

The Effects of Psychosocial Factors on International Students' Mental Health and Relevant Interventions

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Abstract. Mental disorders are pervasive among global students enrolled in postsecondary education institutions, and the mental health conditions of international students (ISs) are seizing additional attention from professionals due to their unique challenges. This review aims to address three categories of psychosocial factors that are particularly affecting ISs' mental health conditions, including 1) acculturative stress, 2) explicit and implicit discrimination and 3) interpersonal relationships/ intercultural social efficacy. High mindfulness level, low perceived cultural distancing, high host language proficiency, and sufficient psychoeducation of educators and ISs are protective of ISs from acculturation-related distress. Low perceived host language proficiency, loneliness, and anxiety mediate the relationship between ISs' mental health and discrimination. Possessing, maintaining, and enhancing existing healthy interpersonal relationships and social connectedness to the host culture provides ISs with social support to overcome psychological distress. Correspondingly, the article discussed interventions that have shown effectiveness and potential practical application value from both personal and institutional perspectives. In sum, mental health conditions are as noteworthy as academic competency among ISs, and it requires more investigations into the intervening process targeting psychosocial stressors.

1 Introduction

The World Health Organization has stressed the pervasiveness of mental disorders among global college students (age 16-30), with over 33% of this population reporting diagnostic mental disorders at least once [1, 2]. The majority of this age group was identified as either late adolescents or young adults by Erik Erickson's 1950s study on human psychosocial development. Erickson proposed that people would encounter conflicts regarding their social identity and peer/romantic relationships in all contexts [3]. As such, novel challenges such as increasing needs for self-agency within interpersonal relationships, commitment to larger social groups, academic competency, and financial independence are major stressors of this transitional age group [2].

Of the college-age population, international students (ISs) are comparatively more vulnerable to those common stressors than domestic students in each era, specifically reporting more pathological mental distress in general (i.e., depression, anxiety, posttraumatic stress, academic distress, and loneliness) [4, 5]. King et al. also found poorer academic performance and social connectedness in the college/university contexts among ISs compared to the domestics [4]. Explanations of this status by mental health specialists are the aggravating effect of additional psychosocial challenges unique to ISs and lack of knowledge of the mental health services and help-seeking behaviors [6, 7]. From the psychosocial perspective, ISs are distant from

pre-arrival close relationships, more aware of their racialized and minor identity from the mainstream society, and require more effort to acculturate and adapt to the host culture physically and mentally [8-10], which may lead to further identity and intimacy concerns according to Erickson's Psychosocial Development Theory [11]. Massive research has underscored the impact of these factors on ISs' mental health and advocated for more actions to alleviate the growth of ISs' mental health crisis [12, 13]

This review aims to elaborate on three common mental-health-related psychosocial factors ISs experienced in existing studies: 1) acculturative stress, 2) explicit and implicit discrimination and 3) interpersonal relationship/ intercultural social efficacy, and disclose potential interventions targeting these psychosocial factors and summarize mental health programs that have been proved effective.

2 The Psychosocial Factors

2.1 Acculturative stress

The sojourners' acculturative stress is one of the most common and unique psychosocial factors relevant to the mental health conditions of international students (ISs) elicited by substantial research. Specifically, Researchers found a positive correlation between ISs' acculturation stress and mental disorders (i.e., depression and anxiety) [14]. Mindfulness level moderated the direction of this correlation in the study – ISs who scored lower on the mindfulness scale

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were more prone to depression and anxiety due to acculturative stress, while ISs scored higher on the mindfulness scale better coped with this typical stressor [14]. Accordingly, increasing ISs' mindfulness level could effectively prevent them from internalizing problems due to acculturative stress.

Taušová et al. detected the acculturative predictors of acculturative stress and other psychological consequences (i.e., mental disorders, and degree of life satisfaction) and ISs' plan of the future residing country as mediators within this relationship [15]. They identified five acculturation-related factors that may affect ISs' psychological experience of the acculturation process: perceived cultural distance (PCD), personal growth initiative (PGI), language proficiency, and sojourning time length. The amount of acculturative stress ISs received positively correlated with the amount of PCD and negatively correlated with their proficiency in English respectively [15]. Generally, reducing PCD and improving host language proficiency needed personal efforts to avoid psychological consequences led by acculturative stress. The intrinsic motivation to implement these coping methods depended on whether IS intended to stay or leave the host country [15]. ISs to stay in the host country in the future usually showed better language proficiency, higher PGI, and less PCD so they were better adapted mentally. In line with Lian & Wallace's study, those who intended to return to their mother country were more likely to experience those psychological consequences, mental disorders especially, due to relatively poorer English proficiency and additional stress regarding their returning plan [15, 16]. Therefore, emphasis on adjusting ISs' perceived cultural distance, English or the host language proficiency, and personal growth initiative contextually based on their future residing plan requires more concern from professionals.

As most ISs have high demands in gaining academic competency, it is more likely for them going to academic advisors rather than mental health professionals; even when they encounter challenges unique to international students (i.e., acculturative stress). Disappointingly, in western postsecondary education institutions, neither the school faculty nor the AISs has exhibited sufficient attention and concern on distress from acculturation, which largely intensified their propensity to mental disorders [10, 16]. Lian & Wallace further emphasized the importance of school staff's cultural respect perceived by IS [16]. Its negative correlation with ISs' mental health issues was significant so more psychoeducation about ISs' acculturative stress to the school faculty was also a prerequisite to enhancing ISs' mental well-being [16].

2.2 Explicit & Implicit Discrimination

Although racism and discrimination are scarcer in the college/university context, studies consistently highlighted the significant positive relationship between mental health concerns and perceived racism- and discrimination-related stress among ISs in western higher education institutions [10, 13, 17-19]. As per Harrel, types of stress related to racism also varied based on the modality of the individ-

ual's perception of truly racist and discriminative information, either direct or indirect [20]. Of those racism-related stress types, vicarious racism experiences and collective experiences of racism are types of stress perceived through non-personal experiences (i.e., observation of known or unknown others, receiving information of members in the same racial group, etc.) which could potentially explain ISs' perceived racism and discrimination.

Personal psychological stress could also illicit implicit discrimination perceived by ISs without experience. Thereinto, perceived language discrimination (PLD) has largely affected Asian ISs' mental health conditions. It was predictive of greater numbers of depressive symptoms, anxiety, and posttraumatic stress symptoms within a similar level of perceived language proficiency among Chinese ISs [13]. In other words, ISs' would experience fewer mental health issues if they could adjust the cognitive distortion regarding the domestics' attitudes toward their host language proficiency.

Explicit racism and discrimination are still in existence. The level of racism-related concerns (i.e., xenophobia) toward actual racism among Asians living in a foreign country has remarkably elevated since the outburst of COVID-19 [10, 13, 17-19]. In addition, evidence showed that other psychological distress due to COVID-19 was indeed posing a determining effect on ISs' mental health issues resulting from these concerns. Among studies on the link between discrimination and its psychological consequences on ISs (i.e., mental health problems, distress, etc.) conducted after 2019, it was coherent that loneliness and anxiousness regarding COVID-19 were mediating the positive correlation between discrimination and ISs' mental health disorders [10, 17, 19]. Then, ISs ought to first seek ways to deal with their loneliness and anxiousness to further cope with racism-related stress.

2.3 Interpersonal relationship/ Intercultural social efficacy

As being in the transitional phase between late adolescence and emerging adulthood, most students in postsecondary education institutions would undergo identity and intimacy crises according to Erik Erikson's Psychosocial Development Theory. International college students are extra sensitive to the quality of relevant connections with others and their surroundings due to the discontinuity with heritage culture and social contexts when studying abroad. Researchers agreed that stress derived from interpersonal relationships and social discontinuity has become two of the psychosocial factors with the greatest impact on ISs' psychological well-being in college and universities across countries. Specifically, identity discontinuity, unstable romantic relationships, and disharmony from both work/school and family contexts were positively associated with negative affective symptoms (i.e., anger, loneliness, hopelessness, etc.) and prevalence rates of mental disorders [2, 11, 16]

Cruwys et al. produced a longitudinal study on the effect of maintaining a social identity on ISs' psychological and academic outcomes by examining the maintenance of ISs' pre-existing group memberships, life satisfaction, and

academic performance over time [8]. ISs who were still in contact with family and friends made before their arrival after six months of abroad study, which was to show better social identity continuity, reported significantly higher life satisfaction levels and better academic competency, and they were more likely to maintain this condition in the future [8]. Nonetheless, unresolved interpersonal issues before the first departure would pose an inverse effect on ISs' mental well-being. The acculturative stress level of Chinese ISs with the lower agency in social relationships and pre-departure interpersonal issues elevated after the first semester, which positively correlated with the increased experience of mental disorders [9, 15]. Therefore, how to facilitate ISs in possessing, maintaining, and enhancing existing healthy interpersonal relationships in the first six months of their arrival require more attention from both ISs and mental health professionals.

Contemporary evidence also emphasized the link between ISs' mental health conditions and the social efficacy of ISs in their social connectedness with domestic peers and mainstream society. ISs who established better resilience and coping strategies usually were more able to develop new relationships with individuals and groups from the host country [12]. Consistent findings suggested that a greater level of social efficacy with people from the mainstream culture could attenuate the correlation between the aforementioned ISs' perceived language discrimination (PLD) and their symptoms of three specific mental disorders (i.e., depression, anxiety, and post-traumatic stress disorder), while few attenuating effects displayed on this relationship via social connectedness with people in the same ethnic group of ISs [13, 21]. To conclude, both ISs' good social identity continuity within existing interpersonal relationships and better novel host social connectedness are helpful for their future academic outcomes and mental well-being.

3 Interventions

Unlike intervening from the pathological and symptomatic aspects, the psychosocial risk and protective factors of the mental well-being of ISs in western colleges and universities are hard to target since each could play a mediating and or moderating role in one another. Therefore, interventions will be reviewed from the aspects of 1) students' personal effort, and 2) institutional support and services intersecting with psychosocial factors mentioned above.

3.1 Personal Effort

ISs play active roles in their interpersonal relationships and acculturation processes and are the principal of interventions on all accounts. As researchers have confirmed the importance of the maintenance and the quality of pre-existing relationships with family and friends on the acculturation stress level, the most available and widely used mental health resources by ISs are social support from family and friends via various social networking sites [9, 15, 22]. Hence, new-arrival ISs are strongly recommended to ensure frequent contact with family members and pre-

existing friends despite the distance to cope with loneliness and acculturative stress, and then initiate bonds with the domestics to increase the host social connectedness.

Lifting self-competency, thereby lifting self-esteem and resilience, would also be beneficial to ISs' mental health conditions. Professionals suggested ISs increase participation in physical activities and elevate the host language proficiency to improve their mental well-being because both were able to effectively mitigate psychological distress on ISs' mental health in general [13, 15, 23]. When confronting stress, psychological barriers to seeking help from professionals due to stigma are also problematic for ISs' mental well-being and have yet been addressed in this article. Further research and review on how to facilitate individual awareness of these resources and protective factors are essential.

3.2 Institutional Interventions

The most accessible mental health services for college and university ISs are most likely to be on campus. Due to the homogenization of the psychosocial stressors within the larger group of ISs, gathering ISs with similar distress would help develop programs to increase resilience and improve mental health conditions. Wei & Bunjun highlighted the significance of pedagogical interventions targeted at racial discrimination both in the classroom and campus-wide contexts [18]. They had established a network for racialized ISs which included students and school staff of all races and ethnicity. It allowed for raising empathy and compassion through periodical discussion, mentorship, and workshops within a more inclusive educational environment [18]. Besides the goal of lessening exclusion and perceived discrimination, this campus-wide network managed to build students' affiliation with the group to enhance group identity, increase both ethnic and host social connectedness, and build up ISs' perceived language proficiency; all of these have been identified as psychosocial-related protective factors for mental disorders above. Therefore, postsecondary education institutions need to develop more supporting services like the above-mentioned.

In counselling rooms, mental health professionals must identify racialized ISs' current coping strategies used, especially the emotion-targeted ones. Ra & Trusty have shown the effectiveness of the three types of coping strategies that Asian ISs usually used: emotional-targeted, task-targeted, and avoidance-targeted strategy [24]. Concerning acculturative stress, however, the association between emotional-targeted stress coping and acculturative stress level was positive among Asian ISs, while its associates with the other two coping strategies were both negative [24]. Namely, there were risks for Asian ISs to add on extra acculturative stress if they cope with an emotion-targeted strategy. Therefore, counsellors are expected to learn inappropriate coping strategies, identify ISs' current coping strategies, state negative outcomes of exerting inappropriate coping strategies, and develop coping strategies that are most adaptive for IS clients.

Last but not least, the intervening effect will be enlarged if professionals incorporate mindfulness practice

with their community-based and campus-wide mental health services and programs by enhancing ISs' ability to generate self-awareness and self-compassion and better regulate cognitively (i.e., emotion and thoughts). Several researchers unanimously claimed that IS with poor mindfulness skills were more likely to show pathological symptoms of depression and anxiety [6, 14, 17]. Researchers tested the efficacy of university-based mindfulness practice on improving ISs' psychosocial well-being respectively in the Netherlands and the United States, and almost all ISs who received mindfulness practices reported significantly better overall well-being compared to ISs in the control group over two months [6, 17]. Additionally, ISs' perceived discrimination and cultural distancing from the host country greatly declined after attending the programs [6, 17]. Although the mechanism and sustainability of the mindfulness practices require future investigation, mental health professionals are recommended to actively approach the IS population and provide mindfulness practices and psychoeducation on psychosocial development based on current studies.

4 Conclusion

International students are overall undergoing more mental health issues compared to domestic students which may result in lower life satisfaction and worse academic outcomes. Due to the alienation from the mainstream culture, they are exposed to three additional psychosocial stressors: 1) acculturative stress, 2) explicit and implicit discrimination and 3) interpersonal relationship/ intercultural social efficacy.

First, more acculturative stress may be added to the international students if they show low mindfulness level, large perceived cultural distancing, and low perceived host language proficiency. School fellows' lack of knowledge of challenges unique to international students can also make them feel more distressed from acculturation. Second, international students' mental disorders are also related to the perception of racism and discrimination which is greatly mediated by their cognitive distortion and excessive loneliness and anxiety. Third, high-quality interpersonal relationships with pre-existing social networks and social connectedness with the host culture help develop robust mental health conditions.

To prevent the mental health crisis among international college/university students from worsening, higher education institutions and mental health professionals should dedicate themselves to facilitating international students and school fellows to become aware of this issue. Specifically, professionals should produce tailored programs for psychoeducation and social connectedness within the larger racialized population on campus. Meanwhile, counsellors are expected to provide international student clients with more individualized counselling plans that can promote healthy interpersonal relationships, address misperceptions of culture distancing and language proficiency, and elevate the mindfulness level.

Despite the practical application value of this review and the general effectiveness of the above intervention on international students' mental disorders, some questions

remain unclear. For example, the particular type of intervention that is targeting at each psychosocial stressor, the differentiation and effectiveness of the psychosocial-oriented intervention for different mental disorders, and the components/mechanism that make the intervention psychosocially effective are unspecified. Therefore, it requires further investigation of the above topics to produce a less redundant, direct, flexible, and thorough interventional system.

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