

REPORT TO OAKLEY MENTAL HEALTH FOUNDATION

Does Diversity-Receptiveness in Educational Institutions Predict International
Students' Psychological and Social Well-being?

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EXECUTIVE SUMMARY

International students have been shown to be at higher risk for anxiety, depression and somatic disorders compared both to the general public and to their domestic peers. They also have lower levels of life satisfaction. While we have extensive information on the intra- and interpersonal factors that affect international students' health, well-being and social relations, much less is known about environmental influences on the experiences of international students. This research examines the impact of ecological factors on these outcomes. Specifically, in a national survey of international students in tertiary institutions, we assess: 1) students' perceptions of three core aspects of "diversity-receptiveness" in educational institutions (the extent to which there is contact across culturally diverse groups, the extent to which there are positive attitudes toward cultural diversity, and the extent to which there are policies and practices that support and accommodate diversity) and 2) how their experiences of diversity receptiveness predict psychological and social outcomes. The outcomes of interest include students' social relations and social functioning (e.g., trust, a sense of belonging, discrimination), perceived stress, and positive (e.g., life satisfaction, flourishing, positive affect) and negative (e.g., anxiety, depression, negative affect) indicators of psychological well-being. The findings show that each of the three components of a diversity-receptive environment are associated with positive psychological and social outcomes. International students experience greater subjective well-being when they perceive that cultural differences are respected and valued in their educational institutions, due in part to the influence that these positive attitudes toward diversity have on increasing trust and belongingness. Similarly, when students view their educational institution as implementing diversity policies and practices, they experience a greater sense of belongingness, and in turn, greater subjective well-being. Finally, international students report fewer symptoms of depression and anxiety when they view their educational institutions as having diversity policies and fostering intercultural contact, due in part to the influence that a diversity-receptive environment exerts on reducing stress. The research has important implications for educational institutions and can inform the development of policies and practices that support not only for international students in New Zealand, but also for the 5 million international students in higher education globally.

BACKGROUND

International students face both rewarding and challenging experiences, but the stressors associated with the challenges of uprooting, crossing cultures, establishing new sources of social support and performing well in an unfamiliar educational system can take a toll on health and well-being.⁽¹⁾ A recent study in the UK reported that 36% of international students describe their mental health as “poor.”⁽²⁾ Research shows that international students have higher stress levels, experience more traumatic life events, report poorer health and have lower levels of life satisfaction than their domestic peers.^(3,4) They are also at greater risk for anxiety and depression compared both to the general public and to domestic students.^(4,5)

The psychological well-being of international students has attracted substantial research attention, and a recent review indicated that 82% of studies on international students have examined their psychological adaptation, that is, their psychological and emotional wellbeing during cross-cultural transitions. Among these studies, stress and coping related processes were the most frequently investigated.⁽⁶⁾ Earlier reviews also highlighted stress and coping processes along with the influence of personality, language proficiency, social support and the under-utilization of counselling services on international students’ well-being.^(1,7,8) What has been noticeably lacking in this literature, however, is research on the impact of ecological factors on the well-being of international students. Specifically, the overall receptiveness towards cultural diversity in educational institutions has been largely ignored.

Our new and emerging line of research on societal-level diversity-receptiveness and its implications for psychological well-being and social connectedness can provide novel insights not only into enhancing the experiences of international students, but also into fostering social cohesion within educational institutions.^{1*} To date we have identified three core elements of environmental diversity-receptiveness: 1) the presence of culturally diverse groups that are in interaction with each other (Contact); 2) a general appreciation and valuing of cultural diversity (Ideology); and 3) policies and practices that support and accommodate diversity (Policies and Practices).^(9,10)

Moving from theory into empirical research, we have constructed and validated an instrument to assess diversity-receptiveness whereby respondents act as cultural informants, describing the extent of intercultural contact, diversity appreciation and inclusive policies and practices in their society. Our research, conducted in New Zealand, the United States and the United Kingdom, shows that each of these factors contributes to social cohesion (e.g., greater trust, stronger national attachment) and well-being (e.g., greater flourishing and more positive affect) although the effects often vary for majority and immigrant groups.^(9,11) Our most recent study, conducted with New Zealand Koreans, demonstrates that the positive impacts of Ideology and Policies on well-being was partially mediated by an increased sense of belonging.⁽¹²⁾ In other words, when immigrants perceive New Zealand society to be characterized by a widespread valuing of cultural diversity and practices to support and accommodate cultural differences, they have a stronger sense of belonging, and this, in turn, leads to higher levels of psychological well-being. This could have particularly important implications for international students as our research has also shown that a key predictor of their psychological well-being is a sense of connectedness with their local peers.⁽¹³⁾ Accordingly, the research objective of our current project is to examine three aspects of a diversity-receptive educational environment (Contact, Ideology, and Policies and Practices) as predictors of international students’ social relations and well-being.

^{1*} We refer to this concept as “normative multiculturalism” in our societal-level research.

The Project Overview

The project unfolded in two stages, the first prior to receiving funding from the Oakley Mental Health Foundation. This stage involved the construction and validation of our diversity-receptiveness measure. To these ends, we conducted two surveys with university students. The first survey included 549 ethnically diverse students (76% New Zealand-born) and was used to derive the measurement's items and factor structure. The second study tested the convergent validity of the measure with a diverse sample of 148 students. These surveys confirmed the psychometric reliability and validity of our 19-item instrument, which is presented in Table 1. The procedures for the scale construction and validation were reported in a conference presentation in July 2019, and this information is available on request.⁽¹⁴⁾

Table 1. Items for the Measurement of a Diversity-Receptive Environment

In my university,

1. Teaching staff are prepared to manage multicultural classrooms.
2. There are opportunities for students to learn more about each other's cultures.
3. We have events to showcase our multicultural student population.
4. Students are encouraged to learn about the diverse cultures represented in our student population.
5. We have policies for the assessment of multicultural group work.
6. All students are encouraged to maintain and share their cultures.
7. Most students are in classes with students from different cultures.
8. It is likely that you would interact daily with people from several different cultures.
9. Interacting with people from different cultures is unavoidable.
10. It is easy to meet students from different cultural backgrounds.
11. Our teaching staff come from many different cultural backgrounds.
12. It is common to study in culturally diverse groups.
13. Most people agree that multiculturalism is a good thing.
14. Most people think that it is good that to have multicultural classrooms.
15. Most people think it is important for students from different ethnic and cultural backgrounds to get along with each other.
16. Most people value the views of culturally diverse students.
17. Most people believe it is good thing to be exposed to culturally diverse perspectives.
18. Most people want to learn from other cultures.
19. Most people think that it is good to have friends from different cultural backgrounds.

Notes: Policies and Practices (1-6), Contact (7-12), Ideology (13-19). Response Options: *Strongly Disagree* (1) to *Strongly Agree* (5).

The Current Study

The second stage of the project, funded by the Oakley Mental Health Foundation, focused on the psychological and social wellbeing of international students. Following on from our research with Hispanic immigrants in the United States and Korean immigrants in New Zealand, we test a model of subjective well-being in international students that examines both the direct and indirect effects of diversity-receptiveness through

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belongingness and trust (Figure 1). Specifically, we test the hypothesis that each dimension of diversity-receptiveness (contact, ideology and policies) predicts greater belongingness and trust and that, in turn, belongingness and trust are associated with greater subjective well-being. We also test if the dimensions of perceived diversity-receptiveness directly predict well-being.

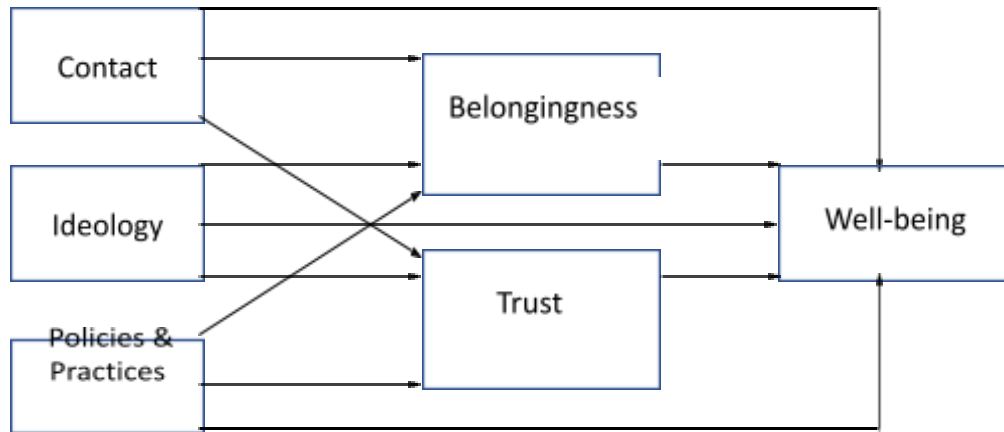
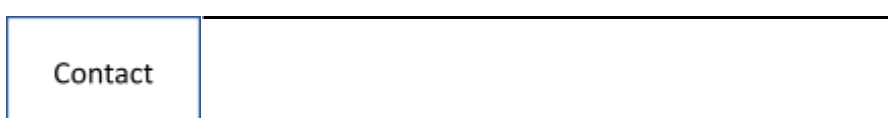


Figure 1. Diversity-Receptiveness Domains as Predictors of Belongingness, Trust and Well-being

In addition to enhancing social capital in terms of belonging and trust and positively contributing to psychological well-being, it may also be the case that diversity-receptive environments act to diminish stress and psychological symptoms. Certainly, cultural climates are known to influence stress, and, in turn, psychological and behavioral symptoms in ethnic minorities.⁽¹⁵⁾ Therefore, we also test a predictive model of anxiety and depression, examining the direct effects of perceived diversity-receptiveness on psychological symptoms as well as its effects through stress (Figure 2). We use a generic measure of perceived stress as well as a measure of discrimination, known to be one of the most salient sources of stress for international students.⁽¹⁾ The predictive model tests the hypothesis that each aspect of a diversity-receptive environment predicts less stress, and that, in turn, stress leads more psychological symptoms. We also test if the dimensions of perceived diversity-receptiveness directly predict psychological symptoms.



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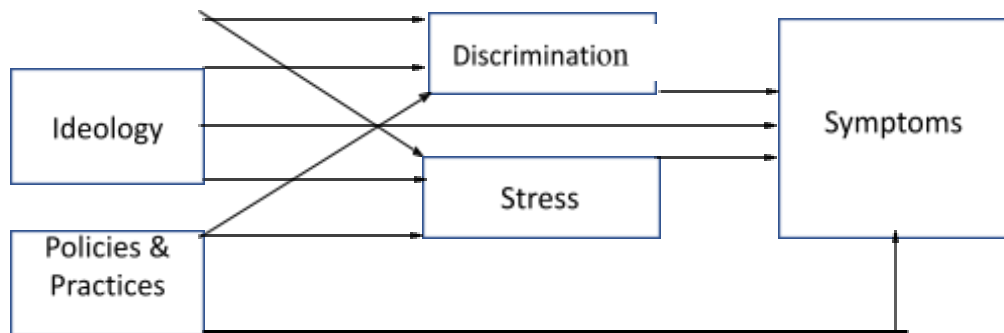


Figure 2. Diversity-Receptiveness Domains as Predictors of Stress, Discrimination and Psychological Symptoms

THE RESEARCH METHODS

The research was approved by the School of Psychology Human Ethics Committee under the delegated authority of Victoria University of Wellington's Human Ethics Committee.

Research Procedures

International students were recruited to complete an anonymous on-line survey through several channels. ISANA NZ, New Zealand's international education association, supported the project and disseminated information and invitations through their members. We also worked with the President and executive committee members of the New Zealand International Student Association who extended invitations to members in their universities. Beyond these organizations, we directly contacted a range of other student associations, such as national clubs, within tertiary institutions. In addition, when possible, we employed international student field assistants in universities across New Zealand to recruit their peers.

As a token of appreciation for research participation, we offered students the opportunity to participate in a draw to win one of 25 \$50 food vouchers. Despite the use of both formal and informal recruitment channels and research incentives, we were unable to obtain our target sample of 1000 secondary and tertiary students, which would have allowed us to compare outcomes across institutions and provide individualized feedback to universities, polytechnics and private training establishments.

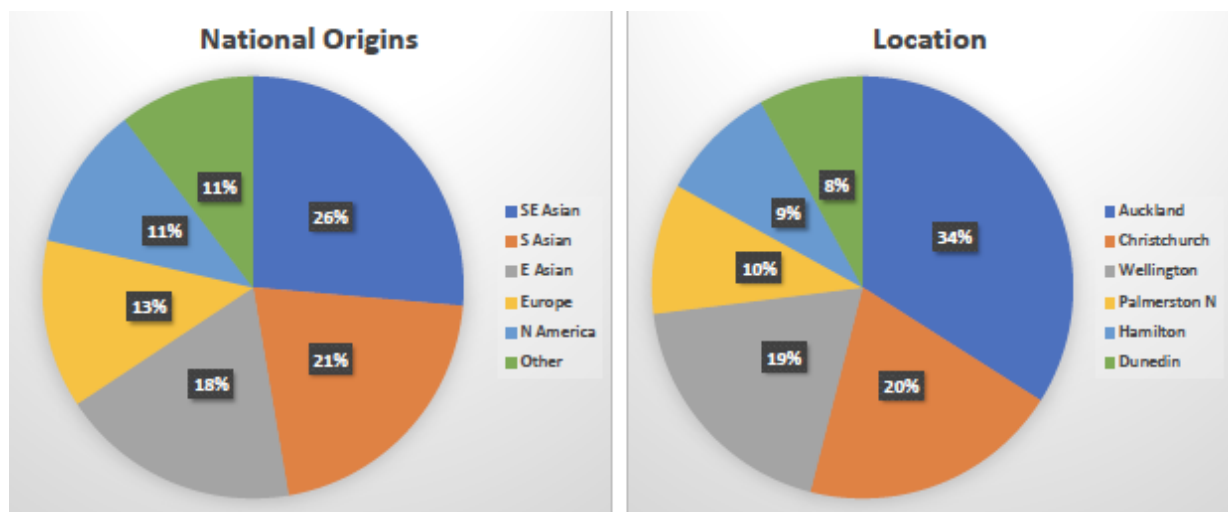
Research Participants

Three hundred and thirty-three international students began the survey, but only 195 completed it. Of these, 20 participants were excluded from the study as they failed to accurately complete the two attention check items, suggesting that their survey responses were likely to be unreliable and of poor quality. Of the remaining participants there were two language school students and 11 secondary students. As these groups had such small numbers, and we were unable to compare either group to tertiary students, we chose to limit the sample to 163 international tertiary students. Of these 54 were male, 107 were female, and 2 did not disclose their gender. The average age of the students was 26.55 years (range 16-45 years), and their average length of residence in New Zealand was just under two years (22.69 months) with a range of one month to seven years. Students from India (n

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= 26), China ($n = 25$), Malaysia ($n = 16$) and the United States ($n = 16$) were the largest national groups. As can be seen in Figure 3, the majority of students originated from Asia. The Other category included small numbers of students from Latin America ($n = 6$), Africa ($n = 5$), the Pacific ($n = 4$) and the Middle East ($n = 3$).

Students were primarily (95%) enrolled in New Zealand universities (Auckland, AUT, Waikato, Massey, Victoria, Canterbury and Otago) with the largest number from Auckland (27%). The remaining students were enrolled in polytechnics and private training establishments. As can be seen in Figure 4, students were spread across the country with their residence most commonly in the Auckland region. Overall the level of English language proficiency was very good. Twenty-nine percent of the students described their English language proficiency as good, 35% as excellent, and 26% were native English speakers.



Figures 3 and 4: Regions of National Origins and Locations in New Zealand

Research Materials

In addition to personal background information (age, gender, length of residence in New Zealand, and nationality), the survey materials included measures of: Diversity-Receptiveness, Social Relations (Trust and Belongingness), Stress (Generic Stress and Discrimination), Psychological Symptoms (Depression, Anxiety, and Negative Affect), and Subjective Well-being (Life Satisfaction, Flourishing, and Positive Affect). The survey can be found in Appendix 1, and the measures are described in more detail below. The psychometric properties of the measurement scales are reported in Appendix 2.

Diversity-receptiveness. The items used to assess Diversity-Receptiveness in educational institutions are found in Table 1. The items measure multicultural Contact, Ideology and Policies with students acting as informants about their educational institutions. The set of 19 statements is prefaced with *“At my school/university/educational institution...”* Students indicate their agreement with each statement on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores point to greater contact across diverse groups, greater appreciation of diversity and more policies and practices to accommodate and support diversity.

Sense of Belongingness. Participants completed the 12-item General Belongingness Scale, indicating their agreement or disagreement on a 1(*strongly disagree*) to 7 (*strongly*

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agree) scale in response to statements such as: “I have close bonds with others” and “When I am with other people I feel included.”⁽¹⁶⁾ The items were prefaced with the instructions: *Your educational institution is composed of people from many different ethnic and racial backgrounds. Thinking about your relationships with ALL of the people who are part of your educational environment, rate your agreement with the following statements.* Higher scores indicate a stronger sense of belongingness.

Trust. The measure of trust was adapted from the World Values Survey.⁽¹⁷⁾ It includes 6 items (e.g., “Generally speaking most people can be trusted” and “Most people try to be fair”). In response, participants indicate their agreement or disagreement on a 1 (*disagree strongly*) to 5 (*agree strongly*) scale so that higher scores indicate greater trust. The instructions asked students to respond to the items “in reference to others at your educational institution.”

Discrimination. Perceived discrimination was measured by a modified version of the Everyday Discrimination Scale.⁽¹⁸⁾ Students were asked about the experiences of discrimination in their day to day life on the basis of their ethnic, cultural, religious or national background. In response, they indicate the frequency of discriminatory treatment (e.g., “were disrespected” and “were called names or insulted”) on a 1 (*never*) to 4 (*often*) scale so that higher scores indicate more frequent experiences of discrimination.

Stress. The 10-item Perceived Stress Scale was used to measure stress.⁽¹⁹⁾ Participants report the frequency of their stress experiences (e.g., “been unable to control the important things in your life,” and “been upset because of something that happened unexpectedly”) on a 0 (*never*) to 4 (*very often*) scale. Higher scores indicate greater stress.

Depression was measured with the 10-item version of the Center for Epidemiologic Studies Depression Scale (CES-D).⁽²⁰⁾ Participants described the frequency of depressive symptoms on a 0 (*rarely or one of the time*) to 3 (*all of the time*) scale in response to statements such as “I was bothered by things that don’t usually bother me.” Higher scores reflect more depressive symptoms.

Anxiety was assessed with the 6-item version of the Spielberger State Anxiety Inventory.⁽²¹⁾ Participants describe the frequency of anxiety states such as “tense” or “worried” on a 1 (*not at all*) to 4 (*very much*) scale with higher scores reflecting greater anxiety.

Positive and Negative Affect. The 20-item PANAS was used to measure positive (e.g., “enthusiastic” and “interested”) and negative (e.g., “hostile” and “irritable”) mood states.⁽²²⁾ Participants were asked to describe the frequency of their moods over the last week on a 0 (*very slightly or not at all*) to 4 (*extremely*) scale. Higher scores point to greater positive and negative moods, respectively.

Life Satisfaction. Life satisfaction was assessed using the 5-item Satisfaction with Life Scale.⁽²³⁾ Participants indicate the extent to which they agree with each statement on a 7-point scale ranging from *strongly disagree* (1) to *strongly agree* (5) in response to statements such as “I am satisfied with my life” and “If I could live my life over, I would change almost nothing.” Higher scores on this scale indicate greater life satisfaction.

Flourishing. The Flourishing measure included 8 items (e.g., “I lead a purposeful and meaningful life”) accompanied by 7-point *strongly disagree* (1) to *strongly agree* options.⁽²⁴⁾ Higher scores indicate greater flourishing.

RESULTS

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We present the key findings in three stages. First we provide a descriptive overview of diversity-receptiveness along with students' social relationships and mental health. Second, we examine the relationship between the three components of international students' perceptions of diversity-receptiveness at their universities and their experiences, particularly their interpersonal and social relations (belongingness, trust, and discrimination), their perceived stress, well-being (flourishing, life satisfaction, and positive affect) and psychological symptoms (anxiety, depression, and negative affect). Finally, we test two models of mental health (see Figures 1 and 2) to examine the direct and indirect effects of a diversity-receptive environment on international students' subjective well-being and psychological symptoms.

Descriptive Overview

On balance, international students perceived their educational environments to be moderately receptive to diversity, particularly in terms of contact and ideology, though somewhat less so in terms of policies and practices (see Appendix 2). Students had a relatively strong sense of belongingness and reported a moderate level of trust. Experiences of discrimination were relatively infrequent. The frequency of affective states was low to moderately low for negative emotions and moderate for positive mood. On average, moderate levels of stress, anxiety and depression were reported; however, flourishing was high, and life satisfaction was moderately high.

Diversity-Receptiveness, Social Relationships and Mental Health

We conducted bivariate correlations (see Appendix 3) to test the relationships between diversity-receptive educational environments and international students' social relationships and mental health. Each component of a diversity-receptive environment (contact, ideology and policy) was related to positive social and psychological outcomes for international students. When international students perceived their educational institution as more receptive, that is, having diverse groups that interact with each other, demonstrating that diversity is valued and appreciated, and maintaining policies and practices that support a diverse student population,

- the greater their sense of belonging in their educational environment,
- the more they trusted people in their educational institution,
- the less discrimination they experienced,
- the lower their levels of stress, anxiety, depression and negative mood, and
- the greater their experience of flourishing, life satisfaction and positive emotions.

The statistical analyses are presented in Appendix 3. The findings show that educational environments characterized by a high level of intercultural contact, diversity appreciation, and diversity policies are conducive to better social relations and mental health for international students.

Modelling International Student Mental Health

In the first model we tested the direct and indirect effects of contact, ideology and policies on subjective well-being (see Figure 1). We proposed that each dimension of diversity-receptiveness would predict greater belongingness and trust, and that belongingness and trust, in turn, would lead to greater well-being. We also tested contact, ideology and policy as direct predictors of well-being.

We found partial support for the model. The findings showed that:

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- A positive diversity ideology directly predicted greater subjective wellbeing.
- More diversity policies and a positive diversity ideology predicted a greater sense of belongingness.
- A positive diversity ideology predicted increased interpersonal trust.
- Both belongingness and trust were associated with greater subjective well-being, i.e., greater life satisfaction, flourishing and more positive emotions.

The full structural equation model is presented in Appendix 4. The results demonstrate that pervading attitudes toward diversity in educational environments and diversity policies in educational institutions play important roles in supporting international student well-being.

In the second model we tested the direct and indirect effects of contact, ideology and policies on psychological symptoms (see Figure 2).² We proposed that each dimension of diversity-receptiveness would be associated with lower stress, less perceived discrimination, and fewer psychological symptoms. We also expected that stress and discrimination would lead to greater anxiety and depression.

The model received partial support. The findings showed that:

- A positive diversity ideology and more diversity policies led to lower levels of perceived discrimination; however, discrimination was not associated with psychological symptoms
- Greater intercultural contact predicted less stress and lower anxiety
- Diversity policies predicted decrements in depression.
- Stress was associated with greater anxiety and depression

The full model is presented in Appendix 5. The results demonstrate that each component of diversity receptiveness is associated with positive social and psychological outcomes for international students, but they play out in different ways. When international students view their educational environments as characterized by positive attitudes toward diversity and practices that support and accommodate cultural differences, they report lower levels of discrimination. Diversity-receptive environments that are seen as promoting intercultural contact lead to reductions in stress and anxiety while those that are seen as having more diversity policies lead to lower levels of depression.

IMPLICATIONS FOR OUR EDUCATIONAL INSTITUTIONS

While the international student experience can be both a rewarding and personal growth experience, research has shown that international students are at greater risk for mental health problems than their domestic peers.⁽³⁻⁵⁾ The students in our study fared reasonably well in terms of reporting only moderate levels of stress, anxiety and depression and relatively high levels of subjective well-being; nevertheless, in the global arena, the mental health of international students has been described as an “emerging crisis.”⁽²⁶⁾ The results of our research clearly demonstrate that there are initiatives available to schools and universities to make educational environments more conducive to positive social and psychological outcomes for international students. More specifically, increasing contact

² We intended to construct a latent variable for psychological symptoms from measures of anxiety, depression and negative affect, but the data did not fit this model; therefore, we chose to examine anxiety and depression as outcomes. These are known to be among the most common psychological symptoms among international students and to co-vary in the population.⁽²⁵⁾

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among culturally diverse groups of students, demonstrating an appreciation of cultural diversity, and implementing policies and practices that accommodate diversity create an environment that diminishes the likelihood of mental health problems and maximizes the potential for international student well-being.

Similar findings have been reported in the international literature. Research has shown that a multicultural school climate leads to greater happiness in minority group children by enhancing their relationships with other ethnic groups.⁽²⁷⁾ In addition, diversity climates that promote equality, inclusion and cultural pluralism (i.e., foster positive intergroup relations and promote diversity as a valuable resource) lead to enhanced belongingness, higher levels of student achievement, and greater subjective well-being in both minority and majority group students.⁽²⁸⁾

In 2018 it was estimated that international education contributes \$5.1 billion to the New Zealand economy.⁽²⁹⁾ In an attempt to safeguard these economic interests and to deliver “a positive experience to international students that supports their educational achievement” the government introduced a Code of Professional Practice for the Pastoral Care of International Students in 2016 and updated the code in 2019.⁽³⁰⁾ Although the code is clear about the responsibilities of educational establishments for international students’ safety and well-being, it does not directly address the issue of institutional receptiveness to cultural diversity. Indeed, the only mention of “culture” in the Code of Practice refers to advising international students on how to interact effectively with people from different cultures and how to adjust to the New Zealand cultural environment. We believe that it is equally important for teachers, students, and administrators to take responsibility for adapting to the diversity that international students bring to our institutions. This will not only benefit international students, but also will contribute to internationalizing our educational institutions and fostering the development of global citizenship in our New Zealand students.

CONCLUDING COMMENTS

Although the research findings clearly point to the benefits of diversity receptiveness for international student well-being, it is important to acknowledge our study’s limitations. First, we fell far short of our 1000 target for research participants. This meant that we were not able to make comparisons between and among secondary and tertiary institutions or to provide individualized feedback to schools, universities, polytechnics and private training establishments. Relatedly, our small sample of 163 international tertiary students may represent a highly selective group. More specifically, it could be the case that international students with mental health issues were less likely to complete an online survey about their experiences. Consequently, the descriptive overview of international students’ experiences may be skewed towards more positive outcomes. It would be worthwhile to conduct further research with a larger and more representative sample of international students. Second, the research is cross-sectional, a single-shot survey. A longitudinal design that can confirm the direction of the paths in our models of international student mental health would produce a more robust study. Finally, we did not have access to objective data on contact, ideology and policies in New Zealand universities. We adopted the common convention in psychological research of assessing perceived norms as indicators of a diversity climate;^(9,11,12,28,29) however, complementing the data on perceived norms with objective indicators would enhance this line of research.

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Despite these limitations, the research findings clearly illustrate the benefits of a diversity-receptive environment for international student mental health. We strongly recommend that educational institutions work toward creating more culturally inclusive environments. This means cultivating greater intercultural contact, demonstrating an interest in and appreciation of cultural diversity, and formulating policies and implementing practices that encourage and support cultural diversity. These core principles are applicable beyond educational settings; evidenced-based research has demonstrated the social, psychological and economic benefits that diversity-receptiveness brings to organizations, communities and socio-political systems.⁽³¹⁻³³⁾ With respect to social cohesion and psychological well-being more specifically, the Dalai Lama (XIV) asserted:

If we wish to ensure everyone's peace and happiness, we need to cultivate a healthy respect for the diversity of our peoples and cultures.

This is something we should all bear in mind in an increasingly globalized world.

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Appendix 1: The Survey Instrument**Demographic information:**

Age_____

Gender_____

Nationality_____

Length of residence in NZ (in months)_____

Type of educational institution (e.g., secondary, university)_____

Location (city)_____

Name of your Educational institution_____

Please describe your overall level of English language proficiency.

Poor_____ below average_____ average_____ good_____ excellent_____ native
speaker_____

Diversity-receptiveness in Educational Institutions

Response options: 1 = disagree strongly, 2 = disagree, 3 = neutral, neither agree nor disagree, 4 = agree, 5 = agree strongly

At my school/university/educational institution,

1. Teaching staff are prepared to manage multicultural classrooms.
2. There are opportunities for students to learn more about each other's cultures.
3. We have events to showcase our multicultural student population.
4. Students are encouraged to learn about the diverse cultures represented in our student population.
5. We have policies for the assessment of multi-cultural group work.
6. All students are encouraged to maintain and share their cultures.
7. Most students are in classes with students from different cultures.
8. It is likely that you would interact daily with people from several different cultures.
9. Interacting with people from different cultures is unavoidable.
10. It is easy to meet students from different cultural backgrounds.
11. Our teaching staff come from many different cultural backgrounds.
12. It is common to study in culturally diverse groups.
13. Most people agree that multiculturalism is a good thing.
14. Most people think that it is good that to have multicultural classrooms.
15. Most people think it is important for students from different ethnic and cultural backgrounds to get along with each other.
16. Most people value the views of culturally diverse students.
17. Most people believe it is good thing to be exposed to culturally diverse perspectives.
18. Most people want to learn from other cultures.
19. Most people think that it is good to have friends from different cultural backgrounds.

The next sections ask about your relationships with others.

Belongingness

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Your educational institution is composed of people from many different ethnic and racial backgrounds. Thinking about your relationships with ALL of the people who are part of your educational environment, rate your agreement with the following statements.

Response options: 7-point scale ranging from “strongly disagree” to “strongly agree”

1. When I am with other people I feel included.
2. I have close bonds with others.
3. I feel like an outsider.
4. I feel as if people do not care about me.
5. I feel accepted by others.
6. Because I do not belong, I feel distant during the holiday season.
7. I feel isolated from the rest of the world.
8. I have a sense of belonging.
9. When I am with other people, I feel like a stranger.
10. I have a place among others.
11. I feel connected with others.
12. Friends do not involve me in their plans.

Trust

Please indicate the extent to which you agree or disagree with the following statements in reference to others at your educational institution.

Response options: 1 = disagree strongly, 2 = disagree, 3 = neutral, neither agree nor disagree, 4 = agree, 5 = agree strongly

1. Generally speaking, most people can be trusted.
2. Generally speaking, you need to be careful in dealing with people.
3. Most people try to take advantage of you if they get the chance.
4. Most people try to be fair.
5. Most of the time, people try to be helpful.
6. People mostly look out for themselves.

Perceived Discrimination

Please indicate the extent to which you have experienced the following in your day to day life on the basis of your ethnic, cultural, religious or national background.

Response options: 4-point scale ranging from 1 = “never” to 4 = “often”

1. You were disrespected.
2. You received poor service in restaurants or stores.
3. You were treated as if you were unintelligent.
4. You were treated as if people thought they were better than you.
5. You were treated as if people were afraid of you.
6. You were treated as if you were dishonest.
7. You were called names or insulted.

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8. You were threatened or harassed.

The next sections are about how you feel about yourself.

Perceived Stress Scale

In the last month, how often have you

Response options: 0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, 4 = very often

1. Been upset because of something that happened unexpectedly?
2. Felt that you were unable to control the important things in your life?
3. Felt nervous and stressed?
4. Felt confident about your ability to handle your personal problems?
5. Felt that things were going your way?
6. Found that you could not cope with all the things you had to do?
7. Been able to control irritations in your life?
8. Felt that you were on top of things?
9. Been angered because of things that were outside of your control?
10. Felt that difficulties were piling up so high that you could not overcome them?

State Anxiety

A number of statements that people have used to describe themselves are given below. Read each statement and select the response that indicates how you feel right now, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

Response options: 1 = Not at all, 2 = Somewhat, 3 = Moderately, 4 = Very much

1. I feel calm
2. I am tense
3. I feel upset
4. I am relaxed
5. I feel content
6. I am worried

CES-D Depression

Please indicate how often you have felt this way during the past week.

Response options: 0 = rarely or none of the time, 1 = some or a little of the time, 2 = occasionally or a moderate amount of the time, 3 = all of the time

1. I was bothered by things that don't usually bother me.
2. I had trouble keeping my mind on what I was doing.
3. I felt depressed.

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4. I felt that everything I did was an effort.
5. I felt hopeful about the future.
6. I felt fearful.
7. My sleep was restless.
8. I was happy.
9. I felt lonely.
10. I could not "get going."

Positive and Negative Affect

Please indicate the extent to which you have felt this way over the last week.

Response options: 0= very slightly or not at all, 1 = a little, 2 = moderately, 3 = quite a bit, 4 = extremely

1. Interested
2. Distressed
3. Excited
4. Upset
5. Strong
6. Guilty
7. Scared
8. Hostile
9. Enthusiastic
10. Proud
11. Irritable
12. Alert
13. Ashamed
14. Inspired
15. Nervous
16. Determined
17. Attentive
18. Jittery
19. Active
20. Afraid

Flourishing

Please indicate your agreement with the following statements in reference to yourself.

Response options: a 7-point scale ranging from 1 = "strongly disagree" to 7 = "strongly agree"

1. I lead a purposeful and meaningful life.
2. My social relationships are supportive and rewarding.
3. I am engaged and interested in my daily activities.
4. I actively contribute to the happiness and well-being of others.
5. I am competent and capable in the activities that are important to me.

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6. I am a good person and live a good life.
7. I am optimistic about my future.
8. People respect me.

Satisfaction with Life

In this section, we ask you to indicate how much you 'agree' or 'disagree' with the following statements. Remember to answer in a way that represents the 'real you' rather than what you think you 'should' say.

Response options: a 7-point scale ranging from 1 = "strongly disagree" to 7 = "strongly agree"

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far, I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

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Appendix 2: Psychometric Properties of the Measurement Scales

Scale	<i>M</i>	<i>SD</i>	Potential Range	α
Diversity Receptiveness				
Contact	3.87	.70	1-5	.79
Ideology	3.80	.66	1-5	.88
Policies and Practices	3.32	.80	1-5	.85
Belonging	4.77	1.27	1-7	.94
Trust	3.22	.74	1-5	.83
Discrimination	1.69	.60	1-4	.86
Stress	1.85	.65	0-4	.88
Depression	1.09	.57	0-3	.83
Anxiety	2.16	.67	1-4	.84
Negative Affect	1.15	.77	0-4	.88
Positive Affect	2.20	.83	0-4	.92
Flourishing	5.57	.95	1-7	.90
Life Satisfaction	4.73	1.29	1-7	.88

Notes. *M* = Mean (average score), *SD* = Standard Deviation, α = Cronbach alpha (a measure of scale reliability); all measures exceeded the minimum criteria for reliability (i.e., $\alpha > .70$)

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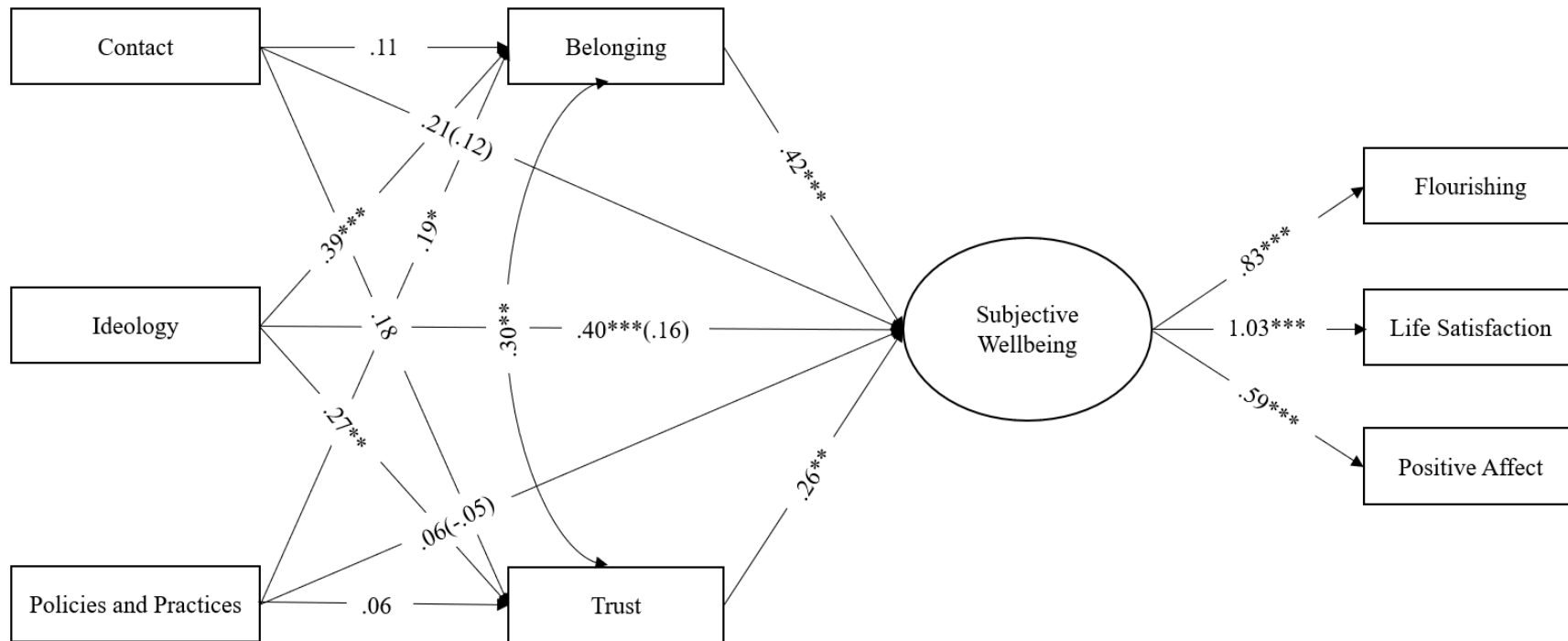
Appendix 3: Bivariate Correlations

	1	2	3	4	5	6	7	8	9	10	11	12
1. Contact	–											
2. Ideology	.54**	–										
3. Politics and Practices	.63**	.58**	–									
4. Belonging	.45**	.57**	.47**	–								
5. Trust	.38**	.42**	.34**	.47**	–							
6. Discrimination	-.42**	-.47**	-.48**	-.50**	-.54**	–						
7. Stress	-.34**	-.29**	-.32**	-.52**	-.46**	.42**	–					
8. Depression	-.35**	-.29**	-.34**	-.51**	-.51**	.34**	.76**	–				
9. State Anxiety	-.35**	-.24*	-.33**	-.43**	-.39**	.25*	.68**	.72**	–			
10. Negative Affect	-.25*	-.28**	-.26*	-.43**	-.48**	.31**	.69**	.75**	.70**	–		
11. Positive Affect	.31**	.36**	.33**	.45**	.35**	-.25*	-.56**	-.53**	-.48**	-.30**	–	
12. Flourishing	.39**	.44**	.32**	.53**	.48**	-.34**	-.59**	-.66**	-.56**	-.55**	.61**	–
13. Life Satisfaction	.31**	.38**	.28**	.50**	.47**	-.32**	-.54**	-.64**	-.58**	-.47**	.58**	.70**

* $p < .01$. ** $p < .001$.

Appendix 4: Model of International Student Well-being

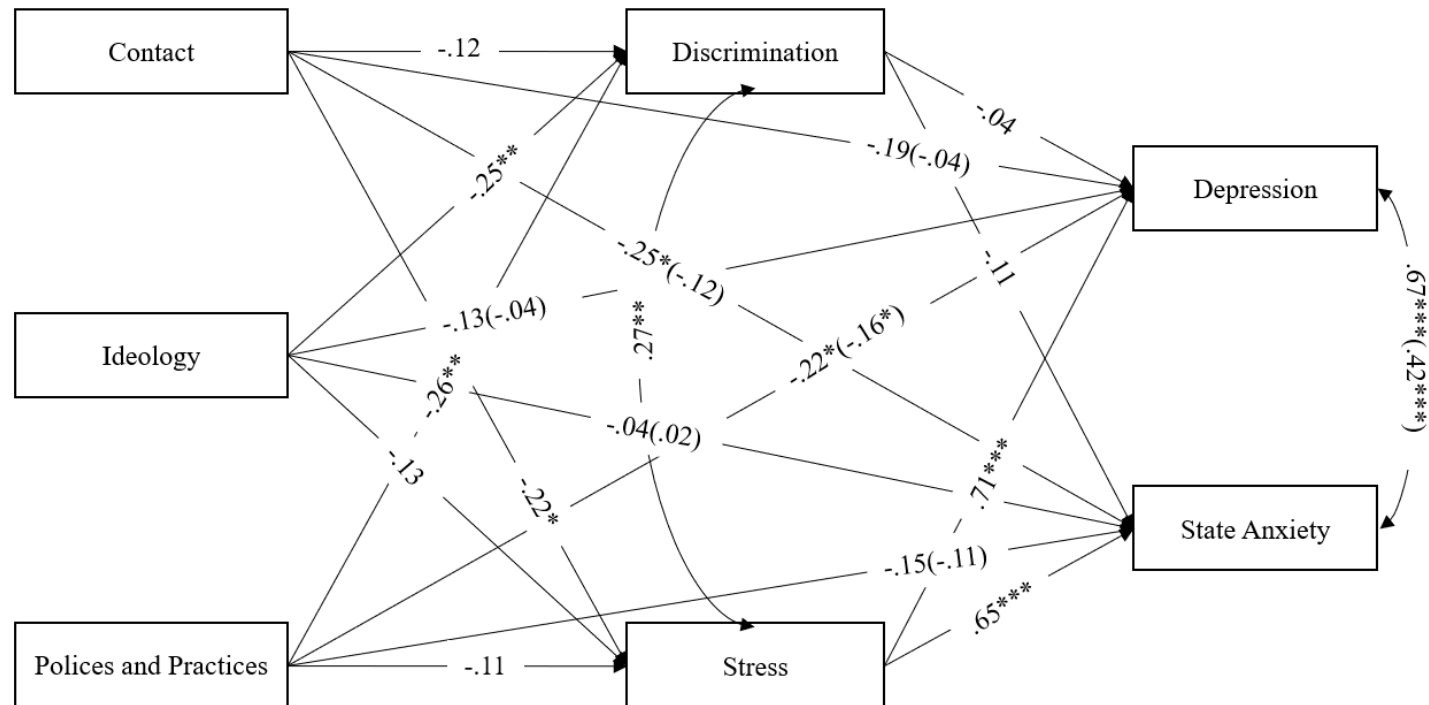
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Notes. Values are standardized estimate coefficients. The values in the parenthesis indicate standardized estimate coefficients when the mediators were added. Gender, Age, and Length of Residence were included as covariates. Ordinary bootstrapping with 5000 samples. Estimator = "ML".

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

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Appendix 5: Model of International Student Depression and Anxiety

Notes. Values are standardized estimate coefficients. The values in the parenthesis indicate standardized estimate coefficients when the mediators were added. Gender, Age, and Length of residence were included as covariates. Ordinary bootstrapping with 5000 samples. Estimator = "ML".

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

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