     |
| PFW                  | -.11*| .06| -.04|    |    |    |    |    |    |     |     |
| Health Satisfaction  | -.01| .05| .03| .42*|    |    |    |    |    |     |     |
| GME                  | -.02| -.01| .01| .28*| .09*|    |    |    |    |     |     |
| PCB                  | -.03| .05| .02| .23*| .03| .58*|    |    |    |     |     |
| RCE                  | -.06| -.07| .04| .17*| .04| .29*| .31*|    |    |     |     |
| CEF                  | -.02| .10*| .02| .30*| .18*| .42*| .48*| .27*|    |     |     |
| Personal Discrimination | -.08*| .00| -.2| -.17*| -.18*| -.01| .04| -.02| -.08*|     |     |
| Group Discrimination | .01| -.08*| .01| -.16*| -.22| -.02| .05| -.05| -.09*| .43*|     |
| **M**                |    | 29.55|    | 5.91| 5.07| 6.40| 5.76| 5.37| 5.40| 3.73| 4.43|
| **SD**               |    | 10.46|    | .94| 1.59| .90| 1.03| 1.43| 1.24| 1.91| 1.92|
| Cronbach’s Alpha     |    | .86|    | .88| .79| .84|    |    |    |    |    |

N = 472
Table 2 - Estimates for multivariate moderated regression model using Bayesian estimation assessing Perceived Familial Wellbeing and Health Satisfaction

|                        | Estimate | Post. SD | p    | 95% Credible Interval | Estimate | Post. SD | p    | 95% Credible Interval |
|------------------------|----------|----------|------|-----------------------|----------|----------|------|-----------------------|
|                        | Lower 2.5% | Upper 2.5% | Lower 2.5% | Upper 2.5% | Lower 2.5% | Upper 2.5% | Lower 2.5% | Upper 2.5% |
| **Model 1**            |          |          |      |                       |          |          |      |                       |
| Gender                 | -.216    | .078     | .003 | -.370                 | -.034    | .137     | .403 | -.30                  |
| Age                    | .005     | .003     | .068 | -.002                 | .007     | .006     | .095 | -.004                 |
| NZBorn                 | -.140    | .074     | .029 | -.284                 | -.229    | .128     | .037 | -.482                 |
| GD                     | -.052    | .019     | .002 | -.091                 | -.151    | .033     | .000 | -.222                 |
| PD                     | -.054    | .019     | .003 | -.089                 | -.076    | .033     | .012 | -.140                 |
| GME                    | .286     | .036     | .000 | .215                  | .135     | .063     | .016 | .012                  |
| PDxGME                 | .045     | .019     | .009 | .008                  | .066     | .033     | .022 | .002                  |
| **Model 2**            |          |          |      |                       |          |          |      |                       |
| Gender                 | -.201    | .077     | .005 | -.352                 | -.035    | .136     | .399 | -.299                 |
| Age                    | .004     | .003     | .137 | -.003                 | .005     | .006     | .166 | -.006                 |
| NZ Born                | -.106    | .073     | .074 | -.248                 | -.196    | .128     | .064 | -.446                 |
| CE                     | .126     | .031     | .000 | .066                  | .198     | .054     | .000 | .092                  |
| PCB                    | .053     | .041     | .098 | -.027                 | -.090    | .072     | .106 | -.231                 |
| RCE                    | .027     | .024     | .132 | -.020                 | -.013    | .043     | .384 | -.096                 |
| GME                    | .167     | .045     | .000 | .079                  | .088     | .079     | .132 | -.066                 |
| GD                     | -.046    | .019     | .007 | -.082                 | -.140    | .033     | .000 | -.204                 |
| PD                     | -.052    | .019     | .003 | -.089                 | -.069    | .033     | .018 | -.133                 |
| PDxGME                 | .043     | .019     | .011 | .006                  | .062     | .033     | .029 | -.002                 |

N = 752. Perceived Familial Wellbeing is measured on a 1-7 scale and Health Satisfaction 0-10. Post. SD = posterior standard deviation. p = proportion of the posterior distribution below 0 for a positive effect, and the proportion of the posterior distribution above 0 for a negative effect. NZ Born = 0 No, 1 Yes; GD = Group Discrimination; PD = Personal Discrimination; GME = Group Member Evaluation; CE = Cultural Efficacy; PCB = Pacific Connectedness and Belonging; RCE = Religious Centrality and Embeddedness.

STUDY TWO

Having identified that GME moderates the relationship between discrimination and wellbeing, Study Two will test the same identity x discrimination interaction using data from an independent study – The New Zealand Attitudes and Values Study. The aim of this study is to replicate the same pattern of results found in Study 1; that ethnic identity will moderate the association between discrimination and wellbeing measures.

METHOD

Participants and Procedure

Study Two uses data from Time 4 (2012) of the New Zealand Attitudes and Values Study (NZAVS). The analyses presented here focus on a subset of the overall sample that identified their ethnic affiliation with a Pacific Nation (N = 472). The Pacific participants in these analyses are 156 men and 316 women, with an overall average age of 39.24 years (SD = 13.58). Participants were initially sampled from the 2009 New Zealand electoral roll, and this sample includes those that were retained from this initial sampling wave, those that were retained from additional waves using booster samples, and unsolicited opt-ins. Please see Sibley22 for a detailed explanation of the sampling procedures used.

Materials

Ethnic identity

Ethnic identity was assessed using three items from a subscale of ethnic identity centrality.21 The items were asked to rate the items “I often think about the fact that I am a member of my ethnic group.” “The fact that I am a member of my ethnic group is an important part of my identity” and “Being a member of my ethnic group is an important part of how I see myself” (α = .73). Participants rated items from 1 (strongly disagree) to 7 (strongly agree). An ethnic identity score was calculated using the mean of all three items.
**RESULTS**

**Life Satisfaction**

Descriptive statistics and correlations are presented in Table 3. Results of the moderated multivariate regression are shown in Table 4. As shown in Table 4, there was a significant positive main effect of age and ethnic identity. There were also significant negative main effects of both perceived group discrimination and personal discrimination. Critically, the PD x ID interaction was significant. Simple slopes were calculated, and show the negative effect of perceived personal discrimination on satisfaction with life was significant for those with lower ethnic identity ($b\text{slope} = -.170$, $Post.SD = .047, 95\% \text{CI} [-.261, -.078], p < .001$) and not significant for those with higher ethnic identity ($b\text{slope} = -.029, Post.SD = .047, 95\% \text{CI} [-.121, .062], p > .05$). A plot of the slopes are presented in the left panel of Figure 2.

**Health Satisfaction**

As show in Table 4, there was a significant main effect of country of birth where those born in NZ reported lower satisfaction with health relative to those born overseas. There was also a significant negative main effect of perceived personal discrimination. Critically, the PD x ID interaction was significant. Simple slopes were performed and show the negative effect of perceived discrimination on health satisfaction was significant for those with lower ethnic identity ($b\text{slope} = -.315, Post.SD = .086, 95\% \text{CI} [-.483, -.146], p < .001$) and not significant for those with higher ethnic identity ($b\text{slope} = -.066, Post.SD = .086, 95\% \text{CI} [-.234, .103], p > .05$). A plot of the slopes are presented on the right panel of Figure 2.

**Figure 2:** The moderating effect of ethnic identity centrality on the relationship between Personal ethnic discrimination and Life Satisfaction (left panel) and Health Satisfaction (right panel). Note: the y axis on the right begins at 4.
A positive relationship between perceived ethnic discrimination and lower life satisfaction was found. For example, individuals who reported higher levels of discrimination experienced a decrease in life satisfaction compared to those who perceived less discrimination. Similarly, those who reported lower ethnic identity reported lower life and health satisfaction. This pattern was observed in an independent study, using different measures of ethnic identity and discrimination. The results of these two studies provide evidence that for Pacific peoples in NZ, higher ethnic identity will provide some protection against the negative effects of discrimination for their satisfaction with family relationships, satisfaction with life, and satisfaction with their health.

DISCUSSION

This paper sought to test how Pacific peoples’ ethnic identity moderates the relationship between perceived ethnic discrimination and a range of wellbeing outcomes. This was done across two independent studies using both Pacific and general measures of ethnic identity. The two studies and multiple analyses presented within them provide evidence that ethnic identity is a protective factor against the negative effects of ethnic discrimination for Pacific peoples in NZ. Study One showed that people who reported lower Group Membership Evaluation would also report lower satisfaction with their family relationships and satisfaction with their health, if they reported more ethnic discrimination. However, those that reported higher Group Membership Evaluation, there was no effect on satisfaction with family relationships, and satisfaction with health. This pattern of results was replicated in an independent study, using different a more general measure of identity. Similarly, those that reported lower ethnic identity reported lower life and health satisfaction when reporting greater discrimination. Those that reported higher ethnic identity centrality, there was no significant effect. Taken together, the results of these two studies provide evidence that for Pacific peoples in NZ, ethnic identity will provide some protection against the negative effects of discrimination for their satisfaction with family relationships, satisfaction with life, and satisfaction with their health.

**Table 3:** Descriptive statistics, bivariate correlations and Cronbach’s Alphas for ethnic identity centrality, wellbeing and discrimination variables

|                | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
|----------------|----|----|----|----|----|----|----|----|
| Gender (0M, 1F)|    |    |    |    |    |    |    |    |
| Age            | .22*|    |    |    |    |    |    |    |
| NZ Born (0N, 1Y)| -.08| -.29* |    |    |    |    |    |    |
| Life Satisfaction | .02 | .14* | -.08|    |    |    |    |    |
| Health Satisfaction | .04 | .05 | -.15* | .44* |    |    |    |    |
| Ethnic Identity | .02 | .00 | .06 | .14* | .05 |    |    |    |
| Personal Discrimination | .11* | -.01 | -.04 | -.14* | -.14* | .14* |    |    |
| Group Discrimination | -.02 | -.13* | .15* | -.13* | -.13* | .22* | .23* |    |
| M              | 39.24 | 4.88 | 6.22 | 5.40 | 3.16 | 4.48 |    |    |
| SD             | 13.58 | 1.29 | 2.37 | 1.40 | 1.77 | 1.79 |    |    |
| Cronbach’s Alpha |    | .73 |    | .79 |    |    |    |    |

**Table 4:** Estimates for multivariate moderated regression model using Bayesian estimation assessing Life Satisfaction and Health Satisfaction.

|                | Estimate | Posterior SD | Posterior p value | 95% Intervals | Credible Intervals | Health Satisfaction | Estimate | Posterior SD | Posterior p value | 95% Intervals | Credible Intervals |
|----------------|----------|--------------|-------------------|---------------|--------------------|---------------------|----------|--------------|-------------------|---------------|-------------------|
| Gender         | .010     | .127         | .467              | -.237         | .259               | .259                | .233     | .131         | -.196             | .720          |
| Age            | .011*    | .005         | .009              | .002          | .020               | .003                | .008     | .357         | -.020             | .013          |
| NZ Born        | -.085    | .127         | .251              | -.335         | .165               | -.723               | .236     | .001         | -.186             | .261          |
| GD             | -.078*   | .035         | .012              | -.146         | -.010              | -.109               | .064     | .044         | -.234             | .017          |
| PD             | -.099*   | .034         | .002              | -.166         | -.033              | -.190               | .063     | .001         | -.313             | -.067         |
| ID             | .179*    | .044         | .000              | .094          | .265               | .156                | .080     | .025         | -.001             | .313          |
| PD x ID        | .050*    | .023         | .014              | .005          | .095               | .089                | .042     | .018         | .006              | .172          |

\[ N = 472. \text{Satisfaction is distributed on a 1-7 scale and Health Satisfaction 0-10. Post. SD = posterior standard deviation, p = proportion of the posterior distribution below 0 for a positive effect, and the proportion of the posterior distribution above 0 for a negative effect. Gender (0 M, 1 F); NZ Born (0 No, 1 Yes); GD = Group Discrimination; PD = Perceived Personal Discrimination; ID = Ethnic Identity Centrality.} \]
These findings are in support of the protective properties of Pacific peoples’ ethnic identity, providing a psychological mechanism to protect the self against the harmful effects of discrimination. It is likely these results reflect the suggestions of Yip\textsuperscript{1} who posits that those with a secured understanding of their identity and a commitment to their identity may be protected against discrimination. The identity measures used in each study (GME from the Pacific Identity and Wellbeing Scale\textsuperscript{20} and Identity Centrality\textsuperscript{21}) reflect commitment and positive affirmations of one’s identity. Furthermore, the participants in both studies are adults, and are more likely to have negotiated what their ethnic identity means to them, rather than youth who may be more likely to be exploring what their identity means to them.

It is important to note the direct effects of other factors in the regression models. Of note, females reported higher satisfaction with their families, and overseas-born Pacific peoples reported higher satisfaction with their health. These demographic differences warrant further investigation. In addition, it was observed that Cultural Efficacy (the extent to which Pacific peoples felt they were able to participate within Pacific cultural settings) was positively associated with family and health satisfaction. This is in line with previous research that shows a positive link between identity and wellbeing. Also of note, the results show that both ethnic identity and discrimination explain unique variance in familial wellbeing and health satisfaction, above and beyond the variance explained by the interaction.

**Implications of Findings**

Our results support the role of ethnic identity as part of a multi-faceted approach for achieving parity in health and wellbeing for Pacific peoples in NZ. Discriminatory experiences are a barrier to accessing and receiving healthcare. Thus it is imperative that steps are taken to ensure clinical settings are appropriate to the needs of diverse Pacific communities.\textsuperscript{25}

While it is promising to see the protective properties of ethnic identity, attention must be also be paid to those for whom their perceptions of their ethnicity are not providing the same protection. Study one showed that for those that reported lower group membership evaluation (though their scores were still high overall) were more susceptible to discrimination’s negative effects. This is not to suggest that those that report lower identity scores have some kind of identity or cultural deficit. Rather, this suggests we need to do more to understand how Pacific peoples engage with their identities and cultures. The dimensionality of these identity measures highlight that there is no uniform Pacific identity.

**Strengths and Limitations**

Each study uses cross-sectional data, so it is not possible to ascertain how discrimination will affect Pacific peoples health in the long-term. Furthermore, the measure of discrimination used is a single item measure, and does not account for the frequency of discriminatory experiences. However, the additional measure of perceived discrimination towards one’s ethnic group means the analyses presented here help understand the unique effects of personal experiences of discrimination.

Each study has adult participants, and it is likely they have a greater understanding of what their ethnic identity means to them. Similar analyses should focus on Pacific youth, with particular focus on their ethnic and cultural identity development.

**CONCLUSION**

Multiple analyses across two independent studies provide evidence that strong ethnic that ethnic identity is a protective psychological resource for Pacific peoples. As nurturing and incorporating Pacific cultural practices or values into health service delivery and wider NZ society would be beneficial for positive health and wellbeing outcomes for Pacific peoples.

**Acknowledgements:** This research was supported by a University of Auckland Doctoral Scholarship awarded to Sam Manuela (Study 1) and a grant from the Templeton Religion Trust (TRT0196 – Study 2) for the New Zealand Attitudes and Values Study (NZAVS). The funders have no roles in the NZAVS study design, data collection and analysis, decision to publish, or preparation of scientific reports or manuscripts for publication using NZAVS data.

**REFERENCES**

1. Yip T. Ethnic/racial identity—A double-edged sword? associations with discrimination and psychological outcomes. Current Directions in Psychological Science. 2018;27(3):170-175.
2. Pascoe EA, Smart Richman L. Perceived discrimination and health: A meta-analytic review. Psychol Bull. 2009;135(4):531.
3. Schmitt MT, Branscombe NR, Postmes T, Garcia A. The consequences of perceived
discrimination for psychological well-being: A meta-analytic review. Psychol Bull. 2014;140(4):921.

4. Talamaiava N, Harris R, Cormack D, Paine S, King P. Racism and health in aotearoa new zealand: A systematic review of quantitative studies. The New Zealand Medical Journal (Online). 2020;133(1521):55.

5. Loto R, Hodgetts D, Chamberlain K, Nikora LW, Karapu R, Barnett A. Pasifika in the news: The portrayal of pacific peoples in the new zealand press. Journal of community & applied social psychology. 2006;16(2):100-118.

6. Sibley CG, Stewart K, Houkamau C, et al. Ethnic group stereotypes in new zealand. New Zealand journal of psychology. 2011;40(2):25-36.

7. Mayeda DT, Keil M, Dutton HD, Ofamo'Oni I. "You've gotta set a precedent": Māori and pacific voices on student success in higher education. AlterNative: An International Journal of Indigenous Peoples. 2014;10(2):165-179.

8. Harris R, Tobias M, Jeffreys M, Waldegrave K, Karlsen S, Nazroo J. Racism and health: The relationship between experience of racial discrimination and health in new zealand. Soc Sci Med. 2006;63(6):1428-1441.

9. Harris R, Cormack D, Tobias M, et al. Self-reported experience of racial discrimination and health care use in new zealand: Results from the 2006/07 new zealand health survey. Am J Public Health. 2012;102(5):1012-1019.

10. Kapeli SA, Manuela S, Sibley CG. Perceived discrimination is associated with poorer health and well-being outcomes among pacific peoples in new zealand. Journal of Community & Applied Social Psychology. 2020;30(2):132-150.

11. Phinney JS. Ethnic identity in adolescents and adults: Review of research. Psychol Bull. 1990;108(3):499.

12. Umaña-Taylor AJ, Diversi M, Fine MA. Ethnic identity and self-esteem of latino adolescents: Distinctions among the latino populations. J Adolesc Res. 2002;17(3):303-327.

13. Hughes M, Kiecolt KJ, Keith VM, Demo DH. Racial identity and well-being among african americans. Soc Psychol Q. 2015;78(1):25-48.

14. Smith TB, Silva L. Ethnic identity and personal well-being of people of color: A meta-analysis. Journal of counseling psychology. 2011;58(1):42.

15. Jetten J, Haslam SA, Cruwys T, Greenaway KH, Haslam C, Steffens NK. Advancing the social identity approach to health and well-being: Progressing the social cure research agenda. European Journal of Social Psychology. 2017;47(7):789-802.

16. Manuela S, Sibley CG. The pacific identity and wellbeing scale (PIWBS): A culturally-appropriate self-report measure for pacific peoples in new zealand. Soc Indicators Res. 2013;112(1):83-103.

17. Fa'avae D. Negotiating the vā: The ‘self’in relation to others and navigating the multiple spaces as a new zealand-raised tongan male. In: Routledge; 2018.

18. Torres L, Ong AD. A daily diary investigation of latino ethnic identity, discrimination, and depression. Cultural Diversity and Ethnic Minority Psychology. 2010;16(4):561.

19. Romero AJ, Edwards LM, Fryberg SA, Orduña M. Resilience to discrimination stress across ethnic identity stages of development. J Appl Soc Psychol. 2014;44(1):1-11.

20. Manuela S, Sibley CG. The pacific identity and wellbeing scale-revised (PIWBS-R). Cultural Diversity and Ethnic Minority Psychology. 2015;21(1):146.

21. Leach CW, Van Zomeren M, Zebel S, et al. Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. J Pers Soc Psychol. 2008;95(1):144.

22. Sibley CG. Sampling procedure and sample details for the new zealand attitudes and values study.

23. Diener ED, Emmons RA, Larsen RJ, Griffin S. The satisfaction with life scale. J Pers Assess. 1985;49(1):71-75.

24. Cummins RA, Eckersley R, Pallant J, Van Vugt J, Misajon R. Developing a national index of subjective wellbeing: The Australian unity wellbeing index. Soc Indicators Res. 2003;64(2):159-190.

25. Ludeke M, Pun R, Cook L, Pasene M, Abel G, Sopoaga F. Access to general practice for Pacific peoples: a place for cultural competency. J Prim Health Care 2012;4(2):123-130.