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THE IMPACT OF ACCULTURATIVE STRESS ON PSYCHOLOGICAL WELLBEING AMONG SOUTH ASIAN ADOLESCENTS AND THE MODERATING EFFECT OF GENDER

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THE IMPACT OF ACCULTURATIVE STRESS ON PSYCHOLOGICAL WELL-BEING AMONG SOUTH ASIAN ADOLESCENTS AND THE MODERATING EFFECT OF GENDER

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ABSTRACT

THE IMPACT OF ACCULTURATIVE STRESS ON PSYCHOLOGICAL WELL-BEING AMONG SOUTH ASIAN ADOLESCENTS AND THE MODERATING EFFECT OF GENDER

Rafia Zahid Chaudhry

The South Asian community is one of the fastest-growing immigrant populations in the United States (SAALT, 2019), and yet, there is a paucity of research that examines their experiences with acculturation, particularly in relation to stress. Likewise, acculturative stress or the strain associated with cross-cultural exposure is especially salient during adolescence when ethnic identity formation tends to materialize (Goforth et al., 2014) Researchers have indicated that acculturative stress is associated with negative mental health trajectories (Miller De Rutté & Rubenstein, 2021); nevertheless, virtually few studies have examined the variables associated with acculturative stress, especially among South Asian youth. The aim of the present study was to (1) examine the effects of acculturative stress on psychological well-being (i.e., autonomy, competence, and relatedness) and life satisfaction among South Asian adolescents, (2) explore the association between acculturative stress and generational status, (3) investigate whether gender plays a moderating role. Utilizing a quantitative descriptive design, participants (n=55) from South Asian backgrounds between the ages of 18-22 years old were asked to complete an online questionnaire. Results from this study indicate that as levels of acculturative stress increased among the sample population, overall psychological well-being (i.e., autonomy satisfaction, competence satisfaction, relatedness satisfaction, and

life satisfaction) decreased while need frustration increased. Likewise, generational status was not found to be a significant predictor of acculturative stress among the sample population. Further, results revealed that gender did not play a moderating role in how acculturative stress impacts psychological well-being. These findings have important implications for research and practice, underscoring the significance of culturally responsive interventions in mental health and educational settings.

DEDICATION

This dissertation is dedicated to my loving parents, Fatima and Zahid Chaudhry, who are the beacons of light in my life. To my siblings, Hamzah Chaudhry, Hira Chaudhry, and Ahmad Chaudhry. In memory of my grandfather, Dr. Ghulam Nabi, who has been my greatest inspiration and paved the way for me to achieve my dreams. And in honor of the many immigrant children and families who work tirelessly to overcome challenges and pursue their dreams.

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CHAPTER 1

Introduction

The United States (U.S.) is one of the world's most racially and ethnically diverse nations, composed of approximately 46.6 million immigrants (Chandra et al., 2015). Demographic trends reveal that the U.S. continues to become more diverse, with the number of racial and ethnic communities growing exponentially each year (U.S. Census Bureau, 2020). One of the most rapidly growing ethnic communities includes Asian Americans (AA), with approximately 18.9 million AA calling the U.S. home (U.S. Census Bureau, 2020). Over the span of just two decades, the AA population has increased by 81% (Budiman et al., 2021). Included within the broad category of AA are South Asians (SA), with an estimated 5.4 mil-lion currently residing in the U.S., demonstrating a growth rate of approximately 40% between the years of 2010 and 2017 alone (SAALT, 2019). This increase in diversity has presented unique opportunities and challenges with far-reaching implications, especially within the context of schools. Nevertheless, little is known about the experiences of SA youth in schools, an area that continues to be empirically unaddressed. Specifically, there is a compelling need for greater systematic research in this area in order to address mental health needs and inform culturally responsive interventions in schools.

Context of South Asians in the United States

South Asians (SA) are individuals with ancestral roots in Pakistan, India, Bangladesh, Nepal, and Sri Lanka. Within this population, there is great diversity with respect to different religious affiliations, languages spoken, traditions, and sociopolitical histories (Tummala-Narra et al., 2016). However, SA also share common cultural values,

such as collectivist orientations, self-sacrifice, obedience to elders, deep-rooted loyalties to family (Bakhshaei & Henderson, 2016), and shared beliefs related to education, success, and mental health (Chandra et al., 2016).

SA began immigrating to the U.S. in 1965 as a result of the National Immigration and Naturalization Act for reasons including employment, educational provision, and family reunification (Tummala-Narra et al., 2016). Even so, approximately two-thirds of the SA community in the U.S. immigrated from their native countries after 1990, making most SA children first or second-generation immigrants (Tummala-Narra et al., 2016). Despite the steady increase of SA in the U.S., empirical literature on their mental health needs, culturally rooted psychological presentations, and acculturation experiences is limited (Chandra et al., 2016). Moreover, exceedingly little is known about the experiences of SA students, which is partly evidenced by their underutilization of mental health services (Tummala-Narra et al., 2016). In fact, studies conducted with South Asian adolescents (SAA) residing in the U.S. are almost non-existent, with a notable lack in the literature, especially regarding their school experiences (Tummala-Narra et al., 2016). As a result, inquiring about the experiences of SAA is critical for facilitating healthy developmental outcomes and mitigating the risk of adverse psychological outcomes. The focus on adolescence is particularly crucial, as researchers have indicated that it is an integral point in development; examining this period, especially within ethnically minoritized youth, can help better capture the complexity of their psychological needs (Tummala-Narra et al., 2016).

South Asian Adolescents (SAA)

Often hallmarked as a gradual transition into adulthood, adolescence is a critical period in development, divided into three main stages. These stages are composed of early adolescence (i.e., ages 10-13), middle adolescence (i.e., ages 14-17), and late adolescence (i.e., ages 18-22) (Tambelli et al., 2021). During this time, physical and cognitive changes are simultaneously occurring alongside developing a coherent self-identity, navigating new challenges, and increasing independence (Tambelli et al., 2021). For adolescents from immigrant-origin communities, additional challenges are present such as ethnic identity formation, acculturative stress, and conflicting cultural expectations between the home and mainstream cultures. South Asians, similar to other ethnic groups, emphasize maintaining aspects of their cultural values, often leading to growing up in "contrasting yet, parallel cultures," undergoing a periodical negotiation of their self-identities (Farver et al., 2002). Continually undergoing such experiences may impact identity development and a sense of belonging for SAA (Tummala-Narra et al., 2016). Findings from cross-cultural studies indicate that navigating a bicultural identity may "exacerbate normal developmental crises for second-generation immigrant adolescents," impacting their overall psychological well-being (Farver et al., 2002).

Chapter II

Literature Review

Acculturation

For adolescents from ethnically minoritized communities, such as SA, examining their experiences provides us with a better understanding of how they intentionally negotiate acculturation and navigate through numerous contexts (Tummala-Narra et al., 2016). Primarily because acculturation orientations develop during adolescence (Hillekens et al., 2019), it is vital to examine contextual and developmental variables as they relate to the psychological well-being of SA students. Acculturation is defined as the process through which individuals acquire and integrate the beliefs, values, customs, and language of the host culture into the heritage culture (Berry, 2015). Acculturation occurs due to continuous contact between two or more distinct cultures, leading individuals into a state of negotiation where they must determine which aspects of the heritage culture they will maintain or forego (Driscoll & Torres, 2022). Earlier research favored unidimensional models of acculturation, which postulated that individual identities lie within a continuum, fluctuating from exclusively adapting to either the heritage or host culture (Ryder et al., 2000). However, these models discerned the acculturation process as inflexible, where the endorsement of one culture implied complete renunciation of the other (Ryder et al., 2000). Unidimensional models of acculturation have recently faced criticisms of only providing a fragmented illustration of the acculturative process, unable to conceptually capture the possibility of maintaining favorable dispositions towards multiple cultures (Ryder et al., 2000).

Consequently, several theorists have proposed bi-dimensional models of acculturation, which presume that individuals may have varying degrees of adherence to

heritage and host cultures (Berry, 2015). Bi-dimensional models are based on the

assumption that humans are capable of possessing a conglomerate of varying cultural

identities, allowing flexibility in the varying levels of adherence to heritage and host

cultures (Ryder et al., 2000). The most widely researched and supported model is John

Berry's bi-dimensional framework of acculturation (Ryder et al., 2000). According to

Berry, there are four modes of acculturation: (i) assimilation, which includes forgoing

one's heritage culture and adopting the host culture in its entirety (ii) separation, which

involves minimal affiliation with the host culture and greater maintenance of the heritage

culture (iii) integration, which includes maintaining values from the heritage culture

while adapting to the host culture and (iv) marginalization, not adhering to either the host

or heritage culture (Ryder et al., 2000; Berry, 2015). Moreover, recent research suggests

that integration or possessing a bicultural orientation, as described in Berry's model,

leads to more adaptive psychological outcomes than other orientations (Yoon et al.,

2013). Likewise, marginalization is associated with the most negative outcomes (i.e., an

increase in psychopathology), while integration and separation lead to intermediate

outcomes (i.e., a mix of positive and negative outcomes) (Chandra et al., 2016; Driscoll

& Torres, 2022).

Acculturative Stress

The process of acculturation brings forth a unique set of challenges that may be

more demanding for some groups or individuals than others (Farver et al., 2002).

Researchers have argued that the more significant the difference is between the host and

heritage cultures, the greater the likelihood of experiencing difficulties in psychological

functioning (Farver et al., 2002). The set of challenges accompanied by acculturation is

termed acculturative stress (Tummala-Narra et al., 2016), which is defined as stress induced by the adaptation to a new culture or cross-cultural exposure (Torres et al., 2012). Numerous factors can contribute to the development of acculturative stress, including challenges associated with accommodating two differing cultures, language barriers, legal status, minority status, and perceived discrimination (Potochnick & Perreira, 2010). Recent studies have found acculturative stress to be associated with maladjustment, psychosomatic symptomatology, and psychological distress, including anxiety, depression, hopelessness, suicidal ideation, and feelings of alienation (Driscoll & Torres, 2022; Tummala-Narra et al., 2016). Specifically, Driscoll & Torres (2013) found that acculturative stress was associated with increased severity of depressive symptoms among Latine populations. Similarly, Hwang and Ting (2008) examined the impact of acculturative stress on AA college students and found that acculturative stress increased the risk for psychological distress and perceptions of stress. Ever present in many ethnic minoritized communities, acculturative stress impacts more than just overall psychological functioning; studies have found that it plays a significant role in shaping family dynamics.

Indicatively, for adolescents from ethnically minoritized communities, the impact of acculturative stress may manifest distinctively, such as cultural conflicts at home and ethnic victimization/bullying in school (Bayram et al., 2021). For example, adolescents tend to acculturate more rapidly than their parents, which may be due to prolonged contact with the host culture through school exposure and peer relationships (Bayram et al., 2021). Differences in the levels of acculturation between parents and children are known as acculturative gaps; these gaps may lead to a misinterpretation of one another's

values and increased family stress (Chandra et al., 2016). Parents may impose the heritage culture's expectations onto their children and may not support them in adopting contrasting practices and values from the host culture. Studies conducted with adolescents from ethnic minority communities found that most adolescents preferred to assimilate into the host culture; simultaneously, their parents expected them to maintain their heritage culture; this disparity in cultural expectations and values led to an increase in overall stress (Cordova et al., 2014).

Findings from a meta-analysis revealed that acculturative gaps had an adverse effect on family dynamics and were related to a decrease in overall psychological well-being (Lui, 2015). Nevertheless, experiences of acculturative stress differ depending on the individual, group, and developmental time period. Acculturative stress "tends to be more pronounced during adolescence, when immigrant youth are forming their ethnic identities and determining their role in a cultural group" (Goforth et al., 2014). It is also noteworthy to recognize that each ethnic group experiences acculturative stress in unique ways and that the acculturation experiences of SA youth may vary from those of other ethnically minoritized youth (Tummala-Narra et al., 2016).

Context of Acculturation for South Asian Adolescents

In SA cultures, adolescence is recognized as an expansion of childhood (Tummala-Narra et al., 2016). In contrast, according to Western norms, adolescence is viewed as a period of increased independence and autonomy; this distinction may pose challenges (Tummala-Narra et al., 2016). Research on SA living in the U.S. suggests that they have a propensity to maintain central values from the heritage culture while adapting to more pragmatic aspects of the host culture (Inman et al., 2001). Current literature

suggests that SAA are constantly competing between two contradicting cultural value systems with critical disparities, including the navigation between individualistic (i.e., Western) and collectivist (i.e., South Asian) ideals and differing gender role socializations (Zaidi et al., 2016). Cultures that value individualism, like that of the U.S., emphasize the needs of the individual above those of the group; while cultures that value collectivism, such as SA cultures, emphasize the needs of the family and community above any one person (Zaidi et al., 2016). SA youth are expected to be self-sacrificing, with the needs, integrity, and honor of the family superseding those of the individual (Chandra et al., 2016). As part of the collectivist ideology, SA parents have high expectations from their children, who are responsible for increasing family pride through educational attainment, which is the most favored means of enhancing social class (Chandra et al., 2016). Failing to meet parental academic expectations can result in bringing dishonor and shame upon the family, leading to increased internal turmoil for the child (Chandra et al., 2016).

Experiencing conflicting cultural values and expectations between host and native cultures can be incredibly taxing for adolescents, contributing to a disruption in identity integration, low self-esteem, poor school performance, and an increase in internalizing symptoms (Farver et al., 2002). In a rare qualitative study with SAA, findings suggested that navigating across differing cultures at home and school led to a lack of integration in SAA's sense of self; adolescents reported an increase in distress due to presenting with dual identities across contexts (Tummala-Narra et al., 2016).

Gender-Related Acculturation Factors

The acculturation process is strongly influenced by gender-based cultural expectations, resulting in different levels of perceived acculturative stress among males and females (Chandra et al., 2016). Cross-cultural studies and researchers (Berry et al., 1987) indicate that females report greater levels of acculturative stress than males (Greenwood et al., 2017). Research on SA gender role socialization often portrays gender norms rooted in patriarchal and hierarchical structures. This includes gender-specific expectations, such as stronger psychological pressure on female family members to uphold identities that conform to traditional norms (Zaidi et al., 2016); females often bear the inordinate responsibility of preserving the culture (Inman, 2006). Researchers have elucidated that this asymmetrical responsibility falls on females because family honor is reflected through the behaviors of its female members (Bakhshaei & Henderson, 2016). The pressure of upholding these norms, alongside the close monitoring of female behaviors by community and family members, is often a cause of contention for SA females (Masood et al., 2009), negatively impacting their psychological well-being (Zaidi et al., 2016).

Alternatively, close supervision may bring forth unanticipated benefits for female youth. Studies have shown that females from ethnic minorities have higher educational aspirations, higher educational attainment, and more positive attitudes towards school than males (Qin-Hilliard, 2003); this may result from school being one of the few acceptable settings for socializing beyond the watchful gaze of family and community members (Bakhshaei & Henderson, 2016). Positive outcomes have also been linked to the internalization of cultural messages regarding values of family honor, which can be

achieved through academic success, motivating girls to maintain good grades in an endeavor to bring honor to the family. It is noteworthy to mention that due to positive academic outcomes and an avoidance of help-seeking in order to maintain family honor and avoid stigma, SA female adolescents are often falsely perceived as being psychologically well-adjusted and presenting with more favorable acculturation outcomes (Bakhshaei & Henderson, 2016).

Simultaneously, SA females in the U.S. are socialized in a host culture with diametrically opposing values (Inman, 2006). In a study conducted with SA girls residing in Quebec, girls reported feeling torn; at home, values of communitarianism, interdependence, and sacrifice were emphasized, while in school, values of autonomy, independence, and self-determination were reiterated. (Bakhshaei & Henderson, 2016). Persistent mixed messages may lead to cultural value conflicts –a facet of acculturative stress–consisting of negative affect and cognitive discrepancies that result from opposing value/behavioral expectations (Inman, 2006). Recent studies examining the impact of cultural value conflicts on SA females indicate that cultural value conflicts are associated with increased anxiety and difficulties adjusting to host and heritage cultures (Inman et al., 2001).

Likewise, current literature on SAA living in the U.S. has emphasized gender as a crucial factor in determining mental health outcomes (Inman et al., 2001). A qualitative study by Masood and colleagues (2009) revealed that SA women living in the U.S. reported experiencing more significant psychological distress than SA males (Masood et al., 2009). Similarly, a qualitative study with SA girls revealed that girls expressed a desire to fit in with their peers and share experiences synonymous with American cultural

norms; however, this desire also led to heightened anxiety and fear of disappointing their parents (Thakore-Dunlap & Velsor, 2014). Likewise, differing gender role expectations among ethnically minoritized youth contribute to varying developmental, psychological, and educational achievement outcomes (Bakhshaei & Henderson, 2016).

Acculturative Stress in Schools

Research has increasingly focused on the implications of acculturative stress on adults from ethnically minoritized groups, but little is known about its impact on adolescent psychological functioning, especially within the context of schools (Albeg & Castro-Olivo, 2014). A study conducted with a sample of Hispanic adolescents revealed that higher levels of acculturative stress were associated with poor academic achievement and negatively impacted self-esteem (Albeg & Castro-Olivo, 2014). Likewise, research exhibits a link between acculturative stress and a multitude of negative outcomes including internalizing and externalizing problems, disinterest in school, an inability to focus (Abu Khalaf et al., 2022), low self-esteem, poor academic achievement and engagement, and an overall decrease in life satisfaction among youth from minoritized communities (Ahmed et al., 2011).

Acculturative stress in schools also presents as racial and ethnic discrimination. According to the APA, discrimination is the disadvantageous treatment of a group or individual based on their characteristics (American Psychological Association, 2019). These experiences are especially salient for SAA, who have historically experienced discrimination due to marginalized aspects of their identities, including race, religion, language, and immigration status (Kaduvettoor-Davidson & Inman, 2013). Additionally, socio-political circumstances in the U.S. — such as the aftermath of the 9/11 attacks—

have incited an increase in discrimination, making SA's the target of hate crimes, prejudice, verbal abuse, and physical assault (Kaduvettoor-Davidson & Inman, 2013). For SAA, like many of their minoritized counterparts, subtle and overt experiences of discrimination become a normative part of daily life. Nevertheless, repeated discriminatory experiences can be especially disconcerting during adolescence because it is a critical developmental period in which individuals undergo identity formation. In a qualitative study investigating the experiences of ten second-generation SAA females, findings suggested that racial discrimination was especially damaging to psychological well-being, inciting a lack of belongingness (Rajiva, 2006). Similarly, studies have found a significant relationship between perceived discrimination, acculturative stress, and psychological distress among ethnically minoritized adolescents (Ahmed et al., 2011).

Apart from discrimination, school-related acculturative stressors include parent-child acculturative gaps, challenges with home-school communication, language barriers, coping with opposing values such as collectivist vs. individualistic ideologies, and pressures to adhere to model minority expectations (Kaduvettoor-Davidson & Inman, 2013; Thakore-Dunlap & Velsor, 2014). An amalgamation of these challenges puts SAA at a higher risk for mental health concerns compared to other populations (Tummala-Narra et al., 2016). Preliminary findings from one study revealed differences in the impact of acculturative stress and psychological well-being across subgroups of Asian American adolescents (Yeh, 2003). These differences may, in part, be due to varying cultural expectations and lived experiences of ethnic groups, warranting closer cross-cultural examination. Moreover, although SAA undergo acculturative stress, their

experiences have largely been overshadowed by their academic success and misleading perceptions related to the model minority myth (Kaduvettoor-Davidson & Inman, 2013).

<div align="center">**Mental Health among South Asian Adolescents (SAA)**</div>

Psychological Functioning

Considering the impact of acculturative stress and the challenges discussed above, it is not surprising that SA's living in the U.S. are experiencing an increase in adverse psychological functioning (Karasz et al., 2019). According to the South Asian Public Health Association (2020), one in five SA's report experiencing a mood or anxiety disorder in their lifetime, which is often precipitated by acculturative risk factors (Karasz et al., 2019). Further, research has demonstrated that SA's fail to utilize mental health services due to the cultural stigma associated with mental illness and the lack of culturally responsive providers (Karasz et al., 2019). Empirical investigations of SA populations are a gradually expanding endeavor; current research has focused exclusively on psychiatric symptoms (i.e., depression and anxiety) (Chandra et al., 2015). Additionally, outcomes of acculturative stress on mental health have predominantly been investigated through a framework of psychopathology, which Berry argues is the result of the inclination to pathologize the acculturation process (Berry, 2005). Cross-cultural researchers contend that traditional models of psychopathology may not adequately capture the mental health needs of ethnic minority populations (Albeg & Castro-Olivo, 2014). Moreover, the lack of systemic investigations on psychological well-being, especially among adolescents from minoritized groups, presents a long-existing gap in knowledge. To date, empirical investigations of psychological well-being among SAA are virtually absent.

Within the context of adolescent development, psychological well-being involves the adolescent's capability to navigate developmental challenges while successfully interacting with the environment and exhibiting autonomy in behavior and choice (De-Juanas et al., 2020). A principal component of psychological well-being is life satisfaction. Life satisfaction is defined as an individual's overall evaluation of their quality of life (Diener, 1994). Evidence from the literature indicates that life satisfaction plays a vital role in adolescents' healthy academic, psychological, and social functioning (Hashim & Areepattamannil, 2017). Likewise, cross-sectional studies on life satisfaction indicate that higher life satisfaction among adolescents is linked to improved mental health and academic outcomes (Suldo & Shaffer, 2008). Similarly, reviews on youth life satisfaction reveal that positive life satisfaction is linked to increased school engagement, academic achievement, and positive mental health outcomes (Michele et al., 2012).

Mental Health by Acculturation

Literature on the outcomes of acculturative stress has demonstrated a strong link between acculturative stress and negative mental health trajectories; in a systematic review exploring the impact of acculturative stress on mental health, 81.2% of the 32 articles reviewed found that acculturative stress led to an increase in depression, anxiety, and stress within Latine populations (Miller De Rutté & Rubenstein, 2021). To date, research has largely examined the impact of acculturative stress on adults, with limited studies investigating its impact among adolescents. The scarce studies conducted with adolescents revealed that acculturative stress was positively associated with depressive symptoms, anxiety, and low self-esteem (Romero & Roberts, 2003). Similarly, search results from databases yielded only one result related to the acculturative experiences of

SAA. This qualitative study revealed that SA youth identified gender socialization, stereotyping, discrimination, and the discrepancy between home and school expectations as sources of acculturative stress, which posed risks to their overall well-being (Tummala-Narra et al., 2016). Nevertheless, key questions remain unanswered, especially in examining the acculturation experiences and psychological well-being of SA youth.

Chapter III

Present Study

Research on acculturation has repeatedly shown a link between acculturative stress and an array of negative mental health outcomes, including depression, anxiety, and psychosomatic symptoms (Miller De Rutté & Rubenstein, 2021). Likewise, acculturative stress has been linked to poor academic outcomes among students from ethnically diverse backgrounds (Albeg & Castro-Olivo, 2014). Nevertheless, limited studies have explored the role of acculturative stress on psychological well-being while examining important moderating factors such as gender (Klein et al., 2020); this is especially true for SAA, who are often overlooked because of positive stereotyping (Tummala-Narra et al., 2016). Moreover, psychological well-being as it relates to life satisfaction and its implications in schools among SAA has not yet been empirically investigated. As such, the aim of the present study was to address the following research questions to fill these gaps:

1. Is there an association between acculturative stress and overall psychological well-being? Based on previous findings (Tummala-Narra et al., 2016) it is hypothesized that SA students with higher levels of acculturative stress will display lower levels of psychological well-being.

2. Are higher levels of acculturative stress linked with lower levels of well-being sub-domains of autonomy, competence, and relatedness satisfaction? It is hypothesized that acculturative stress will be linked to lower levels of autonomy, competence, and relatedness satisfaction among SAAs and higher levels of need frustration.

3. Is there an association between acculturative stress and generational status? It is hypothesized that each subsequent generation will report lower levels of acculturative stress than earlier generations.

4. Is there an association between acculturative stress and overall life satisfaction among SAA? Based on research (Albeg & Castro-Olivo, 2014) it is hypothesized that acculturative stress will be predictive of lower student life satisfaction among SAAs.

5. Is there an association between acculturative stress and school life satisfaction among SAAs? Based on research highlighting the importance of education for SA youth (Chandra et al., 2016), it is hypothesized that there will be a positive association between acculturative stress and school-life satisfaction.

6. Is the association between acculturative stress and psychological well-being moderated by gender among SAA? The literature suggests that the association between acculturative stress and mental health is moderated by gender (Greenwood et al., 2017). It is hypothesized that females will report higher levels of acculturative stress and lower levels of psychological well-being than males.

7. Is the association between acculturative stress, overall life satisfaction, and school life satisfaction moderated by gender among SAA? According to the research (Bakhshaei & Henderson, 2016), it is hypothesized that females will endorse lower overall life satisfaction and higher school life satisfaction than males.

Chapter IV

Methodology

Participants

The present study included a total of 55 South Asian participants, with an average age of 20 years old. Inclusion criteria required that participants be of South Asian ethnicity and between the ages of 18-22 years old. This age range was selected considering the developmental period of 18-22-year-olds, who have just completed high school and are within the transitional phase of late adolescence/emerging adulthood (Tambelli et al., 2021). Considering that this stage is characterized by greater overall stability and narrative coherence (Lind et al., 2020), as well as an ability to reflect upon recent experiences in high school. Most participants were 21 years old (n=19, 34%), followed by 20 years old (n=12, 21%), 19 years old (n=11, 19%), 22 years old (n=8, 14.3%), and 18 years old (n=6, 11%).

In terms of gender identity, the sample of participants identifying as female (n=36, 65%) was larger than the sample of participants identifying as male (n=18, 34%), with one participant identifying as other (n=1, 1%). Regarding sub-ethnicity or inter-group ethnic categories (Yan et al., 2019) among South Asians, the sample population was predominantly comprised of Indian (n=19, 34%), followed by Pakistani (n=18, 33%), Bangladeshi (n=14, 25%), Sri Lankan (n=2, 4%), and Nepali (n=2, 4%). Regarding total household yearly income, most participants reported $40,000 to $60,000 per year (n=12, 21%), followed by $140,000 and above (n=11, 20%), $60,000-$80,000 per year (n=10, 18%), $120,000-$140,000 (n=5, 9%), $80,000-$100,000 (n=5, 9%), $0-$20,000 (n=5, 9%). Four participants reported "other" as family income.

Regarding generational status, 52.7% (n=29) of the sample population endorsed that they were 2nd generation (one or both of their parents being born in a different country, while they were born in the U.S.). 32.7 % (n=18) endorsed that they were 1st generation (born in a different country and immigrating to the U.S. before the age of 6 years old); this was followed by 9.1 % (n=5) of the sample endorsing that they were 1.5 generation (born in a different country and immigrating to the U.S. between ages 6-18 years). For the third generation, 3.8% (n=2) endorsed that they were a part of this group (their grandparents immigrated to the U.S. and subsequent generations were born in the U.S.), while 1.8% (n=1) endorsed that they were 4th generation (grandparents and subsequent generations were born in the U.S.) (see Table 1 for complete participant demographic data).

Recruitment

For the present study, participants were recruited through convenience sampling; flyers (see Appendix A) were distributed, and intercept recruiting was conducted in person across Universities in the Metropolitan area, through religious (i.e., mosques, temples, churches) and community (South Asian Youth Action) organizations. Recruitment also included announcements across South Asian student associations (i.e., South Asian Students Association, Muslim Students Association, Pakistani Students Association, Hindu Students Council, etc.) among college campuses on the East Coast via e-mail (see Appendix B). Additionally, social media posts and electronic announcements were made within South Asian groups/organizations and online forums.

Further, studies on SA recruitment indicate that snowball sampling is a beneficial method to utilize among this population (Quay et al., 2017), which was employed to

maximize recruitment. Participants were asked to forward the flyer to acquaintances who may potentially be interested in partaking in the study. Additionally, participants were informed that upon completion of the survey, 25 randomly selected participants would be eligible to win a $20 Amazon gift card, as a monetary incentive.

Procedures

Data was collected electronically via Google Forms for the duration of six months, starting from January 30th, 2023, and concluding on June 30th, 2023. A briefing of the study and informed consent were included in the survey (see Appendix C). Upon completion of the electronic consent form, participants were able to complete the online questionnaire consisting of a sociodemographic questionnaire (Appendix D), acculturative stress measure (SAFE-SF, Mena et al., 1987; Appendix E), psychological well-being measure (BPNSFS, Chen et al., 2015; Appendix F), and quality of life measure (BMSLSS; Huebner et al., 2003; Appendix G). Participants were informed that the questionnaire would take approximately 15-20 minutes to complete. Participants' email addresses were entered into a random generator, and the first twenty-five emails drawn were recipients of a $20 Amazon gift card.

Measures

Demographic Questionnaire. A twelve-item questionnaire was provided to obtain demographic information from participants. Items inquired upon information regarding age, ethnicity, generational status, length of time in the U.S., class standing (e.g., freshman, sophomore, junior, senior), current grade point average (GPA), socioeconomic status, living arrangements, language, religion, gender identity, and how participants found out about the study.

Societal, Academic, Familial, & Environmental Acculturative Stress Scale.

Perceptions of acculturative stress were measured through the SAFE-SF, which was designed to measure stressors related to acculturation across the contexts of society, school, family, and the environment (Mena et al., 1987). Participants were asked to rate 24 items related to the extent to which they perceive acculturative stress in their daily lives (e.g "People look down upon me if I practice customs of my culture") on a likert scale ranging from 0 ("have not experienced") to 5 ("extremely stressful"). The SAFE-SF has been used with ethnically diverse populations, including Asian Americans (Akoury et al., 2019) and Latine populations (Fuertes & Westbrook, 1996), displaying strong psychometric properties. The SAFE-SF has demonstrated strong reliability and convergent validity; Cronbach's Alpha in the original studies was reported to be .89 (Mena et al., 1987). Mena and colleagues (1987) found moderate correlations between the SAFE and participants' responses to interview questions (Mena et al., 1987).

Basic Psychological Needs Satisfaction and Frustration Scale. The BPNSFS (Chen et al., 2015) scale is a self-report measure used to assess the satisfaction and frustration of the three psychological needs outlined within the self-determination theory (SDT): autonomy, competence, and relatedness. Participants were asked to rate 24 items (e.g., "I feel confident that I can do things well"; "I feel connected with people who care for me, and for whom I care.") on a five-point Likert scale ranging from 1 (not true at all) to 5 (completely true). The BPNSFS has been adapted cross-culturally and demonstrates that autonomy, competence, and relatedness are universal psychological needs (Chen et al., 2015). In the original study, the BPNSFS was utilized with adolescent students across culturally diverse samples, internal consistency and reliability were established, with

Cronbach's alphas ranging between .64 and .89 across sub-scales and samples (Chen et al., 2015).

Brief Multidimensional Students' Life Satisfaction Scale. Psychological well-being within the school context was measured through the BMSLSS (Huebner et al., 2003), a 6-item self-report assessing students on six domains of overall life satisfaction (family, friendships, self-satisfaction, school, living environment, and overall life satisfaction). Participants were asked to rate their satisfaction in each area (e.g., "I would describe my satisfaction with my family life as") on a 7-point likert scale ranging from 1 (terrible) to 7 (delighted). The BMSLSS has been utilized extensively across cross-cultural samples (Fang et al., 2021). Huebner and colleagues (2003) contend that the BMSLSS demonstrates adequate internal consistency and reliability with a coefficient alpha of 0.75 and relatively strong criterion-related validity (r = 0.66).

Analysis

All analyses were completed in Jamovi version 2.3 (2022). For these analyses, the assumptions of normality were met based on the analysis of Q-Q plots and Shapiro-Wilk's W test (p=0.482). Assumptions of collinearity were also tested through the Tolerance and Variance Inflation Factor (VIF) criteria. All VIF were near 1.0, and tolerance was 1.0, indicating an absence of collinearity. The Durbin–Watson Test for Autocorrelation was conducted to examine the presence of autocorrelations; no autocorrelations were observed (d=2.1).

Initially, a reliability analysis was conducted to ensure the validity of items on the SAFE-SF. To facilitate data visualization, descriptive statistics were provided on variables of interest (demographic variables, independent variables, and dependent

variables). Hypotheses were examined through the use of simple linear regression. The following regression analyses were performed: Psychological Well-Being (basic psychological needs satisfaction and frustration) was regressed on Acculturative Stress; Life Satisfaction (BMSLSS) was regressed on Acculturative Stress; Generational Status was regressed on Acculturative Stress. Additionally, a moderation analysis was performed to assess whether gender moderates the relationship between acculturative stress and psychological well-being (Interaction Term= Psychological Well-Being * Gender) and on acculturative stress and Life Satisfaction (Interaction Term= Life Satisfaction * Gender).

Chapter V

Results

Reliability Analysis of the SAFE-SF

Given the age of the SAFE-SF and potentially unrelated items, a reliability analysis was performed to ensure consistency and validity of the items. The internal reliability of the 24-item scale was investigated using Cronbach's Alpha. The total reliability of the SAFE-SF was excellent (α= 0.929) (see Table 2). Further, examination of individual items suggested excellent reliability, with Cronbach's alpha for each item being greater than 0.91. The high internal reliability estimates suggest that the SAFE-SF is a reliable and valid measure of acculturative stress among the sample population.

Linear Regression & Correlation Matrices

To address the first question and examine the association between levels of acculturative stress and psychological well-being among South Asian students, a simple linear regression was performed. The first model (see Table 3) was statistically significant ($F(1,53)$= 33.4, p= < .001), suggesting that levels of acculturative stress are predictive of global psychological well-being among the sample population. The R^2 value was 0.386, indicating that acculturative stress explained approximately 38.6% of the variance in psychological well-being.

Simple linear regressions were performed to examine the relationships between levels of acculturative stress and sub-domains of psychological well-being (autonomy satisfaction, competence satisfaction, and relatedness satisfaction). Additionally, correlation matrices were computed, given the domain-specific composition of the BPNSFS, which can be classified under six separate components: three for need satisfaction and three for need frustration. Together, these sub-domains comprise a

psychological needs satisfaction component and a psychological needs frustration component. Pearson's correlational coefficients were obtained (see Table 4) to assess the relationship between acculturative stress and psychological need satisfaction/need frustration among the sample population.

Considering a p-value of .05 was used to determine statistical significance, acculturative stress was not associated with autonomy satisfaction ($F(1,53)=0.392$, $p=0.534$). However, a weak negative correlation was observed between the two variables ($r=-0.086$, N=55), suggesting that autonomy satisfaction slightly decreases among the sample population as acculturative stress increases. Likewise, as acculturative stress increases, competence satisfaction slightly decreases among the sample population. The relationship between acculturative stress and competence satisfaction was not significant ($F(1,53)=1.04$, $p=0.312$); however, there was a weak negative correlation between the two variables ($r=-0.139$, N=55). This suggests that levels of acculturative stress are not related to levels of well-being in sub-domains of autonomy and competence among the sample population. Contrastingly, a significant association was found between acculturative stress and relatedness satisfaction ($F(1,53)=4.62$, $p=0.036$) (see Table 3); however, there was a weak negative correlation between ($r=-0.283$, N=55) between the two variables, suggesting that as acculturative stress increases, relatedness satisfaction decreases among the sample population.

A significant association was found between acculturative stress and autonomy frustration ($F(1,53)=26.7$, $p=<.001$), with a moderate positive correlation ($r=0.579$, N=55) between the two variables, indicating that as acculturative stress increases, autonomy frustration increases. A significant association ($F(1,53)=30.8$, $p=<.001$) was also found

between acculturative stress and competence frustration among the sample population. There was a strong positive association between acculturative stress and competence frustration (r= 0.606, N=55), suggesting that as acculturative stress increases, competence frustration increases. Similarly, a strong positive association was found between acculturative stress and relatedness frustration (r= 0.675, N=55); this association was significant $(F(1,53)=44.3, p=<.001)$, indicating that as acculturative stress increases, relatedness frustration increases among the sample population.

A simple linear regression was performed to analyze the association between acculturative stress and generational status. Generational status was not statistically significant in the prediction of acculturative stress $(F(1,53)= 2.21, p= 0.143)$, suggesting that the generational status of South Asian adolescents in this sample does not impact their level of acculturative stress. The R^2 value was 0.040, indicating that acculturative stress explained 4% of the variance in generational status among the sample population.

To address the fourth question and analyze the association between acculturative stress and life satisfaction, a simple linear regression was performed. Acculturative stress was found to be a significant negative predictor of life satisfaction $(F(1,53)=18.1, p=<.001)$, suggesting that acculturative stress negatively impacts life satisfaction among South Asian students. The R^2 value was 0.254, indicating that acculturative stress explained approximately 25.4% of the variance in life satisfaction.

To assess whether there is an association between acculturative stress and school life satisfaction among South Asian students, a simple linear regression was performed. The model was statistically significant, and a negative association was found between acculturative stress and school life satisfaction $(F(1,53)=9.08, p=0.004)$, indicating that as

acculturative stress increases, school life satisfaction decreases among South Asian students. The R^2 value was 0.146, implying that acculturative stress illustrates 14.6% of the variance in school life satisfaction.

Moderation Analyses

To address the sixth and seventh questions and examine the potential moderating role of gender in the association between (a) acculturative stress, (b) psychological well-being, (c) life satisfaction, and (d) school life satisfaction among South Asian students, three moderation models were constructed. Moderation analyses were conducted using the "medmod" package in Jamovi version 2.3. Results from these moderation analyses (see Table 5) indicated that the impact of acculturative stress on psychological well-being was not moderated by gender ($z=0.481$, $p=0.630$), suggesting that gender does not play a significant role in how acculturative stress impacts psychological well-being. Similarly, the association between acculturative stress and life satisfaction is not moderated by gender ($b=0.009$, $SE=0.071$, $p=0.895$)(see Table 6), indicating that gender does not influence how acculturative stress impacts life satisfaction among South Asian adolescents. Additionally, gender did not play a significant role in the association between acculturative stress and school life satisfaction ($b= -0.0037$, $SE=0.017$, $p=0.824$), suggesting that the effect of acculturative stress on school life satisfaction is not influenced by gender identity among the sampled population.

Chapter VI

Discussion

The present study sought to examine the impact of acculturative stress on psychological well-being among South Asian adolescents and the extent to which gender identity plays a moderating role. In relation to adolescent development theories (Bae, 2020), psychological well-being was conceptualized into two parts: (I) Basic Psychological Need Satisfaction and Frustration and (II) Life Satisfaction. To understand the association between these variables and the moderating role of gender, hypotheses were examined through a series of simple linear regressions, correlation matrices, and moderation analyses. Additionally, given that the SAFE was originally developed in 1987 to measure acculturative stress among immigrant populations (Suh et al., 2016), a reliability analysis was performed to ensure internal consistency. Comparable to previous studies (Akoury et al., 2019), items on the SAFE demonstrated excellent reliability (a=0.929) and consistency among the current sample population.

The first hypothesis asserted that South Asian adolescents with higher levels of acculturative stress would endorse lower levels of global psychological well-being as measured by the BPNSF. Concordant with this hypothesis, a significant association was found between acculturative stress and psychological well-being, suggesting that levels of acculturative stress are predictive of overall psychological well-being. This finding aligns with the existing literature, as acculturative stress has repeatedly been linked with negative mental health outcomes among immigrant populations (Miller De Rutté & Rubenstein, 2021) and is particularly salient during adolescence when ethnic identity formation tends to materialize (Goforth et al., 2014). Likewise, acculturative stress

accounted for approximately 38.6% of the variance in psychological well-being among the sample population. The proportion of variability in global psychological well-being may be attributed to acculturative stress; however, other factors not accounted for by the SAFE may contribute to changes in psychological well-being.

Subsequently, global psychological functioning, as measured by the BPNSF, is comprised of six sub-domains, three for psychological need satisfaction (i.e., autonomy, competence, and relatedness) and three for psychological need frustration (i.e., autonomy, competence, and relatedness). Within the context of adolescent development, autonomy refers to the adolescents' volition in choices and behaviors, while competence is delineated as the adolescent's effectiveness in performing tasks, and relatedness is defined as the adolescent's need for connection with others (Ryan et al., 2020). It was hypothesized that acculturative stress would be associated with lower levels of need satisfaction (i.e., autonomy, competence, and relatedness) and higher levels of need frustration (i.e., autonomy, competence, and relatedness). Interestingly, acculturative stress was not significantly associated with autonomy satisfaction and competence satisfaction; however, correlations between these variables were found to be in the theoretically predicted direction. Likewise, the weak negative correlation between acculturative stress, autonomy satisfaction, and competence satisfaction suggests that as levels of acculturative stress increased among the sample population, autonomy satisfaction, and competence satisfaction slightly decreased. These results are aligned with previous literature, which has suggested that acculturative stress impairs psychological need satisfaction and facilitates need frustration among immigrant children (Ren & Jiang, 2021).

Notably, of the three need satisfaction sub-domains, relatedness satisfaction was found to be significant and negatively associated with acculturative stress, suggesting that as acculturative stress increased, feelings of belonging and connection to others decreased among the sample population. One determinant that may explain this finding is that acculturative stress is accompanied by the negotiation of cultural membership in multiple contexts and, often, a dual sense of self (Tummala-Narra et al., 2016). Recent research has indicated that as immigrant adolescents are undergoing ethnic identity formation, they are simultaneously navigating their belonging within the host and heritage cultures (Tummala-Narra et al., 2016). Not only do these experiences amplify acculturative stress, they also impact connectedness with others or relatedness satisfaction (Ren & Jiang, 2021).

Concordant with the hypothesis, similar findings were observed among the frustration sub-domains. It is important to note that the absence or presence of need satisfaction does not, by definition, imply the absence or presence of need frustration. Interestingly, a significant positive association was found between acculturative stress and the three frustration subdomains (autonomy, competence, and relatedness), suggesting that need frustration increases in conjunction with an increase in acculturative stress. An endorsement of need frustration indicates that participants in the sample population feel "isolated, pressured, conflicted, and dissatisfied" as a result of acculturative stress. This finding is consistent with previous studies on immigrant children, which demonstrated that acculturative stress is linked to an increase in need frustration and "psychological ill-being" (Ren & Jiang, 2021). Nevertheless, these results should be interpreted with caution, as they do not factor in alternative variables and

additional facets of stress (i.e., acute stress, chronic stress, academic stress) that may be contributing to need frustration among the sample population.

The third research question focused on the impact of generational status on levels of acculturative stress. Limited studies have explored these variables to date; notably, virtually no known studies have explored these variables among South Asian adolescents, and the few studies that have delved into generational effects suggest conflicting results (Inman et al., 2014; Chandra et al., 2015). Based on the literature, it was hypothesized that subsequent generations would report lower levels of acculturative stress than earlier generations. Findings from this study suggest that generational status was not a significant predictor of acculturative stress among the sample population. This finding may be due to the lack of variability in participants generational status among the sample population. Approximately 51.8% of the sample population was comprised of participants identifying as second-generation immigrants (i.e., both of their parents were born in a different country and they were born in the U.S.), while 32.1% of the participants identified as first generation (i.e., they were born in a different country and immigrated to the U.S. before the age of six). Given the largely homogenous nature of the sample population, results should be interpreted with caution as significant generational effects were not found. This finding may also be related to shifts in sociopolitical circumstances and subsequent generations appraisals of acculturative stressors (Lueck & Wilson, 2011); as the literature indicates that multiple socio-ecological factors (i.e., sociopolitical circumstances, shifts in policy, etc.) may contribute to experiences of acculturative stress (Borrego et al., 2019). Nonetheless, future studies, including an

extensive sample size and adequate generational representation, would allow for a more comprehensive analysis of generational differences and the role of acculturative gaps.

The fourth research question sought to analyze the association between acculturative stress and overall life satisfaction. Congruent with the hypothesis, acculturative stress was found to be a significant negative predictor of overall life satisfaction among the sample population. These results correspond closely with previous findings in which participants from multicultural backgrounds demonstrated that as acculturative stress increases among participants, life satisfaction decreases (Kim & Suh, 2021). Explanations for this finding may be related to several intricacies, including internal and contextual factors, some of which include the development of a bi-cultural ethnic identity, social adjustment, high parental expectations, and experiences of discrimination (Moksnes et al., 2016; Tummala-Narra et al., 2016). Notably, however, acculturative stress accounts for approximately a quarter of the fluctuation in life satisfaction, indicating that alternative factors are also of influence. Future studies should explore the role that other factors (i.e., coping strategies, social support, socioeconomic status, self-esteem, etc.) may potentially have on life satisfaction among South Asian adolescents (Cho & Lee, 2023). Nonetheless, these findings are indicative that the acculturative experiences of the sample population are analogous to those of other ethnic minorities.

Similarly, a significant negative association was found between "school" life satisfaction and acculturative stress among the sample population, indicating that as acculturative stress increases, school life satisfaction decreases. To date, no known studies have investigated the association between acculturative stress and school life

satisfaction. Nonetheless, because "school interactively contributes to identity and psychosocial adjustment" (García Coll & Marks, 2012), it is not surprising to find that acculturative stress permeates into school life satisfaction. There may be numerous plausible explanations for this finding, including cultural pressures to excel academically (Tummala-Narra et al., 2016), racially and ethnically discriminating experiences within schools (Kaduvettoor-Davidson & Inman, 2013), and appraisals of belongingness within the school community (Rajiva, 2006). This finding is critical as it calls to attention the challenges that South Asian adolescents experience in relation to school, which have largely been overlooked due to misleading perceptions (i.e., model minority myth). Consequently, future studies should explore the various aspects of acculturative stress that impact school life satisfaction.

The final research question examined the moderating role of gender on psychological well-being and life satisfaction. Based on the literature, it was hypothesized that the association between acculturative stress and psychological well-being is moderated by gender. Background research suggests that the course of acculturation varies by gender in many Asian cultures due to strong gender-based cultural expectations (Chandra et al., 2016). Nevertheless, contrary to the hypothesis and previous research, findings indicated that gender did not play a significant role in how acculturative stress impacts psychological well-being. Additionally, gender did not play a moderating role in how acculturative stress impacted life satisfaction and school life satisfaction among the sample population. These findings are somewhat surprising, as they do not align with previous research that has indicated gender as a critical factor in determining mental health outcomes among the SA population (Inman et al., 2001;

Masood et al., 2009). One factor that could explain these unexpected results is the composition of the sample population. This sample comprised of 64% (n=36) of participants identifying as female, 34% (n=18) identifying as male, and less than 1% identifying as other (n=1). With a large number of participants identifying as female, gender disparities may have led to bias in results, overshadowing responses from participants identifying as male. Future research should focus on incorporating a more inclusive gender ratio.

Strengths & Limitations

Increasingly, researchers have determined that acculturative stress negatively impacts psychological health (Romero & Roberts, 2003; Miller De Rutté & Rubenstein, 2021), and yet, virtually few studies have explored its effects among the South Asian population, which may in part be due to positive stereotyping. The present study offers a unique perspective, examining the experiences of South Asian adolescents through a dual-factor lens of psychological well-being while taking into consideration variables such as generational status. It is one of the few studies that inquires about the impact of acculturation among the South Asian population and analyzes the moderating role of gender. Findings from this study contribute to the steadily growing body of literature that suggest that acculturative stress has detrimental effects upon psychological well-being among immigrant populations.

Despite its strengths, it is important to consider these findings in light of certain limitations. One such factor was the use of a convenience sample of South Asian adolescents in the Northeastern region of the United States, which may limit the generalizability of findings. It is fairly possible that these findings do not fully encompass

the experiences of South Asian adolescents in other regions of the United States, as acculturation processes may vary due to interactive effects (e.g., regional differences) (Li et al., 2022). It is also important to note that the sample population was largely homogeneous in terms of demographic variables such as generational status and gender identity. Further, the scope of the present study was limited in that it did not explore specific sociological factors, particularly related to gender identity and gender role socialization among South Asians. Although findings from the present study suggest that South Asian adolescents, irrespective of their gender identity, experience acculturative stress in an overlapping manner; this outcome is contrary to previous literature which has suggested that South Asian females face unique acculturative stressors related to gender-specific cultural norms (Inman et al., 2001; Masood et al., 2009). Given the variability in findings, future research should closely examine the similarities and differences in experiences of acculturative stress across gender identity among South Asians and incorporate a more heterogeneous and diversified sample population in order to closely examine these variables.

Similarly, although the sample size, of 55 participants, was a strength as it exceeded the minimum criteria required for recruitment; nevertheless, results should be interpreted with caution to abstain from overly generalizing conclusions. Additionally, the use of self-report measures within the present study may pose limitations. While anonymity was guaranteed for the present study, self-report measures are susceptible to bias, particularly when assessing subjective constructs such as well-being (Sandvik et al., 1993; Hudson et al., 2020). Methodological researchers have indicated that even with anonymized online data collection, response bias, and social desirability may impact

participant response, inadvertently affecting results (Flett et al., 2019). Despite these

limitations, given the scarcity of research on the South Asian population, the present

study constitutes important preliminary findings; nonetheless, there are a number of

suggestions for future research.

Future Directions

The scope of the present study was limited in regard to sample size; future studies

should look to include a more robust sample size which would allow for a closer

investigation of differences across demographic variables such as generational status and

socioeconomic status; potentially allowing for more refined analyses. Further, given that

the present study did not account for other facets of stress, these findings do not fully

encapsulate the experiences of South Asian adolescents. Considering these limitations,

future studies should adopt a qualitative design in order to closely examine the

implications of acculturative stress on mental health among the South Asian population.

Researchers have noted that qualitative approaches may be especially insightful when

examining the experiences of ethnically minoritized (Li, 2009) and collectivist

communities (i.e., South Asian) that value oral accounts (Tummala-Narra et al., 2012).

This approach would allow for a richer understanding of experiences and perspectives

that may not emerge in quantitative surveys. Evidently, qualitative interviews could

potentially even elucidate the mechanisms behind acculturative stress and how it impacts

school life satisfaction among South Asian students.

Future studies should also consider adopting a longitudinal approach in order to

investigate the trajectory of acculturative stress across developmental transitions and the

long-term implications it may have on the mental health of South Asian Americans. For

the present study, participants were in the late stages of adolescence, which is characterized as individuals between 18-22 years of age. Likewise, future studies should examine how acculturative stress impacts psychological well-being during early and middle adolescence, between the ages of 10-17 years, as this transitional period presents additional challenges for immigrant youth who are undergoing ethnic identity formation (Farver et al., 2002). Similarly, although the present study did not address the role of length of residency in the host culture, future studies should examine whether this variable moderates the impact of acculturative stress on psychological well-being.

Additionally, recent research on acculturation and acculturative stress indicates that it is a dynamic process (Tummala-Narra et al., 2012). Factors such as bicultural identity and collectivist ideals may mitigate levels of stress and are, in fact, significant predictors of psychological well-being among immigrant adolescents (Tummala-Narra et al., 2012; Bae., 2020), essentially indicating that participant's narratives and appraisals of acculturative stress are important factors to consider. Likewise, future research should adopt a more nuanced approach and investigate acculturative stress through a dual-factor model of mental health as it relates to basic psychological need satisfaction, and frustration among South Asian adolescents. Notwithstanding, the present findings have important implications for practitioners.

Implications for School Psychologists

These findings inform interventions in educational and mental health settings in numerous ways and are relevant to the practice of school psychologists working with South Asian youth. Participants' endorsement of acculturative stress and its relation to decreased psychological well-being, overall life satisfaction, and school life satisfaction

indicate that it is a salient factor in the lives of South Asian adolescents, and yet, it is often overlooked due to positive stereotyping (Tummala-Narra et al., 2012). It is important for mental health practitioners such as school psychologists to recognize the ways in which diverse populations similar to the South Asian community may be impacted by sociological contexts such as acculturative stress. Interventions, treatment plans, and school-wide support strategies should be developed through a culturally informed lens, cognizant of acculturation levels and culturally specific dynamics.

These findings also underscore the importance of school-based interventions, as school is the most accessible setting for youth to receive mental health services (Bringewatt et al., 2010). Taking into consideration the ways in which acculturative stress permeates through domains of well-being, schools should implement initiatives towards educating teachers and school-based staff on working with culturally diverse students and families. Correspondingly, it is essential that schools create a safe environment for students and faculty in which dialogue related to culture, race, ethnicity, and gender identity can take place, supporting students through the challenges associated with acculturation and identity formation. (National Association of School Psychologists, 2023). In creating safe and inclusive environments, school personnel should take proactive steps towards engaging in self-reflective processes that bring awareness to individual biases and promote culturally responsive practices (Tummala-Narra et al., 2012; National Association of School Psychologists, 2023).

Likewise, it is important that school psychologists recognize the acculturation process as multidimensional; when working with South Asian youth, practitioners should consider strengths and supports in addition to experiences of acculturative stress.

Utilizing a strengths-based approach may be particularly useful with ethnically

minoritized youth, as adolescence is a critical developmental period of identity formation,

and fostering a bicultural identity may lead to adaptive psychological outcomes (Yoon et

al., 2013), promoting overall psychological well-being (Tummala-Narra et al., 2012).

Psychotherapy may be advantageous as a means of exploring challenges related to

acculturative stress, such as relatedness, frustration, conflicting cultural values, lack of

integration in one's sense of self, and cultural identity development. Recent research has

suggested that cognitive behavioral therapy (CBT) is an effective modality to utilize

among the South Asian population living in the diaspora (Naeem et al., 2015);

independently, research has also indicated that CBT is successful in improving life

satisfaction among clients (Peipert et al., 2022). Likewise, it is critical that practitioners

utilize therapeutic modalities within a framework of cultural responsivity. Additionally,

engaging family, peer, and community members in collaborative efforts (i.e., workshops,

group counseling, community outreach) may be an effective means of fostering

relatedness and belonging, mitigating negative experiences of acculturative stress, and

promoting overall psychological well-being.

Table 1

Participant Demographics

Characteristics	Participants (N = 55)	
	N	Percentage
Age		
18	6	10.9%
19	11	20.0%
20	12	21.8%
21	19	34.5%
22	7	12.7%
Gender		
Male	18	32.7%
Female	36	65.5%
Transgender	1	1.8%
Sub-Ethnicity		
Pakistani	18	32.7%
Indian	19	34.5%
Bengali	14	25.5%
Nepali	2	3.6%
Sri-Lankan	2	3.6%
Household Yearly income		
$0-$20,000	5	9.1%
$40,000-$60,000	12	21.8%
$60,000-$80,000	10	18.2%
$80,000-$100,000	4	7.3%
$100,000-$120,000	4	7.3%
$120,000-$140,000	5	9.1%
$140,000 and above	11	20.0%
Other	4	7.3%
Generational Status		
1st generation	18	32.7%
1.5 generation	5	9.1%
2nd generation	29	52.7%
3rd generation	2	3.6%
4th generation	1	1.8%

Table 2

SAFE-SF Scale Reliability Statistics

	Mean	SD	Cronbach's α
Scale	1.86	0.929	0.928

Table 3

Item Reliability Statistics

Item	Mean	SD	Cronbach's α
I feel uncomfortable when others make jokes about or put down people of my ethnic background	2.78	1.2	0.92
I have more barriers to overcome than most people	2.32	1.2	0.92
It bothers me that family members I am close to do not understand my new values	2.76	1.2	0.92
Close family members have different expectations about my future than I do	3.05	1.6	0.92
It is hard to express to my friends how I really feel	2.30	1.5	0.92
My family does not want me to move away but I would like to	2.61	1.7	0.92
It bothers me to think that so many people use drugs	2.16	1.5	0.93
It bothers me that I cannot be with my family	1.21	1.4	0.92
In looking for a good job, I sometimes feel that my ethnicity is a limitation	2.14	1.6	0.92
I don't have any close friends	1.10	1.5	0.92
Many people have stereotypes about my culture or ethnic group and treat me as if they are true	2.34	1.5	0.92
I don't feel at home	1.32	1.5	0.92
People think I am unsociable when in fact I have trouble communicating in English	0.52	1.1	0.92
I often feel that people actively try to stop me from advancing	1.67	1.7	0.92
It bothers me when people pressure me to become part of the main culture	2.09	1.7	0.92
I often feel ignored by people who are supposed to assist me	1.76	1.6	0.92
Because I am different, I do not get the credit for the work I do	1.65	1.6	0.92
It bothers me that I have an accent	0.52	1.1	0.92
Loosening the ties with my country is difficult	1.29	1.6	0.92
I often think about my cultural background	2.32	1.4	0.92
Because of my ethnic background, I feel that others often exclude me from participating in their activities	1.43	1.4	0.92
It is difficult for me to "show off" my family	2.00	1.5	0.92
People look down upon me if I practice customs of my culture	2.30	1.6	0.92
I have trouble understanding others when they speak	0.70	1.2	0.92

Table 4

Results of Simple Linear Regression Analysis

Model	R	R^2	Adjusted R^2	Overall Model Test			
				F	df1	df2	p
Psychological Well-Being on Acculturative Stress							
Psychological Well-Being	-0.622	0.386	0.375	33.4	1	53	<.001
BMSLSS	-0.504	0.254	0.240	18.1	1	53	<.001
School Life Satisfaction	-0.382	0.146	0.130	9.08	1	53	0.004
Generational Status	0.200	0.0401	0.0220	2.21	1	53	0.143
Satisfaction Subdomains							
Competence	0.139	0.0139	7.54e-4	1.04	1	53	0.312
Autonomy	0.045	0.0073	-0.0114	0.39	1	53	0.534
Relatedness	0.283	0.0802	0.0628	4.62	1	53	0.036
Frustration Subdomains							
Competence	0.606	0.367	0.356	30.8	1	53	<.001
Autonomy	0.579	0.335	0.323	26.7	1	53	<.001
Relatedness	0.675	0.455	0.445	44.3	1	53	<.001

Note: BMSLSS is relative to Life Satisfaction.

Table 5

Correlation Matrix

		Autonomy Satisfaction	Competence Satisfaction	Relatedness Satisfaction	Total SAFE
Autonomy Satisfaction	Pearson's r	—			
	df	—			
	p-value	—			
Competence Satisfaction	Pearson's r	0.775 ***	—		-0.139
	df	53	—		53
	p-value	< .001	—		0.312
Relatedness Satisfaction	Pearson's r	0.552 ***	0.690 ***	—	-0.283 *
	df	53	53	—	53
	p-value	< .001	< .001	—	0.036
Total SAFE	Pearson's r	-0.086	-0.139	-0.283 *	—
	df	53	53	53	—
	p-value	0.534	0.312	0.036	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$
SAFE is relative to acculturative stress.

Table 6

Moderation Analysis Acculturative Stress on Psychological Well-Being

	Estimate	SE	95% Confidence Interval		Z	p
			Lower	Upper		
Total SAFE	0.268	0.04	0.17	0.36	5.52	< .001
Gender	-4.194	1.99	-8.09	-0.29	-2.10	0.035
Total SAFE ✻ Gender	0.043	0.09	-0.14	0.22	0.48	0.630

Table 7

Moderation Analysis Acculturative Stress on Life Satisfaction

	Estimate	SE	95% Confidence Interval		Z	p
			Lower	Upper		
Total SAFE	-0.153	0.03	-0.22	-0.078	-4.02	< .001
Gender	0.508	1.56	-2.55	3.574	0.32	0.745
Total SAFE ∗ Gender	-0.009	0.07	-0.14	0.129	-0.13	0.895

South Asian Participants Needed
If you are of South Asian descent between 18-22 years old, you may be eligible to participate in a research study

The purpose of this study is to examine how acculturative stressors impact the psychological well-being of South Asian students' and if gender plays a role in these effects.

Participation Involves:

- Completing a 15-minute online questionnaire

- If interested, please scan the QR code on the right.

Upon completion, participants can enter their emails for a chance to win a:

- *$20 Amazon Gift Card*

You may be eligible to participate if you are of:

- South Asian Ancestry
- 18-22 years old

If you have any questions or concerns, email the researcher at:

- Rafia Chaudhry
- rafia.chaudhry21@my.stjohns.edu

Faculty Sponsor:

- Dr. Imad Zaheer
- zaheeri@stjohns.edu

SCAN ME

Dear [Insert Organization Name],

My name is Rafia Chaudhry, and I am a doctoral student in the School Psychology program at St. John's University. I am conducting my doctoral research on the Impact of Acculturative Stress on Psychological Well-being among South Asians and the Effect of Gender. I am writing to ask for your assistance in reaching South Asians between the ages of 18-22 years old. The purpose of this study is to examine the impact of acculturative stress on psychological well-being among South Asians. Participants will be asked to complete a 15-minute survey that has been approved by the St. John's University Institutional Review Board. As a thank you for participation, those who complete the survey may choose to enter a random drawing for a $20 Amazon gift card.

I would greatly appreciate you taking the time to forward this invitation to [insert organization name]. If you have any questions, please feel free to reach out at rafia.chaudhry@my.stjohns.edu.

Please forward this message to them:

Dear [Member],

You are invited to participate in a dissertation study on how cultural factors impact mental health among South Asians. The purpose of the study is to examine the impact of acculturative stress on psychological well-being among South Asians, and if there are any gender differences. We believe the results of this study may lead to recommendations for culturally responsive interventions. The study has been approved by the St. John's University Institutional Review Board.

You are eligible to participate if you are of South Asian descent between 18-22 years old. If you are interested, you will be asked to complete a 15-minute survey. At the end of the survey, you can choose to enter your email address for a chance to win a $20 Amazon gift card. Participants' email addresses will be entered into a random

generator and the first 25 emails drawn will receive a gift card at the completion of data collection.

To access the survey, please click on the link below:
https://docs.google.com/forms/d/e/1FAIpQLSdmaWXQtX0DNIVFSQ-bUy9hHwIk4htBLnPx2a2zSM33-NttXQ/viewform

If you have any questions about the contents of this survey, do not hesitate to contact Rafia Chaudhry, rafia.chaudhry21@my.stjohns.edu or faculty sponsor Dr. Imad Zaheer, zaheeri@stjohns.edu.

Thank you for your time.
Sincerely,
Rafia Chaudhry

You have been invited to take part in a research study to learn more about the impact of acculturative stress on psychological well-being among South Asian students.

This study will be conducted by Rafia Chaudhry, Department of Psychology, St. John's College of Liberal Arts and Sciences, St. John's University, as a requirement of her doctoral dissertation. Her faculty sponsor is Dr. Imad Zaheer, Department of Psychology, St. John's College of Liberal Arts and Sciences, St. John's University.

You are eligible to participate in this study if you are of South Asian descent, between the ages of 18-22 years old. The purpose of this study is to examine how acculturative stressors impact the psychological well-being of South Asian students' and if gender plays a role in these effects.

If you agree to partake in this study, you will be asked to do the following:
- Complete a questionnaire regarding background information, acculturative stressors, and psychological well-being.

Participation in this study will involve no more than 15 minutes of your time to complete the questionnaire. There are no known risks associated with your participation in this research beyond those of everyday life.

Although you will receive no direct benefits, this research may help us better understand how cultural factors such as acculturative stress impact South Asians.

You may choose to enter your e-mail address at the end of the survey for a chance to win a $20 Amazon gift card. Participants' email addresses will be entered into a random generator and the first 25 emails drawn will receive a gift card. If you withdraw before the end of the study, no giftcard will be given.

Research records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. Confidentiality of your research records will be maintained by keeping consent forms separate from data to make sure

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your name and identity will not become known or linked with any information you provide. Personally identifiable information will be replaced with research identification codes (ID codes). Access to these codes will be limited to the investigator and faculty sponsor. Master lists will be stored separately from the data and destroyed as soon as reasonably possible. All electronic data are stored in password-protected computers and files.

Your responses will be kept confidential with the following exception: the researcher is required by law to report to the appropriate authorities' suspicion of imminent threat of harm to yourself or to others. Participation in this study is voluntary. You may refuse to participate or withdraw at any time without penalty.

You are encouraged to ask questions at any time during this study. If anything about this research or your participation is unclear, if you have any further inquiries, or wish to report a research-related concern you may contact Rafia Chaudhry at 908-866-6157, rafia.chaudhry21@my.stjohns.edu. or the faculty sponsor, Dr. Imad Zaheer, at 718-990-5928, zaheeri@stjohns.edu.

For questions about your rights as a research participant, you may contact the University's Institutional Review Board, St. John's University, Dr. Raymond DiGiuseppe, Chair digiuser@stjohns.edu 718-990-1955 or Marie Nitopi, IRB Coordinator, nitopim@stjohns.edu 718-990-1440.

Agreement to Participate

Do you accept the terms and conditions of this study?

- Yes, I accept the terms and conditions of this study and consent to participate.
- No, I do not accept the terms and conditions of this study and do NOT consent to participate.

By clicking below, you are agreeing to participate in this study. Make sure you understand what the study involves before you agree. If you have questions about the study after you agree to participate, you can contact the research team using the information provided above.

You may print a copy of this form for your files.

- *I certify that I am 18 years of age or older and agree to participate in this research study.*

Demographic Questionnaire

Instructions: Please answer the following questions about yourself.

1) Age: Choose one of the following
   a) 18
   b) 19
   c) 20
   d) 21
   e) 22

2) Gender Identity:
   a) Female
   b) Male
   c) Transgender
   d) Non-binary
   e) Agender
   f) Gender Variant/Non-Conforming
   g) Prefer not to answer
   h) Different identity: please list _____

3) What is your academic class standing?
   a) Freshman (Between 0-30 credits)
   b) Sophomore (Between 30-60 credits)
   c) Junior (Between 60-90 credits)
   d) Senior (90 credits and above)
   e) Graduate/Professional
   f) Other: Please List _____

4) What is your current GPA?
   a) (Enter Number)
   b) Not Applicable

5) Ethnicity:
   a) Pakistani
   b) Indian
   c) Bengali
   d) Nepali
   e) Sri Lankan

6) Generational Status: What is your generational status?
   a) 1st generation: I was born in a different country and immigrated to the U.S. before 6 years old.

b) 1.5 generation: I was born in a different country and immigrated to the U.S. between 6 and 18 years old.
c) 2nd generation: Both or one of my parents were born in a different country, I was born in the U.S.
d) 3rd generation: My parents and I were born in the U.S. but my grandparents were born in a different country.
e) 4th generation or more: My parents, grandparents (other relatives), and I were born in the U.S.

7) How long have you lived in the United States?
a) Since Birth: I was born here
b) Please list years: _____

8) Religion: What is your religious affiliation?
a) Islam
b) Hinduism
c) Sikhism
d) Christianity
e) Buddhism
f) Judaism
g) Atheism
h) Agnostic
i) None
j) Other: Please List _____

9) What are your current living arrangements?
a) With parents
b) With non-parental family members
c) Reside alone
d) With roommates
e) With partner
f) Other

10) What is your family's (including your own and parents/guardians) total household yearly income (pick one):
a) $0-$20,000
b) $20,001-$40,000
c) $40,001-$60,000
d) $60,001-$80,000
e) $80,001-$100,000
f) $100,001-$120,000
g) $120,001-$140,000
h) $140,001 +
i) Other: Please List _____

11) What is the primary language spoken at home?
   a) English
   b) Urdu
   c) Hindi
   d) Punjabi
   e) Bengali
   f) Tamil
   g) Telugu
   h) Other: Please List _____

12) How did you find out about this study?
   _____

Acculturative Stress Scale

Societal, Academic, Familial, and Environmental Acculturative Stress Scale, Short Form
(SAFE-SF; Mena et al., 1987)

Instructions: Below are a number of statements that might be seen as stressful. For each statement that you have experienced, circle only one of the following numbers (1, 2, 3, 4, or 5), according to how stressful you find the situation.

If the statement does not apply to you, circle number 0: Have Not Experienced.

0 = HAVE NOT EXPERIENCED
1 = NOT AT ALL STRESSFUL
2 = SOMEWHAT STRESSFUL
3 = MODERATELY STRESSFUL
4 = VERY STRESSFUL
5 = EXTREMELY STRESSFUL

1. I feel uncomfortable when others make jokes about or put down people of my ethnic background
2. I have more barriers to overcome than most people
3. It bothers me that family members I am close to do not understand my new values
4. Close family members have different expectations about my future than I do
5. It is hard to express to my friends how I really feel
6. My family does not want me to move away but I would like to
7. It bothers me to think that so many people use drugs
8. It bothers me that I cannot be with my family
9. In looking for a good job, I sometimes feel that my ethnicity is a limitation
10. I don't have any close friends
11. Many people have stereotypes about my culture or ethnic group and treat me as if they are true
12. I don't feel at home
13. People think I am unsociable when in fact I have trouble communicating in English
14. I often feel that people actively try to stop me from advancing
15. It bothers me when people pressure me to become part of the main culture
16. I often feel ignored by people who are supposed to assist me
17. Because I am different I do not get the credit for the work I do
18. I bothers me that I have an accent
19. Loosening the ties with my country is difficult
20. I often think about my cultural background
21. Because of my ethnic background, I feel that others often exclude me from participating in their activities
22. It is difficult for me to "show off" my family
23. People look down upon me if I practice customs of my culture
24. I have trouble understanding others when they speak

Appendix F
Psychological Well-Being Measure

Basic Psychological Need Satisfaction and Frustration Scale (BPNSNF; Chen et al., 2015)

Instructions: Below, we ask you about the kind of experiences you actually have in your life. Please read each of the following items carefully. You can choose from 1 to 5 to indicate the degree to which the statement is true for you at this point in your life.

1 Not true at all	2	3	4	5 Completely true

	1	2	3	4	5
1. I feel a sense of choice and freedom in the things I undertake	1	2	3	4	5
2. Most of the things I do feel like "I have to".	1	2	3	4	5
3. I feel that the people I care about also care about me.	1	2	3	4	5
4. I feel excluded from the group I want to belong to.	1	2	3	4	5
5. I feel confident that I can do things well.	1	2	3	4	5
6. I have serious doubts about whether I can do things well.	1	2	3	4	5
7. I feel that my decisions reflect what I really want.	1	2	3	4	5
8. I feel forced to do many things I wouldn't choose to do.	1	2	3	4	5
9. I feel connected with people who care for me, and for whom I care.	1	2	3	4	5
10. I feel that people who are important to me are cold and distant towards me.	1	2	3	4	5
11. I feel capable at what I do.	1	2	3	4	5
12. I feel disappointed with many of my performances.	1	2	3	4	5
13. I feel my choices express who I really am.	1	2	3	4	5

14. I feel pressured to do too many things.	**1**	**2**	**3**	**4**	**5**
15. I feel close and connected with other people who are important to me.	**1**	**2**	**3**	**4**	**5**
16. I have the impression that people I spend time with dislike me.	**1**	**2**	**3**	**4**	**5**
17. I feel competent to achieve my goals.	**1**	**2**	**3**	**4**	**5**
18. I feel insecure about my abilities.	**1**	**2**	**3**	**4**	**5**
19. I feel I have been doing what really interests me.	**1**	**2**	**3**	**4**	**5**
20. My daily activities feel like a chain of obligations.	**1**	**2**	**3**	**4**	**5**
21. I experience a warm feeling with the people I spend time with.	**1**	**2**	**3**	**4**	**5**
22. I feel the relationships I have are just superficial.	**1**	**2**	**3**	**4**	**5**
23. I feel I can successfully complete difficult tasks.	**1**	**2**	**3**	**4**	**5**
24. I feel like a failure because of the mistakes I make.	**1**	**2**	**3**	**4**	**5**

Scoring information:
Autonomy satisfaction items: 1,7,13,19
Autonomy frustration items: 2, 8, 14, 20
Relatedness satisfaction items: 3, 9, 15, 21
Relatedness frustration items: 4, 10, 16, 22
Competence satisfaction items: 5, 11, 17, 23
Competence frustration items: 6,12,18,24

Life Satisfaction Measure

Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS)

Instructions: We would like to know what thoughts about life you have. Think about how you spent each day and night, and then think about how your life has been during most of this time. Here are some questions that ask you to indicate your satisfaction with life. In answering each statement, choose a number from 1 to 7, where 1 indicates you feel terrible about that area of life and 7 indicates you are delighted with that area of life.

Response options are a on 7-point Likert scale:
1=Terrible
2=Unhappy
3=Mostly Dissatisfied
4= Mixed (about equally satisfied and dissatisfied)
5=Mostly Satisfied
6=Pleased
7= Delighted

1. I would describe my satisfaction with my family life as:	1	2	3	4	5	6	7
2. I would describe my satisfaction with my friendships as:	1	2	3	4	5	6	7
3. I would describe my satisfaction with my school experience as:	1	2	3	4	5	6	7
4. I would describe my satisfaction with myself as:	1	2	3	4	5	6	7
5. I would describe my satisfaction with where I lived then:	1	2	3	4	5	6	7
6. I would describe my satisfaction with my overall life as:	1	2	3	4	5	6	7

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