A Meta-Analytic Review of Asian American Well-Being

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Kris Tran

August 2, 2021
A Meta-Analytic Review of Asian American Well-Being

A Thesis
Presented to
The Faculty of
Western Washington University

In Partial Fulfillment
Of the Requirements for the Degree
Master of Science

By
Kris Tran
August 2021
Abstract

Past studies have demonstrated that Asian Americans typically report lower levels of subjective well-being. However, there is no single cited reason across the literature for this supposed trend of lower well-being for Asian Americans, resulting in mixed findings of Asian American happiness. The present study reviewed 36 studies that utilized the Satisfaction with Life Scale to measure life satisfaction in Asian Americans, and 18 studies that utilized the Satisfaction with Life Scale to assess Asian American and European American life satisfaction. We conducted a meta-analysis to identify their mean level of life satisfaction, and to determine the effect size of difference between Asian Americans’ life satisfaction and European Americans’ life satisfaction. Throughout all included studies, Asian Americans reported a mean life satisfaction score of 22.66. Asian Americans also reported moderately lower life satisfaction scores compared to European Americans ($d = -0.51$, 95% CI [-0.73, -0.30], $p < .001$). We also assessed a number of theoretically relevant variables to analyze if they significantly predicted Asian American life satisfaction, or significantly moderated the effect size of difference of Asian American and European American life satisfaction. We also reviewed and summarized the wide range of correlates associated with Asian American happiness across the included studies.
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A Meta-Analytic Review of Asian American Well-Being

Throughout history, both scientific and philosophical thought have looked to understand and achieve happiness. However, most researchers have examined happiness almost exclusively through a Western lens. The many fields of psychology have been dominated by Western researchers (Becker & Marecek, 2008), with much of the literature published primarily in English. A recent study examining positive psychological interventions found that 78.2% of the research was conducted on Western Educated Industrialized Rich Democratic (WEIRD) samples (Hendriks et al., 2018). However, cultural values, practices, and language can affect individuals’ perceptions, pursuit, and even experience of well-being. A cross-cultural approach to studying happiness can help to provide researchers with deeper understandings of the cultures studied (Tov & Diener, 2007), and also provides a more global understanding of happiness.

East Meets West: The Story of Asian Americans

U.S. Census Data (2019) indicate that Asian Americans comprise approximately 19.36 million people, or about 5.9% of the country’s total population. This group is broadly defined as Americans of Asian ancestry, including individuals of origins from the Far East, Southeast Asia, and the Indian subcontinent (US Census, 2019). This definition encompasses more than forty different ethnic groups, though often emphasis is placed on East Asian ancestry. A 2021 Pew Research survey indicated that 57% of Asians Americans were direct immigrants from Asia, with the majority of Asian Americans deriving from China, India, Japan, Korea, the Philippines, and Vietnam. As one of the fastest growing racial minority groups in North America (Pew Research Center, 2021), researchers have begun to take a particular interest in the experiences of Asian Americans. They provide a unique snapshot of culture’s influence on happiness, blending elements of both Western and Eastern traditions, values, and behavior.
However the term itself can be a source of confusion within the field. What makes someone Asian American as opposed to Asian? Asian Americans may be defined by others based on primary language, ethnicity, citizenship, or immigration status. Most studies allow individuals to self-identify as Asian Americans. It is likely that these factors may contribute to the view of Asian Americans as one homogenous group (Sadler et al., 2003). Though we will similarly refer to this group with the title of Asian American (AA) throughout this paper, we urge readers to remember that the name cannot sufficiently distinguish the inherent cultural variability and diverse identities.

**Measuring Happiness**

As a broad concept in the academic field, happiness can be difficult to define. Since the term itself has several meanings in both everyday and scientific language, researchers have developed a number of operational definitions of happiness, including subjective well-being (SWB; Diener, 1984). SWB consists of both a cognitive evaluation, the assessment of one’s life as a whole, as well as an emotional component, frequent positive affect (PA) and infrequent negative affect (NA) (Diener, 1984; Tov, 2018). SWB is one of the most widely accepted operationalizations of happiness, particularly in cross-cultural studies, as researchers argue that individuals are the best and final judges of their own personal experiences (Myers & Diener, 1995). SWB is able to quantify the inherently subjective nature of happiness. Additionally, SWB has proved to be a relatively stable phenomenon (Pavot et al, 1991), allowing researchers to focus on persistent, long-term levels of happiness, instead of momentary assessments of mood, to better understand the overall level of SWB. As SWB is often considered the scientific term for what most people interpret as happiness, we will be using happiness and SWB interchangeably throughout this paper.
Subjective well-being is typically assessed using self-report measures. Commonly used scales include the Satisfaction with Life Scale (SWLS; Diener et al., 1985), Positive and Negative Affect Schedule (PANAS; Watson et al., 1988), and Scale for Positive and Negative Experience (SPANE; Diener et al., 2009). Each of these scales allows researchers to examine a particular aspect of SWB, judged by the personal experience of each individual’s happiness. Many of these scales also have strong discriminant validity, with each component as a significant, but different, aspect of SWB (Lucas et al., 1996). For example, SWLS measures the cognitive component of SWB, while affective scales such as the SPANE and PANAS focus on measuring PA and NA. The SWLS asks participants to rate their overall life satisfaction using five items, rated from 1 to 7, including “In most ways my life is close to my ideal” and “So far I have gotten the important things I want in life.” The SWLS has been repeatedly validated, demonstrating its strengths in measuring SWB across various ages, cultures, and applications. It has been translated into more than 20 different languages, promoting its use throughout the world. Similarly, multiple studies have noted that the SWLS’ translations consistently retain their high levels of validity and reliability (Gouveia et al., 2008; Sachs, 2004; Vázquez et al., 2012).

The Beneficial Nature of Happiness

People strive to be happy for many reasons. One reason is simply that it feels great to be happy! But the benefits of happiness extend beyond just feeling good. As a general pattern, people who are happier tend to report healthier, fulfilling, and enjoyable lives, though studies have demonstrated that this may be a bidirectional relationship (Diener, 2020). The importance of happiness has been well documented over years of psychological and physiological research. Happiness has been shown to be highly desirable and morally good, more so than other factors such as wealth (Diener 2000; King & Napa, 1998). Happiness is associated with better health,
including stronger immune function, lower stress, and lower blood pressure (Diener & Chan, 2011; Steptoe & Wardle, 2005). It has even been linked to faster wound healing, longer telomeres, and slower aging (Detillion et al., 2004; O’Donovan et al., 2009). Higher levels of happiness have also been linked to higher educational attainment (Elwick & Cannizzaro, 2017), higher income (DeNeve et al., 2013), and stronger cognitive functions such as better creativity, neuro-regeneration, and mental productivity (Pannells & Claxton, 2008; Subramaniam & Vinogradov, 2013). Happiness has also been shown to inspire more prosocial behaviors and higher-quality social relationships (DeNeve et al., 2013). In his 2020 Global Well-Being keynote address, Diener illustrated a positive relationship between happy citizens and thriving societies. Happier people are more likely to have better job performances, and are more energetic and creative, leading to more benefits in the workplace. He also stated that happier people are more likely to have prosocial behaviors, and to have healthier and more supportive relationships, promoting the overall health and happiness of communities. Similarly, Oishi (2012) noted that individual happiness is able to positively affect societal well-being, as happy workers have higher work productivity, leading to increased economic return. Higher levels of happiness result in societal gains, and these benefits in turn increase well-being for citizens, creating a positive cycle of happiness.

There are also a multitude of studies that indicate that happiness is implicated in many positive life outcomes. A longitudinal study (Danner et al., 2001) found that the happiest nuns outlived the least happy nuns by an average of 9 years. Reviews by Pressman and Cohen (2005; 2006) also demonstrated that long term happiness leads to better well-being and longevity, particularly in regards to lower morbidity and pain. Another longitudinal study conducted by Diener et al. (2002) demonstrated that individuals with higher cheerfulness ratings at college
entry had higher income, job satisfaction, and employment rates twenty years later compared to their peers with lower cheerfulness ratings. A meta-analysis conducted by Lyubomirsky et al. (2005) demonstrated that high PA may directly cause many of the correlates of life success, including more positive self-reflections, more prosocial behavior, and better conflict resolution skills. In these studies, the measure of happiness preceded the outcome variables by several years, thereby strengthening support for causality, rather than mere associations.

**Asian Americans and Subjective Well-Being**

Asian Americans typically report lower levels of SWB compared to other ethnic groups in North America (Oishi et al., 2004; Sakamoto et al., 2016). Research has recently begun to examine how culture may influence happiness, framing it in the context of culture-specific values, the relative happiness of the country of origin, and differences in how components of SWB correlate with each other (Tov & Nai, 2018). A particular focus of the current field is directly comparing the SWB of Asian Americans (AA) to European Americans (EA). While these two groups share geographic locations, they may differ in cultural practices and behaviors, suggesting that optimal paths to happiness for AAs and EAs may clash in important ways. Indeed, a study by Rice and Steele (2004) found that cultural influence is a strong predictor for SWB, demonstrating a high correlation between the happiness of Americans to that of citizens from their ancestral nations. In other words, AA SWB may be more closely related to the SWB of Asians in Asia (often distinguished as AIs), rather than to other Americans in the U.S. As such, it is necessary to study cultural differences of populations within America to gain insight on how culture, both past and present, affects well-being. More specifically, examining the unique aspects of AA culture and how they impact well-being can provide deeper insights on the interplay between culture and SWB.
There are a number of elements that may influence AA SWB. These factors may stem from interactions with the environment or from one’s own cognitive appraisals of the world. In this section, we explore some of the common theories examining AA happiness and how they predict SWB outcomes for this particular group. These theories are organized in Table 1. It is important to note that much of the literature regarding cultural influences on Asian SWB typically involves Asians in Asia, rather than Asians in America. However, Rice and Steele (2004) suggest there are many similarities between these two groups, allowing us to infer outcomes related to AA SWB.

**Influences That May Attenuate Asian American Well-Being**

**Acculturation and Acculturative Stress.** Acculturation is the process by which individuals adopt a host’s culture or maintain their own (Berry, 1997). Studies have demonstrated that acculturation, particularly involving strategies of separation and marginalization, may negatively impact well-being (Berry & Hou, 2016, 2017; Yoon et al., 2012), and that lower acculturation can similarly impact both physical and mental health outcomes (Suinn, 2010; Yan, 2020; Yoon et al., 2012). Berry (2006) also noted that immigrants and refugees are at particular risk of experiencing acculturative stress, or the stressors related to the process of acculturation. These groups are often required to learn new languages, environments, social behaviors, and cultural practices that may be extremely different from their own. These experiences of acculturative stress may accumulate and result in further negative impacts to both mental and physical well-being (Rogers-Sirin et al., 2014), and may even extend to their descendants, as studies have demonstrated that children of immigrants also experience acculturative stress (Berry et al., 1987; Samaniego & Gonzales, 1999). It is likely that these processes of acculturation and acculturative stress may impact AA well-being, contributing to reports of lower SWB.
Self Construal Theory. There may be a strong link between cultural values and personal preference, and subsequent behavior. Markus and Kitayama (1991) argued that individuals of American culture emphasize independent self-construal, or attending to the self and one’s uniqueness, and may define themselves with internal attributes central to their sense of self (e.g. “I am kind”). Meanwhile, those of Asian cultures emphasize interdependent self construal, or focus on interconnectedness with others, and may define themselves in relation to others (e.g. “I am a daughter”). They also demonstrated that these differences in self-construal can further affect individuals’ cognitions, emotions, and motivations. As such, personal happiness may be less important for individuals with interdependent self-construal, as they tend to prioritize the maintenance of group harmony over the self. Higher independent self-construal is typically associated with higher reports of happiness compared to interdependent self-construal (Elliott & Coker, 2011). Even in cultures that are more collective-minded, AIs with stronger independent self-construals still demonstrate higher SWB compared to those with stronger interdependent self-construals (Suh & Koo, 2008). Similarly, Ho and Chiu (1994) noted that cultures can be divided on levels of relative individualism versus relative collectivism. They argued that people from individualistic cultures focus on the individual through personal responsibility, autonomy, and achievement. In contrast, people from collectivistic cultures focus on the group through collective responsibility, group achievement, and interdependence over personal goals and happiness. Studies have argued living in individualistic societies, more typical of Western countries, instead of collectivistic countries, more typical of East Asian countries, is related to higher levels of SWB. One study found that SWB differences can even be predicted by the nation’s degree of collectivism or individualism (Diener et al., 1995).
Studies have demonstrated that AAs tend to hold greater interdependent self-construals than their European American counterparts (Krieg & Xu, 2018; Lewis et al., 2008), and may prioritize the overall happiness of the group over their personal happiness. An interdependent self-construal is linked to emotional suppression in AAs (Kraus & Kitayama, 2019; Markus & Kitayama, 1999). This down-regulation of emotions, often by masking or avoiding expression, may be used as a way to maintain harmony with others. For example, one may try to suppress their emotions by looking calm while feeling furious to avoid drawing attention or losing face in front of others. As such, AAs are much less likely to express their emotions, as it may risk disrupting or bothering others.

Similarly, while in Western culture, uniqueness holds positive connotations related to autonomy, it may instead be perceived as deviant in East Asian cultures. Instead, conformity and unity are preferred, as they promote interdependent values and behaviors. AIs and AAs are not only more willing to conform, but they also often prefer to do so. A study by Kim and Markus (1999) demonstrated that EAs primarily preferred targets representing uniqueness, while East Asians preferred targets representing conformity. These differences in construals of the self may lead to personal preferences and actions that result in dampening or tempering well-being, leading to a perception that AAs experience lower well-being compared to others.

**Self-Determination Theory and Autonomy.** Self-Determination Theory (SDT) focuses on the processes of self-motivation, and the subsequent development of individuals’ well-being. Ryan and Deci (2000) state that competence, autonomy, and relatedness are three innate psychological needs that must be satisfied to achieve well-being. The sense of choice and control over one’s actions can motivate behavior, and subsequently, happiness. A meta-analysis conducted by Yu et al. (2018) noted a moderate correlation between autonomy and SWB.
Similarly, AA parents commonly use authoritarian parenting practices, typically characterized by high demandingness and low responsiveness (Baumrind, 1991). As such, they are typically considered to be less autonomy granting to their children compared to EAs (Steinberg et al., 1992), and this lack of autonomy may negatively impact well-being.

However, this lack of autonomy could simply be a misinterpretation of cultural impacts, and instead may actually be beneficial to AAs. While AA parents often use authoritarian parenting styles, these practices are often characterized by reasoning and warmth (Chao & Tseng, 2002; Choi et al., 2013). AA parents do underline the importance of parental authority and familial obligations, but they also emphasize that children are able to make their own choices while keeping in mind the interdependent nature of their culture. Similarly, increased job autonomy is linked to an increase in conflicts with supervisors and job stress in China, despite having a buffering effect in the United States (Liu et al., 2011). For AAs, this withholding of control and autonomy may not intend to inhibit, but instead to protect and support.

Stress and Coping. The bidirectional relationship between stress and well-being has been examined in a multitude of studies. Research has demonstrated the inverse relationship of stress and happiness, as well as the buffering effect of happiness against stress (Schiffrin & Nelson, 2010; Suh et al., 1996). AAs may suffer from a particularly unique combination of stressors, including stress from discrimination or prejudice, acculturation and immigration, and the development of their multi-cultural identities (Romero et al., 2007). By extension, individuals with limited access to resources or methods of healthy coping, such as access and willingness to engage in social support, are at a significantly higher risk of psychological distress when exposed to stress (Pearlin, 1989). While AAs are more likely to make use of social support networks compared to more professional sources of help in crises (Yeh & Wang, 2000), they are
also more likely to emotionally suppress and avoid seeking social support, often to avoid burdening others with their own personal issues (Kraus & Kitayama, 2019; Taylor et al., 2004). This tendency towards self-concealment may result in further distress and diminished well-being, though the effect may not be as pronounced for individuals with more Asian-centered values (Butler et al., 2007). As such, AA’s experience with the variety and combination of sources of stress, as well as coping behaviors, may uniquely affect AA well-being.

**Personality and Big 5.** As personality may color how individuals view, experience, and respond to the world, much research has examined the association between personality traits and well-being. DeNeve and Cooper’s (1998) seminal meta-analysis examining the relationship between personality and well-being indicated that specific personality traits, such as trust and emotional stability, were closely associated with SWB. Similarly, the trait related to Big Five Factors that most strongly negatively predicted life satisfaction was neuroticism, while extraversion and agreeableness predicted PA. DeNeve (1999) argues that trends of SWB can be traced to personality traits that are tied to emotional stability and relationship enhancements. Similarly, other studies related to extraversion have demonstrated that extraversion is positively related to the ability to enjoy pleasant situations (Lucas & Baird, 2004; Lucas & Diener, 2001). The happiest individuals are those that are best able to experience their lives optimistically and foster positive, supportive relationships.

There is, however, evidence to suggest culture plays a unique role in the relationship between personality and SWB. Schimmack et al. (2002) demonstrated that personality has a pancultural impact on the emotional components of SWB, while the effect of personality on the cognitive component of SWB is moderated by how individualistic or collectivistic a culture is. Specifically, they found that hedonic balance more strongly predicted life satisfaction for
individuals from individualistic cultures compared to individuals from collectivistic cultures. Indeed, research has demonstrated that AA SWB may be associated with specific personality traits. A study by Eap et al. (2008) found that AA men demonstrated lower extraversion, conscientiousness, and openness, and higher neuroticism than EA men. Studies have also demonstrated a significant effect of extraversion, conscientiousness, and agreeableness on SWB for AAs (Lui et al., 2016). As such, AAs’ SWB may be uniquely impacted by personality.

Identity Denial, Othering, and Discrimination. Asian Americans represent a long and diverse history within America, with many able to trace their lineage as far back as the 17th century. Despite this, there are millions who fully identify as Americans, yet still experience identity denial because they have roots that trace back to Asian countries. Cheryan and Monin define identity denial as a situation in which an individual is not recognized or considered as a member of a particular in-group that they identify with. In their 2005 study, Cheryan and Monin found that while AAs do not see themselves as less American than their EA counterparts, they are still perceived as “others” and that this identity denial is an extremely common occurrence in their daily lives. AAs were five times more likely than EAs to be mislabeled as an immigrant or to be mistaken as a non-native English speaker. AA faces were also rated as significantly less American than both African American and Hispanic American faces, implying that this perception of “others” is stronger for AAs compared to other racial groups. Similarly another study demonstrated that AAs experience higher occurrences of negative emotions in the face of identity denial, and that second generation AAs were particularly affected (Wang et al., 2013). This pattern of othering consistently excludes AAs from their American identity, likely leading to negative consequences on their well-being.
Studies have demonstrated that perceived discrimination also negatively impacts well-being (Firat, 2017; Jang et al., 2008), and that AA adolescents consistently experience more discrimination than their EA counterparts (Huynh & Fuligni, 2010). AA youths particularly struggle with peer discrimination, more so than other ethnic groups (Kiang et al., 2016; Rosenbloom & Way, 2004), often attributed to the perception of AAs as a model minority. As a common stereotype for AAs, the model minority myth (MMM) perpetuates the belief that all AAs are law-abiding, intelligent, and successful citizens that contribute to society with their high academic and socioeconomic successes more so than other minority groups (Poon et al., 2016). However, studies have shown that the MMM is directly harmful to AA well-being, as this insidiously “positive” stereotype is often perceived as a back-handed compliment or even a direct insult (Thompson et al., 2016). Eng and Han (2000) have noted that AAs particularly suffer from a negotiation between racial mourning, or a full acceptance of the host culture and near abandonment of their past, and racial melancholia, or a perpetual and unstable process of assimilation. As the MMM is often considered by society as the only acceptable expression of AA culture, AAs are often suspended between two equally conflicting and harmful choices. Either they may choose to adhere to the MMM in order to be recognized by others in their society, or undertake the process of full colonial mimicry, acting along the ideals of whiteness but never able to fully achieve it. Yet, studies have also demonstrated that peers often exhibited resentment towards AAs due to the MMM. These studies noted that peers often hold the perception that AA students are favored by teachers and other school staff, or that they are so studious and intelligent that they ruin the grading curve for everyone else (Kiang et al., 2016; Rosenbloom & Way, 2004). Indeed, many AA students have reported that they often feel socially excluded, or even threatened, as a result of their race (Fisher et al., 2000; Rosenbloom & Way,
This image damages social relationships with peers for AA adolescents (Rosenbloom & Way, 2004), which are an important aspect of maintaining happiness (Diener & Seligman, 2002). These consistent experiences of identity denial, othering, and discrimination risk alienating AAs, and as such, leave them at risk for lower SWB throughout their lives.

**Acculturation Gaps and Intergenerational Conflict.** While AA families and communities may reinforce the traditional Asian values, languages, and practices, these may be rejected by their peers of Western cultures (Lee et al., 2000), potentially creating conflict for AAs who must balance these opposing influences. As AAs assimilate deeper into Western culture, they may find it difficult to relate to their immigrant predecessors. This is known as the acculturation gap, or the disparity of acculturation rate into host culture between a child and parent, making communication and understanding between generations difficult. While immigrant parents tend to acculturate slowly to American culture, their children tend to quickly acculturate due to their increased interactions with peers and institutions of the host culture (Ying & Han, 2007). Studies have shown these acculturation gaps, and subsequent intergenerational conflict, can lead to lower well-being for AAs (Costigan & Dokis, 2006; Dinh & Nguyen, 2006; Ying & Han, 2007), particularly for second-generation AAs. Specifically, Wu and Chao (2011) found that AA youths that experienced high acculturation dissonance with their parents reported more parental conflict and less familial support.

Parent expectations also play a role in AA well-being. Oishi (2005) found that AA college students reported lower SWB than their EA counterparts, and that this was mediated by perceived fulfillment of parental expectations. Similarly, compared to EAs, AA college students are more likely to perceive their parents as highly critical, and are more concerned with not fulfilling their parents’ expectations (Chang, 1998). These parental expectations are often highly
specific and usually revolve around high academic achievement (Chao & Tseng, 2002; Steinberg et al., 1992), making it more difficult for AAs to meet their parents’ requirements. Similarly, Tao and Hong (2014) found that AA students considered academic achievement as an obligation to their parents, and that this relationship was often associated with high anxiety, guilt, and shame, especially when met with conflicts or setbacks. As such, AAs may find it harder to feel satisfied with their lives when they feel that they fail to meet their parents’ expectations, resulting in more alienation from them, and these imposed standards may contribute to reports of lower SWB.

**Social Support Seeking.** Healthy, supportive social relationships are essential to well-being. Individuals are able to flourish in their lives when they are sufficiently supported by others (Diener & Seligman, 2002; Ryan & Deci, 2000; Uchida et al., 2008). There is some evidence that bicultural ethnic identity may result in a larger social network, and by extension, greater access to social support. Mok et al. (2007) found that individuals who identified strongly with both their ethnic culture and their host culture were more likely to have more host-culture friends, as well as for these relationships to be more deeply interconnected with each other. As such, AAs with more integrated bicultural identities have access to wider and more varied social networks, providing greater opportunities for social support.

Although the relationship between well-being and social support is supported throughout the world (Brannan et al., 2013; Taylor et al., 2004; Uchida et al., 2008), culture has been shown to strongly influence perceptions, and subsequent seeking of social support (Kim et al., 2008; Mortenson et al., 2006). Individuals from collectivist cultures are less likely to seek social support, as they may view this request as burdening others (Kim et al., 2006). By extension, AIs and AAs are not only less likely to seek social support, but also feel that support seeking is less effective and helpful than EAs (Kim et al., 2006; Taylor et al., 2004). Personal problems are
often seen as private, and should be resolved alone. The ability to manage one’s own problems and emotions alone is typically seen as a sign of strength in Asian cultures (Kim et al., 2001). Similarly, pursuing social support may be seen as socially expensive, as it risks disrupting group harmony and potentially losing face. Instead, both groups prefer implicit forms of social support, such as being reminded of belongingness and group membership, over explicit forms of social support, such as seeking advice and comfort (Kim et al., 2008; Taylor et al., 2004). As such, Asians and AAs may be forced to weigh their own personal needs against the potential burdens and losses that may stem from requesting social support.

Asians and AAs may also struggle in providing social support. Lawley et al. (2019) found that social support had specific requirements and conditions to be considered. Notably, Singaporean participants were more likely to provide social support to family members over acquaintances compared to U.S. participants. They also demonstrated that providers’ negative emotions were the highest when a provider felt a receiver’s needs were not met. For collectivistic cultures, relationships, particularly those of family, often imply a greater sense of obligation and reciprocity. As such, when help is requested, often the person is expected to comply and meet the receiver’s needs, again lending to a perception that needing social support is a socially risky and burdensome request. Overall, the combination of these tendencies to shy away from social support, or to preferentially seek or prefer particular forms of social support may contribute to lower well-being for these groups.

**Influences That May Enhance Asian American Well-Being**

**Ethnic Identity Development and Biculturalism.** Ethnic identity is the development of the self as aligned with a particular ethnic group through the process of investigation, learning, and commitment (Phinney & Ong, 2007). A meta-analysis by Smith and Silva (2011) found a
strong relationship between ethnic identity and positive well-being, particularly for individuals of minority or immigrant groups. The exploration and development of identities are also a key aspect for developing youths. Interactions between the individual and the environment help to shape the development of identities, and may influence well-being later in life (Nelson et al., 2018). A study on Mexican and Chinese adolescents found that strong ethnic identity not only positively influenced happiness on a day-to-day basis, but it also had a lasting effect on overall positivity and well-being (Kiang et al., 2006). As such, the development of strong ethnic identities likely enhances well-being for AAs.

Ethnic identity has been shown to buffer against negative experiences such as discrimination, lessening their harmful impacts on well-being (Phinney, 1996; Phinney & Ong, 2007). Studies demonstrate that strong ethnic identity promotes resilience by weakening the association between discrimination and negative emotional outcomes (Ikram et al., 2016; Rivas-Drake, Hughes, & Way, 2008), promoting higher self-esteem and better mental health (Crocker et al., 1994; Rivas-Drake et al., 2008), and increasing opportunities for positive coping strategies such as social support seeking (Smith & Silva, 2011; Yoo & Lee, 2005) and belongingness (Phinney & Ong, 2007; Smith & Silva, 2011). Interactions with peers may also help individuals to positively develop their ethnic identity by preparing them for bias, providing a protective factor against future experiences of discrimination (Nelson et al., 2018). As ethnic identity develops, it may provide both direct and indirect benefits to AA well-being, particularly as they learn to navigate the challenges and experiences of adolescence.

Biculturalism, or identifying with a combination of two cultures, similarly bolsters well-being (Hong et al., 2016; Liu et al., 2012). However, conflicts between the cultures that comprise one’s identity may instead cause further conflicts that lessen well-being. It is essential
for individuals to feel that their identity domains fit together, as conflicts between them can lead to lower psychological functioning (McLean & Syed, 2016). Indeed, research has shown that individuals who perceive their cultural identities as incongruent may instead experience further conflicts that lessen well-being (Ferrari et al., 2015). Bicultural Identity Integration (BII) is a construct that measures the degree to which an individual perceives their cultures as distant versus overlapping, and conflicting versus harmonious (Benet-Martínez & Haritatos, 2005). Individuals with low BII may perceive their cultures as highly dissimilar and may struggle combining them to form a coherent identity. This incompatibility may lead to further internal conflict, preventing the development of a strong sense of ethnic identity. American culture is more strongly oriented to individualist attitudes, often focusing on maximizing autonomy and freedom. In contrast, Asian culture is more strongly oriented to collectivist attitudes, often focusing on maximizing group harmony and interdependence. Indeed, many AA youths often perceive themselves as part of two distinct, even paradoxical, cultures (Benet-Martínez & Haritatos, 2005). As such, AAs that perceive their two cultures as too distant and conflicting may experience lower well-being. However, if AAs are able to reconcile these cultural conflicts, their bicultural identity may contribute to higher levels of well-being.

By extension, AAs who have weaker senses of ethnic identity may lack its buffering effect from negative outcomes of discrimination. Indeed, studies demonstrate that individuals with low BII and weaker ethnic identity experience higher distress and higher NA when facing discrimination (Jackson et al., 2012). Additionally, there may be a bidirectional relationship of discrimination with low ethnic identity. Increased experiences of discrimination may also decrease ethnic identity exploration and development (Romero & Roberts, 2003). However, should they resolve the conflict between their two cultures, AAs will be better able to benefit
from their strengthened sense of ethnic identity, resist the negative impacts of discrimination, and experience stronger well-being throughout their lifespan.

**Self-Esteem.** Self-esteem is defined as an individual’s sense of their own worth. Much of the literature examining well-being and self-esteem suggests a strong association between the two. Higher self-esteem has been directly linked with life satisfaction (Diener & Diener, 1995), and also indirectly through other correlates of happiness such as stronger interpersonal behaviors and higher self-acceptance (Paradise & Kernis, 2002). Studies have demonstrated that self-esteem is more strongly associated with life satisfaction in individualist cultures compared to collectivist cultures (Diener et al., 1995; Oishi et al., 1999b). It is possible that because individualist cultures place a stronger emphasis on the needs of the individual and positive self-views, higher self-esteem may be more valued in these communities.

There is also a tendency of both AIs and AAs to place less importance on the self. Asian cultures often center on invisibility and not taking space where one does not belong. Asians are more likely than EAs to adjust to a given situation rather than exert active control (Morling, 2002; Weisz et al., 1984). AIs and AAs are also more likely to emotionally suppress (Kraus & Kitayama, 2019) rather than express when faced with conflicts. AIs and AAs are often discouraged against speaking out or acting out of personal interest, typically to avoid loss of face (Kim et al., 2001; Kim et al., 2006), potentially implying that group harmony takes precedence over the individual. As such, self-esteem is less likely to be valued for AIs and AAs, which in turn may negatively impact overall AA well-being.

**Religion and Religiosity.** Religion can play a substantial role in the lives of AAs. A 2012 Pew Survey indicated that 74% of all AAs reported some religious affiliation, with Christians (42%) and Buddhists (14%) as the two largest religious affiliations. Each AA ethnic community
is more likely to display a different religious faith. For example, most Vietnamese Americans are Buddhist, and most Korean Americans are Protestant. Indeed, religiosity has been positively related to well-being and better life satisfaction in both general populations (Leondari & Gialamas, 2006) as well as AA communities (Allen & Heppner, 2011; Davis & Kiang, 2016). There are a multitude of aspects that may link religiosity and stronger well-being. A more direct link relates meaning and purpose of life, spiritual involvement, and religious practices to well being, while other more indirect paths examine the relationship between religiosity and other correlates of happiness such as increased access to social support, or access to similar cultural and ethnic communities (Koenig et al., 2001; Lee, 2007). For example, Korean Americans are significantly more likely than other AA groups to utilize religion and religious communities when coping with stressors (Yeh & Wang, 2000). As such, religion and religiosity may provide a multitude of paths towards improved well-being for AAs.

**Education and Income.** Both education and income have been shown to have a positive relationship with happiness (Argyle, 1999). Many studies have demonstrated that educated individuals often report higher levels of well-being (Cuñado & de Gracia, 2012; Easterlin, 2001). Education may also facilitate well-being indirectly by improving other aspects related to SWB, such as income levels and social networks (Chen, 2012; Cuñado & de Gracia, 2012), allowing individuals to better flourish in their lives. Studies have also demonstrated that higher income may positively impact happiness, and that life evaluations typically increase with income (Cummins, 2000; Kahneman & Deaton, 2010). This relationship remains consistent throughout the world (Ball & Chernova, 2008). Diener et al. (2013) found that wealthier nations are generally happier than poor nations, and that life satisfaction for these countries also increases with wealth over time. Similar to education, income may also facilitate well-being through other
factors related to SWB, including the increase of choices and autonomy (Diener & Seligman, 2004), access to goods and services (Noll & Weick, 2015), and the allowance of more time to enjoy and facilitate social relationships (Becchetti et al., 2011).

Asian Americans have the highest level of both education and income compared to other ethnic groups in North America (Wirtz et al., 2009), and even have higher average levels of socioeconomic status than EAs (Sakamoto et al., 2009). U.S. Census data indicated that 57% of AAs aged 25 or older had earned a bachelor’s degree or higher level of education in 2019. AAs also held the highest median income compared to all other race groups at $98,174 per year, a 10.6% increase from the 2018 U.S. Census, and reported a 7.3% poverty rate. As such, models of SWB related to these factors predict that AAs should present with higher levels of SWB.

**Familism and Family Relationships.** As an ethnic group with heavily collectivist beliefs, family relationships and respect are often highly valued among AAs. Many Asian cultures and belief systems heavily revolve around the concept of filial piety, or the virtue of respect for one’s ancestors (Markus & Kitayama, 1991; Suzuki, 2001). As such, family relationships can play an extremely important role for AAs. Indeed, research has demonstrated a positive association between family relationships and positive psychological functioning (Schwartz et al., 2010), particularly for AAs (Yu et al., 2016).

By extension, family relationships help to shape the foundations of AA identity development. AA families typically engage socialization practices that involve aspects of their unique culture, heritage, and traditions, while also integrating aspects of the host culture (Nguyen et al., 2015). This ethnic socialization can be integral to the development of AA ethnic identities. Indeed, research has demonstrated that when AA families provide consistent and effective forms of ethnic socialization, their children are more likely to form stronger, positive ethnic identities,
and experience better well-being (Nguyen et al., 2015). Strong, positive family relationships and values of familism have the opportunity to provide benefits towards AA well-being.

**Other Complications Regarding Asian American Well-Being**

As noted above, there are many ways that AAs’ SWB may be impacted. However, as seen above, AAs face a number of complex issues that do not necessarily attenuate or improve their well-being, but instead complicate their experiences in North America, making it difficult for them to fully realize their version of SWB. Similarly, there is some evidence that AAs may not necessarily be unhappy, but instead experience happiness differently compared to typical aspects, definitions, and measurements. We discuss some of these theories below.

**Basis and Perception of Happiness.** There are often significant differences in how cultures perceive happiness. Research has demonstrated that subjective well-being is strongly tied to cultures (Wong et al., 2011), and as AAs draw cultural influences from both American and Asian cultures, their SWB is similarly influenced by both. EAs are more likely to attribute happiness to personal effort and achievement, and interpret it as a sign of individual success, while East Asians are more likely to attribute happiness to good luck and fortune, usually through the support of positive external sources (Lu et al., 2001; Uchida & Oishi, 2016). A study conducted by Uchida and Kitayama (2009) similarly found that EA participants described happiness as a positive hedonic experience marked by personal achievement, while Japanese participants associated happiness with social harmony and internal self-approval. Similarly, individuals raised under East Asian influences typically have selves that are notably context-sensitive, such that their expressions of the self may vary widely depending on the current situation or company around them (Suh, 2002; Suh, 2007). East Asians’ self-views often change drastically across social contexts compared to those of Americans, adjusting themselves
to fit to the world around them rather than changing their environment to fit themselves. East Asians are particularly attuned to their obligations to those around them, so basing their sense of self on changing contexts is essential to maintaining positive social harmony and valued bonds with others. Another study extended the idea of the context-sensitive self to consistency in emotions. Koh et al. (2014) found that Singaporeans were more likely to organize and conceptualize emotions in the context of their relationships with others. Suh (2007) noted there are many reasons a highly context-sensitive self would experience lower SWB, including more social comparison, less savoring, and more avoidance, but also less pressure to pursue happiness and less value placed on happiness. As such, these different interpretations of happiness may inadvertently affect how individuals within each culture experience SWB.

From different perspectives emerge differences in interpretations and understandings of happiness. As the understanding of East Asian happiness pertains more toward good luck and good fortune, East Asians are more inclined to believe in a natural flow and ebb of happiness throughout their lives compared to their EA counterparts. Many Asian philosophies such as Confucianism and Hinduism similarly believe that life is a natural cycle of both good and bad, and though there are things one may do to influence their life for the better, change is always inevitable (Ji et al., 2001). AIs and AAs may not be as not highly motivated to pursue their own personal happiness, but instead may choose to focus on the collective happiness of the group. In contrast, EAs argue that positivity can be sustained, and that change in happiness can be avoided as long as one is willing to put in personal effort (Ji et al., 2001). Opposing cultures may vary in their dedication in the pursuit of happiness, and as a result, experience differences in happiness itself. Depending on how strongly AAs draw from either culture, their SWB may be impacted.
Measurement of SWB. Individuals’ perceptions often affect their experiences of emotions. Understanding how and why people are happy are essential to understanding the processes related to SWB itself. A study assessing the ideal affect in daily life and behavior found marked differences in European American and East Asian cultures. Tsai (2007) found that EAs valued high-arousal PA states, such as excitement and enthusiasm, more strongly than East Asians. In contrast, East Asians valued low-arousal PA states, such as calm and peacefulness, more strongly than EAs. Tsai also found that when examining typical behaviors for each culture, EAs often look to influence and persuade others, in which high-arousal PA is more effective, while East Asians focus on adapting and accommodating others, in which low-arousal PA is more effective. As such, if most scales of SWB focus on measuring high-arousal PA compared to low-arousal PA, this would underestimate the PA levels of AAs. By extension, if the scales used to measure SWB focus on particularly Western ideals of happiness, reported SWB for other cultures will likely be lower as it is out of line with their cultural practices and behaviors.

Though the evidence is mixed, Asians and AAs may prefer to avoid extreme responses for scales. A study by Chen et al. (1995) indicated that East Asian college students were more likely to demonstrate low preference for extreme values, and high preference for midpoints compared to their EA counterparts, though Diener et al. (1995) contested this in the context of SWB measurement. Lee et al. (2002) found that AAs were also more likely to select the midpoint for survey items indicating positive emotions compared to other Americans. This aversion to extreme responses may reflect the tendency of collectivistic groups to maintain harmony by avoiding potentially divisive opinions. Remaining neutral is often preferred over seeming atypical. While these measurement inconsistencies cannot fully account for the
cross-cultural differences in SWB, this preference for more moderate responses may still underestimate the true level of SWB for AAs.

Measurement of SWB may also be influenced by the values an individual holds. Maslow’s need-gratification theory (1970) notes that the satisfaction of an individual’s needs and values influences their judgments of life satisfaction. The values-as-moderator model, proposed by Oishi et al. (1999a), extends this theory by positing that culture strongly influences values, and the satisfaction of these values in turn influence global life satisfaction. It also states that when judging life satisfaction, individuals will weigh value-congruent domains more heavily than value-incongruent domains. These differences in predictors of life satisfaction exist on both the individual and the cultural level (Oishi et al. 1999a; Oishi et al. 1999b). As such, a person from an individualist culture is more likely to value autonomy, and will thereby score higher on SWB measures related to autonomy compared to a person from a collectivist culture. In contrast, global life satisfaction is more strongly influenced by family life and social relationships for persons high in conformity values. Diener et al. (1995) noted that Asian students reported high levels of satisfaction in regards to their relationships with family and friends, but reported lower levels of satisfaction with other aspects of their lives related to academics or material indicators of wealth, leading to lower overall reports of SWB. As such, theories may need to account for culture-specific predictors of life satisfaction in order to appropriately assess AA SWB.

Current Studies

The purpose of this review is to assess studies that have measured Asian American life satisfaction. From these studies, we aim to estimate the mean level and variability of life satisfaction of AAs, as well as to systematically compare the life satisfaction of AAs to that of EAs. We look to quantify the number of studies that examine AA life satisfaction, to confirm if
this conclusion remains a consistent finding across the studies. We also aim to summarize and collate the various theories of what impacts Asian American happiness.

We predicted that AAs would consistently report lower levels of life satisfaction compared to EAs. However, as noted above, there are many ways that SWB may be impacted. One inconsistency revolves in the panethnic label of Asian American that the many various cultural groups are assigned. It is possible that studies that report the ethnic or generational breakdown of AAs may report different results compared to studies that use the generic term alone. It is also possible that studies that focus on the negative impacts to AA well-being may also be more likely to report lower SWB scores for AAs. Similarly, studies that were conducted more recently, or studies reporting differences by region or state may demonstrate different reports of AA SWB. While this review in particular will not be able to provide direct evidence as to why there may be differences between these groups, it can help to gain a more nuanced understanding of happiness and provide further insights to cross-cultural experience of SWB.

**STUDY 1: Asian American Life Satisfaction**

**Method**

**Systematic Review Process**

We searched electronic published literature using the PsycINFO database. The searches were conducted between September 2019 to March 2020, and were updated to include sources to May 2020. Searches were limited to articles on Asian American subjective well-being published in the English language. We conducted searches using combinations of keywords related to concepts of happiness (e.g. “life satisfaction” or “happiness”) and to AA groups (e.g. “Asian American” or “Chinese American”). Dissertations were also excluded as many were unavailable for access. The list of search terms related to AA well-being is shown in Appendix A.
The electronic search yielded 237 articles. Three reviewers (K.T., H. P., & M.G.) scanned titles and abstracts to retain articles that fulfilled the inclusion criteria. Each article was required to use the SWLS as a measure of life satisfaction, and to include at least one Asian American sample. The full exclusion process is detailed in Figure 1. To maximize the number of eligible studies, articles that used different response scales, such as a 5-point scale, were adjusted to a 7-point scale using Percent of Maximum Possible (POMP; Cohen et al., 1999). This allowed for the comparison of studies regardless of the response scale used. Through the screening process, 187 articles were excluded due to not meeting the inclusion criteria for this study, with 8 articles missing an AA sample, 99 articles lacking the use of SWLS, and 80 articles lacking relevance to the study. The remaining 50 full-text articles were assessed for eligibility. Four articles were further excluded, either due to the use of a modified SWLS ($n = 2$) or lacking the use of the SWLS with an AA sample ($n = 2$). Five duplicate articles were also excluded. However, some of the studies did not report the necessary SWLS information. If SWLS means were not able to be extrapolated from the information provided, the authors of the articles were contacted by email. This email template can be found in Appendix B. If the authors did not respond in two weeks, a follow up email was sent. If the authors still did not respond to the follow up email after two weeks, the article was discarded from the analyses, resulting in 7 papers discarded. The overall process resulted in a final sample of 34 papers, with a total of 36 studies included.

**Meta-Analysis**

The goal of a meta-analysis is to examine related empirical studies, in order to systematize a clearer understanding of a particular concept or research topic (Lipsey & Wilson, 2001; Normand, 1999). This allows for the development of a more cohesive view of the direction and size of effects throughout the field. Overall, meta-analytic techniques can help to shed light
on the typical reporting practices and the overall trend of life satisfaction in the literature related to AA subjective well-being. As such, this study aimed to use a meta-analytic process in order to examine the results of the literature regarding AA SWB.

When possible, theoretically relevant variables were coded. However, because empirical studies on this topic are sparse, it was expected that not all factors would be able to be analyzed. Please see Table 2 for the included variables for coding.

**Coded Variables**

Once studies met the inclusion criteria, they were coded to assess theoretically relevant variables, including participant characteristics, study and journal characteristics, representation of AA participants, and the measurement quality of AA samples. However, once the coding process was complete, if it was clear that there was not enough information provided across studies to examine the variable as a potential predictor, the variable was omitted from the study. The coded variables were assessed as potential predictors of AA life satisfaction. Identifying and investigating potential predictors allows for a clearer view of the puzzle of AA subjective well-being. Please see Appendix C for the coding manual used for this process.

All studies were coded by raters K.T., A.J., and A.B. All three raters coded the majority of the codes, though rater K.T. coded the variable Quality of Assessment of Generational Status alone. Across all studies, interrater reliability between raters K.T., A.J., and A.B. was 0.8988. Further information on interrater reliability can be found in Table 3.

**Correlations of Coded Variables**

Pearson’s $r$ was used to examine the relationship of coded variables to AA life satisfaction. Correlations were chosen as they are the most appropriate way to observe the relationship between two variables of interest. Each variable was examined as a continuous
predictor, or as dummy coded categorical predictor. Descriptions of all coded variables can be found in Table 4.

Results

Descriptives and Preliminary Analyses

Articles had a variety of reporting practices regarding demographic characteristics, reporting practices, and study and journal characteristics. A summary of these descriptives can be found in Table 5.

All research was conducted in the U.S., and published between 2000 and 2020. The journal with the highest number of publications of AA well-being was the *Asian American Journal of Psychology* with 7 publications. The mean impact factor of all the journals was 2.67 (range = 1.05 - 6.32). The total AA sample size across all studies included 5,193 participants (\(M = 144\) participants, range = 23 - 684). The mean Cronbach’s alpha of all studies was 0.864 (range = 0.73 - 0.93). The majority of data collection was sampled from national or multistate samples (\(n = 10\)), and the most common state of data collection was Illinois (\(n = 6\)), specifically from the University of Illinois, potentially due to the influence of Diener and his research.

Across all included studies, 61.1% of articles included a breakdown of AA ethnic identity and 52.8% included a breakdown of generational status. Of the studies that included a breakdown of AA ethnic identity, 68.2% included at least one East Asian group, 27.3% included at least one Southeast Asian group, and 40.9% included at least one South Asian group. Of all the ethnic identities represented, the most common identities were Korean (\(n = 13\)) and Chinese Americans (\(n = 9\)). However, of the studies that provided a breakdown of AA ethnic identity, 33.3% included at least one unspecified AA group. Of the studies that provided a breakdown of AA generational status, 100% included at least one 1st generation group, 36.8% included at least
one 2nd generation group, and 5.3% included 3rd and beyond generation groups. While the percentages for 2nd and beyond generations may seem low, many studies instead compared Asia-born versus U.S.-born AAs, where Asia-born AAs were defined as 1st generation or immigrant AAs, and U.S.-born AAs were defined as individuals born in the U.S. and included 2nd generation and beyond AAs. U.S.-born AAs were included in 89.5% of the studies.

Asian American Life Satisfaction

SWLS scores were extrapolated from all eligible studies and interpreted as a mean sum on a 7-point response scale, providing an overall possible score range of 5, being the least satisfied, to 35, being the most satisfied. The meta-analysis for AA life satisfaction was calculated using a random effects model with the Hartung-Knapp-Sidik-Jonkman method and the Sidik-Jonkman \( \tau_u \) estimator, as it is likely that these studies, while testing the same populations, were not functionally identical or equivalent (Lipsey & Wilson, 2001; Hartung, 1999). Across all included studies, AAs reported a mean life satisfaction score of 22.66 (95% CI [21.84, 23.48], range = 16.60 - 27.75). Tests of heterogeneity indicated that there was sufficient heterogeneity to proceed to further analyses (\( I^2 = 97.0\% \), 95% CI [96.5%, 97.5%]).

Publication Bias

While one of the main goals of conducting meta-analyses is to gain a stronger, more comprehensive understanding of the relationship between variables, it is entirely possible that publication bias may skew the outcome of meta-analyses. Studies on this topic of interest may have been conducted but never published, or there may be underrepresentation of studies with small subject samples. As such, a funnel plot was created for the meta-analytic model to represent the potential presence of publication bias for this study (Figure 2). Similarly, a graphical display of study heterogeneity (GOSH; Olkin et al., 2012) plot provides a visualization
of between-study heterogeneity across the included studies (Figure 3). Neither test indicated the presence of significant publication bias, though they did highlight the wide variability of reported life satisfaction for AAs.

**Predictors of Asian American Life Satisfaction**

All correlation analyses were conducted using R version 4.1.0. Each coded variable was analyzed using pairwise deletion to examine if it significantly predicted AA life satisfaction. Correlations of each coded variable to AA life satisfaction can be found in Table 6. However, no variables significantly predicted AA life satisfaction.

**Discussion**

This study utilized meta-analytic techniques to examine the reports of Asian American life satisfaction across the literature. This study also assessed the relationship of theoretically relevant predictor variables to Asian American life satisfaction. The predictor variables included aspects of participant characteristics, study and journal characteristics, and measurement quality of variables.

**Asian American Life Satisfaction**

Across all studies, AAs reported a mean life satisfaction score of 22.66. Given Diener’s (2006) recommendations of interpreting life satisfaction scores, a score of 22 indicates that AAs are slightly satisfied with their own lives, and match the average level of life satisfaction of the U.S. This implies AAs are generally satisfied with their lives. It is important to note that this score shows that AAs are not unhappy, but simply that there is room for their lives to improve.

However, there was a wide range of reported life satisfaction across the studies. Some studies reported means as low as 16.60, indicating a slight dissatisfaction with life, while others reported means as high as 27.75, indicating high levels of satisfaction with life. This reinforces
that AAs are not one single, uniform group, but instead are composed of many unique and varied cultural and generational groups that have a wide range of experiences of well-being.

**Predictors of Asian American Life Satisfaction**

All variables examined in this study did not significantly predict AA life satisfaction. This may imply that there were no tested sampling artifacts related to the reporting of AA life satisfaction. For example, studies with higher impact factors did not report lower AA life satisfaction than studies with lower impact factors, suggesting no significant variability or bias when reporting AA life satisfaction. However, a few of the variables did not have enough information reported or variability to be tested as potential predictors. Specifically, publication type, racial identity breakdown, scale design, and all variables related to income were omitted from this study.

All studies included were from published research articles, and utilized either the original or a translated version of the original survey. Similarly, the majority of the studies focused solely on AA well-being, or compared AA-EA differences in life satisfaction, with only a few including small samples of African American or Latino/a American participants. All variables related to income were omitted as not enough information was provided to conduct analyses related to life satisfaction. Additionally, the few studies that did provide information related to income were not consistent in the reporting of income, further limiting the ability to conduct analyses related to AA life satisfaction. For example, certain studies would report the overall mean income for the sample, while others would report various ranges of income groups. The inability to test these variables highlight potential areas of improvement for the current trends and reporting practices related to AA well-being.
The study results indicated that there was sufficient heterogeneity among the sample to indicate potential differences across the study, yet none of the variables analyzed significantly predicted AA life satisfaction. However, as this was an exploratory analysis, it is possible that there may be other effects or impacts on life satisfaction that need to be explored. For example, other variables related to participant, study, or journal characteristics, or other theoretically important variables not yet explored, such as religion, may significantly predict AA life satisfaction. As such, it is recommended to continue further explorations to gain a stronger understanding of AA well-being.

**STUDY 2: Asian American versus European American Life Satisfaction**

**Method**

**Systematic Review Process**

Articles from the first study were evaluated to see if they fulfilled the requirements of the inclusion criteria of Study 2. Each article was required to use the SWLS as a measure of life satisfaction, to include at least one AA sample and at least one EA sample. The full exclusion process is detailed in Figure 1. As with Study 1, to maximize the number of eligible studies, articles that used different response scores were adjusted according to a 7-point scale using POMP (Cohen et al., 1999). Studies were excluded if they did not have AA and EA samples, and did not use the SWLS to measure life satisfaction. The original sample of 34 records was evaluated for the use of an EA sample, resulting in the exclusion of 18 further articles. The overall process resulted in a final sample of 16 papers, with a total of 18 studies included.

**Meta-Analysis**

This study aimed to use a meta-analytic process in order to examine the results of the literature regarding AA SWB as compared to EA SWB. When possible, theoretically relevant
variables were coded. However, because empirical studies on this topic are sparse, it was expected that not all factors would be able to be analyzed. Please see Table 2 for the included variables for coding.

**Effect Size**

Cohen’s $d$ was used to estimate the effect size of difference between AA and EA life satisfaction, as it provides a way to compare and analyze two groups’ means. For each study examined, the effect size of difference between AA and EA life satisfaction was extrapolated. Effect size for life satisfaction was calculated such that a positive value indicated a higher reported mean for AA life satisfaction. Effect sizes were calculated based on means and standard deviations of SWLS from each study. If this information was not available, we attempted to calculate effect sizes from the information provided using Wilson’s Practical Meta-Analysis Effect Size Calculator as cited in *Practical Meta-Analysis* (Lipsey & Wilson, 2001). If effect sizes still could not be derived from the information available, the authors of the articles were contacted by email in request of the necessary information using the same process as used in Study 1. This email template can be found in Appendix B.

**Coded Variables**

Once studies met the inclusion criteria, they were coded to assess the same participant characteristics, study and journal characteristics, representation of AA participants, and the measurement quality of AA samples as Study 1. However, once the coding process was complete, if it was clear that there was not enough information provided across studies to examine the variable as a potential moderator, the variable was omitted from the study. The coded variables were assessed as potential moderators to the relationship between AA and EA life satisfaction. Please see Appendix C for the coding manual used for this process.
All studies were coded by raters K.T., A.J., and A.B. All three raters coded the majority of the codes, though rater K.T. coded the variable Quality of Assessment of Generational Status alone. Across all studies, interrater reliability between raters K.T., A.J., and A.B. was 0.8988. Further information on interrater reliability can be found in Table 3.

**Meta-Regression of Coded Variables**

Meta-regression was used to examine the relationship of the coded variables to the effect size between AA and EA life satisfaction. Meta-regressions were chosen as they are the most appropriate way to observe the impact of moderators on study effect sizes. Each variable was examined as a continuous moderator, or as a dummy coded categorical moderator. Descriptions of each moderator variable can be found in Table 4.

**Results**

**Descriptives and Preliminary Analyses**

Articles had a variety of reporting practices regarding demographic characteristics, reporting practices, and study and journal characteristics. These descriptives can be found in Table 7.

All research was conducted in the U.S., and published between 2000 and 2018. The journal with the highest number of studies related to AA well-being was the *Journal of Personality and Social Psychology* with 4 studies across 2 publications. The mean impact factor of all the journals was 3.39 (range = 1.02 - 6.32). The total AA sample size across all studies included 1,612 participants (M = 90 participants per study, range = 23 - 284), and the total EA sample size across all studies included 4,122 participants (M = 229 participants per study, range = 32 - 2,478). The mean Cronbach’s alpha of all studies was 0.86 (range = 0.77 - 0.93). The
majority of data collection was conducted in Illinois, specifically from the University of Illinois at Urbana-Champaign, again likely due to the influence of Diener and his research \( (n = 5) \).

Across this subset of studies, 44.4\% of articles included a breakdown of AA ethnic identity and 33.3\% included a breakdown of generational status. Of the studies that provided a breakdown of AA ethnic identity, 37.5\% included at least one East Asian group, 12.5\% included at least one Southeast Asian group, and 50.0\% included at least one South Asian group. Out of all the ethnic identities represented, the most common ethnic identities were Japanese, Korean, and Chinese Americans \( (n = 3 \text{ each}) \). However, of the studies that provided a breakdown of AA ethnic identity, 75.0\% \( (n = 6) \) included at least one unspecified AA group. Of the studies that provided a breakdown of AA generational status, all studies compared Asia-born and U.S.-born AAs, combining 2nd and beyond generations into a single group.

**Effect Size of Difference Between Asian American and European American Life Satisfaction**

SWLS scores were extrapolated from all eligible studies and interpreted as a mean sum on a 7-point response scale, providing an overall possible score range of 5, being the least satisfied, to 35, being the most satisfied. Across the 18 final studies, AAs reported a mean of 22.32 (95\% CI [21.49, 23.15], \( range = 18.32 - 25.78 \)), while EA reported a mean of 24.18 (95\% CI [23.41, 24.94], \( range = 21.28 - 26.02 \)).

The meta-analysis for determining the effect size of difference between AA and EA life satisfaction was conducted using R version 4.1.0 with the Meta and Metafor packages. It consisted of 18 effect sizes across 18 studies. The overall effect size was calculated using a random effects model with the Hartung-Knapp-Sidik-Jonkman method and the Sidik-Jonkman \( \tau_U \) estimator, as it is likely that these studies were not functionally identical or equivalent.
(Lipsey & Wilson, 2001; Hartung, 1999). As such, these studies were likely to have differed in ways that could potentially impact the final results.

The overall effect size of difference between AA life satisfaction and EA life satisfaction was statistically significant, indicating that AAs do report moderately lower life satisfaction compared to their EA counterparts ($d = -0.39$, 95% CI [-0.61, -0.17], $p < .001$). Please see Figure 4 for the forest plot highlighting the overall distribution of effect sizes for the meta-analytic model. Tests of heterogeneity indicated that there was sufficient heterogeneity to continue to moderator analyses ($I^2 = 88.6\%$, 95% CI [83.3\%, 92.2\%]). However, further analyses detected a subset of studies that fell outside of the 95\% confidence interval of the pooled effect. Three studies were excluded as they did not overlap with the confidence interval of the pooled effect, resulting in 15 studies. The overall effect of the trimmed sample remained significant even after removing three outliers ($d = -0.51$, 95% CI [-0.73, -0.30], $p < .001$). Please see Figure 5 for the forest plot highlighting the trimmed distribution of effect sizes. Tests of heterogeneity indicated that there was sufficient heterogeneity to continue to moderator analyses ($I^2 = 86.4\%$, 95% CI [78.8\%, 91.3\%]). All further analyses were conducted using the trimmed sample.

**Outliers**

Three studies were removed from the final trimmed samples as they were detected as significant outliers. While these studies did not significantly differ from the other samples in terms of participant, study, or journal characteristics, the reported outcomes related to the effect size of difference were in the opposite direction. In these three studies, AAs ($M = 22.83$) reported slightly higher life satisfaction compared to EAs ($M = 21.34$), though this difference was not significant ($d = 0.12$, 95% CI [-0.08, 0.31], $p = .123$).
Publication Bias

While conducting meta-analyses has many benefits, it is entirely possible that publication bias may skew the outcome of meta-analyses. Funnel plots were created for the untrimmed and trimmed meta-analytic models to represent the potential presence of publication bias for this study. Please see Figures 6 and 7 for the untrimmed and trimmed models respectively. Egger’s test of the intercept (Eggers et al., 1997) indicated there was not substantial asymmetry in the untrimmed \( Y_0 = -1.10, p = .616, \) 95% CI \([-5.29, -3.09]\) and trimmed \( Y_0 = -1.32, p = .530, \) 95% CI \([-5.33, -2.69]\) funnel plots. Similarly, the GOSH plots (Olkin et al., 2012) indicated a high level of heterogeneity across all included studies, suggesting there may be aspects that significantly moderated the effect size of difference. Please see Figures 8 and 9 for the GOSH plots for untrimmed and trimmed data respectively.

Comparison of Studies - Asian Americans-Only Studies versus Asian American and European American-Comparison Studies

Since this study examines a subset of articles within the first study, I examined differences between the subset of studies including only AAs (AA-Only studies), and studies comparing AAs and EAs (AA-EA Comparison studies). A full description of these comparisons can be found in Table 8.

Asian American Life Satisfaction

AA-Only studies \( M = 22.97, \) 95% CI \([21.54, 24.41]\) did not significantly differ from AA-EA Comparison studies \( M = 22.32, \) 95% CI \([21.49, 23.15]\) in reports of AA life satisfaction \( t(28) = -0.73, p = 0.474, \) 95% CI \([-0.86, 1.43]\).
**Impact Factor**

AA-Only studies significantly differed from AA-EA Comparison studies in journal impact factor ($t(25) = -3.35, p = .003, 95\% \text{ CI } [-2.58, -0.62]$), such that AA-Only studies ($M = 1.79$) were published in journals with lower impact factors than AA-EA Comparison studies ($M = 3.39$).

**Publication Year**

AA-Only studies significantly differed from AA-EA Comparison studies in publication year ($t(28) = 2.82, p = .009, 95\% \text{ CI } [1.24, 7.87]$), such that AA-Only studies ($M = 2012.39$) were published much later than AA-EA Comparison studies ($M = 2007.83$).

**Age of Sample**

AA-Only studies significantly differed from AA-EA Comparison studies in the age of sample ($t(20) = 2.70, p = .014, 95\% \text{ CI } [3.35, 25.85]$), such that AA-Only studies ($M = 36.16$) utilized much older samples than AA-EA Comparison studies ($M = 21.57$).

**Breakdown of Ethnic Identity**

AA-Only studies significantly differed from AA-EA Comparison studies in the breakdown of AA ethnic identity ($t(33) = 2.12, p = .042, 95\% \text{ CI } [0.01, 0.65]$), such that AA-Only studies ($M = 0.78$) were included more breakdowns of AA ethnic identity than AA-EA Comparison studies ($M = 0.44$).

**Ethnic Identity - East Asian Americans**

AA-Only studies significantly differed from AA-EA Comparison studies the inclusion of East AA samples ($t(32) = 3.43, p = .002, 95\% \text{ CI } [0.20, 0.80]$), such that AA-Only studies ($M = 0.67$) utilized samples with more East AAs than AA-EA Comparison studies ($M = 0.17$).
**Breakdown of Generational Status**

AA-Only studies significantly differed from AA-EA Comparison studies in the breakdown of AA generational status ($t(34) = 2.47, p = .019, 95\% \text{ CI } [0.07, 0.71]$), such that AA-Only studies ($M = 0.72$) were included more breakdowns of AA generational status than AA-EA Comparison studies ($M = 0.33$).

**Generational Status - Asia-Born Asian Americans**

AA-Only studies significantly differed from AA-EA Comparison studies the inclusion of Asia-born AA participants ($t(34) = 2.47, p = .019, 95\% \text{ CI } [0.07, 0.71]$), such that AA-Only studies ($M = 0.72$) utilized samples with more Asia-born AAs than AA-EA Comparison studies ($M = 0.33$).

**Quality of Assessment of Asian American Ethnic Identity**

AA-Only studies significantly differed from AA-EA Comparison studies in the quality of assessment of AA ethnic identity ($t(33) = 3.84, p < .001, 95\% \text{ CI } [0.89, 2.89]$), such that AA-Only studies ($M = 3.72$) had higher measurement quality than AA-EA Comparison studies ($M = 1.83$).

**Quality of Assessment of Asian American Generational Status**

AA-Only studies significantly differed from AA-EA Comparison studies in the quality of assessment of AA generational status ($t(29) = 3.12, p = .004, 95\% \text{ CI } [0.36, 1.75]$), such that AA-Only studies ($M = 2.56$) had higher measurement quality than AA-EA Comparison studies ($M = 1.50$).
Sample Size of Asian American Participants

AA-Only studies significantly differed from AA-EA Comparison studies in AA sample sizes $t(24) = 2.66, p = .014, 95\%$ CI [24.35 194.76]), such that AA-Only studies ($M = 199.11$) had larger samples of AAs than AA-EA Comparison studies ($M = 89.56$).

Moderators of the Effect of Relationship Between Asian American and European American Life Satisfaction

All meta-regression analyses were conducted using R version 4.1.0 with the Meta and Metareg packages. Each coded variable was analyzed using a mixed effects model to examine if it significantly moderated the relationship between AA and EA life satisfaction. These results are summarized in Table 9. However, the majority of the variables did not significantly moderate the relationship between AA and EA life satisfaction. The variables that significantly moderated this relationship included the age of the sample, presence of Southeast AAs in the study, if the study identified generational status, if the study included Asia-born and U.S.-born AAs, and the quality of assessment for both AA ethnic identity and generational status. L’Abbé plots (L’Abbé et al., 1987) provide a way of visualizing the overall trend of the moderators and effect size. Please see Figure 10 for the L’Abbé plots associated with these variables.

Age of Sample

The age of the sample significantly moderated effect size differences, ($F(1, 9) = 5.91, p = .038, \beta = 0.149, 95\%$ CI [0.010, 0.287], $I^2 = 82.27\%$), and accounted for 32.38% of the variability in effect size differences. Samples with younger participants had larger effect sizes between AA and EA life satisfaction. However, further analyses indicated that one outlier was entirely driving this effect. When the outlier was excluded, age of the sample no longer
significantly moderated the effect size of difference ($F(1, 8) = 0.0002, p = .988, \beta = 0.002, 95\% CI [-0.30, 0.31], I^2 = 80.28\%)$.

**Ethnic Identity - Southeast Asian Americans**

The presence of Southeast AAs significantly moderated effect size differences, ($F(1, 12) = 8.40, p = .013, \beta = -0.506, 95\% CI [-0.886, -0.126], I^2 = 75.87\%)$, and accounted for 34.43% of the variability in effect size differences. Studies that included Southeast AAs had larger effect size differences between AA and EA life satisfaction.

**Breakdown of Generational Status**

The breakdown of AA generational status significantly moderated effect size differences, ($F(1, 12) = 9.12, p = .011, \beta = -0.492, 95\% CI [-0.847, -0.137], I^2 = 75.23\%)$, and accounted for 36.34% of the variability in effect size differences. Studies that included a breakdown of AA generational status had larger effect size differences between AA and EA life satisfaction.

**Generational Status - Asia-Born Asian Americans**

The presence of Asia-born AAs significantly moderated effect size differences, ($F(1, 12) = 9.12, p = .011, \beta = -0.492, 95\% CI [-0.847, -0.137], I^2 = 75.23\%)$, and accounted for 36.43% of the variability in effect size differences. Studies that included Asia-born AAs had larger effect size differences between AA and EA life satisfaction.

**Generational Status - U.S.-Born Asian Americans**

The presence of U.S.-born AAs significantly moderated effect size differences, ($F(1, 12) = 9.12, p = .011, \beta = -0.492, 95\% CI [-0.847, -0.137], I^2 = 75.23\%)$, and accounted for 36.43% of the variability in effect size differences. Studies that included U.S.-born AAs had larger effect size differences between AA and EA life satisfaction.
Quality of Assessment of Asian American Ethnic Identity

The quality of assessment of ethnic identity significantly moderated effect size differences, \( F(1, 12) = 9.45, p = .010, \beta = -0.164, 95\% \text{ CI} [-0.281, -0.048], I^2 = 74.86\% \), and accounted for 37.56\% of the variability in effect size differences. Studies with higher measurement quality of ethnic identity had larger effect size differences between AA and EA life satisfaction.

Quality of Assessment of Asian American Generational Status

The quality of assessment of generational status significantly moderated effect size differences, \( F(1, 12) = 6.29, p = .028, \beta = -0.247, 95\% \text{ CI} [-0.462, -0.033], I^2 = 77.37\% \), and accounted for 28.04\% of the variability in effect size differences. Studies with higher measurement quality of generational status had larger effect size differences between AA and EA life satisfaction.

Discussion

This study used meta-analytic techniques to determine the effect size of difference between AA and EA life satisfaction. It also explored theoretically relevant moderators of the relationship between AA and EA life satisfaction. The moderator variables included participant characteristics, study and journal characteristics, and measurement quality of variables.

Asian American and European American Life Satisfaction

Across the subset of included studies, AAs reported a mean of 22.32, while EA reported a mean of 24.18. Given Diener’s (2006) recommendations of interpreting life satisfaction scores, a score of 22-24 indicates that both AAs and EAs are slightly satisfied with their own lives, and match the average level of life satisfaction of the U.S. This score implies that both groups are
generally satisfied with their lives. However, it is again important to note that this score indicates that neither group is unhappy, but simply that there is room for their lives to improve.

Overall, the effect size of difference between AA and EA life satisfaction was statistically significant ($d = -0.51, 95\% \text{ CI} [-0.73, -0.30], p < .001$). Given Cohen’s (1977) recommendations for interpreting $d$, this indicates a medium effect size of difference, such that AAs report moderately lower life satisfaction compared to their EA counterparts. There may be a number of causes for this effect, such as differences in quality of social relationships, satisfaction with work or school performance, or personal satisfaction with the self.

**Asian American-Only Studies versus Asian American-European American Comparison Studies**

This study also looked to examine if differences existed between studies that contained only AA samples to studies that compared AA and EA samples. While there were no differences in reported AA life satisfaction, there were significant differences in study design and reporting practices between the two subsets of studies.

**Breakdown and Quality of Assessment of Ethnic Identity and Generational Status.**

AA-Only studies were significantly more likely than AA-EA Comparison studies to provide a breakdown of ethnic identity and generational status, and were much more likely to have higher measurement quality of both categories. By extension, AA-Only studies were significantly more likely than AA-EA Comparison studies to include East AAs and 1st generations AAs. This is likely due to AA-EA studies’ tendency to combine groups of AA participants into homogenous samples, possibly due to lower access to varied AA communities, or the need for larger sample sizes in order to maintain sufficient power for analyses. Similarly,
studies that focused on only AA populations may have more leeway or even motivation to examine individual differences between ethnic identities or generational groups.

**Age of Sample.**

AA-Only studies had significantly older samples compared to AA-EA Comparison studies. AA-Only studies also had a much larger range of ages compared to AA-EA studies. This was consistent with the finding that AAs were more likely to include examinations of different generational groups, and also to examine Asia-born AAs. This may demonstrate that AA-Only studies were more open to exploring the well-being of various age groups, including the typically underrepresented older AA populations, whereas AA-EA Comparison studies may have focused more on college-age populations. This is also consistent with the finding that several of the AA-EA Comparison studies drew samples from the University of Illinois, likely due to the influence of Dr. Ed Diener, who was well-known for his work on well-being and the development of the SWLS. This tendency of drawing samples from specific populations of similar ages, location, and education may result in a skewed view of AA well-being.

**Sample Size.**

AA-Only studies also had significantly higher numbers of AA participants than AA-EA Comparison studies. This is consistent with the finding that AAs-Only were more likely to have breakdowns of ethnic identity and generational status, as well as higher quality of measurement for both aspects. AA focused studies were more likely to compare groups of different ethnic identities or generational groups, requiring larger overall samples of AAs.

**Impact Factor and Publication Year.**

AA-Only studies were significantly more likely to be published in journals with lower impact factors than AA-EA Comparison studies. This may indicate that AA-EA studies are
considered more appealing, with fewer null results. Similarly, it potentially suggests a trend of well-being research to require an EA comparison group. This presents a significant concern as these studies with lower measurement quality and less thorough reporting practices are the studies that are published in higher impact journals, suggesting that studies including EA comparisons may be prioritized when disseminating information to the wider academic population, or even that the data carries more weight and prestige than the AA-Only studies present. However, AA-Only studies were also significantly more likely to be published later than AA-EA Comparison studies, suggesting a hopeful shift in the literature towards more AA-focused studies, and a more thorough future for the field of well-being research.

**Moderators of the Effect Size of Difference**

All significant moderators of the effect size of difference between AA and EA life satisfaction were related to reporting practices or study design of the study. The variables that significantly moderated this relationship included the use of Southeast AAs samples, if the study identified generational status and included Asia-born and U.S.-born AAs, and the quality of assessment for both AA ethnic identity and generational status.

**Ethnic Identity - Southeast Asian Americans.**

The presence of Southeast AAs in the study significantly moderated the effect size of difference such that studies with Southeast AAs had larger effect sizes between AA and EA life satisfaction. One possible explanation for this may be that Southeast AAs faced many unique immigration and acculturation challenges compared to other AA groups, particularly those related to the displacement by U.S. wars in the 1970s (SEARAC, 2020). The combination of trauma from war and refugee status likely resulted in significantly more impacted life satisfaction compared to other AA groups. Similarly, the lack of appropriate resettlement systems
and refugee support from the U.S. provided additional challenges to this AA group, such as resettlement into poverty-stricken areas, which still have negative ramifications today. Indeed, some research has demonstrated that while AAs are the group with the highest income levels in North America (Wirtz et al., 2009), these are often overwhelmingly skewed by East Asian samples, and that there is large variability in the income levels of AAs. Many Southeast AAs struggle with socioeconomic insecurity, and are among the lowest income bracket and have the lowest educational attainment of all AA groups, and many live in poverty (Park et al., 2011). As such, Southeast AAs may report lower life satisfaction compared to other AA groups, resulting in a larger effect size of difference.

**Generational Status and Generations of Asian Americans.**

As all the studies that examined generational status also included both Asia-born and U.S. born AAs in the sample, the results for all three mirror one another. The breakdown of AA generational status significantly moderated the effect size of difference such that studies with a breakdown of generational status had larger effect sizes between AA and EA life satisfaction. Unfortunately, the variables related to generational status seem to be confounded with each other, so it is unclear which variable is driving this effect.

**Quality of Assessment.**

The quality of assessment of ethnic identity and of generational status both significantly moderated the effect size of difference such that studies with higher measurement quality had larger effect size differences between AA and EA life satisfaction. However, it is unclear how or why this effect arises.
Dropped Moderator Variables.

The majority of the variables examined in this study were considered as potential moderators to the effect size of difference between AA and EA life satisfaction. However, a few of the variables did not have enough information reported or enough variability to be tested as potential moderators. Specifically, publication type, racial identity breakdown, scale design, sample recruitment, and confidence ratings in effect size did not have enough variability for moderator analyses. Similarly, all variables related to income were omitted due to lack of reported information across all studies.

As with Study 1, all studies included were from published research articles, and utilized either the original or a translated version of the original survey. Similarly, the majority of the studies focused solely on AA well-being, or compared AA-EA differences in life satisfaction. All variables related to income were omitted as not enough information was provided to conduct analyses related to life satisfaction. Additionally, the few studies that did provide information related to income were not consistent in the reporting of income, further limiting the ability to conduct analyses related to AA life satisfaction. Almost all effect sizes were not reported directly, but were calculated by coders using means and standard deviations provided. A significant concern of this meta-analysis was that almost all AA-EA Comparison studies drew their samples from colleges, many from the University of Illinois at Urbana-Champaign. However, this lack of variability may demonstrate a potential skew in the outcome of these studies, as many of them were drawn from populations of similar age, location, and SES. The inability to test these variables highlight potential areas of improvement for the current trends and reporting practices related to AA well-being.
However, as this was an exploratory analysis, it is possible that there may be other effects or impacts on the relationship between AA and EA life satisfaction that need to be explored. For example, other variables related to participant, study, or journal characteristics, or other theoretically important variables not yet explored, such as religion, may significantly impact the effect size of difference. As such, it is recommended to continue further explorations to gain a stronger understanding of well-being.

**STUDY 3: Correlates of Asian American Life Satisfaction**

**Method**

Articles from the first and second study were evaluated to quantify the correlates addressed in relation to AA life satisfaction. This review used qualitative analyses to note the most cited correlates throughout the literature, and to examine if the use of specific correlates were associated with AA life satisfaction. Studies were coded to assess use of correlates of life satisfaction, valence of correlate, and quality of assessment of correlate.

**Coded Variables**

All studies \((n = 36)\) were coded to assess use of correlates of life satisfaction, valence of correlate, and quality of assessment of correlate. The coded variables were then assessed to examine if they predicted the level of AA life satisfaction. All studies were coded by rater K.T.

Pearson’s \(r\) was used to examine the relationship of coded variables to AA life satisfaction. Correlations were chosen as they are the most appropriate way to observe the relationship between two variables of interest. However, once the coding process was complete, it was clear there was not enough information to analyze the quality of correlates, and as such, the variable was omitted from analyses.
**Correlates of Life Satisfaction**

As with any field of research, the various studies examining AA well-being may consider a multitude of pathways of happiness. As such, it is important to consider the variability in how studies select and address correlates of life satisfaction when designing their research. Correlates of life satisfaction were selected based on the initial literature review of AA well-being. Initial correlates included acculturation and acculturative stress, Self-Construal Theory, Self-Determination Theory and autonomy, materialism, identity denial and discrimination, acculturation gaps and intergenerational conflict, social support seeking, ethnic identity development and biculturalism, education and income, basis and perception of SWB, and measurement of SWB, with an option to add further correlates. The correlates of stress, personality and Big 5 traits, self-esteem, religiosity, and familism and family relationships were later included. However, materialism was dropped from analyses as it was not addressed. A summary of the correlates of life satisfaction can be found in Table 1. Correlates of life satisfaction quantified by how often a correlate was cited throughout a record’s introduction and methods sections, and coded as as dummy-coded categorical variables (0 = lack of correlate, 1 = inclusion of correlate).

**Valence of Correlate**

The focus of studies related to AA well-being may vary. As such, correlates of life satisfaction can be examined based on whether they contribute or detract from AA life satisfaction. Valence of correlate was assessed as dummy-coded categorical variables (0 = negative impact on life satisfaction, 1 = positive impact on life satisfaction).
Results

Qualitative Descriptives

Articles from both Study 1 and Study 2 addressed a wide variety of correlates of life satisfaction. These descriptives can be found in Table 10 and Table 11 respectively.

For Study 1, the mean number of correlates addressed per study was 2.86 (SD = 1.29, range = 1 - 5). The correlate that was most commonly cited was Self-Construal Theory (n = 16), followed by acculturation and social support seeking (n = 11 each). The only correlate associated with completely positive impacts on AA well-being was religiosity (n = 4). Four correlates were associated with only negative impacts on AA well-being (stress, n = 4; discrimination, n = 6; intergenerational conflict, n = 4; measurement of SWB, n = 2). Ethnic identity development and biculturalism was associated with equally mixed impacts on AA well-being (n = 6).

For Study 2, the mean number of correlates addressed per study was 1.19 (SD = 1.24, range = 1 - 5). The correlate that was most commonly cited was Self-Construal Theory (n = 14). The correlate associated with only negative impacts on AA well-being was familism and family relationships (n = 3). Self-esteem was associated with equally positive and negative impacts on AA well-being (n = 4). Discrimination, religiosity, and measurement of SWB were not addressed.

Correlation to Asian American Life Satisfaction

All analyses were conducted using R version 4.1.0. Each coded correlate was analyzed using pairwise deletion to examine if it significantly predicted AA life satisfaction. Correlations of each coded correlate with AA life satisfaction can be found in Table 12.

The number of correlates addressed was not significantly associated with AA life satisfaction (r(34) = -0.184, p = .282, 95% CI [-0.483, 0.154]). Acculturation and acculturative
stress was significantly correlated with AA life satisfaction ($r(34) = -0.330, p = .049$, 95% CI $[-0.594, 0.002]$), such that studies that addressed acculturation and acculturative stress reported lower levels of life satisfaction of AAs.

**Discussion**

This review systematized and collated the various theories related to AA well-being. This study quantified the correlates of well-being across the overall sample of studies, as well across the subset of studies comparing AA and EA life satisfaction. The relationship between correlates cited and reported AA life satisfaction was also assessed. Articles from both Study 1 and Study 2 addressed a wide variety of correlates of life satisfaction, in a variety of different contexts.

**Correlates of Asian American Well-Being in Research**

Overall, both studies focused on mostly negative influences on AA well-being. Considering the context of the current findings in the literature that AAs typically report lower levels of subjective well-being than other ethnic groups in North America, particularly compared to EAs, it is consistent that research would look to examine correlates of well-being that explain this trend of lower AA well-being.

Across both Study 1 and Study 2, Self-Construal Theory was the most cited theory related to AA well-being. Often, this theory was used as theoretical justification to explore AA well-being as separated and distinct from EA well-being. Often studies compared AA and EA life satisfaction through the context of independent versus interdependent self-construals (Markus & Kitayama, 1991), or, by extension, individualism and collectivism of their relative cultures, and examine how these may interact to impact overall well-being. A handful of studies noted that interdependent self-construals and collectivism are associated with lower SWB (Diener et al., 1995; Elliott & Coker, 2011), and as both are aspects typical to East Asians and
their cultures, these may be potential explanations to the lower reports of AA life satisfaction. However, other studies noted that AAs are not necessarily unhappy, but simply that they may experience or pursue happiness differently than EAs (Uchida & Kitayama, 2009), and as such, it is necessary to continue to assess the context of culture to fully understand AA well-being.

From the original literature search, social support and social support seeking was expected to be used in the context of more negative associations with AA well-being, as Asian Americans may be more likely to avoid seeking social support due to the risk of expensive social drawbacks (Kim et al., 2006; Taylor et al., 2004). However, this review found that studies that addressed social support and social support seeking utilized the correlate as a slightly more positive association. A handful of studies noted that due to AA’s tendency for interdependent self-construals (Markus & Kitayama, 1991), AAs tend to have greater, more consistent access to social support from highly valued social relationships, specifically those from their ethnic community or family units. Similarly, AA social connectedness, particularly to one’s ethnic community, was argued to be an important buffer against the negative impacts of discrimination or other stressors (Yoon et al., 2012).

From the original literature search, education and income were expected to be used in the context of more positive associations with AA well-being. However, this review found that the majority of these studies noted that their AA samples actually reported lower than average levels of educational attainment and income, and subsequently reported lower life satisfaction. However, the majority of these studies also examined education and income as intermediate steps to life satisfaction. For example, three studies examined the impact of adolescent-parent conflict and parental expectations on AA academic performance, and then subsequently examined how that relationship affected life satisfaction.
Similarly, from the original literature search, familism and family relationships were expected to be used in the context of more positive associations with AA well-being. However, this review found that the majority of studies that addressed familism and family relationships utilized them as more negative associations on AA well-being. Since Asian cultures are typically seen as more interdependent than Western cultures, family relationships can play a particularly important role for AAs (Markus & Kitayama, 1991; Suzuki, 2001). However, as noted earlier, a handful of studies highlighted how family conflicts and strained relationships can actually compound the stresses that AA individuals may experience, particularly those related to academic performance and parental expectations.

From the original literature search, ethnic identity development and biculturalism was expected to be used in the context of more positive associations with AA well-being. Instead, this review found that the correlate was used in equally mixed associations with well-being. Studies cited the positive effects of belongingness to an ethnic community (Phinney & Ong, 2007; Smith & Silva, 2011), access to social support (Smith & Silva, 2011), and the buffering effects against negative or stressful group experiences such as discrimination and prejudice (Phinney, 1996; Phinney & Ong, 2007). However, studies also cited the negative effects of conflicting identity domains, particularly for incongruent cultural identities, resulting in lower well-being (Ferrari et al., 2015; McLean & Syed, 2016) contributing to more negative effects on well-being. As such, the development of ethnic identities seems to have mixed effects on overall AA well-being.

**Correlates of Well-Being and Reported Asian American Life Satisfaction**

Correlates were tested to see if they were associated with differences in reported AA life satisfaction; however, only studies including acculturation and acculturative stress correlated
with lower reported levels of AA life satisfaction. This was particularly interesting as acculturation to Western culture is associated with more positive connotations. However, AAs face many struggles when acculturating to a new host country, including learning new languages, customs and traditions, social practices, and so on, that subsequently impact their well-being (Rogers-Sirin et al., 2014). These difficulties are compounded by the significant differences to their own root cultures. Often AAs must balance these opposing sides of their identity of traditional Asian culture with more Western values and behaviors, despite the conflicts they create (Lee et al., 2000). Similarly, correlates consistent with the MMM, such as those related to education and income, often suggest that AAs should be happier than they currently are, masking the struggles that AAs face in this country and potentially even shaming AAs from starting discourse on the unique struggles they experience. Indeed, research has demonstrated that greater acculturation may actually negatively impact AA well-being. For example, studies have shown that Chinese Americans that are more acculturated to American culture actually experience more harmful effects from discrimination, which may in turn negatively impact their social and academic development (Benner & Kim, 2009; Goto et al., 2002).

Other Considerations

Though this study coded each correlate as a discrete concept, the many correlates of Asian American life satisfaction are not independent, but instead overlap with one another to contribute to the complexity of experience of Asian Americans. Within a single study, a correlate may be examined for its direct impact on life satisfaction, but also be considered along other pathways to happiness. For example, a study by Rosenbloom and Way (2004) found that AA youths particularly struggle with peer discrimination, typically associated with the perception of AAs as a model minority. This study examined the impact of discrimination on well-being, but
also the negative impact of discrimination on peer relationships, which are also essential to well-being (Diener & Seligman, 2002). This again reinforces the importance of considering and understanding the overall picture of Asian American well-being.

Overall, only a few correlates were cited per study. This may suggest that the majority of the literature focuses only on one or two correlates of AA life satisfaction at a time. This may oversimplify AAs’ experience of well-being. AA well-being is a complex puzzle of many interconnected pieces, all of which are important to consider. Focusing on only one or two main correlates is like examining the individual pixels of an image, and may risk missing the overall picture of AA well-being. Fortunately, the literature is not focused on one over-researched aspect of life satisfaction, but instead there is an effort to explore a variety of influences and associations to AA well-being.

**GENERAL DISCUSSION**

Overall, these three studies utilized meta-analytic techniques to explore AA life satisfaction. Study 1 found that AAs typically report a mean SWLS score of 22.66. Study 2 demonstrated that AAs typically report moderately lower life satisfaction scores compared to EAs. Study 3 summarized the wide range of correlates of life satisfaction that are addressed throughout the literature. Additionally, these studies tested a number of theoretically important variables to examine their relationship with both AA life satisfaction and the effect size of difference between AA and EA life satisfaction. Finally, many factors related to participant characteristics, study and journal and characteristics, reporting practices, and measurement quality of theoretically important variables were examined, addressing possible concerns and highlighting potential areas of improvement for future research related to AA well-being.
Limitations and Future Recommendations

A significant concern while conducting meta-analyses is that a meta-analysis can only be as good as the studies included. Each meta-analysis is limited to the research already produced within its field of interest. Similarly, meta-analyses may struggle when only provided a small sample of studies, making it especially challenging to interpret and analyze, and further to generalize, the findings from the review. However, despite these potential limitations, meta-analyses also provide the benefit of drawing the focus away from individual studies, to an overview of a particular research topic. Similarly, meta-analyses can reveal potential areas of improvement for strengthening future studies in the field of Asian American well-being research.

Sample Variability

The majority of studies included in these meta-analyses had similar trends of samples. Nearly all samples that indicated AA ethnic identity consisted of mostly East AAs, rather than representing the full spectrum of AAs. This risks skewing the results of the studies to represent more East Asian American life satisfaction, rather than confidently representing the entire population of Asian Americans. Similarly, West and Central AAs were completely absent from these studies. As these studies have indicated, different groups of AAs may report different levels of well-being. For example, studies including Southeast AAs report larger effect sizes of differences between AA and EA life satisfaction than studies without Southeast AAs, potentially implying that samples with Southeast AAs negatively skew the level of reported life satisfaction. As noted, Southeast AAs can have significantly different experiences of immigration, acculturation, and socioeconomic stability that are often underexplored in the context of AA well-being research. Future research should look to study the well-being of typically underrepresented AA groups in conjunction with other, more researched AA groups, as
examining more ethnically diverse samples can help researchers develop a more accurate understanding of Asian American well-being.

**Specificity in Measuring Asian American Identity**

There are many facets to Asian American identity. Though very important, AA ethnic identity and generational status are only two aspects of AA identity. Even so, only a subset of studies reported either AA ethnic identity or generational status, making it difficult to aggregate and compare findings throughout the literature. Studies that examined specific AA ethnic groups, or specific AA generational groups have been conducted, but unfortunately were too lacking in number to properly analyze. In these meta-analyses, it was necessary for both ethnic identity and generational status to be combined into larger, less-defined groups in order to have enough data to be sufficient for analyses. Future researchers should take care to be more specific when reporting participant ethnic identity and generational status.

**Inconsistencies in Reporting**

Uneven reporting practices across studies significantly diminishes the overall quality of any meta-analyses. Information required for coding may be missing, or even when reported, may be too vague to be clearly coded. In these meta-analyses, often coders were forced to make decisions of when to make a best guess, and when to consider information as too unclear to code. Similarly, uneven reporting of information resulted in the need to utilize dummy codes in place of continuous values for certain variables, reducing the inherent variability of potential predictors or moderators into often binary representations of information. These inconsistencies may prove to be particularly challenging when trying to interpret and generalize findings to the wider population. Future research should look to be more transparent in their reporting practices to avoid inconsistencies.
Complex Comparisons

As noted earlier, AA well-being is a complex puzzle composed of many interconnected pieces. However, in these meta-analyses, we were unable to properly examine complex comparisons, as they may have been too far outside of the scope of what we were able to appropriately analyze. A related concern is the number of tests of significance conducted throughout this review. Overall, 78 tests of significance were conducted (Study 1 \( n = 22 \), Study 2 \( n = 41 \), Study 3 \( n = 15 \)). Since many of our analyses were primarily exploratory in nature, these complex comparisons may be best left to more specific research that employ stronger relational or even causation analysis techniques. These studies demonstrated that Asian American well-being is multifaceted and may require further explorations.

Conclusions

These current studies utilized meta-analytic techniques to assess the mean level of life satisfaction of Asian Americans, and to determine the effect size of difference of Asian American and European American life satisfaction. Findings from these studies demonstrate that while AAs do report lower life satisfaction than EAs, AAs are not necessarily unhappy with their lives. Rather, AAs are generally satisfied with their lives. The studies also looked to systematize and collate the various theories on Asian American well-being. This helped to identify current trends in research related to AA well-being.

Additionally, these studies looked to examine potential predictors to AA life satisfaction and potential moderators of the effect size of difference of AA-EA life satisfaction. While none of the variables examined in these studies significantly predicted AA well-being, heterogeneity analyses indicated that there was significant variability among the reported AA life satisfaction scores, suggesting that there may be other factors involved, such as income or religion. Similarly,
certain moderator variables did impact the effect size of difference of AA-EA reported life satisfaction, suggesting that there may be subgroups, such as Southeast AAs, who experience well-being differently compared to other AA groups. Therefore, it may be important to examine alternative influences in order to fully grasp the overall AA experience of well-being.

Finally, various aspects related to the design of these meta-analyses were examined and suggestions were made for future research associated with AA well-being. The limitations of these studies have potentially important implications for AA well-being research. Research should understand that subgroups of AAs are not necessarily part of one homogenous group. It is also important to recognize which groups of AAs are consistently underrepresented in research, such as Central, and West AAs, or generations beyond 2nd generation AAs. Future researchers should take care to sample these typically under researched populations to better understand the well-being of AAs, as well as to gain a more comprehensive view of overall AAs. Additionally, these studies suffered from both a lack of consistency and lack of variability in sampling and reporting practices. For example, many studies drew samples from specific college populations, or focused almost entirely on East AAs populations, while studies also underreported aspects related to income, making it difficult to assess how these facets may impact AA well-being. These meta-analyses have identified research trends that can only provide a snapshot of overall AA well-being, and as such, future research can look to address these disparities and inconsistencies in order to better understand the happiness of all Asian Americans.
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**Tables and Figures**

**Table 1.** Correlates related to Asian American well-being

<table>
<thead>
<tr>
<th>Influences that may attenuate happiness</th>
<th>Internal Factors</th>
<th>External Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acculturation and acculturative stress</td>
<td>Identity denial, othering, and discrimination</td>
</tr>
<tr>
<td></td>
<td>Self-Construal Theory</td>
<td>Acculturation gaps and intergenerational conflict</td>
</tr>
<tr>
<td></td>
<td>Self-Determination Theory and autonomy</td>
<td>Social support seeking</td>
</tr>
<tr>
<td></td>
<td>Stress and Coping</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personality and Big 5 Traits</td>
<td></td>
</tr>
</tbody>
</table>

| Influences that may enhance happiness  | Ethnic identity development and biculturalism        | Education and income                                  |
|                                        | Self-Esteem                                          | Familism and family relationships                     |
|                                        | Religiosity                                          |                                                      |

| Other complications regarding happiness| Basis and perception of SWB                         | Measurement of SWB                                    |
Table 2. Coded variables for Study 1 and 2

<table>
<thead>
<tr>
<th>Sample characteristics</th>
<th>Study characteristics</th>
<th>Scale characteristics</th>
<th>Journal characteristics</th>
<th>Effect Size†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Total sample size AA</td>
<td>AA reported SWLS</td>
<td>Journal name*</td>
<td>Cohen’s d</td>
</tr>
<tr>
<td>Gender</td>
<td>Total sample size EA</td>
<td>AA SWLS standard deviation</td>
<td>Impact factor of journal</td>
<td>Reporting of Effect Size**</td>
</tr>
<tr>
<td>Racial Identity*</td>
<td>Breakdown of AA</td>
<td>EA reported SWLS</td>
<td>Year of Publication</td>
<td>Page of Effect Size Report</td>
</tr>
<tr>
<td>Ethnic identity (Chinese American, Vietnamese American, Filipino American…)</td>
<td>Breakdown of AA Generational Status</td>
<td>EA SWLS standard deviation</td>
<td>Publication Type*</td>
<td>Effect Size Confidence Rating**</td>
</tr>
<tr>
<td>Generational status (first generation, second generation…)</td>
<td>Recruitment of Sample**</td>
<td>Reliability of scale (Cronbach)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Educational Attainment (high school, college, graduate school**)</td>
<td>Quality of Assessment of Ethnic Identity</td>
<td>Response Scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location of Data Collection (state)</td>
<td>Quality of Assessment of Generational Status</td>
<td>Scale Design*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES and Income*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AA = Asian American, EA = European American, * = excluded for both Study 1 and Study 2 (dropped variables), ** = dropped for Study 2, †Note - for Study 2 only
Table 3. Interrater reliability for Study 1 and 2

<table>
<thead>
<tr>
<th></th>
<th>K.T.</th>
<th>A.J.</th>
<th>A.B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K.T.</td>
<td>0.9467</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>A.J.</td>
<td>0.8773</td>
<td>0.9333</td>
<td>-</td>
</tr>
<tr>
<td>A.B.</td>
<td>0.9225</td>
<td>0.89669</td>
<td>0.9756</td>
</tr>
</tbody>
</table>
Table 4. Descriptions of included coded predictor/moderator variables from Study 1 and 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Theoretical Justification</th>
<th>Coding Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sample Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of Sample</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>Given that historical influences can affect different AA age groups, do observable differences in life satisfaction exist between different age groups?</td>
<td>Average age</td>
</tr>
<tr>
<td>Gender of Sample</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>Given cultural practices and beliefs related to gender, do observable differences in life satisfaction exist between different genders?</td>
<td>Proportion of female participants</td>
</tr>
<tr>
<td>Ethnic Identity</td>
<td></td>
<td></td>
<td></td>
<td>Given the tendency to combine subcultures of all AAs into a single, unifying experience, do differences in life satisfaction exist between different ethnic groups?</td>
<td></td>
</tr>
<tr>
<td>Ethnic Identity - East AAs</td>
<td>Categorical (Dummy)</td>
<td>Yes</td>
<td>Yes</td>
<td>Groups of Chinese, Japanese, Korean, and Taiwanese Americans were combined into East AAs</td>
<td>0 = lack of group, 1 = inclusion of group</td>
</tr>
<tr>
<td>Ethnic Identity - Southeast AAs</td>
<td>Categorical (Dummy)</td>
<td>Yes</td>
<td>Yes</td>
<td>Groups of Cambodian, Filipino, Hmong, Malaysian, Singaporean, Thai, and Vietnamese Americans were combined into Southeast AAs</td>
<td>0 = lack of group, 1 = inclusion of group</td>
</tr>
<tr>
<td>Ethnic Identity - South AAs</td>
<td>Categorical (Dummy)</td>
<td>Yes</td>
<td>Yes</td>
<td>Groups of Indian, Pakistani, Nepalese, Bangladeshi, and Sri Lankan Americans were combined into South AAs</td>
<td>0 = lack of group, 1 = inclusion of group</td>
</tr>
<tr>
<td>Generational Status</td>
<td></td>
<td></td>
<td></td>
<td>Given the tendency to combine generational groups of all AAs into a single, unifying experience, do differences in life satisfaction exist between different generational groups?</td>
<td></td>
</tr>
<tr>
<td>Generational Status - Asia-born AAs</td>
<td>Categorical (Dummy)</td>
<td>Yes</td>
<td>Yes</td>
<td>Asia-born AAs were defined as Asians born in Asia that have immigrated to the U.S., including 1st generation</td>
<td>0 = lack of group, 1 = inclusion of group</td>
</tr>
<tr>
<td>Generational Status - U.S.-born AAs</td>
<td>Categorical (Dummy)</td>
<td>Yes</td>
<td>Yes</td>
<td>U.S.-born AAs were defined as Asians born in U.S., including 2nd, 3rd, and beyond generations</td>
<td>0 = lack of group, 1 = inclusion of group</td>
</tr>
<tr>
<td>Education Level</td>
<td>Continuous</td>
<td>Yes</td>
<td>No</td>
<td>Given the wide variability of educational attainment of all AAs, do differences in life satisfaction exist between different education levels?</td>
<td>% High School, % College, % Grad School</td>
</tr>
<tr>
<td>Education Level</td>
<td>Categorical (Dummy)</td>
<td>No</td>
<td>Yes</td>
<td>Given the wide variability of educational attainment of all AAs, do differences in life satisfaction exist between different education levels?</td>
<td>% High School, % College</td>
</tr>
</tbody>
</table>
As AAs make up a small portion of the overall American population, locations with larger AA populations may result in different experiences of well-being compared to locations with smaller AA populations. Given that samples may be drawn as convenience samples of AA, do differences in life satisfaction exist between different locations?

<table>
<thead>
<tr>
<th>Location (State)</th>
<th>Categorical (Dummy)</th>
<th>Yes</th>
<th>Yes</th>
<th>Given that studies may not provide a breakdown of AA ethnic identity, do differences in life satisfaction exist between studies that do or do not break down ethnic identity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>Do differences in life satisfaction exist between different sample sizes?</td>
</tr>
<tr>
<td>Sample Size - AA</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>Do differences in life satisfaction exist between different sample sizes of Asian Americans?</td>
</tr>
<tr>
<td>Sample Size - EA</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>Do differences in life satisfaction exist between different sample sizes of European Americans?</td>
</tr>
<tr>
<td>Breakdown of Sample</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>Each study’s sample recruitment was assessed to see if observable differences appeared when comparing community samples versus college samples.</td>
</tr>
<tr>
<td>Breakdown of AA Ethnic Identity</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>Given that studies may not provide a breakdown of AA generational status, do differences in life satisfaction exist between studies that do or do not break down generational status?</td>
</tr>
<tr>
<td>Breakdown of AA Generational Status</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>-</td>
</tr>
<tr>
<td>Sample Recruitment</td>
<td>Categorical (Dummy)</td>
<td>Yes</td>
<td>Dropped</td>
<td>Given that studies may occasionally alter the response scale of the SWLS to accommodate specific populations of interest, do differences in life satisfaction exist between different response scales?</td>
</tr>
<tr>
<td>Response Scale</td>
<td>Categorical (Dummy)</td>
<td>Yes</td>
<td>Yes</td>
<td>Given that Cronbach’s alpha is used to examine the internal consistency of a scale, do differences in life satisfaction exist between higher or lower alphas?</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>-</td>
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</table>
### Journal Characteristics

<table>
<thead>
<tr>
<th>Publication Year</th>
<th>Continuous</th>
<th>Yes</th>
<th>Yes</th>
<th>Each study's publication year was assessed to see if observable differences appeared when examining older versus newer publications.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal Impact Factor</td>
<td>Continuous</td>
<td>Yes</td>
<td>Yes</td>
<td>Each journal's impact factor was assessed to see if observable differences appeared when examining lower versus higher journal impact factors.</td>
</tr>
</tbody>
</table>

### Measurement Quality

<table>
<thead>
<tr>
<th>Quality of Assessment - AA Ethnic Identity</th>
<th>Categorical (Dummy)</th>
<th>Yes</th>
<th>Yes</th>
<th>An important aspect of this study is the extent to which AAs were identified as unique cultures. Studies with lower measurement quality were associated with less distinctions of AA groups (Researchers indicate data were collected from an Asian American sample but do not provide a breakdown of the sample by ethnic/racial identity) while studies with higher measurement quality were associated with more distinctions of AA groups (Researchers indicate data were collected from an Asian American sample and provide a breakdown of the sample by ethnic/racial identity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Assessment - AA Generational Status</td>
<td>Categorical (Dummy)</td>
<td>Yes</td>
<td>Yes</td>
<td>An important aspect of this study is the extent to which Asian Americans were identified as distinct generational groups. Studies with lower measurement quality were associated with less distinctions of AA groups (Researchers indicate data were collected from an Asian American sample but do not provide a breakdown of the sample by generational group) while studies with higher measurement quality were associated with more distinctions of AA groups (Researchers indicate data were collected from an Asian American sample and provide a breakdown of the sample by generational group)</td>
</tr>
</tbody>
</table>

1 = lower measurement quality, 5 = higher measurement quality
### Table 5. Descriptives of studies from Study 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>%</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA Life Satisfaction</td>
<td>36</td>
<td>22.71</td>
<td>100%</td>
<td>16.60 - 27.75</td>
</tr>
<tr>
<td>Total Sample Size</td>
<td>11,795</td>
<td>327.64</td>
<td>100%</td>
<td>72 - 3,368</td>
</tr>
<tr>
<td>Total AA Sample Size</td>
<td>6,015</td>
<td>136.74</td>
<td>100%</td>
<td>23 - 684</td>
</tr>
<tr>
<td>Impact Factor</td>
<td>30</td>
<td>2.67</td>
<td>83.33%</td>
<td>1.05 - 6.32</td>
</tr>
<tr>
<td>Publication Year</td>
<td>36</td>
<td>2010.11</td>
<td>100%</td>
<td>2000 - 2020</td>
</tr>
<tr>
<td>Age</td>
<td>36</td>
<td>33.64</td>
<td>100%</td>
<td>14.9 - 73.78</td>
</tr>
<tr>
<td>Gender</td>
<td>36</td>
<td>51.33%</td>
<td>55.88%</td>
<td>42.5% - 100%</td>
</tr>
<tr>
<td>AA Ethnic Breakdown</td>
<td>22</td>
<td>-</td>
<td>61.11%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with East AAs</td>
<td>15</td>
<td>-</td>
<td>41.67%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with Southeast AAs</td>
<td>6</td>
<td>-</td>
<td>16.67%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with South AAs</td>
<td>9</td>
<td>-</td>
<td>25.00%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with Unspecified AAs</td>
<td>12</td>
<td>-</td>
<td>33.33%</td>
<td>-</td>
</tr>
<tr>
<td>AA Generational Status Breakdown</td>
<td>19</td>
<td>-</td>
<td>52.78%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with Asia-born AAs</td>
<td>19</td>
<td>-</td>
<td>52.78%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with U.S.-born AAs</td>
<td>17</td>
<td>-</td>
<td>47.22%</td>
<td>-</td>
</tr>
<tr>
<td>Education - Some High School</td>
<td>31</td>
<td>-</td>
<td>86.11%</td>
<td>57.0% - 100.0%</td>
</tr>
<tr>
<td>Education - Some College</td>
<td>31</td>
<td>-</td>
<td>86.11%</td>
<td>43.0% - 100.0%</td>
</tr>
<tr>
<td>Education - Some Graduate School</td>
<td>6</td>
<td>-</td>
<td>16.67%</td>
<td>6.2% - 70.5%</td>
</tr>
<tr>
<td>Location Breakdown</td>
<td>31</td>
<td>-</td>
<td>86.11%</td>
<td>-</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>35</td>
<td>0.86</td>
<td>97.22%</td>
<td>0.73 - 0.93</td>
</tr>
</tbody>
</table>

Note. N = 36 studies, AA = Asian American, n = sample size, M = mean, % = percentage compared to all studies.
Table 6. Correlations between Study 1 predictor variables and Asian American life satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>r</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact Factor</td>
<td>r(31) = 0.043</td>
<td>[-0.305, 0.381]</td>
<td>.812</td>
</tr>
<tr>
<td>Publication Year</td>
<td>r(34) = -0.107</td>
<td>[-0.421, 0.229]</td>
<td>.533</td>
</tr>
<tr>
<td>Age of AA Sample</td>
<td>r(23) = -0.118</td>
<td>[-0.490, 0.291]</td>
<td>.574</td>
</tr>
<tr>
<td>Gender of AA Sample</td>
<td>r(26) = 0.034</td>
<td>[-0.343, 0.402]</td>
<td>.864</td>
</tr>
<tr>
<td>AA Ethnic Identity Breakdown</td>
<td>r(34) = -0.096</td>
<td>[-0.412, 0.240]</td>
<td>.576</td>
</tr>
<tr>
<td>Studies with East AAs</td>
<td>r(34) = 0.032</td>
<td>[-0.300, 0.356]</td>
<td>.855</td>
</tr>
<tr>
<td>Studies with Southeast AAs</td>
<td>r(34) = -0.012</td>
<td>[-0.339, 0.318]</td>
<td>.943</td>
</tr>
<tr>
<td>Studies with South AAs</td>
<td>r(34) = -0.144</td>
<td>[-0.451, 0.194]</td>
<td>.403</td>
</tr>
<tr>
<td>Studies with Unspecified AAs</td>
<td>r(34) = -0.012</td>
<td>[-0.317, 0.340]</td>
<td>.943</td>
</tr>
<tr>
<td>AA Generational Status Breakdown</td>
<td>r(34) = -0.085</td>
<td>[-0.402, 0.250]</td>
<td>.622</td>
</tr>
<tr>
<td>Studies with Asia-born AAs</td>
<td>r(34) = -0.085</td>
<td>[-0.402, 0.250]</td>
<td>.622</td>
</tr>
<tr>
<td>Studies with U.S.-born AAs</td>
<td>r(34) = -0.094</td>
<td>[-0.410, 0.242]</td>
<td>.585</td>
</tr>
<tr>
<td>Education - AA High School</td>
<td>r(29) = 0.275</td>
<td>[-0.088, 0.574]</td>
<td>.134</td>
</tr>
<tr>
<td>Education - AA College</td>
<td>r(27) = 0.091</td>
<td>[-0.285, 0.443]</td>
<td>.639</td>
</tr>
<tr>
<td>Education - AA Graduate School</td>
<td>r(25) = 0.088</td>
<td>[-0.302, 0.453]</td>
<td>.663</td>
</tr>
<tr>
<td>Location by State</td>
<td>r(34) = 0.116</td>
<td>[-0.221, 0.428]</td>
<td>.502</td>
</tr>
<tr>
<td>Sample Recruitment</td>
<td>r(33) = 0.229</td>
<td>[-0.113, 0.522]</td>
<td>.187</td>
</tr>
<tr>
<td>Quality of Assessment - Ethnic Identity</td>
<td>r(34) = -0.123</td>
<td>[-0.434, 0.214]</td>
<td>.473</td>
</tr>
<tr>
<td>Quality of Assessment - Generational Status</td>
<td>r(34) = -0.046</td>
<td>[-0.369, 0.287]</td>
<td>.789</td>
</tr>
<tr>
<td>SWLS Response Scale</td>
<td>r(34) = 0.084</td>
<td>[-0.251, 0.402]</td>
<td>.624</td>
</tr>
<tr>
<td>SWLS Cronbach’s alpha</td>
<td>r(33) = -0.109</td>
<td>[-0.427, 0.232]</td>
<td>.532</td>
</tr>
<tr>
<td>Study Sample Size</td>
<td>r(34) = 0.012</td>
<td>[-0.318, 0.339]</td>
<td>.947</td>
</tr>
</tbody>
</table>

Note. AA = Asian American, r = correlation to AA life satisfaction, CI = confidence interval
†p ≤ .10, *p ≤ .05, **p ≤ .01, ***p ≤ .001
Table 7. Descriptives of studies from Study 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>%</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA Life Satisfaction</td>
<td>18</td>
<td>22.32</td>
<td>100%</td>
<td>18.32 - 25.78</td>
</tr>
<tr>
<td>EA Life Satisfaction</td>
<td>18</td>
<td>24.18</td>
<td>100%</td>
<td>21.28 - 26.02</td>
</tr>
<tr>
<td>Total AA Sample Size</td>
<td>1,612</td>
<td>89.56</td>
<td>-</td>
<td>23 - 284</td>
</tr>
<tr>
<td>Total EA Sample Size</td>
<td>4,122</td>
<td>229</td>
<td>-</td>
<td>32 - 2,478</td>
</tr>
<tr>
<td>Impact Factor</td>
<td>18</td>
<td>3.39</td>
<td>100%</td>
<td>1.05 - 6.32</td>
</tr>
<tr>
<td>Publication Year</td>
<td>18</td>
<td>2007.83</td>
<td>100%</td>
<td>2000 - 2018</td>
</tr>
<tr>
<td>Age</td>
<td>15</td>
<td>20.67</td>
<td>83.33%</td>
<td>14.9 - 33.22</td>
</tr>
<tr>
<td>Gender</td>
<td>17</td>
<td>45.31%</td>
<td>55.88%</td>
<td>42.5% - 100%</td>
</tr>
<tr>
<td>AA Ethnic Breakdown</td>
<td>8</td>
<td>-</td>
<td>44.44%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with East AAs</td>
<td>3</td>
<td>-</td>
<td>16.67%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with Southeast AAs</td>
<td>4</td>
<td>-</td>
<td>22.22%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with South AAs</td>
<td>1</td>
<td>-</td>
<td>5.55%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with Unspecified AAs</td>
<td>6</td>
<td>-</td>
<td>33.33%</td>
<td>-</td>
</tr>
<tr>
<td>AA Generational Status Breakdown</td>
<td>6</td>
<td>-</td>
<td>33.33%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with Asia-born AAs</td>
<td>6</td>
<td>-</td>
<td>33.33%</td>
<td>-</td>
</tr>
<tr>
<td>Studies with U.S.-born AAs</td>
<td>6</td>
<td>-</td>
<td>33.33%</td>
<td>-</td>
</tr>
<tr>
<td>Education - Some High School</td>
<td>16</td>
<td>-</td>
<td>88.89%</td>
<td>72.3% - 100.0%</td>
</tr>
<tr>
<td>Education - Some College</td>
<td>15</td>
<td>-</td>
<td>83.33%</td>
<td>81.0% - 100.0%</td>
</tr>
<tr>
<td>Location Breakdown</td>
<td>15</td>
<td>-</td>
<td>83.33%</td>
<td>-</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>17</td>
<td>0.86</td>
<td>94.44%</td>
<td>0.77 - 0.93</td>
</tr>
</tbody>
</table>

Note. N = 18 studies, AA = Asian American, n = sample size, M = mean, % = percentage compared to all studies.
<table>
<thead>
<tr>
<th>Variable</th>
<th>t-value</th>
<th>p-value</th>
<th>95% CI</th>
<th>AA-Only M</th>
<th>AA-EA M</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA Life Satisfaction</td>
<td>(t(28) = -0.72)</td>
<td>0.474</td>
<td>[-2.20, 1.05]</td>
<td>22.39</td>
<td>22.97</td>
</tr>
<tr>
<td>Impact Factor</td>
<td>(t(25) = -3.35)</td>
<td>0.003**</td>
<td>[-2.58, -0.62]</td>
<td>1.79</td>
<td>3.39</td>
</tr>
<tr>
<td>Publication Year</td>
<td>(t(28) = 2.82)</td>
<td>0.009**</td>
<td>[1.24, 7.87]</td>
<td>2012.39</td>
<td>2007.83</td>
</tr>
<tr>
<td>Age of Total Sample</td>
<td>(t(20) = 2.70)</td>
<td>0.014*</td>
<td>[3.35, 25.85]</td>
<td>36.16</td>
<td>21.57</td>
</tr>
<tr>
<td>Gender of Total Sample</td>
<td>(t(27) = 1.07)</td>
<td>0.293</td>
<td>[-0.05, 0.15]</td>
<td>0.62</td>
<td>0.57</td>
</tr>
<tr>
<td>AA Ethnic Identity Breakdown</td>
<td>(t(33) = 2.12)</td>
<td>0.042*</td>
<td>[0.01, 0.65]</td>
<td>0.78</td>
<td>0.44</td>
</tr>
<tr>
<td>Studies with East AA</td>
<td>(t(32) = 3.43)</td>
<td>0.002**</td>
<td>[0.20, 0.80]</td>
<td>0.67</td>
<td>0.17</td>
</tr>
<tr>
<td>Studies with Southeast AA</td>
<td>(t(34) = 0.37)</td>
<td>0.710</td>
<td>[-0.25, 0.36]</td>
<td>0.28</td>
<td>0.22</td>
</tr>
<tr>
<td>Studies with South AA</td>
<td>(t(25) = 1.82)</td>
<td>0.080†</td>
<td>[-0.03, 0.47]</td>
<td>0.28</td>
<td>0.06</td>
</tr>
<tr>
<td>Studies with Unspecified AA</td>
<td>(t(34) = 0)</td>
<td>1</td>
<td>[-0.33, 0.33]</td>
<td>0.33</td>
<td>0.33</td>
</tr>
<tr>
<td>AA Generational Status Breakdown</td>
<td>(t(34) = 2.47)</td>
<td>0.019*</td>
<td>[0.07, 0.71]</td>
<td>0.72</td>
<td>0.33</td>
</tr>
<tr>
<td>Studies with Asia-born AA</td>
<td>(t(34) = 2.47)</td>
<td>0.019*</td>
<td>[0.07, 0.71]</td>
<td>0.72</td>
<td>0.33</td>
</tr>
<tr>
<td>Studies with U.S.-born AA</td>
<td>(t(34) = 1.69)</td>
<td>0.642</td>
<td>[-0.06, 0.61]</td>
<td>0.61</td>
<td>0.33</td>
</tr>
<tr>
<td>Education - Total High School</td>
<td>(t(34) = -0.47)</td>
<td>0.642</td>
<td>[-0.30, 0.18]</td>
<td>0.83</td>
<td>0.89</td>
</tr>
<tr>
<td>Education - Total College</td>
<td>(t(34) = 0)</td>
<td>1</td>
<td>[-0.26, 0.26]</td>
<td>0.83</td>
<td>0.83</td>
</tr>
<tr>
<td>Location by State</td>
<td>(t(34) = 0.15)</td>
<td>0.88</td>
<td>[-2.03, 2.36]</td>
<td>3.61</td>
<td>3.44</td>
</tr>
<tr>
<td>Quality of Assessment - AA Ethnic Identity</td>
<td>(t(33) = 3.84)</td>
<td>0.0005***</td>
<td>[0.89, 2.89]</td>
<td>3.72</td>
<td>1.83</td>
</tr>
<tr>
<td>Quality of Assessment - AA Generational Status</td>
<td>(t(29) = 3.12)</td>
<td>0.004**</td>
<td>[0.36, 1.75]</td>
<td>2.56</td>
<td>1.50</td>
</tr>
<tr>
<td>SWLS Response Scale</td>
<td>(t(29) = -1.97)</td>
<td>0.058†</td>
<td>[-0.57, 0.01]</td>
<td>0.61</td>
<td>0.89</td>
</tr>
<tr>
<td>SWLS Cronbach’s alpha</td>
<td>(t(31) = 1.20)</td>
<td>0.237</td>
<td>[-0.01, 0.05]</td>
<td>0.87</td>
<td>0.86</td>
</tr>
<tr>
<td>Sample Size</td>
<td>(t(24) = 2.66)</td>
<td>0.014*</td>
<td>[24.35, 194.76]</td>
<td>199.11</td>
<td>89.56</td>
</tr>
</tbody>
</table>

Note. AA = Asian American, EA = European American, CI = confidence interval, M = mean

\(†p ≤ .10\), \(*p ≤ .05\), \(**p ≤ .01\), \(***p ≤ .001\)
Table 9. Meta-regression values between Study 2 moderator variables and effect size of difference

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R^2$</th>
<th>$\beta$</th>
<th>$F$-value</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact Factor</td>
<td>0%</td>
<td>0.034</td>
<td>$F(1, 12) = 0.35$</td>
<td>.563</td>
</tr>
<tr>
<td>Publication Year</td>
<td>5.56%</td>
<td>0.021</td>
<td>$F(1, 12) = 1.85$</td>
<td>.199</td>
</tr>
<tr>
<td>Age of Total Sample</td>
<td>0%</td>
<td>0.002</td>
<td>$F(1, 8) = 0.0002$</td>
<td>.988</td>
</tr>
<tr>
<td>Gender of Total Sample</td>
<td>0%</td>
<td>-1.194</td>
<td>$F(1, 12) = 0.52$</td>
<td>.485</td>
</tr>
<tr>
<td>AA Ethnic Identity Breakdown</td>
<td>12.97%</td>
<td>-0.334</td>
<td>$F(1, 12) = 3.12$</td>
<td>.103</td>
</tr>
<tr>
<td>Studies with East AA</td>
<td>0.03%</td>
<td>-0.241</td>
<td>$F(1, 12) = 1.02$</td>
<td>.333</td>
</tr>
<tr>
<td>Studies with Southeast AA</td>
<td>34.43%</td>
<td>-0.506</td>
<td>$F(1, 12) = 8.40$</td>
<td>.013*</td>
</tr>
<tr>
<td>Studies with South AA</td>
<td>3.93%</td>
<td>-0.448</td>
<td>$F(1, 12) = 1.54$</td>
<td>.238</td>
</tr>
<tr>
<td>Studies with Unspecified AA</td>
<td>0.00%</td>
<td>-0.075</td>
<td>$F(1, 12) = 0.120$</td>
<td>.735</td>
</tr>
<tr>
<td>AA Generational Status Breakdown</td>
<td>36.34%</td>
<td>-0.492</td>
<td>$F(1, 12) = 9.12$</td>
<td>.012*</td>
</tr>
<tr>
<td>Studies with Asia-born AA</td>
<td>36.34%</td>
<td>-0.492</td>
<td>$F(1, 12) = 9.12$</td>
<td>.011*</td>
</tr>
<tr>
<td>Studies with U.S.-born AA</td>
<td>36.34%</td>
<td>-0.492</td>
<td>$F(1, 12) = 9.12$</td>
<td>.011*</td>
</tr>
<tr>
<td>Education - Total High School</td>
<td>6.68%</td>
<td>0.402</td>
<td>$F(1, 12) = 2.02$</td>
<td>.181</td>
</tr>
<tr>
<td>Education - Total College</td>
<td>6.68%</td>
<td>0.402</td>
<td>$F(1, 12) = 2.02$</td>
<td>.181</td>
</tr>
<tr>
<td>Location by State</td>
<td>0%</td>
<td>0.015</td>
<td>$F(1, 12) = 0.18$</td>
<td>.682</td>
</tr>
<tr>
<td>Quality of Assessment - AA Ethnic Identity</td>
<td>37.56%</td>
<td>-0.164</td>
<td>$F(1, 12) = 9.45$</td>
<td>.010**</td>
</tr>
<tr>
<td>Quality of Assessment - AA Generational Status</td>
<td>28.04%</td>
<td>-0.247</td>
<td>$F(1, 12) = 6.291$</td>
<td>.028*</td>
</tr>
<tr>
<td>SWLS Response Scale</td>
<td>11.57%</td>
<td>0.447</td>
<td>$F(1,12) = 2.76$</td>
<td>.122</td>
</tr>
<tr>
<td>SWLS Cronbach’s alpha</td>
<td>0%</td>
<td>-0.413</td>
<td>$F(1,12) = 0.03$</td>
<td>.870</td>
</tr>
<tr>
<td>Study Sample Size</td>
<td>0%</td>
<td>0.001</td>
<td>$F(1, 12) = 0.03$</td>
<td>.868</td>
</tr>
</tbody>
</table>

Note. AA = Asian American, $R^2$ = amount of heterogeneity accounted for, $\beta$ = estimate of regression weight
$\dagger p \leq .10$, $* p \leq .05$, $** p \leq .01$, $*** p \leq .001$
Table 10. Descriptives of Correlates of Asian American Well-Being in Study 1

<table>
<thead>
<tr>
<th>Correlate</th>
<th>N</th>
<th>n</th>
<th>Valence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acculturation and acculturative stress</td>
<td>11</td>
<td>2</td>
<td>Mostly negative</td>
</tr>
<tr>
<td>Self-Construal Theory</td>
<td>16</td>
<td>9</td>
<td>Mixed</td>
</tr>
<tr>
<td>Self-Determination Theory and autonomy</td>
<td>7</td>
<td>4</td>
<td>Mixed</td>
</tr>
<tr>
<td>Stress and Coping</td>
<td>4</td>
<td>0</td>
<td>Negative</td>
</tr>
<tr>
<td>Personality and Big 5</td>
<td>6</td>
<td>1</td>
<td>Mostly negative</td>
</tr>
<tr>
<td>Identity denial, othering, and discrimination</td>
<td>6</td>
<td>0</td>
<td>Negative</td>
</tr>
<tr>
<td>Acculturation gaps and intergenerational conflict</td>
<td>4</td>
<td>0</td>
<td>Negative</td>
</tr>
<tr>
<td>Social support and social support seeking</td>
<td>11</td>
<td>8</td>
<td>Mostly positive</td>
</tr>
<tr>
<td>Ethnic identity development and biculturalism</td>
<td>6</td>
<td>3</td>
<td>Mixed</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>7</td>
<td>5</td>
<td>Mostly positive</td>
</tr>
<tr>
<td>Religiosity</td>
<td>4</td>
<td>4</td>
<td>Positive</td>
</tr>
<tr>
<td>Education and income</td>
<td>7</td>
<td>2</td>
<td>Mostly negative</td>
</tr>
<tr>
<td>Familism and family relationships</td>
<td>8</td>
<td>1</td>
<td>Mostly negative</td>
</tr>
<tr>
<td>Basis and perception of SWB</td>
<td>4</td>
<td>3</td>
<td>Mostly positive</td>
</tr>
<tr>
<td>Measurement of SWB</td>
<td>2</td>
<td>0</td>
<td>Negative</td>
</tr>
</tbody>
</table>

Note. AA = Asian American, N = total studies, n = number of positive associations to life satisfaction
Table 11. Descriptives of Correlates of Asian American Well-Being in Study 2

<table>
<thead>
<tr>
<th>Correlate</th>
<th>N</th>
<th>n</th>
<th>Valence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acculturation and acculturative stress</td>
<td>1</td>
<td>0</td>
<td>Negative</td>
</tr>
<tr>
<td>Self-Construal Theory</td>
<td>14</td>
<td>8</td>
<td>Mixed</td>
</tr>
<tr>
<td>Self-Determination Theory and autonomy</td>
<td>3</td>
<td>1</td>
<td>Mostly negative</td>
</tr>
<tr>
<td>Stress and Coping</td>
<td>1</td>
<td>0</td>
<td>Negative</td>
</tr>
<tr>
<td>Personality and Big 5</td>
<td>6</td>
<td>1</td>
<td>Mostly negative</td>
</tr>
<tr>
<td>Acculturation gaps and intergenerational conflict</td>
<td>1</td>
<td>0</td>
<td>Negative</td>
</tr>
<tr>
<td>Social support and social support seeking</td>
<td>3</td>
<td>1</td>
<td>Mostly negative</td>
</tr>
<tr>
<td>Ethnic identity development and biculturalism</td>
<td>1</td>
<td>1</td>
<td>Positive</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>4</td>
<td>2</td>
<td>Mixed</td>
</tr>
<tr>
<td>Education and income</td>
<td>3</td>
<td>1</td>
<td>Mostly negative</td>
</tr>
<tr>
<td>Familism and family relationships</td>
<td>3</td>
<td>0</td>
<td>Negative</td>
</tr>
<tr>
<td>Basis and perception of SWB</td>
<td>3</td>
<td>2</td>
<td>Mostly positive</td>
</tr>
</tbody>
</table>

Note. AA = Asian American, N = total studies, n = number of positive associations to life satisfaction
Table 12. Correlation between correlates of life satisfaction and Asian American life satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>r</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acculturation and acculturative stress</td>
<td>$r(34) = -0.330$</td>
<td>[-0.594, 0.002]</td>
<td>.049*</td>
</tr>
<tr>
<td>Self-Construal Theory</td>
<td>$r(34) = 0.036$</td>
<td>[-0.296, 0.360]</td>
<td>.835</td>
</tr>
<tr>
<td>Self-Determination Theory and autonomy</td>
<td>$r(34) = 0.091$</td>
<td>[-0.245, 0.407]</td>
<td>.598</td>
</tr>
<tr>
<td>Stress</td>
<td>$r(34) = -0.150$</td>
<td>[-0.456, 0.188]</td>
<td>.383</td>
</tr>
<tr>
<td>Identity denial, othering, and discrimination</td>
<td>$r(34) = -0.042$</td>
<td>[-0.365, 0.291]</td>
<td>.809</td>
</tr>
<tr>
<td>Acculturation gaps and intergenerational conflict</td>
<td>$r(34) = 0.180$</td>
<td>[-0.158, 0.480]</td>
<td>.293</td>
</tr>
<tr>
<td>Social support and social support seeking</td>
<td>$r(34) = 0.020$</td>
<td>[-0.310, 0.346]</td>
<td>.907</td>
</tr>
<tr>
<td>Ethnic identity development and biculturalism</td>
<td>$r(34) = 0.013$</td>
<td>[-0.317, 0.340]</td>
<td>.939</td>
</tr>
<tr>
<td>Personality and Big 5</td>
<td>$r(34) = -0.196$</td>
<td>[-0.493, 0.141]</td>
<td>.251</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>$r(34) = -0.026$</td>
<td>[-0.352, 0.305]</td>
<td>.880</td>
</tr>
<tr>
<td>Religiosity</td>
<td>$r(34) = -0.019$</td>
<td>[-0.345, 0.312]</td>
<td>.913</td>
</tr>
<tr>
<td>Education and income</td>
<td>$r(34) = -0.050$</td>
<td>[-0.373, 0.283]</td>
<td>.771</td>
</tr>
<tr>
<td>Familism and family relationships</td>
<td>$r(34) = 0.067$</td>
<td>[-0.268, 0.387]</td>
<td>.699</td>
</tr>
<tr>
<td>Basis and perception of SWB</td>
<td>$r(34) = -0.078$</td>
<td>[-0.397, 0.257]</td>
<td>.649</td>
</tr>
<tr>
<td>Measurement of SWB</td>
<td>$r(34) = -0.166$</td>
<td>[-0.469, 0.172]</td>
<td>.332</td>
</tr>
</tbody>
</table>

Note. AA = Asian American, r = correlation to AA life satisfaction, CI = confidence interval
†$p \leq .10$, *$p \leq .05$, **$p \leq .01$, ***$p \leq .001$
Figure 1. Study Consort Diagram. For a list of all included studies, please contact the first author.
Figure 2. Study 1 funnel plot of reported Asian American life satisfaction across studies
Figure 3. Study 1 GOSH plot of reported Asian American life satisfaction across studies
Figure 4. Study 2 forest plot (untrimmed) of the effect sizes of the relationship between Asian American and European American life satisfaction.
Figure 5. Study 2 forest plot (trimmed) of the effect sizes of the relationship between Asian American and European American life satisfaction.
Figure 6. Study 2 funnel plot (untrimmed) for the relationship between Asian American and European American life satisfaction. Dark blue indicates $p \leq .05$, blue indicates $p \leq .025$, light blue indicates $p \leq .01$. 
Figure 7. Study 2 funnel plot (trimmed) for the relationship between Asian American and European American life satisfaction. Dark blue indicates $p \leq .05$, blue indicates $p \leq .025$, light blue indicates $p \leq .01$.
Figure 8. Study 2 GOSH plot (untrimmed) for the relationship between Asian American and European American life satisfaction.
Figure 9. Study 2 GOSH plot (trimmed) for the relationship between Asian American and European American life satisfaction.
Figure 10. Study 2 L’Abbé plots of moderators of the relationship between Asian American and European American life satisfaction, where the moderator variable is plotted against the effect size, and each bubble signifies the study’s sample size. Ethnic identity of Southeast Asian Americans, breakdown of generational status, Asia-born Asian Americans, and U.S.-born Asian Americans were
coded such that 0 = lack of group and 1 = presence of group. Quality of assessment of ethnic identity was coded such that 1 = lower quality of assessment and 5 = higher quality of assessment. Quality of assessment of generational status was coded such that 1 = lower quality of assessment and 4 = higher quality of assessment.
Appendix A

Keywords and Search Terms for the Sample

Asian American
Chinese American
Vietnamese American
Korean American
Japanese American
Indian American

Keywords and Search Terms for Life Satisfaction

Life satisfaction
Happiness
Subjective well-being
Appendix B

Request for Data Email Template

Dear [name],

My name is Kris Tran, and I am the lab manager working with Dr. Christie Scollon at Western Washington University. I am also currently a graduate student at this university, and I am in the process of conducting a meta-analysis on Asian American subjective well-being as part of my Master’s thesis. As such, we are gathering SWLS data across labs, and were hoping to include your data in our study. We would be grateful if you could send us the data used in your paper "[paper]"

In particular, what we need is the following data related to the use of the SWLS:

- Original data for each item
- Means and SDs of each group measured, particularly for Asian Americans and European Americans

To send us the data, please fill out this Google form: https://forms.gle/cby1hcAQAuWNEWJFA

We hope you are willing to share this information with us. Of course, if this project results in a publication, we would acknowledge your paper and assistance. If you would rather not share this information with us, please let us know. Ideally, we'd receive all the data by the end of July 2021, but if this isn't possible, we completely understand, and please let us know when you would be able to get the data to us.

We would also like to include unpublished data in the meta-analysis as well, so if you have any unpublished data you feel comfortable sharing, please let us know. We would of course cite you as the author of those data.
Lastly, please feel free to let us know if you have any questions or concerns. Thank you so much, and we look forward to hearing from you soon.

Best Regards,

Kris Tran

Advised by Dr. Christie Scollon
APPENDIX C
CODING MANUAL

Adapted from Lipsey & Wilson (2001)

STUDY-LEVEL CODING MANUAL

Inclusion Criteria

1. STUDY 1 & 2 - Do these data include an Asian American sample? Indicate whether the sample includes Asian Americans. This may be expressed through self-report measures where the participants report their ethnic/racial identity, or it may be reported by the researcher. Use a Y (yes) or an N (no) to indicate if the data were based on an Asian American sample. If yes, proceed to the next question. If no, do not continue to code these data.

2. STUDY 1 & 2 - Do these data include a measure of life satisfaction using the Satisfaction with Life Scale (SWLS)? Indicate whether the data contain a measure of life satisfaction using the SWLS. Use a Y (yes) or an N (no) to indicate if the data were based on measures of life satisfaction using the SWLS. If yes, proceed to the next question. If no, do not continue to code these data.

3. STUDY 2 - Do these data include an European American sample? Indicate whether the sample includes European Americans. This may be expressed through self-report measures where the participants report their ethnic/racial identity, or it may be reported by the researcher. Use a Y (yes) or an N (no) to indicate if the data were based on an European American sample. If yes, proceed to the next question. If no, do not continue to code these data.
Article Information

Bibliographic Reference: Write an APA (7th edition) citation for the dataset being examined

4. Study ID Number. Assign a unique identification number to each study. Begin the study ID number in the form of 100X. If a report presents two independent studies, i.e. two independent outcome studies with different participants, then add a decimal to the study ID number to distinguish each study within a report and code each independent study separately.

5. Type of Publication. Identify the type of publication the report is. If two separate reports are being used to code a single study, code the type of the more formally published report (i.e. book or journal article).

6. Journal Title. Include the full title of the journal in which this data is published. If not provided, put “N/A”

7. Publication Year. Identify the year of publication of the report (9999 if unknown). If two separate reports are being used to code a single study, code the publication year of the more formally published report.

8. Journal Impact Factor. Indicate the journal’s impact factor. If not able to be calculated, put “9999”

Sample Descriptors

9. Mean of Age of Sample. Specify the approximate or exact mean age of the sample. Code the best information available. If the mean age cannot be determined or does not apply, enter “9999.”
10. Standard Deviation of Age of Sample. Specify the approximate or exact standard deviation of the sample. Code the best information available. If the standard deviation of age cannot be determined or does not apply, enter “9999.”

11. Percent Gender Identity of Sample. Indicate percentages of each gender identity identified within the sample. If any of the categories is not provided, put “9999.”

12. Percent Race/Ethnicity of Sample. Indicate percentages of each race identified within the sample. Percentages should be based on the overall sample. If any of the categories are not provided, put “9999”

13. Asian American Break Down. Indicate if Asian American ethnic identity is broken down into specific identities.

14. Percent Asian American Race/Ethnicity. Indicate percentages of each Asian American race identified within the sample. Percentages should be based on the overall sample. If any of the categories are not provided, put “9999”

15. Generational Status. Indicate percentages of each level of generational status. First generation is defined as foreign-born immigrants. Second generation is defined as birth in country of relocation. Third generation is defined as children of American-native parents. If any of the categories are not provided, put “9999”

16. Level of Education. Indicate the percent of achieved level of education. If any of the categories are not provided, put “9999”

17. Socioeconomic Status of Sample. Indicate the way in which data presented information about SES (income, education level, subjective reports, etc) by checking the appropriate box. If any of the categories is not provided, put “9999”
18. Income Level. Indicate the level of income represented in the study. If any of the categories is not provided, put “9999”

19. Location of Data Collection. Indicate location of data collection to the extent that the information is provided. There will be fill in the blank options for state and city of data collection location. Indicate university name if stated. If the sample was collected throughout the country, indicate “National Sample” in the Other Information section. If this information is not provided, put “9999”

20. Sample Description. Indicate if the sample is derived from a college population or a community.

21. Sample Size. Indicate the size of the sample used in this study.
   a. Asian American Sample Size. Indicate the size of the Asian American sample used in this study
   b. European American Sample Size. Indicate the size of the European American sample used in this study

Asian American Sample Information

22. Quality of Assessment of Asian American Breakdown. Please indicate the number that corresponds with the quality categories provided. If the measure does not fall under any of the provided categories, please select N/A and give a brief explanation.

23. Quality of Assessment of Asian American Generational Status. Please indicate the number that corresponds with the quality categories provided. If the measure does not fall under any of the provided categories, please select N/A and give a brief explanation.

Research Design
24. Response Scale. Indicate the range of response scale used. Scales will typically use either 1-5 or 1-7 ratings. If the response scale does not fall under any of the provided categories, please select N/A and give a brief explanation.

25. Scale Design. Indicate if the scale is used in its original form, or if it was modified. If modified, give a brief explanation.

26. Reliability of Scale. Indicate Cronbach’s alpha (\(\alpha\)) as reported in the study. If this information is not provided, put “9999”

**Correlates of Life Satisfaction**

27. Number of Correlates. Indicate the number of theories that are associated with life satisfaction in the study.

28. Correlates of Life Satisfaction. Indicate any theories that the study relates to life satisfaction.

29. Valence of Correlate. Indicate the direction of association with life satisfaction.

30. Quality of Assessment of Correlate. Please indicate the number that corresponds with the quality categories provided. If the measure does not fall under any of the provided categories, please select N/A and give a brief explanation.

**EFFECT SIZE LEVEL CODING MANUAL**

1. Study ID number. Identification number assigned to the study from which this effect size came.

2. Effect size number. Assign each effect size within a study a unique number. Number multiple effect sizes within a study sequentially, e.g. 1, 2, 3, 4, etc.

**Effect Size Data**

3. Sample Size
3a. Asian American sample size (write in appropriate number)

3b. European American sample size (write in appropriate number)

4. Means and Standard Deviations. When means ($M$) and standard deviations ($SD$) are reported or can be estimated. If reported as a mean score, multiply both the mean and standard deviation by 5 to report a mean sum.

4a. Asian American mean sum (write in the value for the mean)

4b. Asian American standard deviation (write in the value for the $sd$)

4c. European American mean sum (write in the value for the mean)

4d. European American standard deviation (write in the value for the $sd$)

Effect Size Descriptors

5. Reporting of effect size. Effect sizes should be reported as Cohen’s $d$. Indicate how the effect size was reported or derived.

6. Page number where the data for this effect size was found. Indicate the page number in the document where the effect size can be found.

Calculated Effect Size

7. Effect Size. Report the effect size, or calculate the effect size from the provided information.

8. Confidence rating in effect size computation

STUDY-LEVEL CODING FORM

[VARIABLE NAMES IN BRACKETS]

Inclusion Criteria

_ _ _ 1. Do these data include an Asian American sample? (Y/N)
2. Do these data include a measure of life satisfaction using the Satisfaction with Life Scale (SWLS)? (Y/N)

3. Do these data include an European American sample? (Y/N)

**Article Information**

Bibliographic Reference:


4. Study ID Number [STUDY_ID]

5. Type of Publication [PUB_TYPE]

1. Book
2. Journal Article
3. Thesis or Dissertation
4. Technical Report
5. Conference Paper
6. Unpublished Manuscript
7. Unpublished Data
8. Other (specify): __________

6. Journal Title [JOURNAL_TITLE]

7. Publication Year (last two digits; XX if unknown) [PUB_YEAR]

8. Journal Impact Factor [JOURNAL_IMPACT]

**Sample Descriptors**

9. Mean Age [AGE_MEAN]
9a. Mean Age of Total Sample [AGE_MEAN_TOTAL]

9b. Mean Age Asian American [AGE_MEAN_AA]

9c. Mean Age European American [AGE_MEAN_EA]

10. Standard Deviation [AGE_SD]

10a. Standard Deviation Age of Total Sample

[AGE_SD_TOTAL]

10b. Standard Deviation Age of Asian American

[AGE_SD_AA]

10c. Standard Deviation Age of European American

[AGE_SD_EA]

11. Percent Gender [%_WOMEN]

11a. ___% Women Total Sample [%_WOMEN_TOTAL]

11b. ___% Women Asian American [%_WOMEN_AA]

11c. ___% Women European American [%_WOMEN_EA]

12. Percent Race/Ethnicity [%_RACE]

12a. ___% Asian/Asian American [%_RACE_AA]

12b. ___% White/European American [%_RACE_EA]

12c. ___% Black/African American [%_RACE_BA]
12d. ___% Unknown [%_RACE_UNKNOWN]

13. Asian American Break Down. [AA_BREAKDOWN]

1. Yes
2. No

14. Percent Asian American Race/Ethnicity [%_ID]

<table>
<thead>
<tr>
<th>Percent</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>14a. ___%</td>
<td>Bangladeshi American</td>
</tr>
<tr>
<td>[%_ID_BANGLADESHI]</td>
<td></td>
</tr>
<tr>
<td>14b. ___%</td>
<td>Cambodian American</td>
</tr>
<tr>
<td>[%_ID_CAMBODIAN]</td>
<td></td>
</tr>
<tr>
<td>14c. ___%</td>
<td>Chinese American</td>
</tr>
<tr>
<td>[%_ID_CHINESE]</td>
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</tr>
<tr>
<td>14d. ___%</td>
<td>Filipino American</td>
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<td>[%_ID_FILIPINO]</td>
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<td>14e. ___%</td>
<td>Hmong American</td>
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<tr>
<td>[%_ID_HMONG]</td>
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</tr>
<tr>
<td>14f. ___%</td>
<td>Indian American</td>
</tr>
<tr>
<td>[%_ID_INDIAN]</td>
<td></td>
</tr>
<tr>
<td>14g. ___%</td>
<td>Japanese American</td>
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<td>[%_ID_JAPANESE]</td>
<td></td>
</tr>
<tr>
<td>14h. ___%</td>
<td>Nepalese American</td>
</tr>
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<td>[%_ID_NEPALESE]</td>
<td></td>
</tr>
<tr>
<td>14i. ___%</td>
<td>Pakistani American</td>
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<tr>
<td>[%_ID_PAKISTANI]</td>
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</tr>
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<td>14j. ___%</td>
<td>Nepalese American</td>
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<td>[%_ID_NEPALESE]</td>
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</tr>
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<td>14k. ___%</td>
<td>Pakistani American</td>
</tr>
<tr>
<td>[%_ID_PAKISTANI]</td>
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</tr>
<tr>
<td>14l. ___%</td>
<td>Singaporean American</td>
</tr>
<tr>
<td>[%_ID_SINGAPOREAN]</td>
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</tr>
<tr>
<td>14m. ___%</td>
<td>Sri Lankan American</td>
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<tr>
<td>[%_ID_SRILANKAN]</td>
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</tr>
<tr>
<td>14n. ___%</td>
<td>Taiwanese American</td>
</tr>
<tr>
<td>[%_ID_TAIWANESE]</td>
<td></td>
</tr>
<tr>
<td>14o. ___%</td>
<td>Thai American</td>
</tr>
<tr>
<td>[%_ID_THAI]</td>
<td></td>
</tr>
<tr>
<td>14p. ___%</td>
<td>Vietnamese American</td>
</tr>
<tr>
<td>[%_ID_VIETNAMESE]</td>
<td></td>
</tr>
</tbody>
</table>
14h. ___% Korean American  
[%_ID_KOREAN]  
14i. ___% Malaysian American  
[%_ID_MALAYSIAN]  
15. Generational Status [%_GEN]  
15a. ___% First generation/Immigrant  
[%_GEN_1ST_AA]  
15b. ___% Second generation  
[%_GEN_2ND_AA]  
15c. ___% Third generation  
[%_GEN_3RD_AA]  
15d. ___% U.S. born  
[%_GEN_US_AA]  
16. Level of Education [%_EDU]  
16a. ___% Some high school Total Sample [%_EDU_HS_TOTAL]  
16b. ___% Some college Total Sample [%_EDU_COLLEGE_TOTAL]  
16c. ___% Some graduate studies Total Sample [%_EDU_GRAD_TOTAL]  
16d. ___% Some high school Asian American [%_EDU_HS_AA]  
16e. ___% Some college Asian American [%_EDU_COLLEGE_AA]  
16f. ___% Some graduate studies Asian American [%_EDU_GRAD_AA]  
16g. ___% Some high school European American [%_EDU_HS_EA]  
16h. ___% Some college European American [%_EDU_COLLEGE_EA]
16i. ___% Some graduate studies European American [%_EDU_GRAD_EA]

17. Socioeconomic Status of Sample. [SES_TYPE]

[ ] Income  [ ] Subjective Report

[ ] Other: ________________________________

18. Income Level [SES_INCOME]

18a. ___ % Below $40,000 Total Sample [%_INCOME_LOW_TOTAL]

18b. ___ % $40,000 to $120,000 Total Sample [%_INCOME_MID_TOTAL]

18c. ___ % Above $120,000 Total Sample [%_INCOME_HIGH_TOTAL]

18d. ___ % Below $40,000 Asian American [%_INCOME_LOW_AA]

18e. ___ % $40,000 to $120,000 Asian American [%_INCOME_MID_AA]

18f. ___ % Above $120,000 Asian American [%_INCOME_HIGH_AA]

18g. ___ % Below $40,000 European American [%_INCOME_LOW_EA]

18h. ___ % $40,000 to $120,000 European American [%_INCOME_MID_EA]

18i. ___ % Above $120,000 European American [%_INCOME_HIGH_EA]

19. Location of Data Collection. [LOCATION]

Total Sample Location [LOCATION_TOTAL]

State: ______________ City: ______________________

University: ______________________________________
Other location information:

________________________________________________________________________
________________________________________________________________________

Asian American Location [LOCATION_AA]

State: _______________ City: ___________________

University: ______________________________________

Other location information:

________________________________________________________________________
________________________________________________________________________

European American Location [LOCATION_EA]

State: _______________ City: ___________________

University: ______________________________________

Other location information:

________________________________________________________________________
________________________________________________________________________

20. Sample Description. [%_COLLEGE_SAMPLE]

20a. ___ % College Sample Total Sample [%_COLLEGE_SAMPLE_TOTAL]

20b. ___ % College Sample Asian American [%_COLLEGE_SAMPLE_AA]

20c. ___ % College Sample European American [%_COLLEGE_SAMPLE_EA]

21. Sample Size [TOTAL_N]: ________________

21a. Asian American Sample Size [ ]: ________________

21b. European American Sample Size [EA_N]: ________________
Asian American Sample Information

22. Quality of Assessment of Asian American Breakdown. [QUALITY-AA]

1. Researchers indicate data were collected from an Asian American sample but do not provide a breakdown of the sample by ethnic/racial identity.

2. Researchers indicate data were collected from an Asian American sample but combine the sample into larger demographic categories. For example, researchers combine the sample into categories such as East Asian Americans, South Asian Americans, or Southeast Asian Americans, rather than considering them as belonging to distinct ethnic/racial categories.

3. Researchers indicate data were collected from an Asian American sample but combine the part of the sample into larger demographic categories. For example, researchers report some distinct ethnic/racial categories, but combine the part of the sample into categories such as East Asian Americans, South Asian Americans, or Southeast Asian Americans, and Other.

4. Researchers indicate data were collected from an Asian American sample and provide a breakdown of the sample by ethnic/racial identity, but combine part of the sample into an “Other” category.

5. Researchers indicate data were collected from an Asian American sample and provide a breakdown of the sample by ethnic/racial identity.

23. Quality of Assessment of Asian American Generational Status. [QUALITY_GEN]

1. Researchers indicate data were collected from an Asian American sample but do not provide a breakdown of the sample by generational group.
2. Researchers indicate data were collected from an Asian American sample but combine the sample into larger generational groups. For example, researchers combine the sample into categories such as Asia-born Asian Americans and U.S.-born Asian Americans, rather than considering them as belonging to distinct generational groups.

3. Researchers indicate data were collected from an Asian American sample and provide a breakdown of the sample by generational status, but combine part of the sample into an “Other” category.

4. Researchers indicate data were collected from an Asian American sample and provide a breakdown of the sample by generational status.

**Research Design**

24. Response Scale. [RESPONSE]

1. 1 - 7, where 1 = strongly disagree and 7 = strongly agree

2. 1 - 5, where 1 = strongly disagree and 5 = strongly agree

3. Other/N/A:

______________________________________________________________

______________________________________________________________

25. Scale Design. [SCALE DES]

1. Original scale

2. Modified scale:

______________________________________________________________

______________________________________________________________

26. Reliability of Scale.[CRONBACH]
27. Number of Correlates Addressed [COR_NUM]

28. Correlate of Life Satisfaction [COR_]

28a. Acculturation and acculturative stress [COR_ACCULTURATION]

28b. Self-Construal Theory and valuation of happiness [COR_SELF.CONSTRUAL]

28c. Self-Determination Theory and autonomy [COR_SELF.DETERMINATION]

28d. Stress [COR_STRESS]

28e. Identity denial, othering, and discrimination [COR_DISCRIMINATION]

28f. Acculturation gaps and intergenerational conflict [COR_INTERGENERATIONAL]

28i. Personality and Big 5 [COR_PERSONALITY]

28j. Self Esteem [COR_SELF.ESTEEM]

28k. Religiosity [COR_RELIGIOSITY]

28l. Education and income [COR_EDUCATION.INCOME]

28m. Familism and family relationships [COR_FAMILISM]

28n. Basis and perception of SWB [COR_BASIS.PERCEPTION]
28g. Social support seeking

28o. Measurement of SWB

28h. Ethnic identity development

and biculturalism

29. Valence of Correlates of Life Satisfaction [COR_VAL]

0. Correlate is negatively associated with life satisfaction

1. Correlate is positively associated with life satisfaction

30. Quality of Assessment of Correlate [COR_QUALITY]

1. Researchers indicate theory or concept relates to life satisfaction, but only briefly mention and/or do not specify relation

2. Researchers indicate theory or concept relates to life satisfaction, but is considered a non-significant impact on life satisfaction (e.g. named with several other theories or concepts related to life satisfaction)

3. Researchers indicate theory or concept relates to life satisfaction, but note that it is considered a major impact (or one of the major impacts) on life satisfaction
4. Researchers indicate theory or concept relates to life satisfaction, and that this theory or concept informs its main hypotheses along with other supporting theories or concepts.

5. Researchers indicate theory or concept relates to life satisfaction, and that this theory or concept solely informs its main hypotheses.

**EFFECT SIZE LEVEL CODING FORM**

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<thead>
<tr>
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<tbody>
<tr>
<td>1.</td>
<td>Study ID Number [STUDY_ID]</td>
<td></td>
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<tr>
<td>2.</td>
<td>Effect size number [ES_NUM]</td>
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**Effect Size Data**

*Sample Size*

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<thead>
<tr>
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<tbody>
<tr>
<td>3a.</td>
<td>Asian American sample size [AA_N]</td>
<td></td>
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<tr>
<td>3b.</td>
<td>European American sample size [EA_N]</td>
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*Means and Standard Deviations.*

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<tbody>
<tr>
<td>4a.</td>
<td>Asian American mean sum [AA_MEAN]</td>
<td></td>
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<tr>
<td>4b.</td>
<td>Asian American standard deviation [AA_SD]</td>
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<tr>
<td>4c.</td>
<td>European American mean sum [EA_MEAN]</td>
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<tr>
<td>4d.</td>
<td>European American standard deviation [EA_SD]</td>
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**Effect Size Descriptors**

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<td>5.</td>
<td>Reporting of effect size. [ES_REPORT]</td>
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</table>

1. Reported in study

2. Calculated using $M$ and $SD$ reported by study
3. Calculated using $M$ and $SD$ retrieved from researcher(s)

4. Other:

6. Page number where the data for this effect size was found. [PAGE_ES]

7. Report the effect size [ES]

8. Confidence rating in effect size computation [ES_CONFIDENCE]
   1. Highly estimated (have $N$ and crude $p$-value only, and much reconstruct via rough $t$-test equivalence)
   2. Moderate estimation (have complex but relatively complete statistics, such as multifactor ANOVA, as basis for estimation)
   3. Some estimation (have unconventional statistics and must convert to equivalent $t$-values or have conventional statistics but incomplete, such as exact $p$-level)
   4. No estimation (have descriptive data such as means, standard deviations, frequencies, proportions, etc. and can calculate the effect size directly)