

Support, Depressive Symptoms, and the Stigma towards Seeking Mental Health Help

A Comparison of Asian versus Euro-Caucasian Students

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Abstract

Although many individuals are affected by psychological disorders, few will seek professional help. Cultural perceptions might complicate this, as emotional suppression and shame of mental illness predominate in some cultures. This online study investigated factors contributing to the stigma of seeking help among Asian ($n=81$) and Euro-Caucasian ($n=472$) students. Depressive symptoms mediated relations between social support and self-stigma for seeking help for mental health problems, as well as for academic problems. The role of depression in the relation between social support and other-stigma of seeking mental health and academic help differed by cultural group, in that the relation between depressive symptoms and stigma was more pronounced among Asians, suggesting that targeted efforts may need to be directed at specific populations.

Keywords: depressive symptoms, stigma, help-seeking, support, cross-culture

1. Introduction

Despite the large number of individuals affected by depressive symptoms and emotional distress, only approximately 40% of those with a psychological health concern will seek help from a mental health professional (Andrews, Issakidis, & Carter, 2001), and this is particularly the case for young people (Andrews et al., 2001). For instance, symptoms of depression (e.g., fatigue, apathy) might not encourage help-seeking, perhaps also owing to the stigma associated with mental health problems. It is equally possible that the perceived lack of social support would be associated with greater distress (Pierce, Sarason, & Sarason, 1996), which would, in turn, limit help seeking when it is needed (Maulik, Eaton, & Bradshaw, 2009). In a competitive meritocratic society, help-seeking in itself can be regarded as reflecting weakness and the inability to 'stand on one's own two feet'. The ability to overcome such perceptions may be dependent upon individuals' perceptions that they have a support network that will not stigmatize them for either the challenges they face or for their need to rely on help from others.

Ordinarily, social support buffers against the negative impacts of stressful experiences (Cohen, 1992; Cohen & Wills, 1985) and helps individuals to react appropriately to cope with stressors (Matheson & Anisman, 2012), whereas perceiving low levels of support is related to increased depressive mood state (Yang et al., 2010). However, the effectiveness of such support may vary as a function of the stressor that is being dealt with, as well as social factors (e.g., stigma) that lead people to regard particular stressors as more or less appropriate for soliciting help. In particular, individuals engaged in help-seeking for mental health problems may be especially stigmatized (Zartaloudi & Madianos, 2010), but such perceptions vary as a function of gender (Chandra & Minkovitz, 2006), socio-economic status (Eisenberg, Downs, Golberstein, & Zivin, 2009), and cross-cultural differences (Hsu & Alden, 2008).

Counter to intuition, it has been suggested that individuals in Western cultures are more willing to ask for and offer support, whereas those in collectivist cultures are reluctant to do so, as seeking help is perceived to place undue burden on others (Kim, Sherman, Ko, & Taylor, 2006; Kim, Sherman & Taylor, 2008). These cultural differences are particularly profound for those seeking treatment for affective disorders (Hsu & Alden, 2008). Among collectivist Asian cultures, there is great emphasis on restraint and suppression of emotional expression

(Tracey, Leong, & Glidden, 1986), shame associated with mental illness (Mak & Chen, 2006), and a discord between Asian values and European psychotherapy (Chen & Mak, 2008). Not surprisingly, these factors contribute to a reluctance to seek help (Ting & Hwang, 2009), which is compounded among Asians by the need to save face and preserve family integrity (Leong & Lau, 2001). Thus, despite their collectivist culture, among Asians social support perceptions might be less likely to diminish depressive symptoms or stigma associated with help-seeking. The present study examined the relations between perceived social support from friends and parents and the stigma associated with seeking help among Asian versus Euro-Caucasian students, including the mediating role of depressive symptoms.

1.1 Social Support and Help-seeking Stigma

There is considerable evidence demonstrating that greater perceived availability of social support from one's social network is linked to a greater likelihood of seeking out professional help (Barker, 2007; Gulliver, Griffiths, & Christensen, 2010). This said, students may be willing to disclose many personal issues to their friends and parents, but seeking help for mental health difficulties is perceived as less acceptable than help-seeking for other challenges they might encounter (Chandra & Minkovitz, 2006). This perception might reflect an appraisal that others will view one's need to seek help unfavourably (i.e., other-stigma) (Vogel, Wade, & Aschman, 2009), or may emanate from personal views that seeking help is unacceptable (i.e., self-stigmatizing) (Vogel et al., 2009). Intuitively, one would expect that the presence of social support from one's social network would be related to greater confidence that one can rely on others, and lower perceived other-stigma associated with seeking help (Eisenberg, et al., 2009). However, those who perceive less support availability (Mickelson, 2001) and have poorer interactions with their support network also have more negative self-evaluations (i.e., greater self-stigma) (Lennon, Link, Marbach, & Dohrenwend, 1989). Insecure relationships with others may give rise to concerns about social rejection, along with self-perceptions that one is weak or overly-dependent. Thus, it was expected that social support would be key to countering both the self- and other-stigma associated with seeking help.

Different sources of support may play a more or less powerful role in the stigma associated with help-seeking. Particularly among young people, parental support continues to be the best predictor of affective disturbances (Zimmerman, Ramirez-Valles, Zapert, & Maton, 2000), and parental disapproval of mental health professionals is strongly associated with young people's avoidance of seeking help for mental illness (Chandra & Minkovitz, 2006; Lindsey, Joe & Nebbitt, 2010). With the transition to university, however, the importance of peer support may become more critical to help-seeking behaviors. This said, findings regarding the role of peer support have been inconsistent, with some research indicating a negative association between support from peers and depressive symptoms (Yang et al., 2010), while others have found a positive association between perceived support and stigma of help-seeking (as a result of a fear of losing face) (Lindsey et al., 2010), or no association between peer support and either depressive symptoms or stigma (Zimmerman et al., 2000). The effects of peer support might depend on characteristics of the specific source, including whether the support was from the same or a different ethnic group (Schneider & Ward, 2003).

Social support may serve to diminish stigma of help-seeking directly, as well as because of its negative relation to depressive symptomatology (Cohen, 1992; Cohen & Wills, 1985). Specifically, irrespective of stressful life experiences or environmental context, social support can offer a boost to one's mood state both in the short- and long-term (Burton, et al., 2004; Helsen, et al., 2000; Yang et al., 2010; Zimmerman, et al., 2000). Thus, the relation between social support and reduced stigma perceptions associated with seeking help might come about because individuals with strong social support networks are less depressed, and so are less likely to believe that help-seeking will be a source of stigma. In support of this, severity of depressive symptoms has been found to be associated with less favourable attitudes towards getting professional help for mental illness (Vogel, Schechtman, & Wade, 2010). Thus, it was expected that depressive symptoms would mediate the relations between social support and stigma associated with seeking help.

1.2 The Role of Culture

There is considerable agreement that Asians and Asian Americans espouse more collectivist than individualistic values (Markus & Kitayama, 1991). The concept of individualistic versus collectivist cultures juxtaposes the difference between Eastern and Western views not only of the self, but also cultural assumptions about relationships. In individualistic cultures, for the most part, the self is viewed as independent and possessing self-defining traits (Markus & Kitayama, 1991). Individuals make decisions of their own volition and relationships are considered to be freely chosen (Adams & Plaut, 2003). In this sense, individuals share a cultural understanding that others are concerned for their well-being, and hence choose to offer their support (Kim, et al., 2008). As a result, when individuals perceive a supportive social network, they will be less likely to believe that

others will stigmatize them for seeking help, or to feel self-stigma when help is sought.

In collectivist cultures, the self is generally viewed as interdependent and flexible, with group goals being the primary concern, and personal goals and needs being secondary (Markus & Kitayama, 1991). As they share a cultural understanding that they should not burden others with their private matters, collectivist individuals might be more cautious about raising personal concerns with others (Kim et al., 2008). Indeed, despite having intense support networks, the support gleaned from the network is unlikely, or at the very least, less likely to diminish self- and especially perceived other-stigma regarding help-seeking. Consistent with this perspective, there is evidence that Asians and Asian Americans are more reluctant to seek help from close others due to fear of the negative implications this might have on their relationships, including personal shame, fear of bringing shame onto one's family (Choi, Rogers, & Werth, 2009), and disturbing the group harmony (Kim, et al., 2006). These individuals were more likely to minimize emotions, express them in subtle ways (Kim, Atkinson, & Umemoto, 2001), and seek and endorse the support of close others only for general concerns, and not for more personal stressful events (Kim, et al., 2008; Hsu & Alden, 2008). Superimposed on concerns about help-seeking are the differences in how emotional and psychological problems are perceived in Asian cultures. Not only have differences in the levels of distress between Asians and Euro-Caucasians been cited (Lorenzo, Frost, & Reinherz, 2000; Okazaki, 2000a), including higher rates of suicide ideation (Lau, Jernewall, Zane & Myers, 2002), but Asians also expressed a greater reluctance to seek professional mental health help compared to Euro-Caucasians (Heisel & Fusé, 1999). Thus, although friends and family may provide social support, its effectiveness may be limited with respect to diminishing the stigma associated with help-seeking.

The association between social support and depressive symptoms might also differ as a function of cultural differences. In particular, as Asians were reported not to rely upon social support to the same degree as non-Asians (Kim et al., 2006), it might likewise be expected that social support would not be particularly effective in boosting their mood state. This is not to say that depressive symptoms will not play a role in exacerbating the perceived stigma of seeking help. To the contrary, this relation may be even stronger among Asians, as the negative cognitions about the self that are associated with depression (Corrigan & Watson, 2002) may be compounded by the cultural norms against seeking help, resulting in greater self- and other-stigma regarding help-seeking.

1.3 The Present Study

Social support resources are a significant buffer that limits the adverse effects that emanate from stressors, particularly those that entail a social component (Moos, Cronkite, & Moos, 1998). In particular, positive social support might lead to lower stigmatizing perceptions associated with help-seeking. These relations may be direct, but it was further hypothesized that because social support reduces depressive symptoms, and thereby enhances social experiences and expectations, depressive symptoms would serve as a mediator between social support and stigma related to seeking help. However, when cultural norms discourage the public expression of emotions, social support might not have such benefits. When help-seeking represents a burden on one's network, as it might in more collectivist cultures, the need for help may be particularly stigmatizing. Thus, the mediating role of depressive symptoms in the relations between social support and stigma related to seeking help was expected to be moderated by ethnic group, in that the relations were expected to be stronger among Euro-Caucasian students.

Finally, to determine whether student participants espoused greater stigma towards seeking help in *general*, the present study assessed stigmatizing perceptions of help-seeking for mental health problems in comparison to stigma associated with seeking help for academic challenges. Given the premium placed on academic success in a student population (Sue & Okazaki, 2009), it may be that the stigma associated with the need to ask for help might not be limited to the domain of mental distress, but also elicits greater self- and other-stigma when help is sought for academic issues.

2. Methods

2.1 Participants and Procedure

Students in their first year of university (female $n = 388$; male $n = 165$) ranging in age from 16 to 29 years ($M = 18.88$, $SD = 2.00$) participated in an online study described as assessing how individual characteristics and personal resources affect success in their first year at university. After providing informed consent, participants responded to a series of demographic questions followed by measures of perceived support from friends and from parents, depressive symptoms, self-stigma and other-stigma for seeking help for mental health and academic issues. Upon completion of the study, participants were debriefed and given the choice of course credit or a gift certificate.

As participants took part online, steps were taken to ensure that responses were genuine. Validation of responses was carried out by considering whether the amount of time taken to complete the questionnaire exceeded the

amount of time needed to read each question, and that highly similar reverse scored items were answered in the appropriate directions.

Students who reported their ethnicity to be of East Asian ($n = 41$), South Asian ($n = 32$), or South East Asian ($n = 8$) origin were considered 'Asian' ($n = 81$) (U.S. Department of Commerce Economics and Statistics Administration, 2010) and were compared to those who considered themselves Euro-Caucasian ($n = 472$). Finally, Asians (97.5%) were more likely to report never having received counselling help in the past compared to Euro-Caucasians (81.8%), $\chi^2(1) = 12.82, p < .001$.

2.2 Measures

2.2.1 Social Support

The 12-item Social Provisions Scale (Cutrona & Russell, 1987) assessed the degree to which friends and then parents were perceived to provide social support. Each item (e.g. "are there friends you can depend on/ can you depend on your parents if you really need it?") was rated on a three-point scale, ranging from 1 (no) to 3 (yes). The means across all items for social provisions from friends ($\alpha = .83$) and parents ($\alpha = .85$), respectively, were calculated to provide indices of social support.

2.2.2 Depressive Symptoms

The 13-item Beck Depression Inventory (BDI) (Beck & Beck, 1972) assessed depressive symptoms. Participants responded to one of four options, which ranged from low to high depressive symptomatology. The total score for this scale was calculated by summing across all items ($\alpha = .85$)

2.2.3 Self-Stigma

This six-item scale measured the self-stigma associated with seeking help (adapted from Vogel, Wade, & Haake, 2006). Participants completed this measure twice, once in reference to their self-stigmatizing attitudes to seeking help for mental health issues, and again for seeking help for academic issues (e.g., "I would feel inadequate if I went to a mental health counsellor/academic counsellor for help"). Responses were made on a seven-point scale ranging from -3 (strongly disagree) to +3 (strongly agree). Total scores were calculated by taking the mean across items assessing self-stigma for seeking help for mental health issues ($\alpha = .91$) and academic issues ($\alpha = .91$).

2.2.4 Other-Stigma

This five-item scale measured the perceived stigma held by others associated with seeking help (adapted from Vogel et al., 2009). Participants also completed this measure twice, once in reference to how they perceived close others would react if they were to seek help for mental health issues, and a second time in reference to seeking academic help (e.g., "If you were to get help from a mental health counsellor/academic counsellor, to what degree do you believe that the people you interact with would: react negatively to you; think bad things of you"). Responses were made on a five-point scale ranging from 1 (not at all) to 5 (a great deal). Total scores were calculated by taking the mean across all items assessing other-stigma for seeking help for mental health issues ($\alpha = .92$) and academic issues ($\alpha = .92$), respectively.

3. Results

3.1 Descriptive Statistics

Table 1. Descriptive statistics (Means, Standard Deviations) and t-tests as a function of Ethnic Group

	Asian		Euro-Caucasian		<i>t</i> (550)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<i>Social Support</i>					
Friends	2.60	0.38	2.75	0.27	3.30***
Parents	2.49	0.41	2.59	0.39	2.23*
<i>Self-stigmatization</i>					
Mental Health	-0.56	1.44	-0.55	1.62	0.07
Academic	-1.18	1.23	-1.38	1.44	-1.17
<i>Perception of Stigmatization by Others</i>					
Mental Health	1.93	0.94	1.58	0.74	-3.21**
Academic	1.60	0.75	1.21	0.45	-4.53***
Depressive Symptoms	5.81	4.80	5.08	4.53	-1.33

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

As seen in Table 1, on average, Asian students perceived lower levels of support from friends and parents, as well as greater other-stigma for seeking help for either mental health or academic issues. Among both ethnic groups, higher levels of self-stigma regarding help-seeking for mental health were reported, compared to academic issues, $F(1, 551) = 67.93, p < .001, \eta^2 = .11$, as well as higher levels of other-stigma for seeking help for mental health compared to academic issues, $F(1, 551) = 71.70, p < .001, \eta^2 = .12$.

3.2 Correlations between Support, Depressive Symptoms, and Stigma

Table 2. Bivariate Correlations Split By Ethnic Group (Euro-Caucasian ($n=471$) above the Diagonal vs. Asian Students ($n=81$) below the Diagonal)

Variable	1	2	3	4	5	6	7
<i>Social Support</i>							
1. Friends	---	.34***	-.15***	-.17***	-.17***	-.25***	-.26***
2. Parents	.38***	---	-.05	-.13**	-.15***	-.18***	-.29***
<i>Self-stigmatization</i>							
3. Mental Health	-.21	-.46***	---	.53***	.40***	.24***	.14**
4. Academic	-.41***	-.16	.48***	---	.30***	.40***	.30***
<i>Perception of Stigmatization by Others</i>							
5. Mental Health	-.32**	-.28*	.54***	.38***	---	.47***	.20***
6. Academic	-.52***	-.17	.28**	.57***	.61***	---	.23***
7. Depressive Symptoms	-.24*	-.49***	.30**	.15	.42***	.37***	---

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

As expected, among both Asian and Euro-Caucasian students, support from friends was inversely related to self- and other-stigma and to depressive symptoms. However, among Asians, the relation between perceiving less support from their friends and greater other-stigma for seeking help for academic matters was *stronger* than was the relation seen in Euro-Caucasians ($B = -.19, SEB = .05, R^2_{change} = .022, p < .001$). A comparable difference was not evident with respect to stigma regarding mental health help-seeking

Perceived parental support was also associated with lower self- and other-stigma for help-seeking. Once again, these relations were especially marked among Asian students, particularly with respect to lower self-stigma for mental health help-seeking ($B = -.54, SEB = .24, R^2_{change} = .015, p < .05$), as well as with lower depressive symptoms ($B = -.31, SEB = .12, R^2_{change} = .019, p < .01$). However, depressive symptoms were more strongly related to greater self-stigma for academic help-seeking among Euro-Caucasians, compared to Asians ($B = .34, SEB = .13, R^2_{change} = .011, p < .05$), whereas no difference between the two groups was found for the relation between depressive symptoms and self-stigma for mental health issues (Table 2).

3.3 Moderated Mediation

The mediating role of depressive symptoms in the relation between support (friends, parents) and help-seeking stigma (self-stigma, other-stigma) for both mental health and academic issues was explored, along with whether these relations varied by ethnic group. Moderated mediation analyses were conducted using bootstrapping procedures and confidence intervals based on 5000 resamples (Preacher, Rucker, & Hayes, 2007). As there are several ways in which the magnitude of an indirect effect can be dependent upon the moderator, three different models were tested: 1. The relation between the predictor and the mediator vary depending on the moderator (support \rightarrow depressive symptoms depends on ethnic group), whereas the effect of the mediator on the outcome variable remains constant. 2. The effect of the predictor on the mediator remains constant, whereas the effect of the mediator on the outcome variable is dependent on the moderator (depressive symptoms \rightarrow stigma depends on ethnic group). 3. The moderator influences both paths. Each of the moderated mediation models was tested with support (friends and parents) as predictors, depressive symptoms as the mediating variable and each of the four indices of stigma (self, other) associated with help-seeking (mental health, academic) as outcome variables.

The mediating role of depressive symptoms in the relation between social support and *self*-stigma for both

domains of help-seeking was not moderated by ethnic group. A simple mediated model (Preacher & Hayes, 2008) using 95% bias corrected confidence intervals based on 5000 bootstrap resamples was thus applied to both groups combined. Findings supported the hypothesis that the relation between friend support and both mental health ($B = -.635, p < .01$) and academic help-seeking ($B = -.872, p < .001$) would be significantly reduced when depressive symptoms was included as the mediator (mental health help-seeking $B = -.424, p < .05$, 95% B.C.I: $-.372; -.103$; academic help-seeking $B = -.584, p < .001$, 95% B.C.I: $-.440; -.165$). Similarly, the relations between parental support and mental health ($B = -.402, p < .01$) as well as academic ($B = -.500, p < .001$) help-seeking was significantly reduced when depressive symptoms was considered the mediator (mental health help-seeking $B = -.193, ns$, 95% B.C.I: $-.348; -.097$; academic help-seeking $B = -.208, ns$, 95% B.C.I: $-.448; -.173$).

When *other*-stigma for the different help-seeking domains was considered as the outcome, the indirect effect of depressive symptoms was moderated by ethnic group for both mental health and academic help-seeking. Essentially, the relation between friend or parental social support and other-stigma was mediated by level of depressive symptoms, but this mediation model was particularly applicable to Asian students. In particular, for each of these models, it was the strength of the association between depressive symptoms and other-stigma that varied as a function of group (see Table 3). Indeed, in some instances, the strength of the conditional indirect effect was stronger by almost three-times among Asian students, in comparison to Euro-Caucasian students.

Alternative models were explored by considering depressive symptoms as the predictor and social support as the mediator variables. With the exception of the two models presented below, these alternative moderated mediations were not significant. The alternative moderated mediation model delineating the relation between depressive symptoms and self-stigma for mental health help-seeking as mediated through parental support was found to be significant. Specifically, the relation between depressive symptoms and parental support remained constant, whereas the relation between parental support and self-stigma was greater among Asians than Euro-Caucasians. The conditional indirect effects indicated that, among Asian students, parental support mediated the relation between depressive symptoms and self-stigma associated with seeking help for mental health, but this was not the case for Euro-Caucasian students (see Table 3).

Table 3. Moderated Mediated Results for the effect of Ethnic Group on the Relation between Friend Support and Other-stigma for Mental Health (OSMH) and Academic (OSAC) Help-seeking, and between Parental Support and Other-stigma for Mental Health and Academic Help-seeking through Depressive Symptoms, as well as Alternative Models Depicting the Relation between Depressive Symptoms and Self-stigma for Mental Health Help-seeking (SSMH) through Parental Support and between Depressive Symptoms and Other-stigma for Academic Help-seeking (OSAC) through Friend Support

IV→DV	Friend→OSMH				Friend→OSAC				Parent→OSMH			
	Conditional indirect effect	SE	z	p	Conditional indirect effect	SE	z	P	Conditional indirect effect	SE	z	p
Asian	-.316	.11	-2.80	.01	-.230	.08	-2.80	.01	-.293	.10	-3.08	.01
Euro-Caucasian	-.116	.04	-2.86	.00	-.067	.03	-2.48	.05	-.111	.04	-3.16	.01
IV→DV	Parent→OSAC				Alternative model: Depress→SSMH				Alternative model: Depress→OSAC			
	Conditional indirect effect	SE	z	p	Conditional indirect effect	SE	z	p	Conditional indirect effect	SE	z	p
Asian	-.226	.07	-3.13	.01	.040	.01	3.83	.00	.019	.01	3.04	.00
Euro-Caucasian	-.077	.03	-2.93	.01	.001	.01	.22	.83	.009	.00	1.91	.06

In a second alternative model that considered the relation between depressive symptoms and other-stigma for seeking academic help as mediated by support from friends, ethnic group moderated the relation between support from friends and perceived other-stigma. Once again, the conditional indirect effects indicated that this alternative model was stronger among Asian students than Euro-Caucasians (see Table 3).

4. Discussion

The present study sought to determine whether perceptions of social support from one's social network (in

particular, friends and parents) would play a role in stigma associated with help-seeking among university students, and whether the presence of depressive symptoms would mediate this relation. It was anticipated that, given the collectivist values that discourage placing a burden on one's family and friends, Asian students would be particularly prone to stigmatizing views regarding help-seeking, and that although perceiving social support might diminish such views, depressive symptoms were expected to be more strongly associated with stigma.

Given that the collectivist culture of Asians may engender greater concern about the negative implications of relying on others (Choi, et al., 2009), it is not surprising that relative to Euro-Caucasians, Asian students in the present study perceived greater stigma from others for seeking both mental health as well as academic help. Furthermore, consistent with past research (Kim et al., 2006), it was observed that Asian students perceived lower levels of support availability from their friends and parents compared to Euro-Caucasians. However, no such differences were observed for either the self-stigma of help-seeking (see also Tsai, 2011), or with respect to depressive symptoms. The latter finding was somewhat unexpected, as others have found that depressive symptoms among Asians was greater than among Euro-Caucasians (Kuo, 1984), although findings regarding differences in the lifetime prevalence between these populations have varied (Kalibatseva & Leong, 2011). In actuality, the students in the present study appeared to exhibit relatively low symptoms of depression, and so comparable levels of self-stigma were not surprising.

As expected, both peer and parental social support were associated with lower self- and other- stigma associated with help-seeking among both Asian and Euro-Caucasian students. In lieu of cultural differences, social support was expected to be less likely to buffer against depressive symptoms among Asians; however, social support was in fact associated with lower depressive symptoms for both Asian and Euro-Caucasian students. This suggests that, although Asians might anticipate that social support will be ineffective in helping to resolve stressful issues, those who perceive that social support sources are available to them do, in fact, exhibit lower depressive symptoms. Furthermore, the immigrant status of these Asian families might have also influenced the propensity for these participants to have benefitted from social support resources as families of second generation Asian Americans have been shown to rely on social support more to cope with stressful experiences compared to first generation Asians (Taylor et al., 2004). Perhaps families of second generation immigrants are more accustomed to providing support that is in line with Western values (Taylor et al., 2004). Thus, consistent with the preponderance of past research, social support from friends and family, served as a buffer against negative affect, as well as cognitions regarding stigma associated with the need for support in the form of help for academic and mental health problems (Moos, et al., 1998; Yang, et al., 2010). Moreover, depressive symptoms mediated the relations between social support and self- and perceived other-stigma, suggesting that, although social support might diminish the effects of depressive symptoms, those who are in the greatest need for assistance may in fact be the least likely to engage in the help-seeking process.

The hypothesized mediating role of depressive symptoms between social support and self-stigma did not vary as a function of culture. This said, when the alternative models were explored, a significant moderated mediation, particularly with respect to the relation between parental support and self-stigma for seeking mental health help was observed in that this link was only significant among Asian students. It appears that diminished support from parents was related to more marked increases of self-stigma when help was needed for mental health problems. This comparatively greater relation was also seen with respect to self-stigma of academic help-seeking among Asian students. Given the collectivist attitudes among Asians and the emphasis placed on maintaining group harmony and avoiding shame (Choi et al., 2009; Kim, et al., 2006; Ting & Hwang, 2009), as well as the stigma towards mental illness (Mak & Chen, 2006), it is possible that those students with unsupportive parents were more likely to internalize a sense of failure and self-stigma when help was needed. Indeed, Asians tend to experience high levels of parental pressure and when parental expectations are not met are subject to considerable criticism, self-doubt, and anxiety (Choi et al., 2009), leading to feelings of alienation from their parents (Qin, Way, & Mukherjee, 2008). Thus, although parents might feel that they are offering their children the necessary support to success, this support might be perceived as inadequate and not matching what is actually needed, exacerbating the self-stigma these students experience when they turn for help.

Cultural background also had implications for the relations between depressive symptoms and other-stigma of seeking help for mental distress, and the role depressive symptoms played in mediating the relation between social support perceptions and other-stigma. In particular, perceived support from friends and parents was equally predictive of lower depressive symptoms, but the strength of the relation between depressive symptoms and greater perceived other-stigma for seeking help for mental health problems was especially strong among Asian students. Asians have been found to be less likely to access treatment or receive care than other cultural groups when they experience depressive symptoms (Alegría et al., 2008; Sue, 1994). Similarly, the link between

depressive symptoms and perceived stigma by others for seeking academic help was significantly stronger for Asians compared to Euro-Caucasians. This is in keeping with the notion of the 'model minority' among Asians, extolling cultural virtues in educational practice (e.g., strong work ethic, respect for education, high expectations) and high levels of achievement (Dandy & Nettelbeck, 2002; Sue & Okazaki, 2009). In this regard, the model minority expectation can lead to a tendency to perfectionist attitudes, further compromising the well-being of individuals within this cultural group by reducing their overall likelihood of help-seeking (Choi et al., 2009). These findings suggest that the mental health interventions on campus may be more successful in diminishing the relation between depressive symptoms and stigma among mainstream students compared to more specific populations. Perhaps there need to be more targeted efforts directed at minorities, particularly those who may be experiencing other cultural pressures.

4.1 Caveats and Concluding Remarks

Online studies have become an increasingly popular mode for participant recruitment, and notwithstanding its convenience, there is the implication of not only a self-selected sample, but also selection bias regarding the type of person who might be more inclined to participate in online studies. Indeed, participating in online studies presupposes that participants possess sufficient knowledge to take part in computer-generated studies (Preckel & Thiemann, 2003). This is likely to be truer of community samples as it would consist of a wider range of participants of varying ages and computer knowledge. However, given that this study exclusively involved first year university students, these participants' computer skills were likely to have been sufficiently strong for this not to be a concern. While not denying that this type of study was subject to a self-selection bias, this issue is equally problematic for face-to-face studies in which participants must sign up of their own volition. Indeed, the case can be made that online studies might provide more valid results than those obtained from in situ studies as they carry less social pressure and decreased risk of coercion (Wilt, Condon, & Revelle, 2012), and importantly for the present study, it provides a degree of anonymity that might be important given the presence of depressive symptoms or asking participants about stigma related to mental health issues.

As there is reason to believe that sub-groups of Asian cultures tend to endorse similar collectivist views (Kim et al., 2008; Okazaki, 2000b), it was deemed acceptable to collapse across participants of Asian, South Asian, and South East Asian ethnicities (U.S. Department of Commerce Economics and Statistics Administration, 2010). Although differences between Asians and Euro-Caucasians were evident, there still remains the possibility that collapsing across various Asian sub-groups may have attenuated the magnitude of some of the observed effects, and may have incorrectly assumed that East Asian, South Asian, and South East Asian individuals had similar perceptions related to stigma. To be sure, approximately one quarter (26.8%) of those in the East Asian group (which comprised over half of the overall 'Asian' group) was made up of individuals on student visas; this was higher than the proportion of immigrants or student visa participants in the other groups. Thus, it is possible that this group was less assimilated and had stronger collectivist attitudes over the rest of the group, and consequently exerted undue influence over the findings. However, given the already small sample of size of this amalgamated group, exploring the implications of these smaller sub-groups was not feasible.

That this study was correlational in nature also deserves mention, as this precludes the ability to draw causal conclusions. However, in an effort to disentangle some of the directional relations, alternative models were explored. The results demonstrated that the original model held more strongly, and when alternative directional models were examined, only two of these models appeared viable. Additionally, while the relation between depressive symptoms and social support has been noted to be reciprocal in nature, longitudinal studies have demonstrated that social support does seem to play a stronger role in aggravating depressive symptoms (Moos et al., 1998; Yang et al., 2010; Zimmerman et al., 2000), which is in keeping with the hypothesized model in the present study.

Finally, it should be acknowledged that, in responding to the measures of the stigma of seeking help, participants were asked to report based on hypothetical situations. In this regard, it is difficult to anticipate perceptions and actions, if they were themselves faced with a situation of mental health challenges. In other contexts, there is research demonstrating that, although individuals reported the absence of a support network that they could trust to assist them when in need, in times of actual crises, individuals who are well connected did, in fact, successfully turn to others (Small, Jacobs, & Massengill, 2008). Thus, although individuals who are depressed may feel that others would stigmatize them for seeking support for mental health or even academic concerns, it might actually be the case that if the need were to arise, these individuals would turn to others to seek help.

Despite these caveats, the present study clearly points to the stigma associated with help-seeking for mental health as well as academic issues among university students, and contributes to the growing body of literature

concerning the cultural differences that exist in this regard. It is undeniable that depression in Canadian university students remains a growing concern, with as many as nine percent of males and 12 percent of females experiencing episodes of major depressive disorder (Kidder, Stein, & Fraser, 2000). Moreover, among young adults in Canada, suicide remains the leading cause of death (Kidder et al., 2000), perhaps owing to the increasing intensity of their depressive symptoms and the reluctance to engage in the help-seeking process. In this regard, disentangling the factors that contribute to both the self-stigma and stigma held by others with respect to seeking help, such as cultural variance and perceptions of support could be critical in diminishing individuals' unwillingness to seek professional mental health help.

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