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A COMPARATIVE STUDY OF IMPOSTER
SYNDROME BETWEEN HIGH-ACHIEVING
ASIAN FEMALE HIGH SCHOOL AND COLLEGE
STUDENTS IN THE U.S. AND TAIWAN



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A Comparative Study of Imposter Syndrome between High-Achieving Asian Female High School and College Students in the U.S. and Taiwan

Synopsis:

Imposter syndrome is a phenomenon that affects how individuals depict themselves, often delineated through feelings of inadequacy and incompetence despite external evidence of success and achievement. Imposter symptoms linger as students advance in their academic trajectory through high school and college in the U.S. and Taiwan. Each setting embodies its own unique environment and psychosocial stressors that may induce more pressure and tension than the other. The purpose of this study was to conduct a comparative analysis of the differences between perceptions of three domains of the imposter phenomenon (i.e., self, peers, and family values) among a sample of 108 Asian female high school and college students in the U.S. and Taiwan.

Abstract

This study is a preliminary report exploring the prevalence of imposter syndrome across three domains (i.e., self, peers, and family values) among a sample of 108 Asian American/Asian female high school and college students in the U.S. and Taiwan, with ages ranging from 15 to 22 years old. Research respondents were recruited online to complete a self-report questionnaire related to internalized barriers to recognizing success and achievement associated with self, peers, and family values. This study found that the country students resided in significantly affected the expression of imposter syndrome related to self, peers, and family values with U.S. students scoring higher on average than Taiwanese students. Education level only significantly affected the expression of imposter syndrome related to peers, with high school students scoring higher on average than college students. Implications and directions for future research can examine the interconnectedness of imposter syndrome related to self, peers, and family values, specifically if and how family values and peers may impact an individual's self-reported level of imposter syndrome. The manifold facets of imposter syndrome that contribute to its manifestation, perpetuation, and mental health disparities in Asian American and Taiwanese students can provide a more comprehensive understanding of culturally informed interventions and practices to unmask imposter syndrome across the world.

Keywords: Asian, Asian Americans, Taiwan, female, high school, college, imposter syndrome

A Comparative Study of Imposter Syndrome between High-Achieving Asian Female High School and College Students in the U.S. and Taiwan

Clance and Imes (1978) first coined the term “imposter phenomenon” to inform “an internal experience of intellectual phoniness” (p. 241). It primarily concerned psychological exposure to lingering perceptions of oneself as an intellectual fraud (Clance, 1985). Likewise termed the “imposter syndrome,” this phenomenon rendered it difficult to ascribe success to intrinsic intellect and raw talent. Despite external evidence of achievement, feelings of inadequacy and overall incompetence insidiously persisted (Cokley et al., 2013; Wyatt et al., 2019).

The accumulation of “laboratory, observational, and historical evidence revealed pervasive cultural associations linking men but not women with raw intellectual talent” (Leslie et al., 2015, p. 262). Firmly grounded sex roles and masculine traits entailed confidence and competence. In contrast, women were simultaneously bound to domestic realms, incapable of achieving the parallel success of their male counterparts (Kang et al., 2018). Clance and Imes’ (1978) pioneering study found that most “imposters” in a sample of primarily high-achieving White middle- to upper-class women of ages 20 to 45 were positioned in one of two family dynamics. The first involved women with “intellectual” siblings. Such women were explicitly or implicitly informed of their helplessness to succeed on a par with their siblings. The second included women compelled to believe and endorse their “superior” capacity. The confluence of self-doubt, internalized stress, and pressure to fulfill individual and family expectations were aggravated in light of indiscriminate praises and approvals. Clance and Imes (1978) also proposed four modes of behavior that contributed to the maintenance of imposter syndrome among women: 1) diligence and hard work, 2) intellectual flattery, 3) charm and perceptiveness, and 4) perpetuation of an intellectual phony image to eschew social rejection. The ubiquity of

imposter syndrome in women has also led to the underrepresentation of gifted females and the rise of male dominance in mathematics and science, dilating the STEM gap between genders (Reis, 2004).

In the United States, Asian Americans are cast as a “model minority,” rendering this population more vulnerable to feelings of imposterism. The most striking stereotype was an academic-oriented achievement, typically attributed to Asian Americans’ worth ethic, intellect, and perceived inherent universal success. Such positive stereotypes instigated pressure to perform and succeed and fear of failure in secondary and higher education. Bennion et al. (2018) found an increasing need to implement stress management interventions in light of intensified stress levels in collegiate environments. Exacerbated psychological distress and anxiety functioned as serious consequences of conforming to these standards and triggered imposter symptoms (Kwan, 2015; Le, 2019). Imposter syndrome also stemmed from insecurity and self-doubt amid the majority population despite Asian Americans’ “model minority” image. For women and ethnic and racial minorities, pervasive gender and racial stereotypes have evoked greater susceptibility to imposter feelings (Parkman, 2016).

The buildup of internal and external academic and psychosocial stressors, coupled with students’ transition to adulthood, proliferated the pressure to achieve academic excellence, increasing vulnerability to stress-related mental health outcomes (Conley et al., 2013; Reddy et al., 2018). In a relevant study, Cokley et al. (2013) found that imposter symptoms were particularly salient among Asian Americans in a sample of 240 self-identified ethnic minority college students between the ages of 17 and 30. Compared to African and Latinx Americans, who reported no significant ethnic differences in imposter feelings and psychological distress and well-being, Asian Americans reported the highest scores in imposter feelings and

psychological distress and the lowest in well-being. Cokley et al. (2013) posited that such high scores might be ascribed to the burden of contending with parental and societal expectations and other minority status-related stressors and experiences.

East Asian countries like Taiwan are known for the high importance placed on education. Students in Taiwan spend many hours of their day on education, with afterschool and weekend tutoring being a core part of many Taiwanese students' schedules. It is widely believed that succeeding in education means succeeding in the work aspect of life. As of the current era, many Asian American families consist of immigrant parents. Since the influence of cultural values is still strong, the importance of education is still pressed onto many Asian American children. But Asian American students and Taiwanese students face different family and work environments, which may result in different showings of the imposter syndrome.

Imposter syndrome has been well-researched as a prevalent phenomenon among high-achieving Asian American female students. The purpose of the present study was to compare the extent to which self-reported levels of imposter symptoms related to self, peers, and family values differed across four groups: 1) Asian female high school students in Taiwan, 2) Asian American female high school students in the United States, 3) Asian female college students in Taiwan, and 4) Asian American female college students in the United States.

Method

Participants

The sample consisted of 108 high-achieving Asian/Asian American female high school and college participants. Of the 108 participants, 54 (50%) lived in Taiwan and 54 (50%) lived in the United States, with ages ranging from 15 to 22 years. In each group of 54 students, 27 of each were college students and 27 were high school students. Each group of students received education in their respective countries.

Measures

Sociodemographic Characteristics. Participants reported their age, gender, race, ethnicity, education level, and institution name.

Mental Health Survey. The Mental Health Survey is a 15-item questionnaire used to assess students' perceptions of imposter symptoms across the domains of self, peers, and family values. Each item was rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), with greater scores yielding greater imposter syndrome-related symptoms. Three factors with eigenvalues greater than one were extracted, and construct validity was supported for this instrument, with the percent of explained variance calculated to be 72%. This measure has also indicated excellent internal consistency ($\alpha = .93$).

Data Analysis. A two-way ANOVA was performed to analyze the effect of education level (i.e., high school and college) and country (i.e., U.S. and Taiwan) on students' perceptions of imposter syndrome related to self, peers, and family values.

Results

A two-way ANOVA was performed to analyze the effect of education level (i.e., high school and college) and country (i.e., United States and Taiwan) on students' perceptions of imposter syndrome related to self, peers, and family values.

Students' Perceptions of Imposter Syndrome Related to the Self

As shown in Table 1, the two-way ANOVA revealed that there was no significant interaction between education level and country on imposter syndrome related to the self ($F(1,104) = .43, p > .05, \eta^2 = .01$). Simple main effects analysis showed that education level did not have a statistically significant effect on imposter syndrome related to the self ($F(1,104) = .05, p > .05, \eta^2 = .00$). Simple main effects showed that the country the students lived in did have a statistically significant effect on imposter syndrome related to the self ($F(1,104) = 8.48, p < .01, \eta^2 = .11$) as U.S. students ($M = 19.92, SD = 3.03$) reported a greater level of imposter syndrome among themselves than Taiwanese students ($M = 16.83, SD = 2.04$).

Table 1

Means, Standard Deviations, and Two-Way ANOVA Statistics for Students' Perceptions of Imposter Syndrome Related to the Self

| Source | Level | <i>M</i> | <i>SD</i> | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | η^2 |
|--------------------|-------------|----------|-----------|-----------|-----------|-----------|----------|----------|
| Level of Education | High School | 19.16 | 2.39 | .37 | 1 | .37 | .05 | .00 |
| | College | 17.20 | 2.86 | | | | | |
| Country | U.S. | 19.92 | 3.03 | 59.05 | 1 | 59.05 | 8.48** | .11 |
| | Taiwan | 16.83 | 2.04 | | | | | |
| Interaction | | | | 2.97 | 1 | 2.97 | .43 | .01 |
| Error | | | | 724.36 | 104 | 6.97 | | |
| Total | | | | 27941.00 | 108 | | | |

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

Students' Perceptions of Imposter Syndrome Related to Peers

As shown in Table 2, a two-way ANOVA revealed that there was no significant interaction between education level and country on imposter syndrome related to peers ($F(1,104) = 3.05, p > .05, \eta^2 = .04$). Simple main effects showed that education level did have a statistically significant effect on imposter syndrome related to the peers ($F(1,104) = 5.69, p < .05, \eta^2 = .07$) as high school students ($M = 18.03, SD = 3.40$) reported a greater level of imposter syndrome among themselves than college students ($M = 16.80, SD = 3.27$). Simple main effects showed that the country the students lived in did have a statistically significant effect on imposter syndrome related to the peers ($F(1,104) = 8.06, p < .05, \eta^2 = .10$) as U.S. students ($M = 17.31, SD = 3.70$) reported a greater level of imposter syndrome among themselves than Taiwanese students ($M = 12.17, SD = 1.72$).

Table 2

Means, Standard Deviations, and Two-Way ANOVA Statistics for Students' Perceptions of Imposter Syndrome Related to Peers

| Source | Level | <i>M</i> | <i>SD</i> | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | η^2 |
|--------------------|-------------|----------|-----------|-----------|-----------|-----------|----------|----------|
| Level of Education | High School | 18.03 | 3.40 | 66.39 | 1 | 66.39 | 5.69* | .07 |
| | College | 16.80 | 3.27 | | | | | |
| Country | U.S. | 17.31 | 3.70 | 93.97 | 1 | 93.97 | 8.06* | .10 |
| | Taiwan | 12.17 | 1.72 | | | | | |
| Interaction | | | | 35.52 | 1 | 35.52 | 3.05 | .04 |
| Error | | | | 1213.06 | 104 | 11.66 | | |
| Total | | | | 23264.00 | 108 | | | |

* $p < .05$

Students' Perceptions of Imposter Syndrome Related to Family Values

As shown in Table 3, a two-way ANOVA revealed that there was no significant interaction between education level and country on imposter syndrome related to family values ($F(1,104) = .45, p > .05, \eta^2 = .01$). Simple main effect analysis showed that education level ($F(1,104) = .99, p > .05, \eta^2 = .01$) did not have a statistically significant effect on imposter syndrome related to family values. Simple main effect analysis showed that country ($F(1,104) = 6.64, p < .05, \eta^2 = .09$) did have a statistically significant effect on imposter syndrome related to family values as U.S. students ($M = 17.77, SD = 5.49$) reported a greater level of imposter syndrome among themselves than Taiwanese students ($M = 12.50, SD = 4.97$).

Table 3

Means, Standard Deviations, and Two-Way ANOVA Statistics for Students' Perceptions of Imposter Syndrome Related to Family Values

| Source | Level | <i>M</i> | <i>SD</i> | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | η^2 |
|--------------------|-------------|----------|-----------|-----------|-----------|-----------|----------|----------|
| Level of Education | High School | 18.29 | 4.52 | 24.04 | 1 | 24.04 | .99 | .01 |
| | College | 15.20 | 4.97 | | | | | |
| Country | U.S. | 17.77 | 5.49 | 161.94 | 1 | 161.94 | 6.64* | .09 |
| | Taiwan | 12.50 | 4.97 | | | | | |
| Interaction | | | | 11.01 | 1 | 11.01 | .45 | .01 |
| Error | | | | 2538.12 | 104 | 24.41 | | |
| Total | | | | 24746.00 | 108 | | | |

* $p < .05$

Discussion

Students' Perceptions of Imposter Syndrome Related to the Self

The findings indicate that Asian American students reported a greater level of imposter syndrome related to the self than their Taiwanese counterparts, which can be attributed to differences in social culture. Mental health is stigmatized in Taiwan and many people do not talk about it. On the other hand, mental health is a very big topic in America and has found its way into mainstream media and discussions. Taiwanese students' lack of awareness regarding mental health may impact them in how they view themselves. They may not realize that they struggle with certain aspects related to the imposter syndrome.

Students' Perceptions of Imposter Syndrome Related to Peers

The findings indicate that high school students reported a greater level of imposter syndrome related to peers than college students. Some contributing factors may include the heightened competitiveness amongst high schoolers due to the widespread stress of college applications. Since a wide majority of high schoolers apply to college, many may fear falling behind others. Not all undergraduate students may apply for graduate school, leading to less stress and competitiveness between students.

The findings also indicate that Asian American students reported a greater level of imposter syndrome related to peers than Taiwanese students, which could be due to America's model minority myth. In America, Asian Americans face high expectations from their peers and educators due to the social myth that Asian Americans excel at academics. The failure to reach these expectations lead to feelings of self-doubt and insecurity. As the population in Taiwan is homogenous, there is no social myth of this kind in Taiwan. Taiwanese students are not expected by their peers to perform academically better due to race, so there may be less pressure received from peers.

Students' Perceptions of Imposter Syndrome Related to Family Values

The results demonstrate that Asian American and Taiwanese students perceive imposter syndrome differently regarding family values. Asian American students can be seen to rate higher scores of imposter syndrome regarding family values. This may be due to how Asian immigrant parents tend to place high expectations of academics onto their children. Many Asian immigrant parents immigrate to America for their children to lead better lives than themselves and see education as the pathway to do so. So many Asian immigrant families stress the importance of academics and place high expectations that their children may struggle reaching.

The high expectations from immigrant families may cause Asian American students to foster symptoms of imposter syndrome.

Limitations

Despite the strengths of this study in addressing imposter symptoms among an underrepresented minority in research, its limitations should also be considered and interpreted. The first major limitation is the primary method of sampling: convenience and snowball sampling. Such means of data collection render generalizability relatively low. There are also limited geographical differences as most students resided or attended school on the East Coast, specifically in New York. The relatively small sample can be expanded to include students spread across the United States. Many Taiwanese participants attended schools in Southern Taiwan. The relatively small sample can be expanded to include students spread across Taiwan.

Implications and Directions for Future Research

As illustrated in this study, there was a statistically significant effect found in U.S. and Taiwanese students' imposter syndrome self-ratings related to self, peers, and family values. Future research can explore if imposter syndrome regarding self, peers, and family values are interconnected and how they may influence each other. There is a high probability that peers and family values may impact an individual's perception of imposter syndrome regarding self. Future studies can also investigate other facets and characteristics that affect imposter syndrome's threshold and overall development and analyze disparities across groups and countries to better understand risk and protective factors and identify effective and culturally informed educational practices to overcome this syndrome.

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