Pepperdine University

Graduate School of Education and Psychology

PSYCHOSOCIAL FACTORS IMPACTING IDENTITY DEVELOPMENT IN

BIRACIAL-BIETHNIC YOUTH: A SOCIOECOLOGICAL ANALYSIS

A clinical dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Psychology

by

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This clinical dissertation, written by

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under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

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For Mom and Dad –

Words cannot express my gratitude for the unconditional love and support that you have given me since I was a little girl. Your selflessness and the sacrifices that you made for me and Marissa is what put us in a position to be successful. From giving up sleep to drive us to school, spending long days at the softball field, and doing homework together at night to financial support, tough love and words of encouragement – you have done it all. Thank you for instilling in me the values of hard work, resilience, authenticity, humor and compassion for others. And thank you for always believing in me and reminding me who I am during times when I doubted myself, and still may doubt myself. I am so blessed to have you as my parents and have learned some much from the way that you have lived your lives and given up everything for our family. Everything that I have achieved in life is because of you. This doctoral degree is for you. I love you!

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- Provide individual and couples psychotherapy to undergraduate and graduate students
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- American Psychological Association (APA) Student Member
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ABSTRACT

Objective. A mixed methods systematic review with socioecological analysis was conducted to identify specific psychosocial factors impacting identity development and well-being and biracial-biethnic youth. Findings from this review aimed to summarize and synthesize the most recent research literature on biracial-biethnic youth, with particular attention to factors contributing to negative identity development, psychosocial stressors (e.g., substance use) that impact both identity and well-being, and protective factors that promote well-being. This systematic review also aimed to utilize a socioecological framework to better understand on what level these psychosocial factors occur and the interaction between the individual and the larger environment. Methods. Data was collected from seven electronic databases and included peer-reviewed English language articles that were published between 1980 and 2022 and were conducted with youth identifying as more than one race or ethnicity, aged 13 to 25. All studies were required to evaluate at least one socioecological level (Individual, Microsystem, Community/Organizational, Macrosystem) and include biracial-biethnic participants with at least one minority-identified parent. Results. Findings from 338 studies revealed that 91% of studies were conducted within the United States. A total of 133 studies (40.2%) utilized the word *multiracial* to describe individuals of more than one race or ethnicity. The majority of studies (> 50%) indicated that psychosocial factors most often occur on the individual level across each research question. There were significant factors noted across all four socioecological levels of analysis. Conclusions. There was a lack of consensus in the language utilized by researchers to define individuals of two or more races or ethnicities, with no consistent term used. It was also found that individual factors and interpersonal relationships have a significant impact, both negatively and positively, on identity and well-being in biracial-biethnic youth. Future research

should continue to expand upon using more inclusive language, further explore protective factors and identity development, and focus on systemic factors that could lead to increased sustained change for the biracial-biethnic population.

Keywords: biracial-biethnic, identity development, psychosocial factors, youth

Chapter I: Background and Rationale

Statement of the Problem

The saliency of the multiracial population is expanding in conjunction with the growing diversity of the world. In the 2010 United States Census, over nine million individuals endorsed belonging to two or more races. Biracial individuals have also been cited as one of the fastest growing populations in the United States (Albuja et al., 2020; Livingston, 2017). Census data since 2010 only reflects the steady growth that continues to occur. This growth is evident in the 2020 census data, accounting for 33.8 million multiracial individuals, a 267% increase since 2010 (United States Censure Bureau, 2021).

Additionally, it was found that most individuals who identify as multiracial are biracial, or two or more races, rather than a racial background of three or more races (Parker et al., 2020). However, before 2000, individuals did not have the option to select more than one race on the census form, illustrating the historical context of racial identity and identification. Racial and ethnic identities are topics of growing importance in the psychological literature due to the rapidly changing racial-ethnic landscape of the United States and other countries that have a predominantly White population.

It is essential to define and distinguish race and ethnicity, as they are easily confounded constructs. Race is defined as a "...product of racism that categorizes people into different groups based on perceived physical differences and recent ancestry in order to create and maintain a power hierarchy that privileges whiteness" (Atkin, Christopher et al, 2022, p. 22). Race has a social basis, both constructed and categorized by society, resulting in the maintenance of a sociopolitical hierarchy (American Psychological Association, 2019; Smedley & Smedley, 2005). This social construction can be illustrated by examining parental ancestry. For example,

an individual who has one Black parent and one White parent may be perceived by others as Black but self-identify as biracial (American Psychological Association, 2019). In contrast, ethnicity is characterized by "clusters of people who share common traits that distinguish them from those of other people" (Smedley & Smedley, 2005, p. 17). These traits can include language, food, music, dress, values, and beliefs related to common ancestry (American Psychological Association, 2019).

Race and ethnicity have a complex relationship, with both terms used interchangeably in the literature, creating contention between scholars. Ethnicity can be confounded when biophysical traits associated with race are used to define this term, despite the notion that individuals can share physical traits but ascribe to different ethnic groups (American Psychological Association, 2019). For example, while Latinx is not considered a race, many ethnicities are attributed to identify as Latinx based on a phenotype that emerges from a combination of White and Indigenous or Black heritage. The Middle Eastern and North Africa (MENA) community experiences challenges in being classified as White despite the frequent prejudice and discrimination faced by individuals who identify as this minority group (American Psychological Association, 2019). Beginning in the nineteenth century, the Jewish community was classified as a race based on their history and physical appearance (Kaplan, 2003). These are simply a few of the examples that reflect the complicated history of racial categorization of ethnic groups and the challenges in distinguishing race and ethnicity.

Culture is another term that individuals commonly employ in conversations about race and ethnicity. Culture refers to the "values, beliefs, language, rituals, traditions, and other behaviors that are passed from one generation to another within any social group" (American Psychological Association, 2019, p. 46). The term has been used both as a broad and specific

construct. Broadly, culture is a socially definable group across ethnicity, gender, sexual orientation, and socioeconomic class (Causadias et al., 2018). Culture has also been used at times as a specific construct to represent *ethnoculture*, or the traits that are shared and transmitted among social groups (Smedley & Smedley, 2005).

The terms race, ethnicity, and culture can create complexity in understanding the literature, as they are often used interchangeably and fluidly. They are often discussed together in professional guidelines, such as those published by the American Psychological Association and other handbooks. Ethnicity and culture are noted to be related, with no biological basis or connection to race (Smedley & Smedley, 2005). However, ethnicity and culture differ in that cultural practices and content can vary across ethnic groups (Causadias et al., 2018). Therefore, for the purposes of this systematic review, the author will focus on the broad construct of culture, with the focus being placed on the operationalized terms of race and ethnicity.

Biracial-Biethnic Identity Defined

Biracial identity, defined as individuals with two or more racial backgrounds, is an identity that is also expanding in its prevalence and meaning (Albuja, Gaither, et al., 2019). There are many terms that have historically been utilized, which are also reflected in how the biracial population is defined in the literature and can yield different results (Campbell & Eggerling-Boeck, 2006). In the current literature, the term biracial is often used interchangeably with biethnic or bicultural (Oikawa & Yoshida, 2007). The term *biracial-biethnic* was chosen for this systematic review to encompass having parents of two or more different racial or ethnic backgrounds. For the purpose of this systematic review, the use of biracial-biethnic reflects the author's operationalized term. Additional terms used by researchers within the literature reviewed to reflect the biracial-biethnic population will be italicized when first introduced.

Within the racial composition of their identity, biracial individuals may identify as dominant-minority or dual-minority. Dominant-minority individuals have White/Black or White/Asian backgrounds, for example, with White being the dominant race. Dual-minority individuals have two or more minority groups within their racial background, such as Asian/Black (Albuja et al., 2020b); this can also apply to biethnic individuals. How an individual self-defines their biracial-biethnic identity can vary depending on their social environment, including how others may identify in a social group (Levy et al., 2017). In a survey conducted by the Pew Research Center based on the 2015 United States Census data, it was found that some individuals of two or more races did not identify as biracial or multiracial. These individuals attributed their self-identification as monoracial to being raised as one race, looking like one race, and closely identifying as one race, among other reasons (Parker et al., 2020). In reviewing these reasons, there appear to be strong social and environmental components that impact self-identification. While stereotypes about racial groups can influence how a biracial individual may identify, deconstructing the social basis for racial differences can prove to be a positive contribution to their identity (Nuttgens, 2010; Shih et al., 2007).

There is an important distinction between biracial and biethnic identities. Biethnic identity refers to the dichotomy of holding two shared cultures, values, and traditions of two specific groups with common ancestry (Phinney, 1989). Similar to racial ambiguity, individuals can experience ethnic ambiguity. For example, an individual whose parents' ethnic background are Mexican and Guatemalan may be perceived by others as Hispanic or Latinx (Cruz-Janzen, 1999).

Expressions of biracial-biethnic identity consider both genotype and phenotype. *Genotype* represents the genetic characteristics that interact to express traits such as skin color or

eye shape. *Phenotype* is how an individual's genotype is expressed in observable characteristics in interaction with the environment. The latter can impact how they are perceived by others, such that they may be assumed to be part of a particular racial group based on their physical characteristics. It has also been identified as a potential mediator of the relationship between racial identity and psychological outcomes (Allen et al., 2022).

There is significant phenotypic variability for biracial-biethnic individuals. The most salient phenotypic variability occurs in racial markers such as skin color, hair texture, or physical features (e.g., eye color/shape, nose, lips; Feliciano, 2016). In the context of these racial markers, biracial-biethnic individuals may be perceived as racially ambiguous or not possessing the physical attributes of one's supposed racial category (James & Tucker, 2003). Phenotypic variability can pose challenges for biracial-biethnic individuals, specifically when their skin tone is not congruent with their identified majority group. For example, individuals with a White-Black biracial identity may appear lighter-skinned than their Black counterparts, typically defined by darker skin tone. An individual's experience of their phenotype can be influenced by their daily interactions, specifically feedback from family, peers, teachers, and other social experiences (Feliciano, 2016).

Historical Foundations

As a social construct, race has been utilized since the 1700s to group individuals by physical appearance, often acting in harmful and destructive ways; race is not a biological category (Cameron & Wycoff, 1998). Historically, laws and regulations have been implemented that have oppressed biracial-biethnic individuals, impacting their rights in society and social perception. For example, Jim Crow laws that enforced racial segregation prohibited interracial marriages in most states from the 1800s through the 1900s. It was not until the noteworthy

Loving v. Virginia Supreme Court case in 1967 that these laws were unanimously ruled to be

unconstitutional. These are just two examples that highlight the demanding challenges that

persons of color have endured to secure their personal rights (Oh, 2005). While the dismantling

of Jim Crow laws and the ruling of Loving v. Virginia represent significant progress toward

equality in Western society, there are still inherent challenges that people of color and multiracial

individuals encounter to this day as a result of internalized oppression rooted in history.

The historical implications of having more than two racial backgrounds are also evident

in the language used throughout history in both society and the literature. The terms biracial,

multiracial, and mixed-race are often considered interchangeable (Pauker et al., 2018). Other

words have been used to describe individuals of multiple racial backgrounds, often with negative

connotations, including mixed, blended, mixed breed, half-breed, and mutt. Other terms are used

to reflect specific racial identity makeups, such as *mulatto* for European and Black roots and

mestizo for European and Indigenous backgrounds. These descriptive terms extend into different

languages and cultures, such as *di colore*, or of color, in Italy, *hāfu*, or half in Japan, and *half-

castes* in the United Kingdom (aShih et al., 2007). In the United States, the term *mixed-race* has

historically been used to describe this racial identity but has become problematic due to its

origins. Being labeled as *mixed* was often associated with being mixed up, mixed company, or

giving mixed signals, reinforcing existing negative stereotypes of these individuals being

untrustworthy or defective (Pauker et al., 2018). While the term mixed race still exists in the

literature alongside other terms, there is a continued debate about the language surrounding racial

identity.

The term biracial first emerged in the literature in the 1970s, explicitly referring to

individuals with Black and White cultural backgrounds (Rockquemore & Brusma, 2002). While

it was initially argued in the literature that the term biracial was too limiting, it has grown in its use since then. In Helms' racial identity theory, it is stated that differences in feelings, thoughts, and behaviors between White individuals and persons of color result from oppressive conditions endured by these individuals (Helms, 1990). Biracial-biethnic identity presents an additional challenge to identity and identity development due to the unique dichotomy of identity, value, and culture associated with each relevant racial background (Nuttgens, 2010). Biracial-biethnic individuals may face greater pressure to identify with a specific racial group or in a particular way based on their interpersonal relationships and environment. In social situations, biracial-biethnic individuals may also have to choose whether it is beneficial to disclose their racial identity, which can create internal conflict (Sanchez & Bonam, 2009). Due to the significant impact on identity development, it is essential to understand these particular factors for biracial-biethnic individuals, specifically for youth.

More recently, biracial-biethnic identity has garnered increased attention and presence in the media, including television and movies, and prominent figures such as celebrities and political leaders. A notable representation in the media has been vice president Kamala Harris' endorsement of her biracial identity throughout her political run. The increased presence of biracial-biethnic identity in society is also reflected in its increasing importance in the literature regarding multicultural competency (Albuja et al., 2020a). Biracial-biethnic identity in the literature has historically focused on understanding challenges, identity conflict, and adverse outcomes. This focus may be reflective of how the divisive nature of socially-based race and racial differences have resulted in racism, discrimination, and the maintenance of historical oppression. However, there has been a movement toward understanding positive factors and

outcomes of having a biracial-biethnic identity in recent years, including self-esteem, adjustment, and overall well-being (Rivas-Drake et al., 2014).

The challenges and strengths that biracial-biethnic identity poses are particularly salient for adolescents and young adults, or youth, from a developmental context. There is a lack of conceptual clarity on the specific psychosocial factors contributing to their experiences of identity formation in self-identification, family interactions, and interpersonal groups (Albuja et al., 2019a). Psychosocial factors can impact an individual psychologically or socially and include areas of socioeconomic status, family dynamics, physical health, school environment, and social support, in addition to others (Campbell & Eggerling-Boeck, 2006).

Understanding the unique challenges that biracial-biethnic youth face in the context of their identity may be of great value to mental health clinicians and professionals, to better understand the impact on psychotherapy and treatment. Additionally, school and higher education personnel should be aware of the challenges biracial-biethnic youth may face during this period that could impact their academic achievement, behavior, and overall well-being. The research presented in this systematic review could be beneficial for these identified parties, in addition to individuals working with racially and ethnically diverse youth.

Overview of Current Research, Theory and Practice

Models of Identity Development

Identity development is generally considered a lifelong, dynamic process that begins in early childhood and continues into adulthood (Hud-Aleem & Countryman, 2008). However, it has been shown in the literature that the specific process of identity development more significantly impacts adolescents and young adults. According to Erik Erikson's psychosocial stages of development, individuals enter eight distinct stages throughout their lifetime, directly

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impacted by social experiences. Erikson defined the period between ages 13 and 18 as "identity versus role confusion" (Phinney, 1989). During this fifth stage, adolescents' sense of personal identity develops by exploring their independence and social relationships to establish a sense of self. Erikson further defines identity as an individual's beliefs, ideals, and values that help shape and guide a person's behavior (Weiland, 1993). Erikson placed particular emphasis on the development of ego identity, therefore emphasizing the importance of this stage of development for adolescents (Cote & Levine, 1987).

Additional research has argued that identity development extends beyond Erickson's stages that conclude at age 18 into young adulthood at age 25, therefore coining the phrase *Emerging Adulthood* (Arnett, 2000). Arnett characterizes this period as distinct, both demographically and subjectively, and within identity exploration. He also emphasizes consideration of the cultural context in understanding what stage of identity development an individual may be in (Arnett, 2000). Literature has shown that the permanency of racial features is understood by the time children reach school age, somewhat independent of ethnic and racial background (Hollingsworth, 1997). Therefore, it is important to note that racial and ethnic identity development in children of color may occur earlier than White children.

Identity development can be a complex life experience, as identity comprises more than one identity, often resulting in each individual having to find a balance between their multiple identities. These multiple identities can include race, gender, sex, sexuality, class, ability, and many others. The experience of having multiple oppressed group identities is described within the construct of intersectionality. Kimberlé Crenshaw defined intersectionality as a lens through which race, gender, and other systems work together to oppress while allowing privilege to be maintained. Crenshaw's understanding of intersectionality is derived from critical race theory

and is important due to the oppression of individuals of color (Crenshaw, 1989). Intra-race intersectionality, the identification of two or more racial minority backgrounds, may also be experienced by dual-minority biracial-biethnic individuals, as their identities are interdependent and exist within a hierarchy of inequality (Albuja et al., 2020b).

Racial Identity Development

While there are many existing models for racial identity, specific developmental pathways for biracial-biethnic identity have been studied. Root (1990) explained these pathways through four options: (a) identity chosen by others, (b) identify with both racial groups, (c) choose one racial group over the other, and (d) identify with a new biracial or multiracial group. This model understands biracial-biethnic identity as a fluid process impacted by numerous factors and the social context.

Specific shifts in identity can occur in biracial-biethnic individuals depending on their environment and interpersonal interactions. Individuals may have a situational identity, in which they are more likely to change how they identify in various social situations in comparison to monoracial individuals (Hiltlin et al., 2006). Biracial-biethnic individuals may also engage in identity switching, where individuals choose with identity to emphasize, particularly one that may be valued in a given situation. For example, an individual who identifies as White and Latinx may emphasize their racial identity as Latinx when in a diverse group of people or other Latinx community members. While identity switching can create identity conflict, it may also serve as a pathway to well-being by creating a socially adaptive identity, maintaining self-esteem, and avoiding performance decrements (Gaither et al., 2013; Sanchez et al., 2009; Shih et al., 2019).

According to Albuja and colleagues (2020a), biracial-biethnic individuals may experience identity denial and identity questioning. Identity denial occurs when individuals are told to racially identify differently from their self-identification. Identity questioning occurs when individuals are asked about their racial background with questions such as "What are you?" which are both forms of microaggressions. Albuja and colleagues (2020b) posit that both identity denial and questioning are associated with lower autonomy levels, greater perceived identity conflict, and lower levels of a sense of belonging. However, when individuals can successfully achieve a level of racial duality or a balance between their two racial identities, this can facilitate resiliency, adaptability, and creativity (Cruz-Janzen, 1999; Herring, 1995; Nuttgens, 2010).

When understanding biracial-biethnic identity, existing models have been developed to conceptualize the process. One of the first models developed was Poston's biracial identity development model. This model is rooted in counseling psychology and has five distinct stages. Poston (1990) states that identity development is dependent on family experiences, which form self-worth and self-esteem. More recently developed models include the multidimensional model of biracial identity (Rockquemore & Brunsma, 2002) and Kich's conceptualization of biracial identity (Miville et al., 2005). Scholars have applied Bronfenbrenner's model to racial identity development theories, such as Renn's ecological theory of mixed-race identity development, which conceptualizes five identity patterns in college students to understand how their multiple racial identities change over time (Renn, 2003). A significant limitation of the existing models is that they do not account for the impact of racism and discrimination on identity development (Rockquemore & Brunsma, 2002). While other identity models for biracial-biethnic youth exist,

due to their limitations including the lack of specific age associated with each stage of identity development, they were not used for this systematic review.

Psychosocial Factors

Within the current literature, there is evidence to support an exploration of psychosocial factors causing stress and promoting well-being in biracial-biethnic youth. Psychosocial factors that cause stress can occur on the environmental and interpersonal levels. Within the environment, factors such as financial instability, lack of housing, and educational opportunities are examples of factors that could impact an individual's identity development (Albuja et al., 2019a). Interpersonal factors can include the two domains of social interactions and family dynamics. Socially, experiences that can cause stress for youth are social rejection, experiences of bullying, and microaggressions.

Additionally, negative societal reactions to an individual's phenotypic makeup can cause stress and lead to low self-esteem (Hud-Aleem & Countryman, 2008). In the context of racial discrimination, racially charged environments can negatively impact mental health, resulting in depression or anxiety (Sanchez et al., 2009; Shih & Sanchez, 2005). Within an individual's family, experiences associated with values, expectations, and cultural norms can contribute to stress for biracial-biethnic youth. Issues related to family structure include a one-parent household or immigration and documentation challenges (Hud-Aleem & Countryman, 2008). Negative parental reactions, such as parents discouraging their children from embracing their identity in an effort to avoid prejudice and discrimination, can cause identity conflict (Bowles, 1993).

Although numerous psychosocial factors can contribute to stress, conversely, some factors can promote positive well-being in biracial-biethnic youth. Environmentally, financial

stability, housing, food security, and a diverse school or community can contribute to an overall positive sense of self (Shih et al., 2019). Interpersonally, biracial-biethnic youth are predicted to have more positive outcomes when they have the opportunity to develop a relationship with peers of similar or equally diverse backgrounds (Hud-Aleem & Countryman, 2008). The family unit can significantly impact the well-being of a biracial-biethnic youth, specifically when it is stable with the support of the primary caregiver. This is particularly true when the parents discuss a child's biracial-biethnic identity, and the family is engaged in forming a family identity as an interracial unit (Hud-Aleem & Countryman, 2008). Having a role model within the family unit has also been noted as a positive psychosocial factor (Bowles, 1993). Overall, having a positive association with racial identity can result in a more positive affect and adjustment to life transitions or stress (Rivas-Drake et al., 2014).

Socioecological Levels of Analysis

Within the racial-ethnic literature, there has been an emergence of the use of socioecological theory, specifically in multicultural psychology research. Socioecological theory is rooted in various models that account for physical, social, and interpersonal environments. There have been several waves of ecological movements that presented approaches to human development (Oishi & Graham, 2011). Beginning with behaviorism, James Watson emphasized the relation between microsystems and behavioral responses. Years later, Kurt Lewin pioneered field theory, which proposed that behavior is a function of person and environment (Oishi & Graham, 2011). Bronfenbrenner (1992) developed his ecological model that proposes five concentric circles (Microsystem, Mesosystem, Exosystem, Macrosystem, Chronosystem), ranging from the individual level to a dynamic historical context. While many other theorists from the realms of social, developmental, and environmental psychology built upon models such

as those of Bronfenbrenner and Lewin, in the last 30 years, a shift occurred to become inclusive

of cultural psychology. Therefore, a more comprehensive socioecological approach pays

attention to cultural factors in basic psychological processes and the environment (Oishi &

Graham, 2011).

Broadly, socioecological psychologists view the interaction of social ecology, culture

(e.g., symbols, rituals, and meanings), and the human mind and behavior (Markus & Kitayama,

1991). Social ecology shares several key similarities with the cultural, psychological, and

evolutionary approaches (Oishi & Graham, 2011). This is evidenced by the American

Psychological Association's (2017) use of an adapted, layered model to frame their multicultural

guidelines. The various socioecological factors considered include economic systems, political

systems, religious systems, climates, and geographies. These factors are considered to impact

thought, behavior, and culture and can have reverse effects impacting the systems as well (Oishi

& Graham, 2011). The socioecological perspective has many strengths, including how it can

assist in exploring the way that patterns of cultural ideas, images, practices, and representations

can affect psychosocial factors (Neville & Mobley, 2001).

In this systematic review, socioecological theories will be utilized as a lens to provide

comprehensive levels of analysis in understanding the influences of individual and systemic

factors on multiple subsystems specific to biracial-biethnic individuals. To best understand the

ecological model in a social and community context, the subsystems being reviewed for the

individual include the (a) Individual, (b) Microsystem, (c) Community/Organizational, and (d)

Macrosystem. The first level, Individual, refers to how the person self-identifies in domains

including age, education level, income, attitudes, beliefs, knowledge, and behaviors

(Bronfenbrenner, 1992). The following level, Microsystem, or interpersonal, examines how the

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individual's interpersonal relationships interact with themselves; this level includes support systems such as family, friends, and other social networks (Oishi, 2013). The third level of Community/Organizational reflects the impact of groups such as schools, workplaces, the media, health departments, religious communities, and non-profit organizations on the individual (Oishi & Graham, 2010). The final level, the Macrosystem, includes the societal, religious, and cultural values, influences, and norms that interact with the individual (Kilanowski, 2017). This level can also encompass health, economic, and educational policies with state, local, and federal laws (Oishi, 2013). While Bronfenbrenner's later model includes an additional level, the Chronosystem, which focuses on shifts and transitions throughout an individual's lifespan, this level was excluded from this systematic review due to the lack of existing literature that evaluates this level.

Rationale, Primary Aims, and Key Research Questions

Given the increasing prevalence of racial diversity in the United States, there is a need to analyze the unique factors that impact biracial-biethnic individuals, both negatively and positively. In the context of the prevalence of racial discrimination and prejudice that is pervasive in current society, there is a greater call for understanding the impact on racially and ethnically diverse youth. In racial identity development, there is a tendency towards a postmodern view of self and identity that may align with biracial-biethnic individuals' current experiences, representing a divergence from traditional racial or ethnic identity theories (Nuttgens, 2010). With the growing acknowledgment of racial and ethnic identity in society, there is a call for research to address the unique challenges that biracial-biethnic individuals face in order to support their physical and emotional well-being best. While this systematic review will acknowledge factors that could create distress or identity conflict, there is a need to

emphasize how psychosocial factors and support can promote positive well-being. The limited research on factors contributing to positive well-being in biracial-biethnic youth presents the need to synthesize past research with current research.

The present systematic review aims to examine specific psychosocial stressors impacting identity development in biracial-biethnic youth. First, the author will explore the unique challenges that biracial-biethnic youth face in their daily lives at multiple levels from a socioecological framework. Additionally, factors that may negatively impact biracial-biethnic youth in the context of identity formation and development will be evaluated at various socioecological levels. Lastly, research on factors that could contribute to positive well-being will be identified, including protective factors and coping strategies. Describing challenges and protective factors at multiple levels of analysis may more comprehensively inform mental health clinicians and school personnel of the treatment implications and outcomes associated with biracial-biethnic identity for the youth they encounter. Specifically, the author will address the following questions:

- RQ1: What are the factors contributing to negative well-being and identity conflict in biracial-biethnic youth within multiple socioecological levels of analysis including Individual, Microsystem, Community/Organizational, and Macrosystem?

- RQ2: What are the specific psychosocial stressors impacting biracial-biethnic youth within multiple socioecological levels of analysis including Individual, Microsystem, Community/Organizational, and Macrosystem?

- RQ3: What are the factors that promote positive well-being and identity in biracial-biethnic youth within multiple socioecological levels of analysis including Individual, Microsystem, Community/Organizational, and Macrosystem?

Chapter II: Methodology

Systematic Review Approach

This systematic review will be conducted utilizing an integrative methodological approach to assess and examine the various psychosocial factors impacting identity development in biracial-biethnic youth. There has been an increased use of integrative reviews, as they allow for the examination of the relationship between empirical data and theory (Gough, 2015). A preliminary review of the current literature suggests a plethora of both qualitative and quantitative studies that address the identified research questions. Quantitative studies will be used to summarize correlates of psychosocial factors with positive or negative contributions to identity formation and development. Qualitative studies will be utilized to summarize descriptions of psychosocial factors and narrative accounts of individuals identifying as biracial-biethnic across multiple socioecological levels.

Eligibility Criteria

Inclusion Criteria

All studies included must be written and published in English. Only studies published in peer-reviewed journals and published book chapters will be considered for inclusion in this review. In order to provide a comprehensive review of the literature, this review will focus on studies from 1980 to 2022. The year 1982 is significant in the minority mental health literature, as it was the year of the first publication about minority curricula and training in clinical psychology (Bernal & Padilla, 1982). Research on racial and ethnic identity began to receive more attention at this time.

Study Eligibility Criteria

Studies must examine one or more psychosocial factors impacting biracial-biethnic youth or the identity development of biracial-biethnic youth. Each factor must occur on one of four levels: (a) Individual, (b) Microsystem, (c) Community/Organizational, and (d) Macrosystem. These are commonly identified levels across various socioecological models, including Bronfenbrenner's ecological model, community psychology, environmental psychology, and cultural psychology (Oishi & Graham, 2011). The impact of one or more of these factors must be discussed in this systematic review and may have either a positive or negative impact on the identity of the youth. All designs and approaches, including quantitative, qualitative, and mixed methods, are eligible for inclusion in the review of studies.

The target population of this review is youth identifying as biracial, biethnic, or biracial-ethnic. Participants must identify as having more than one race or ethnicity. For each participant, at least one parent must identify as Black, Indigenous, People of Color (BIPOC). Participants may have parents who are of two different ethnicities but identify as the same race (e.g., Hispanic; Mexican, and Ecuadorian). In order to best encompass the developmental period when identity development is a central process, participants in each study must be between the years of 13 and 25. This is drawn from the developmental theories of both Erickson and Arnett. All genders and socioeconomic statuses of families are eligible for inclusion. All research settings will be included in this review, with a particular interest in school-based and community-based studies. Both domestic (United States) and international studies will be eligible for inclusion.

Exclusion Criteria

Studies that will be excluded from this review include those that include any type of treatment intervention (e.g., cognitive-behavioral therapy). This is due to the nature of the review

looking at factors that impact biracial-biethnic youth rather than treatment outcomes. Additionally, the study will not be included if the demographic makeup of participants includes at least one non-biological parent.

Search, Screening, and Selection Processes

Information Sources

Electronic databases served as the primary search sources for this review. Specified search terms were identified to be systematically searched on the EBSCO Host platform in the following databases: Academic Search Complete, Educational Full Text, ERIC, JSTOR, PsychoINFO including PsychARTICLES, PubMed, and Scopus. Each database was searched individually using the identified search terms, both individually and in combination with each other. An additional source of information was through the review of reference sections of existing literature to find the most relevant articles published in the last five years. Articles chosen via this method needed to meet the identified inclusion criteria.

Search Terms

A list of comprehensive search terms was identified for use in evaluating appropriate studies to be included in this review. The identified search terms and synonyms included

- Biracial or multiracial or mixed race or more than one race; biethnic or multiethnic; racial-ethnic or biracial-ethnic or biracial-biethnic; African American or Black/White Parent or Black, Indigenous, and People of Color (BIPOC) or "of color;"

- Youth or adolescent or young people or teenagers or teens or young adults or emerging adults

- Identity or self-identity or self identity or self concept or self-concept; identity development or identity formation or identity construction; identity conflict or identity crisis or role confusion,

- Psychosocial or social or psychosocial stress or psychological; psychosocial factors or psychosocial impacts or psychosocial effects or psychological

- Well-being or wellbeing or "well being" or mental health or physical health or happiness or life satisfaction or quality of life.

After identifying the search terms and synonyms, they were grouped by similarity and assigned a number code (Appendix A). The identified databases were searched using predetermined combinations of key search terms. Each search was clearly documented (Appendix B). The author began by conducting a broad search such as "biracial or biethnic + psychosocial factors + identity." Search terms were then added to alternative search terms, which were used to narrow the results and obtain specific information and articles related to the established research questions. For example, when seeking to identify factors impacting biracial youth, the author searched the primary search terms of "biracial or biethnic + BIPOC + white parent + psychosocial factors." When seeking to identify positive impacts on biracial-biethnic youth, the author searched the following primary search terms: "biracial or biethnic + positive + well-being." In Appendix C, each search was labeled with a full search ID number, beginning with 101 and continuing sequentially.

Selection of Studies

Before the screening process began, all duplicates in the search results were removed. The search results were screened for inclusion in the study using article titles, abstracts, and key words. The selection process was documented in the Screening and Selection Record (Appendix

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D). This form was created to document the selection process based on the identified inclusion and exclusion criteria. Within this form, the author listed how the article is included based on its title or other information provided in its abstract. If the author was unable to determine eligibility after reviewing the abstract, they reviewed the entire article. After either the review of the abstract or the entire article, the author made a recommendation for the selection of each article for the study.

The author was assisted by four master's level research assistants (RA's) during the screening and selection process. The author reviewed the RA's contribution to the Screening and Selection Record. When conflict arose over the appropriateness for inclusion of a study, the author and RA reviewed the inclusion and exclusion criteria in addition to the key identified variables to reach a decision in which they agreed.

Documentation records were maintained for each step, including reasons for selecting and not selecting studies. A PRISMA-based flow chart was utilized to summarize each step of the selection process. The flow chart noted the number of records identified through the electronic database search and those obtained through non-electronic means, such as hand searches of journals. The flow chart also included information such as the number of duplicate records obtained from each database, the total number of records screened, the total number of excluded records based on the screening criteria, and the number of full-text documents reviewed for eligibility. To reflect the integrative nature of this review, the flow chart differentiated the number of quantitative, qualitative, and mixed methods reviews. The author maintained electronic copies of records of all the selected studies in three places:

1. A locked, external hard drive kept in possession of the author.
2. The author's Mendeley account.

3. The hard drive of the author's computer.

Data Collection and Extraction

Development of the Data Extraction Form

This integrative systematic review is designed to synthesize the existing body of relevant

literature in order to identify various psychosocial factors impacting the identity development of

biracial-biethnic youth, both positive and negative. This was accomplished by analyzing the

literature from a socioecological model, which categorized factors impacting the identity of

biracial-biethnic youth according to four levels of analysis. To facilitate the comprehensive

collection of this information without bias, the author developed a Data Collection and

Extraction Form (Appendix F) based on a modification of the data collection document

developed by the Cochrane Collaborative for systematic reviews (Higgins et al., 2019) and

modified by the author's doctoral program dissertation coordinator. The extraction form was

modified to represent the critical data points to be collected by this review. A series of variables

were identified for coding based on the findings represented in the preliminary literature searches

and the research questions that the author has posed. These variables were then categorized as

follows

- study identification

- general information

- design characteristics and other methodological features

- definition and operationalization of biracial-biethnic

- socioecological model levels

- study participant characteristics

- setting characteristics

- analysis and statistical information

- results and outcomes

- conclusions and follow-up.

The author selected these categories within each domain based on the data in the existing literature to allow for the collection of qualitative and quantitative data, understanding that not every category or variable will apply to every included study.

Data Collection and Coding.

Study Documentation and Identification

At the start of the Data Collection and Extraction Form, the author included the following variables: (a) document name, (b) document ID, (c) author, (d) year of publication, and (e) full document title. Each source document was assigned a three-digit number as its document ID, beginning with the number 001, and continued consecutively until all documents received an ID number. The author section included all authors' names in addition to the year of publication. In the field designated for the full document title, the complete title of each study was recorded as shown on the original document.

General Information. In the second section, the following variables were included: (a) source (e.g., PsychInfo), (b) publication type, (c) publication status, and (d) study geographic location. The last variable was used to determine the geographic location of each study, allowing the author to distinguish between domestic and international studies and evaluate any regional trends in research of psychosocial factors.

Design Characteristics and Methodological Features. In this section, the author included the following variables: (a) study aim, (b) general research method, (c) specific research design or approach, (d) types of outcome measures, and (e) references to other relevant studies.

The author recorded the general aim of each study by describing its purpose, as stated in the original study. The following variable documented the overall methodological research design utilized by the author(s) in each study, while the following variable documented the specific design approach used. The next variable in this section will record how the authors measured outcomes in the study (e.g., questionnaires), while the final variable noted any references to other relevant studies.

Definition and Operationalization of "Biracial" and/or "Biethnic." In the fourth section, the author directly transcribed how the study defined or operationalized participants who identify as more than one race or ethnicity. Additionally, the author captured the terminology used by the study, if different than biracial or biethnic (e.g., multiracial).

Socioecological Levels. This section of the Data Collection and Extraction Form organized the data by level of information according to various socioecological models. These levels included (a) individual, (b) microsystem (interpersonal relationships), (c) community/organizational, and (d) macrosystem (systems and policy). It was expected that studies would vary in the number of levels included.

Research Variables. This next section of the Data Collection and Extraction Form organized the data per research variables. This included the identification of (a) positive psychosocial factors, (b) negative psychosocial factors, (c) positive identity development (e.g., identity stability), and (d) negative identity development (e.g., identity conflict). The author noted when research variables extracted from the literature fit multiple categories.

Participant Characteristics. The author aimed to achieve a comprehensive understanding of biracial-biethnic youth in relation to the development of their identity. Careful attention was paid to the specific aspects of youths' identities, specifically the racial and ethnic

identities that form the juxtaposition between their race and ethnicity. This section began with obtaining information about the (a) data collection setting and (b) recruitment process. The first variable was used to document the type of setting where data was collected for each study. The second variable documented how individuals were recruited to participate in each study (e.g., online recruitment).

The remaining information collected addressed specific characteristics of the study participants. This included (a) sample/population description, (b) sample size, (c) participant age, (d) participant gender, (e) participant racial/ethnic breakdown, (f) participant maternal race/ethnicity, (h) participant paternal race/ethnicity, (i) participant religious and/or spiritual beliefs, (j) participant socioeconomic status, (k) family type/dynamic, and (l) participant education level. An optional notes category was also used to extract any additional significant information. To better understand the population included in each study, the author also documented these variables and the inclusion and exclusion criteria.

Results, Conclusions, and Follow-Up. The final section of the Data Collection and Extraction Form recorded the following variables: (a) key results, (b) key conclusions of each study, (c) study limitations, (d) author's recommendations/implications, and (e) future directions and future research. The first variable recorded study results relevant to the research questions of this systematic review. The second variable described identified conclusions reached by the author(s) of each study. The variable of study limitations is where the author documented any salient limitations of the study. The last variable outlined recommendations made by the study author(s) for future research. Specific takeaways related to positive psychosocial impacts will be particularly important due to the limited information found during the preliminary literature

review. Lastly, any relevant information not included in the study was described in an optional note category.

Data Extraction

To begin the data extraction process, the author obtained an electronic copy of each included study. The author reviewed each study completely by reading the full text and highlighting or underlining important aspects of each study. The author electronically input the relevant data into the Data Collection and Extraction Form for each study. When key identified variables from the Data Collection and Extraction Form were not presented in the study being reviewed, the author determined if the study met the inclusion criteria. If possible, the author will contact the author(s) of the study to retrieve any available information that is not present in the study; correspondence will be documented within the Data Collection and Extraction Form.

For the data extraction process, the author had the assistance of four master's level research assistants (RA's). To ensure that all recording of data was unbiased and accurate, the completed Data Collection and Extraction Form was independently reviewed by the author and RA's. Any discrepancies were reviewed by the author and RA's collaboratively to make the appropriate changes. Once completed, the Data Collection and Extraction Form was stored and maintained in the three ways of storing the other documents that were previously identified.

Quality Appraisal

Quality appraisal is utilized to assess the reliability, relevance, and results of the published studies being included in this literature review. Once all relevant data has been extracted from a study, the quality of the study was initially assessed with a Quality Appraisal Form (Appendix G), created within Microsoft Excel. This document was drawn from the Mixed Methods Appraisal Tool (Q. N. Hong et al., 2018) as well as the author's dissertation program

based on an integration of multiple published critical appraisal instruments (Harrell, 2021). The author also drew from the McMaster quality appraisal tool (Law et al., 1998; Letts et al., 2007), utilizing the outline of these forms as the basis of the developed Quality Appraisal Form. The categories included (a) strength of literature foundation/rationale, (b) clarity and specificity of research aims/objectives/questions, (c) quality of research design, (d) sample selection and characteristics, (e) measures/data collection tools, (f) data collection procedures, (g) analysis of data, (h) discussion of study limitations and (i) overall rating. The author rated each category by strength on a Likert scale with the following ratings: 3 = *strong*, 2 = *good/adequate*, 1 = *weak*, 0 = *missing information*, and N/A = *not applicable*.

Data Management, Synthesis, and Analysis Plan

Database Development

A central database was created to gather and store the data collected from all the included studies in a single document (Appendix E). The database was created through Microsoft Excel, using the identified key variables from the Data Collection and Extraction and Quality Appraisal Forms. This database is a comprehensive spreadsheet that holds all the extracted data and appraisal information from all the studies. The author included all research designs (quantitative, qualitative, mixed methods) in one document to best synthesize the extracted data and findings.

Data Analysis and Synthesis

This data collection and analysis process was informed by the research questions guiding this systematic review. The research questions are as follows:

- RQ1: What are the factors contributing to negative well-being and identity conflict in biracial-biethnic youth within multiple socioecological levels of analysis including Individual, Microsystem, Community/Organizational, and Macrosystem?

- RQ2: What are the specific psychosocial stressors impacting biracial-biethnic youth within multiple socioecological levels of analysis including Individual, Microsystem, Community/Organizational, and Macrosystem?

- RQ3: What are the factors that promote positive well-being and identity in biracial-biethnic youth within multiple socioecological levels of analysis including Individual, Microsystem, Community/Organizational, and Macrosystem?

After reviewing the identified studies, the author modified the databases to organize the data based on the research questions. Three categories were added to the database with checkboxes, with each category corresponding to each research question. Based on the research questions addressed by each study, the author checked the boxes to obtain a total number at the end of the analysis. The author analyzed the data points for each individual research question and examined each individual variable to construct descriptive overviews and identify key findings for each research question. Lastly, the author clustered the findings to evaluate for patterns, themes, or relationships in areas such as participant age, psychosocial factors, or biracial-biethnic identity.

Reporting of Results

The author presented the general characteristics of each study in the Evidence Table of Included Studies, reporting the salient details and major findings for each document reviewed. A preliminary evidence table (Appendix D) was developed and reported the following pieces of information from each study reviewed: (a) author(s), (b) publication year, (c) title, (d) research question(s) addressed, (e) focus of study, (f) psychosocial factors addressed, (g) identity factors addressed, (h) research methodology, (i) design/measures used, (j) socioecological levels, (k) sample characteristics, (l) biracial-biethnic breakdown/percentage and (m) results/key findings.

The evidence tables serve as the primary mode of reporting the major findings of this systematic

review. A record was additionally kept by the author to document data analysis decisions,

thoughts, hypotheticals, and other ideas that may relate to the interpretation of data.

Chapter III: Results

Overview

A total of 18,103 publications were identified using electronic databases. Duplicate records were removed using automated features of Microsoft Excel, which resulted in 5,804 articles being removed prior to the initial screening. After reviewing titles and abstracts in the context of identifiable inclusion criteria, 9,546 records were excluded, resulting in 2,753 records assessed and found to be eligible for full-text screening. Of the full-text records assessed, 2,417 were excluded for various reasons including not being empirical ($n = 411$), parental perception of youth's well-being ($n = 129$), clinician perception of youth's well-being ($n = 3$), only monoracial or monoethnic participants ($n = 976$), inclusion of non-biological parents or adoption ($n = 18$), evaluation of a treatment intervention ($n = 179$), missing relevant demographic information (e.g., race/ethnicity) ($n = 24$), participants' age range being outside of inclusion criteria ($n = 363$), the use of multiracial/multiethnic to represent monoracial groups ($n = 137$), program or assessment evaluation ($n = 144$), the percentage of biracial-biethnic participants being too low ($n = 9$) and lastly, articles unrelated to the presented topic ($n = 27$). In total, 333 studies were included in this socioecological analysis of quantitative and qualitative studies.

Figure 1

PRISMA Flow Diagram

Identification of Studies via Databases	
Identification	Records Identified from Electronic Databases (n = 18,103) → Records Removed Before Screening: Duplicate Records Marked as Ineligible by Automation Tools (e.g., Excel) (n = 5,804)
Screening	Records Screened by Title and Abstract (n = 12,299) → Records Excluded by Title and Abstract Screening (n = 9,546)
	Reports Sought for Retrieval (n = 2,753) → Reports Not Retrieved (n = 0)
	Reports Assessed for Eligibility (Full-Text Screening) (n = 2,753) → Full-Text Reports Excluded (n=2,417): • Literature Review / Not Empirical (n = 411) • Parental Perception of Youth (n = 129) • Clinical Perception of Youth (n = 3) • Monoracial/Monoethnic Participants (n = 976) • Non-Biological Parents / Adoption (n= 18) • Evaluation of Treatment Intervention (n=179) • Missing Demographic Information (n=24) • Participants' Age Too Old/Young (n=363) • Multiracial/Multiethnic = Monoracial Groups (n=137) • Program/Measure Evaluation (n=144) • Small Percentage of Biracial-Biethnic Participants (n=9) • Unrelated to Topic (n=27)
Included	Studies Included in Socioecological Analysis of Quantitative, Qualitative & Mixed Methods Studies (n = 333)

General Characteristics of Included Studies

General characteristics of the 333 included studies are reported in the Evidence Table of Included Studies (see Appendix D). This table includes author(s), publication year, title, focus of study, research methodology, specific research design, socioecological levels (e.g., individual, microsystem, community/organizational, macrosystem), sample characteristics (e.g., age, race/ethnicity, socioeconomic status), psychosocial factors (e.g., depression, resilience), identity factors (e.g., identity conflict, identity development), and key results/findings.

The included studies were conducted both domestically and internationally, with a large majority of studies conducted in the United States ($n = 303$, 91%). The remaining studies were conducted internationally ($n = 30$, 9%) with the following breakdown: United Kingdom ($n = 8$), Canada ($n = 4$), Australia ($n = 2$), Germany ($n = 2$), Argentina ($n = 1$), Brazil ($n = 1$), Greece ($n = 1$), Iceland, ($n = 1$), Israel ($n = 1$), Japan ($n = 1$), Poland ($n = 1$), Malawi ($n = 1$), South Africa ($n = 1$), and Spain ($n = 1$). A total of three studies were conducted in multiple countries, including the United States and Canada ($n = 2$) and Malaysia and Singapore ($n = 1$).

Figure 2

Map of Locations of Included Studies
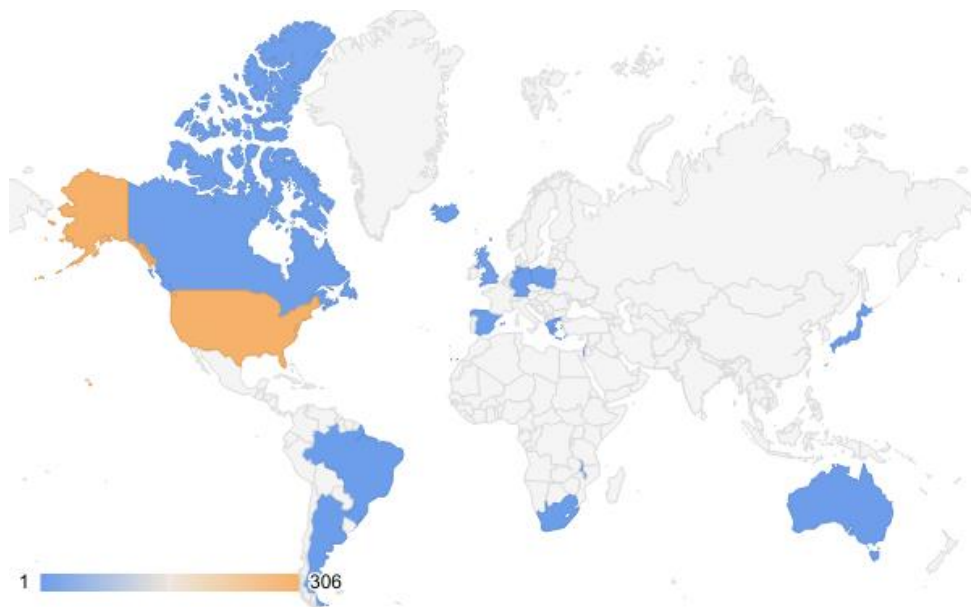
The studies were conducted between the following years: 1980 to 1990 ($n = 0$, 0%), 1990 to 1995 ($n = 2$, 0.6%), 1995 to 2000 ($n = 7$, 2.1%), 2000 to 2005 ($n = 21$, 6.3%), 2005 to 2010 ($n = 65$, 19.5%), 2010 to 2015 ($n = 66$, 19.8%), and 2015 to 2022 ($n = 175$, 52.6%). The majority of studies included in this systematic review were published in the last twenty years.

Regarding the research methodology of the studies, there were predominantly quantitative studies (*n* = 241, 72.4%), followed by qualitative studies (*n* = 76, 22.8%), and lastly, mixed methods (*n* = 16, 4.8%).

Biracial-Biethnic Defined

Previous literature (published before 1980) has remained inconsistent in operationalizing a term for individuals who identify with more than one race or ethnicity. This trend continues, with a wide array of words operationalized by authors, with some overlap in terms utilized.

The large majority of studies utilized the term *multiracial* to define individuals with two or more races or ethnicities (*n* = 133, 40.2%), followed by *biracial* (*n* = 60, 18.1%), *mixed race* (*n* = 27, 8.2%) and *multiethnic* (*n* = 26, 7.9%). There are several themes that emerged among the remaining studies in terms of the language used to define individuals who identify as more than one race or ethnicity. These themes included using specific racial or ethnic groups, specific parental racial or ethnic breakdowns, the inclusion of both race and ethnicity in the term, and the use of "other" in addition to race or ethnicity.

Three studies identified specific racial or ethnic groups in their operationalization of participants. This included the terms *Multiethnic Asian Pacific Islander* (API; Choi, 2008), *Multiethnic/Multiracial Asian* (Ahmmad & Adkins, 2020), and *Multiethnic Black* (Barr & Neville, 2014). Two studies included specific racial or ethnic parental breakdowns, including *Indigenous-European Mix* (Aldrete et al., 2012) and *South Asian-Canadian or European Canadian* (Sahay & Piran, 1997). Several studies focused on the Hispanic ethnic heritage while using the terms *Mixed Non-Hispanic* (Boutelle et al., 2018), *Multiple Races, Non-Hispanic* (Pentek & Eisenberg, 2018), *Multiracial Hispanic* (Whaley & Francis, 2006), and *Multiracial Non-Latinx* (Felner et al., 2022).

A pattern in these studies was the inclusion of both race and ethnicity in the single term they used. The following are examples of the various terms: *mixed race/ethnicity* (Allen et al., 2022; Garcia et al., 2019; Meter et al., 2019; Nelson et al., 2018), *multiethnic/racial* (Cardwell & Soliz, 2020; Cardwell et al., 2020, Gillen-O'Neel et al., 2015; Phinney & Alipuria, 1996), *biracial/ethnic* (Clark, Doyle & Cincy, 2013; Clark, Nguyen & Kropko, 2013), *multiracial/ethnic* (Aldana et al., 2012; Hidalgo et al., 2020), *multiracial/multiethnic* (Chaudhari & Pizzolato, 2008; Lorenzo-Blanco et al., 2013), *biracial/multiethnic* (Benner & Graham, 2009), *ethnoracially mixed* (Rodríguez-García et al., 2021) and *racially/ethnically mixed* (Sahay & Piran, 1997).

Another trend observed was the addition of "other" combined with other racial or ethnic terms. This included *mixed/other* (Armsrtong-Carter et al., 2021; Berge et al., 2013; Bucchianeri et al., 2013; Eisenberg et al., 2022; Kansky & Allen., 2018), *multiracial/other* (Anyon et al., 2014, Kraus et al., 2022; Troxel et al., 2018; Wester & Trepal, 2015), *biracial/other* (Brady & Donenberg, 2006; Fernandez & Benner, 2022; McCabe et al., 2019), *mixed race/other* (Cotter & Smokowski, 2016; Duncan et al., 2007), *multi-race/other* (C.H.E. Cheng et al., 2022) and *other (mestizo, mixed race)* (Davis, 2020; Davis et al., 2021). Lastly, one study included culture, using the term *multiracial/multicultural* (DeWitz et al., 2009). The graph below illustrates the full array of terms used by authors of the included studies.

Figure 3

Operationalization of Biracial-Biethnic
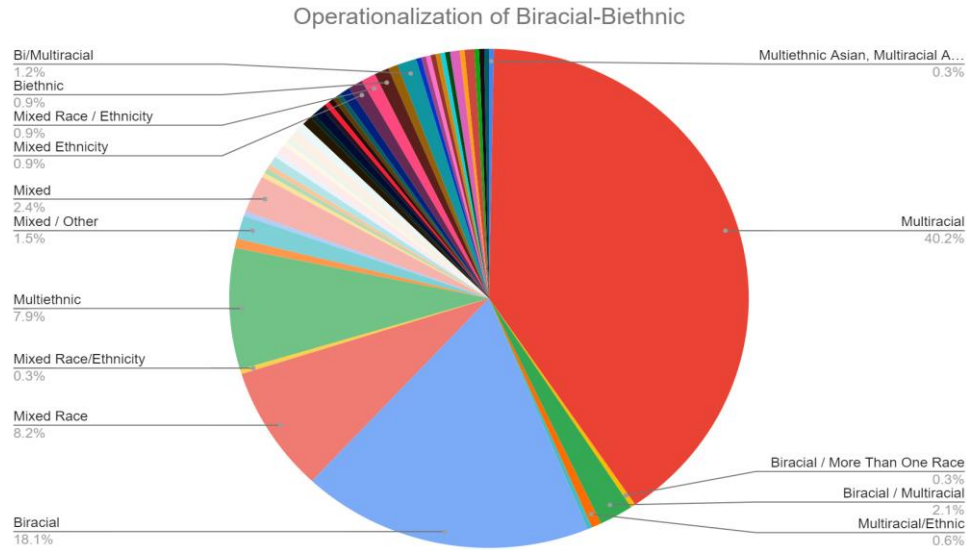
Operationalization of Biracial-Biethnic

Bi/Multiracial 1.2%
Biethnic 0.9%
Mixed Race / Ethnicity 0.9%
Mixed Ethnicity 0.9%
Mixed 2.4%
Mixed / Other 1.5%
Multiethnic 7.9%
Mixed Race/Ethnicity 0.3%
Mixed Race 8.2%
Biracial 18.1%

Multiethnic Asian, Multiracial A... 0.3%
Multiracial 40.2%
Biracial / More Than One Race 0.3%
Biracial / Multiracial 2.1%
Multiracial/Ethnic 0.6%

Socioecological Levels

The four socioecological levels (Individual, Microsystem, Community/Organizational, Macrosystem) were analyzed in each included study. As anticipated, 100% of studies addressed the individual level, as each study included human participants.

A total of 154 studies (46.2%) only evaluated factors at the Individual level (e.g., identity conflict), followed by studies that addressed both the Individual and Microsystem levels ($N = 84$, 25.2%), 43 studies that addressed both Individual and Community/Organizational levels (12.9%) and 46 studies that looked at the Individual, Microsystem and Community/Organizational levels. The remaining studies with small percentages included Individual, Community/Organizational, Macrosystem ($N = 7$, 2.1%), Individual and Macrosystem ($N = 5$, 1.5%), all four levels of Individual, Microsystem, Community/Organizational, Macrosystem ($N = 3$, 0.9%) and lastly, Individual, Microsystem and Macrosystem $N = 1$, 0.3%).

Figure 4

Socioecological Levels of Included Studies

Socioecological Levels

- Individual, Communit… 2.1%
- Individual, Communit… 12.9%
- Individual, Macrosyst… 1.5%
- Individual 46.2%
- Individual, Microsyst… 25.2%
- Individual, Microsyst… 10.8%
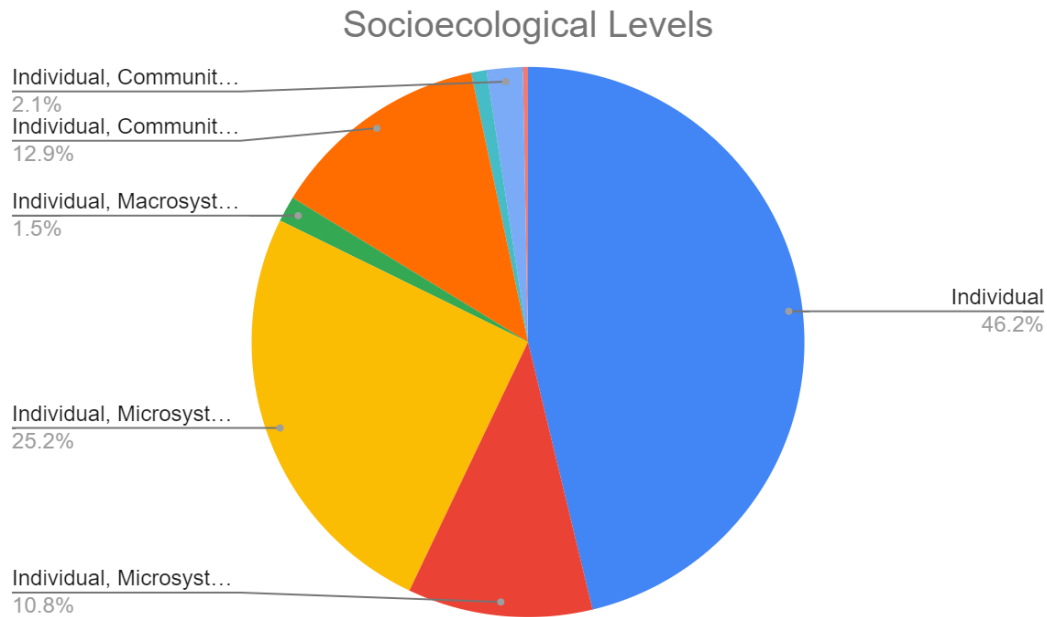
Characteristics of Study Participants

The following sections detail the results related to participant age, gender, race/ethnicity, racial/ethnic breakdown by parents, religious/spiritual affiliation, socioeconomic status, family type/dynamic (e.g., married, single parent household), and education level.

Participant Age

All included studies met the criteria of having participants between the ages of 13 to 25. For studies that included a larger age range of participants younger than 13 or older than 25, the mean age of participants fell within the identified acceptable range. For those studies that did not include the mean ($N = 84$, 25.3%), the age range of participants fell within the identified age range for this systematic review.

The following outlines the average means for the included age range (Figure 5). A total of 64 studies had a mean that fell between ages 13 to 15 (19.3%), while 59 studies included a

mean between ages 16-18 (17.8%). The remaining studies had a mean that fell between ages 19

to 21 ($N = 67$, 20.2%) or between ages 22 to 25 ($N = 58$, 17.5%).

Figure 5

Percentage of Ages (Mean) of Included Studies

Percentage of Age (Mean)

Ages 13-15
19.3%

Ages 22-25
17.5%

Ages 19-21
20.2%

No Mean Provided
25.3%

Ages 16-18
17.8%
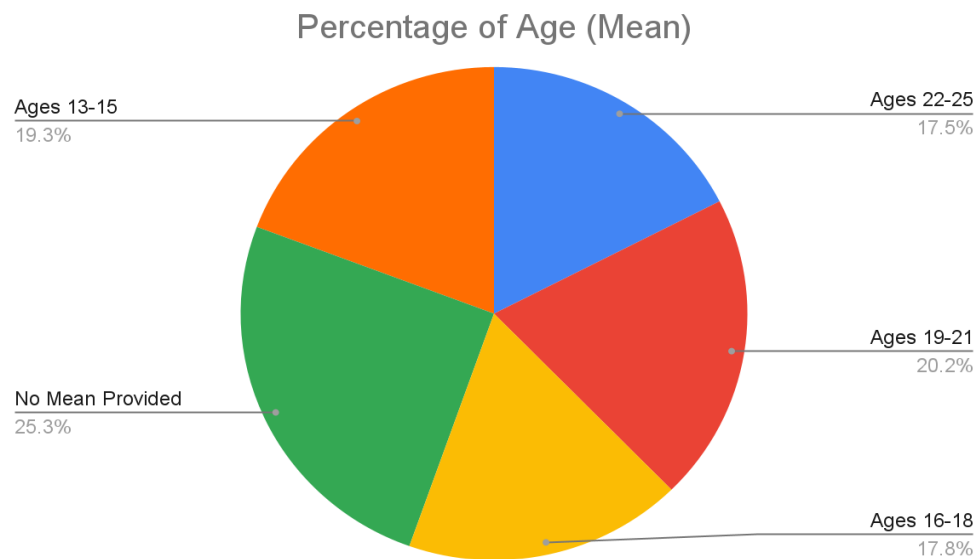
Participant Gender

In evaluating the gender demographics of the included studies, the majority of studies

provided this information via specific gender descriptors. The large majority of studies utilized a

binary of male and female participants ($N = 240$, 72.3%). The remaining studies utilized a non-

binary ($N = 32$, 9.6%), only included a single gender of male or female ($N = 20$, 6.0%), or did

not provide specific gender demographic information ($N = 40$, 12%).

Figure 6

Gender Descriptors of Included Studies

Gender Descriptors

Not Specified
12.0%

Single Gender
6.0%

Non-Binary
9.6%

Binary
72.3%
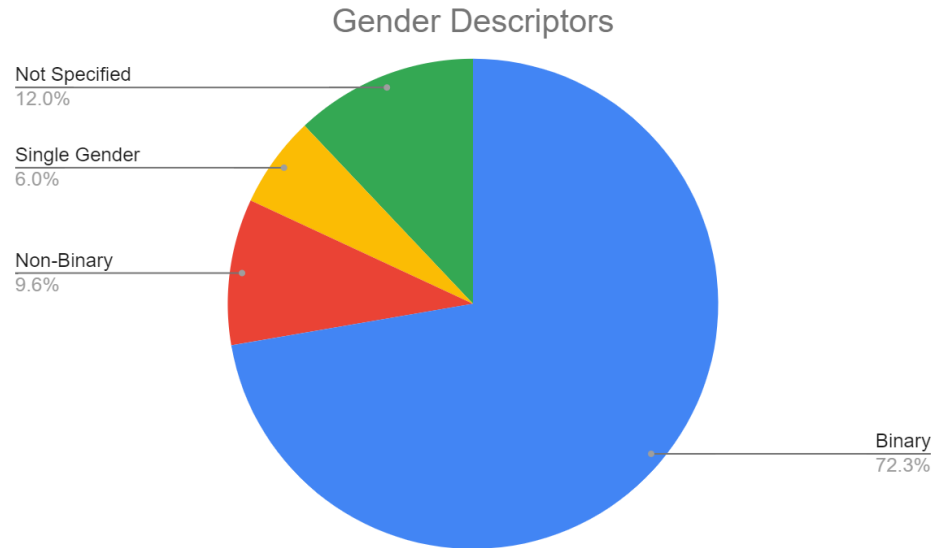
Participant Race/Ethnicity

A total of 82 studies included a sample of participants who fully identified as more than one race or ethnicity. The remaining 251 studies included only a percentage of participants who identified as more than one race or ethnicity. Of those 251 studies, the majority (N = 123, 37%) had a sample of biracial-biethnic participants between 1% to 10%. Another 94 studies (28.3%) had biracial-biethnic participants that fell between 11% to 20%, and 81 studies (24.4%) fell between 91% to 100%. Additional studies fell between 21% to 30% (N = 13) and 31% to 40% (N = 12, 3.9%). The final percentage ranges had small amounts of studies that fell within the range, including four studies between 41% to 50% (1.2%), three studies between 81% to 90% (0.9%), one study between 51% to 60% (0.3%), one study between 61% to 70% (0.3%) and one study between 71% to 80% (0.3%).

Figure 7

Racial/Ethnic Percentages of Biracial-Biethnic Participants

Racial/Ethnic Percentages

41-50%
1.2%

21-30%
3.9%

31-40%
3.6%

11-20%
28.3%

91-100%
24.4%

1-10%
37.0%
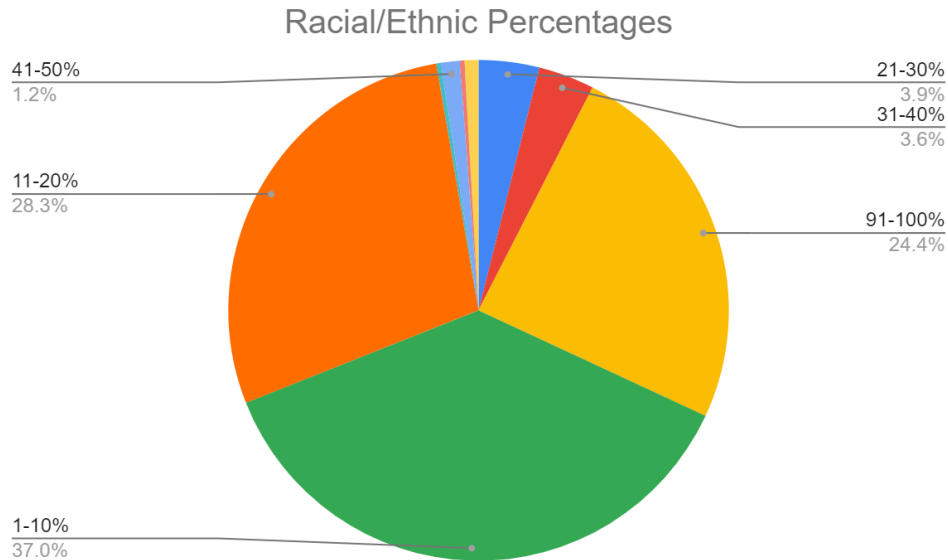
Participant Racial/Ethnic Parental Breakdown

The majority of studies (*N* = 251, 75.4%) did not report participants' parental racial or

ethnic background. Authors who did report parental background often had fully biracial or

biethnic participants; however, the specific maternal and paternal breakdowns were not always

reported, particularly if they differed by participants. Of the remaining 82 studies, the following

represent the themes of parental racial/ethnic identity groups for studies with entire participants

of more than one race or ethnicity. The five themes include *White/Black, White/Minority,*

Minority/Minority, Combination of White/Minority and Minority/Minority, and *Not Specified.*

The dominant theme within these studies was authors that reported a combination of

White/Minority and Minority/Minority (*N* = 36, 44.4%). This category reflects having either a

White-identified and minority-identified parent or two minority-identified parents. For instance,

Clark, Doyle and colleagues (2013) included the following parental racial/ethnic groups:

"White/Black, White/Hispanic, White/Asian, White/NA, Black/Hispanic, Black/Asian,

Black/NA, Hispanic/Asian, Hispanic/NA, Multi/Other" (p. 2451) and Hong, Yan and colleagues (2022a) utilized "Black/White, Black/AAPI, Black/Native American, White/AAPI, White/NA and AAPI/Native American" (p. 778). The second highest category is White/Minority, having one White-identified and one minority-identified parent ($N = 20$, 23.5%). Albuja and colleagues (2019) described their participants' racial/ethnic backgrounds as "White/Asian, White/Latino, White/Black, and White/Other Racial Backgrounds" (p.12).

The remaining categories included a smaller number of studies. Several authors evaluated participants with a White mother or father and a Black mother or father ($N = 13$, 16%). Examples included the research of Balogun and Joseph-Salisbury (2021) and Crawford and Alaggia (2008). Another eight studies (9.9%) included participants with both parents having a minority background. Participants in Romo's (2011) study identified as having Chicano/Mexican fathers and African-American mothers or African-American fathers and Chicano/Mexican mothers. Additionally, McKie (2018) included participants who identified as "Filipino/Australian, Australian/Filipino, Australian/Thai, Chinese/Australian, Australian/Vietnamese, or Nepalese/Australian" (p.73). Lastly, the final five studies (6.2%) did not provide specific demographic data for participants. For instance, Jones and Rogers (2002) only described their racial/ethnic demographics as 100% multiracial participants.

Figure 8

Categories of Parental Racial/Ethnic Breakdown.

Categories of Racial/Ethnic Breakdown for 100% BR-BE

Not Specified
6.2%

White/Black
16.0%

White/Minority
23.5%

Minority/Minority
9.9%

White/Minority &
44.4%
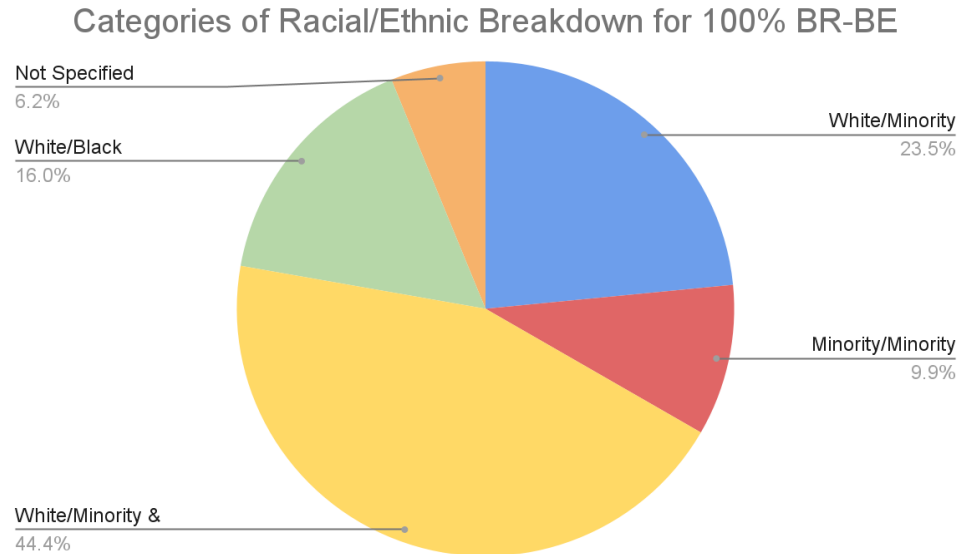
Other Characteristics

There are several additional participant characteristics that were analyzed that yielded minimal results. While the author intended to analyze the intersection of these areas with racial or ethnic background, These categories included religious/spiritual affiliation, socioeconomic status, family type/dynamic, and education level.

Participant Religious/Spiritual Affiliation

For religious/spiritual affiliation, 315 studies (94.6%) did not report participant identification. For those that did report ($N = 18$), the authors provided a range of participant-identified religious/spiritual affiliations including Catholic, Evangelical, Atheist, Areligious Spiritual, Mahayana Buddhist, Atheism Agnosticism, Presbyterian Christian, Spiritual, Muslim, Hindu, Sikh, and Other/Unknown. Other alternative forms of reporting included noting that the religious/spiritual background of participants varies (Austin et al., 2021; Banks et al., 2019) or reporting their church attendance (Carter et al., 2019).

Participant Socioeconomic Status

For participant socioeconomic status, a total of 261 studies (78.4%) did not report

participant socioeconomic status. The remaining studies provided general information about their

participants' socioeconomic status (e.g., lower class, middle class).

Participant Family Type/Dynamic

Family type or dynamic includes the makeup or characteristics of the family of the

identified participants. A total of 284 (85.3%) of studies did not describe their participants'

family type or dynamic. Those that did provide family type or dynamic included information

about parental marriage status, single or two-parent household, immigration status/ancestry, and

generational markers (e.g., first-generation).

Participant Education Level

Participant education level was consistently reported, with 95 studies (28.5%) providing

this information, while the remaining studies did not ($N = 238$, 71.5%). As reflected in the

setting of each study, participants were largely students in middle school, high school, or

college/university settings. Additionally, some studies included post-graduate or employed

individuals within their participants.

Research Questions

In evaluating how each study aligned with the identified research questions for this

systematic review, the majority of studies addressed more than one research question, resulting

in significant overlap. This is also true for each socioecological level evaluated in each study,

where the majority of studies addressed more than one socioecological level. It is important to

note that for this section of the results, there was an overlap for each research question, where

many studies addressed more than one research question and more than one level of

socioecological analysis. Of note, only a total of 17 (0.5%) of studies addressed all three research questions in their study and results.

Research Question One: Negative Well-Being and Identity Conflict

What are the factors contributing to negative well-being and identity conflict in biracial-biethnic youth within multiple socioecological levels of analysis, including Individual, Microsystem, Community/Organizational, and Macrosystem?

Research question one focused on factors that contribute to negative well-being and identity conflict in biracial-biethnic youth. A total of 149 studies addressed research question one. Of the total number of studies that addressed research question one, 144 studies additionally addressed research question two and/or three. The remaining studies ($N = 5$) focused solely on negative well-being and identity conflict. The following sections outline the studies that addressed this question from a socioecological approach.

Table 1 outlines the varying socioecological levels addressed by included studies within research question one. The majority of studies evaluated factors related directly to the individual participants, while others varied in the combination of levels included in each study. It is important to note that no studies related to research question one evaluated all four socioecological levels.

Table 1

Socioecological Levels of Research Question One

Socioecological Level	Total	Percentage
Individual	85	57.0%
Individual, Microsystem	26	17.4%
Individual, Macrosystem	2	1.3%

Socioecological Level	Total	Percentage
Individual, Microsystem, Macrosystem	1	0.07%
Individual, Community/Organizational	19	12.8%
Individual, Microsystem, Community/Organizational	10	6.7%
Individual, Community/Organizational, Macrosystem	4	2.7%
Individual, Microsystem, Community/Organizational, Macrosystem	0	0%

Table 2

Major Themes of Research Question One

Socioecological Levels	Key Words/Themes
Individual	**Identity:** Code Switching, Demographics, Dual Identification, Identity Concealment, Identity Challenges, Immigration Status, Misclassification, Self-Labeling, Self-Schema, Situational Identity **Race/Ethnicity:** Ancestry, Beliefs About Racial Differences, Implicit Racial Preferences, Internalized Racism, Phenotype, Privilege, Racial Consciousness, Stereotypes, Stigma Consciousness **Negative Well-Being:** Cognitive Styles, Invalidation, Isolation, Low Autonomy, Self-Efficacy, Self-Esteem, Shame
Microsystem	**Peers:** Negative Peer Norms, Peer Social Functioning, Peer Victimization **Family:** Family Relationships, Parenting Styles, Parental Involvement, Parent Racial Identification, Sibling Relationships

Socioecological Levels	Key Words/Themes
	Interpersonal/Social: Discrimination, Experiences of Violence, Intergroup Relationships, Mixed Messages from Others, Racial/Ethnic Factors, Relational Health, Sense of Belonging
Community/Organizational	**School/University:** Academic Environment, School Citizenship, Spaces of Education/Employment **Environment:** Acculturation, Cultural Factors, Ecological Setting, Racial Bias, Social Understanding of Behavior **Community/Groups:** Ethnic Majority/Minority Groups, Friendship Group Diversity, Group Identification, Intergroup/Intragroup Dialogue, Intergroup Anxiety, Lack of Community Involvement
Macrosystem	**Systematic Issues:** Model Minority, Oppression, Social Justice, Systematic Discrimination **National/Global Issues:** Mainstream Culture, Political Elections, Social Climate, Sociocultural Influences, Sociopolitical Engagement **Policies/Laws:** Institution Policies and Practices, Structural Inequalities

Within each socioecological level, the author derived several themes of psychosocial factors related to identity conflict and negative well-being (Table 2). The results are presented in the context of each level of analysis - Individual, Microsystem, Community/Organizational, and Macrosystem - including relevant themes and subthemes that emerged from the literature.

Individual

Individual psychosocial factors that contribute to negative well-being and identity conflict in biracial-biethnic youth include the following themes and subthemes:

- Identity (Code Switching, Demographics, Dual Identification, Identity Concealment, Identity Challenges, Immigration Status, Misclassification, Self-Labeling, Self-Schema, Situational Identity)

- Race/Ethnicity (Ancestry, Beliefs About Racial Differences, Implicit Racial Preferences, Internalized Racism, Phenotype, Privilege, Racial Consciousness, Stereotypes, Stigma Consciousness)

- Negative Well-Being (Cognitive Styles, Invalidation, Isolation, Low Autonomy, Self-Efficacy, Self-Esteem, Shame).

Identity. Several studies (32%) identified factors related to a youth's identity development, specifically factors that cause distress or conflict. Biracial-biethnic youth face many challenges with the stability of their identity. It is known that biracial-biethnic individuals share the experience of having a dual identification related to their two or more ethnic backgrounds. However, a negative impact of dual identification was found to be related to their developmental stage, with a younger age and lower self-esteem increasing the risk (Fatimilehin, 1999).

These youth also have to *code switch* or alternate between various identities depending on their environment. This experience is also compounded by individuals with low socioeconomic status backgrounds (Hitlin et al., 2006). Embracing situational identities often occurs among the college student population (Chaudhari & Pizzolato, 2008).

There are several types of specific challenges that may occur related to an individual's identity. This includes identity construction, concealment, denial, diffusion, exploration, and foreclosure. While an individual is constructing their identity, it is noted that their internal dialogue can impact the ability to hold multiple racial identities (Metcalfe, 2022; Reddy, 2019;

Root, 1998). The tendency to deny parts or all of one's identity was found to be associated with worse psychological adjustment. For individuals with White heritage, the denial of their White identity may result in greater stress, less autonomy, increased depressive symptoms, and less connection to others (Albuja, Gaither et al., 2019a, 2019b; Albuja, Sanchez, et al., 2020a; Lusk et al., 2010). Lastly, identity concealment has been found to be associated with negative affect (Kiekens & Mereish, 2021).

Biracial-biethnic adolescents who experience identity diffusion and foreclosure were found to have lower levels of psychological well-being (Abu-Rayya, 2006). Additionally, levels of identity exploration impact the well-being of biracial-biethnic youth. For instance, Fisher, Reynolds and colleagues (2014) and Fisher, Wheeler and colleagues (2019) posit that biracial-biethnic youth with more ethnic identity exploration and less affirmation around their identity are found to have higher levels of mental health issues. When biracial-biethnic individuals are forced to choose their identity during an exploration period, additional challenges are found to arise (Gillem et al., 2001).

In addition to race and ethnicity, other demographic features can contribute to these challenges. For example, first-generation status is a predictor of academic problems (Gusler & Kiang, 2009), while immigration status is also noted as a risk factor (Bracey et al., 2004). Several authors also noted religious or spiritual affiliation to be a risk factor for identifying as more than one race or ethnicity, including a higher risk of Non-Suicidal Self Injury (NSSI) and identity confusion (Kuentzel et al., 2012; Rodríguez-García et al., 2021). Davenport (2016) argues that individuals identified with ethnic-based religions are more likely to exclusively identify as a minority as well. Other aspects of identity that impact a biracial-biethnic individual are misclassification by observers (Campbell, 2009), one's self-schema negatively increasing

throughout adolescence (McArthur et al., 2019), and an inhibited response in self-labeling (Marks et al., 2011).

Race/Ethnicity. The second category within the individual socioecological level is race and ethnicity. Several authors note that ancestry can directly impact a biracial-biethnic youth. For example, a lack of connection to ancestry impacts self-identification (Blake, 2019) and other identity outcomes (Rodríguez-García et al., 2021). Additionally, individuals with no White ancestry have a negative impact on their notions of beauty (Sims, 2012). Phenotype, or physical appearance, is also related to identity and educational outcomes (Campbell, 2009; Rodríguez-García et al., 2021; Romo, 2011). Romo (2011) specifically identifies these impacts related to *Blaxican* or Black and Mexican ancestries.

One's own beliefs about their racial or ethnic background also impact their well-being. Shih and colleagues (2007) state that beliefs about racial differences impact race salience, views of race as a social construct, and perception of stereotype threat. High attitudes about internalized racism impact an individual's racial group identification (Bianchi et al., 2002; Charmaraman & Grossman, 2010), and implicit racial preferences are associated with ethnoracial membership (Gran-Ruaz et al., 2022). Privilege, specifically racial privilege, also alters one's perceptions of conflict (Muller & Miles, 2017).

Stereotypes and the effects of being stereotyped based on race or ethnicity have been found to affect biracial-biethnic youth. In particular, if one faces stereotype threat, there will be a great level of discomfort with their identity (Lott & Rogers, 2010). Both racial consciousness (A. Chang, 2014; Song, 2010) and stigma consciousness (Wilton et al., 2013) are influenced by one's experiences and impact one's White identification, identity threat, and sense of belongingness.

Negative Well-Being. Lastly, negative well-being was a theme within the individual socioecological level. Self-esteem was a dominant factor noted to be associated with negative well-being when at lower levels (De Anda & Riddel, 1991; Fisher et al., 2017; Lusk et al., 2010; Miller et al., 2019). More specifically, low levels of self-esteem result in cultural marginality (Bracey et al., 2004), weak ethnic identity (Austin et al., 2021), a low sense of physical attractiveness, and less feelings of acceptance (Kelch-Oliver & Leslie, 2007). Additionally, Bianchi and colleagues (2002) found that individual self-esteem is correlated with collective self-esteem. Self-efficacy also contributes to a low sense of purpose (DeWitz et al., 2009), and emotional self-efficacy is tied to weak ethnic identity (Espinosa et al., 2020).

Other factors that impact an individual's well-being are having low autonomy (Albuja et al., 2019b), experiences of invalidation (Austin et al., 2021; Johnston-Guerrero & Chaudhari, 2016), and feelings of shame (Bell et al., 2021). Shame is specifically associated with one's engagement in Non-Suicidal Self-Injury (NSSI), in which NSSI is concealed from family to avoid feelings of shame, dependent on family culture and values (Bell et al., 2022). Charmaraman and Grossman (2010) also relate shame to low levels of positive regard. An individual's specific cognitive flexibility and cognitive style were found to determine psychological health (Pauker & Ambady, 2009). Notably, a negative cognitive style or framework is associated with higher rates of stress and depressive symptoms (Dondanville & Possel, 2019). Finally, experiences of isolation impact both well-being and identity development. Ethnic isolation results in individuals having less sense of ethnic belonging and higher rates of substance use (Carter et al., 2019) with isolation geared specifically toward *mixedness* (Mckie, 2018).

Microsystem

The second socioecological level is the Microsystem or the interpersonal domain. The following themes were identified by the author from the literature:

- Peers (Negative Peer Norms, Peer Social Functioning, Peer Victimization)

- Family (Family Relationships, Parenting Styles, Parental Involvement, Parent Racial Identification, Sibling Relationships)

- Interpersonal/Social (Discrimination, Experiences of Violence, Intergroup Relationships, Mixed Messages from Others, Racial/Ethnic Factors, Relational Health, Sense of Belonging)

Peers. For biracial-biethnic youth, the quality of peer relationships directly impacts their well-being and performance. For instance, Shin and colleagues (2007) argue that having negative peer norms in environments such as school can directly impact school engagement. Additionally, the nature of peer social functioning, particularly when negative, results in opioid misuse (D'Amico et al., 2021).

Family. Family dynamics play a critical role in the development of biracial-biethnic youth and have the ability to make a significant impact, both positively and negatively. Family relationships, in general, influence youth's cultural identity (Bhui et al., 2005), and they see themselves in the world; however, this differs by gender. Kelch-Oliver and Leslie (2007) identify family relationships as having a larger negative impact on females and how they perceive themselves in the world. Additionally, *multiracial* boys were found to have lower levels of parental relationship quality than White boys (Radina & Cooney, 2000). Sibling relationships have also been noted to impact how youth engage with differences, such as racial or ethnic differences (Cardwell & Soliz, 2020).

The role of parents in their child's life is also a critical psychosocial factor, including

parenting style and parental involvement. Higher levels of parental control have been associated with greater alcohol use in multiracial female youth, while higher levels of parental monitoring have been associated with greater alcohol use and experiences of peer victimization based on identity (High et al., 2023). In contrast, lower levels of parental involvement are a predictor of the development of negative self-schema (McArthur et al., 2019) and directly impact how youth will either embrace or avoid their multiracial identity (Bratter & Heard, 2009). Parental racial identification and how the child or adolescent perceives this, impacts their own identity development, informs their racial perceptions and attitudes, and influences how they cope with their own experiences of discrimination (Phinney & Alipuria, 1996; Stepney et al., 2015).

Interpersonal/Social. In considering interpersonal and social dynamics, the dominant theme is the universal experience of discrimination for biracial-biethnic youth. Discrimination occurs within the context of peers (Austin et al., 2021), in public spaces (Brackett et al., 2006), within family (Franco et al., 2020), and systemic discrimination (Espinosa et al., 2020). Discrimination most often occurs in relation to both racial and ethnic identity (Jensen et al., 2023). Racial discrimination has been found to lead to increases in depressive symptoms (Reid Marks et al., 2020), and systematic discrimination contributes to the frequency of negative emotions (Espinosa et al., 2020). At times, enduring discrimination is due to having an ambiguous physical appearance, such that individuals may be incorrectly categorized by others based on their perceived race or ethnicity (Jackson, 2009). Additionally, individuals who face discrimination have higher levels of stress (Mossakowski & Darrah-Okike, 2022), lower levels of self-esteem and community support (Bracey et al., 2004), and feelings of rejection of their identity with their ingroup (Giamo et al., 2012). When discrimination occurs within the family, common occurrences are related to stereotyping by family members, invalidating one's identity,

and making racist comments (Franco et al., 2020).

In addition to discrimination, there are additional factors related to race or ethnicity that contribute to distress or identity conflict, including racial categorization (J.M. Chen & Hamilton, 2012) and racial classification (Bratter & O'Connell, 2017). Without others to identify with interpersonally, ethnic isolation also impacts an individual's well-being and socialization (Carter et al., 2019). Racial framing about a potential romantic partner impacts an individual's relationship discourse or future pattern of relationships (Buggs, 2019).

Interpersonally, intergroup relationships are highlighted as a particularly significant factor. The relational health of biracial-biethnic youth's interpersonal relationships can predict well-being (Schmidt et al., 2014). Aspects of intergroup relationships, including negative intergroup interactions (Tynes, Giang & Thompson, 2008) and negative intergroup dialogue (Johnston-Guerrero & Chaudhari, 2016), alter how one views themselves. For example, intergroup anxiety varies as a function of identity, particularly for *bicultural* and minority-identified individuals (Suzuki-Crumly & Hyers, 2004). *Multiracial* youth are at a higher risk of experiencing interpersonal violence than other minority groups (Choi et al., 2012). Mixed messages from others also create a sense of identity confusion and impact identity formation (Cardwell et al., 2020); this may occur among family, peers, friends, and at school (King, 2013).

Another important factor is a sense of belonging. This belonging can occur on various levels, including ethnic belonging (Carter et al., 2019) and national identity and belonging (Song & Aspinall, 2012). Youth lacking a sense of belonging on these various levels directly impact identity development (Albuja et al., 2020b). Belonging to one's racial or ethnic group can affect certain groups more than others, with *multiracial* groups being at a higher risk (Wester & Trepal, 2015).

Community/Organizational

The third socioecological level, Community/Organizational, contains the following themes and subthemes: School/University (Academic Environment, School Citizenship, Spaces of Education/Employment), Environment (Acculturation, Cultural Factors, Ecological Setting, Racial Bias, Social Understanding of Behavior), and Community/Groups (Ethnic Majority/Minority Groups, Friendship Group Diversity, Group Identification, Intergroup/Intragroup Dialogue, Intergroup Anxiety, Lack of Community Involvement).

School/University. The academic environment has a particular salience to biracial-biethnic youth as the majority of this population is school-aged. The academic environment is a space where these youth spend a prolonged amount of time (Elise Radina & Cooney, 2000), and the quality of the environment is a critical factor. The diversity of the school environment directly impacts the mental health of *multiracial* youth in schools with low diversity. Additionally, in non-ethno-racially integrated schools, *multiracial* individuals experienced greater identity conflict (Gillen-O'Neel et al., 2015). Lastly, school citizenship and academic performance were found to be lower for biracial-biethnic individuals who did not identify with multiple groups or similar racial/ethnic groups (Basit, 2009; Binning et al., 2009).

Environment. There are several environmental factors that contribute to negative well-being and poor identity development. The general ecological setting impacts how youth interpret their own identity (Booth et al., 2014). Acculturation is associated with lifestyle factors, including the consumption of media, food, and communication styles, along with parent-adolescent relationships (Ferguson et al., 2017). Ahmmad and Adkins (2021) argue that acculturation attenuates the association of identity for *multiracial/multiethnic* youth. Larger cultural factors also play a role in peer influences across ethnic groups with behaviors such as

smoking (Udry et al., 2003).

Regarding racism and discrimination, the public acceptability of racist behaviors in the environment impacts how an individual internalizes them. Factors such as a university campus climate and overall racial bias of the environment are important to consider (Brackett et al., 2006). The social understanding of individual or group behavior is also significant, related to factors such as the audience, group acceptance of this behavior, and external expectations of others (Halldórsdóttir, 2018).

Community/Groups. Community and various groups are another category that emerged related to the third socioecological level. How an individual identifies within a group is an important factor for biracial-biethnic youth, as this may not always align with the group (Blake, 2019). Identification with the outgroup was found to result in a negative impact of perceived discrimination on one's well-being (Giamo et al., 2012). For *multiracial* individuals, identification with a single group results in higher levels of stress, negative affect, school citizenship, and alienation relative to identifying with multiple groups (Binning et al., 2009). Depending on the group association of biracial-biethnic youth, the intergroup/intragroup dialogue can have implications. Johnston-Guerrero and Chaudhari (2016) posit that racial dialogues limited by monoracial groups negatively impact an individual's understanding of multiraciality. Further, on university or college campuses, the lack of courses that foster meaningful racial college climates perpetuates racism and stigma (Ford & Malaney, 2012). If intragroup anxiety is present, identity conflict for *multiracial* or *biculturally* identified individuals is intensified, in addition to worsening psychological well-being (Suzuki-Crumly & Hyers, 2004).

Lack of community involvement or strong community networks were found to be

associated with lower self-esteem (Bracey et al., 2004). Particularly within the LGBTQ+ Community, experiences of exclusion for lesbians of color contributed to further marginality (Alimahomed, 2010). For ethnic minority or majority groups, lack of exposure to these communities can lead to avoidance of discussions related to identity and race. Within families, this may manifest as directly discriminating against their child's physical appearance or cultural identity, which may be different from their own (Jackson, 2009). Lastly, Hall and colleagues (2017) found that the diversity of a youth's friendship group does not moderate ethnic discrimination or academic self-efficacy.

Macrosystem

The final socioecological level, Macrosystem, looks at the themes and subthemes of

- Systemic Issues (Model Minority, Oppression, Social Justice, Systematic Discrimination)
- National/Global Issues (Mainstream Culture, Political Elections, Social Climate, Sociocultural Influences, Sociopolitical Engagement)
- Policy/Law (Institution Policies and Practices, Structural Inequalities)

Systematic Issues. In current society, there are many systematic issues that particularly impact minorities or marginalized groups. Systematic discrimination was found to directly impact the development of strong ethnic identity among immigrants of color due to the implications of immigration (Espinosa et al., 2020). Johnston-Guerrero and colleagues (2020) also discuss how an individual's understanding of oppression impacts biracial-biethnic identity. The diversity within multiraciality and intersectionality is influential on one's sense of identity related to monoracial groups. Specifically for men, oppressive ideological structures can perpetuate masculinity and the male identity (Miller et al., 2021).

Stereotypes such as the Model Minority Myth have infiltrated society and particularly, schools and institutions of higher education. Bratter & Heard (2009) acknowledge that racial stereotypes have a strong academic component. For instance, Asian American students tend to be stereotyped and viewed as model minorities. This stereotype portrays Asian Americans as academically successful, high-achieving, and psychologically healthy (Borrero & Yeh, 2011). Issues of social justice on college campuses impact the racial climate that may perpetuate ideologies like the Model Minority Myth (Ford & Malaney, 2012).

National/Global Issues. There are both national and global issues that systematically influence the biracial-biethnic youth of today. In recent years, mainstream culture and media have served in that role. Historical events and figures impact how individuals cope with racism by understanding the negative impact of historical and systemic structures (Hubbard & Utsey, 2015); this includes political elections. After the election of Barack Obama, there were changes in how racial and ethnic identity is defined among youth, with a greater openness to the category of *multiracial* (Williams et al., 2014). Additionally, the queer movement and identity have been found to be directly impacted by politics and elections (Alimahomed, 2010). Fish et al. (2021) found an association between ally identity and sociopolitical engagement, specifically for marginalized communities.

Other sociocultural influences impact an individual's experiences, such as their trauma response, substance use, and ability to access culturally sensitive services (Forster et al., 2019). The sociocultural context can also predict how White/Minority *multiracial* individuals engage with their White identification and experience White identity threat, belongingness, and racial identification. This may be dependent on the stigma consciousness in society (Wilton et al., 2013). Lastly, the social climate related to national issues, such as forced choice for racial/ethnic

identity on demographic forms, can constrain an individual's identity (Herman, 2009).

Policies/Laws. Policies and law are the final category within the Macrosystem. Within institutions, policies and practices directly impact biracial-biethnic college students. *Mixed race* college students endured identity constraints as a result of policy implications at their university (Townsend et al., 2009). Access to mental health services for students of color is another significant barrier that serves as a risk factor within the college environment (Duran, 2021). The emphasis or lack thereof on social justice is reflected in policies and practices in institutions (Basit, 2009). It is also important to acknowledge structural inequalities that impact biracial-biethnic youth. Eisenberg and colleagues (2022) argue that for youth with marginalized identities, structural inequalities impact racial/ethnic identity and cultural differences, as well as sexual and gender diversity.

Research Question Two: Psychosocial Stressors

What are the specific psychosocial stressors impacting biracial-biethnic youth within multiple socioecological levels of analysis, including Individual, Microsystem, Community/Organizational, and Macrosystem?

Research question two focused on specific psychosocial stressors that impact biracial-biethnic youth. A total of 221 studies addressed research question two. Of these 221 studies, almost half ($N = 105$) addressed another research question. The remaining studies ($N = 116$) only focused on psychosocial stressors. The following sections outline the studies that addressed this question from a socioecological approach. It is important to note that while the themes and subthemes presented in this section are drawn from the existing literature, correlation of psychosocial factors with negative identity development and well-being, does not imply causation.

Table 3

Socioecological Levels of Research Question Two

Socioecological Level	Total	Percentage
Individual	89	40.3%
Individual, Microsystem	65	29.4%
Individual, Macrosystem	3	1.4%
Individual, Microsystem, Macrosystem	1	0.05%
Individual, Community/Organizational	27	12.2%
Individual, Microsystem, Community/Organizational	28	12.7%
Individual, Community/Organizational, Macrosystem	2	0.09%
Individual, Microsystem, Community/Organizational, Macrosystem	2	0.09%

Table 4

Major Themes of Research Question Two

Socioecological Levels	Key Words/Themes
Individual	**Substance Use:** Alcohol, Marijuana, Tobacco, Nicotine, Illicit Substances (e.g., Opioids), Prescription Stimulants **Academics:** Academic Achievement (e.g., SAT/ACT Scores), Academic Problems, School Engagement, School Suspensions **Trauma:** Adverse Childhood Experiences (ACEs), Physical/Sexual Abuse, Maltreatment **Mental Health:** Body/Eating Concerns, Dissatisfaction, Cognitive Styles, Emotional Dysregulation, Negative Affect, Subjective Stress, NSSI, Psychiatric Illness, Psychological

Socioecological Levels	Key Words/Themes
	Distress, Psychological Maladjustment, Suicidality **Physical Health:** Cardiovascular Reactivity, Chronic Illness, Obesity, Body Mass Index (BMI), Sleep Hygiene
	Behavior: Impulsivity Traits, Violent/Aggressive Behavior, Risky Behavior (e.g., Street Racing), Help-Seeking Behaviors
Microsystem	**Peers:** Friendship Quality, Peer Influences, Peer Risky Behavior **Family:** Family Environment, Family Background, Parent-Teen Relationship, Parental Racial Attitude, Family Functioning, Parental Monitoring **Interpersonal/Social:** Socialization Messages, Social Environment, Interpersonal Relations, Racial Factors
Community/Organizational	**School/University:** Campus Climate, Campus Community, School District **Environment:** Physical Environment, Neighborhood Racial Composition, Violence Exposure, Neighborhood Conditions, Housing Instability **Community:** Minority Bias, Group Climate, Social Integration, Social Groups, Group Dialogue, Collective Self-Esteem, Ethnic Spaces
Macrosystem	**Systematic Issues:** Oppression, Diverse Structural Factors, Racial Classification, Model Minority, Institutional Discrimination, Juvenile Justice System **National/Global Issues:** Politics, COVID-19 Pandemic, Mainstream Media, Social Construction, Access to Healthcare **Policies/Laws:** Collegiate Athlete Policies, Marriage Laws, Legal Status

Individual

For research question two, within the Individual level of analysis, the following themes and subthemes emerged:

- Substance Use (Alcohol, Marijuana, Tobacco, Nicotine, Illicit Substances (e.g., Opioids), Prescription Stimulants)

- Academics (Academic Achievement (e.g., SAT/ACT Scores)

- Academic Problems, School Engagement, School Suspensions)

- Trauma (Adverse Childhood Experiences (ACEs)

- Physical/Sexual Abuse, Maltreatment)

- Mental Health (Body/Eating Concerns, Dissatisfaction, Cognitive Styles, Emotional Dysregulation, Negative Affect, Subjective Stress, NSSI, Psychiatric Illness, Psychological Distress, Psychological Maladjustment, Suicidality)

- Physical Health (Cardiovascular Reactivity, Chronic Illness, Obesity, Body Mass Index (BMI), Sleep Hygiene)

- Behavior (Impulsivity Traits, Violent/Aggressive Behavior, Risky Behavior (e.g., Street Racing), Help-Seeking Behaviors).

Substance Use. Substance use was a dominant theme that was accounted for and analyzed in studies (48%) that addressed psychosocial stressors. It was often discussed in the context of risky behavior and coping. It is important to note that the majority of studies included in this section were published after 2015.

Substance use concerns include the general use of various substances. There was found to be a correlation between higher rates of substance use and marginalized identities. For instance, Eisenberg and colleagues (2022) found that disparities in alcohol, e-cigarette, and marijuana use were associated with one's social position. Specifically for biracial-biethnic individuals, higher rates of substance use have been found among those who use alcohol, tobacco, illicit drugs, and marijuana (Beal et al., 2001; Clark et al., 2013; Goings et al., 2018). These rates were found to

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be even higher for biracial-biethnic youth of color (Jackson & LeCroy, 2009).

Substance use can also be influenced by relationships with others, including peers and family members. Beal and colleagues (2001) argue that both parental and social influences can impact the substance use behavior of *biracial* individuals. Additionally, peers who engage in substance use or other deviant behavior are a key risk factor and the strongest predictor of adolescent substance use (Bayly & Vasilenko, 2021; Beal et al., 2001; D'Amico et al., 2020; Lanza et al., 2020). For *multiracial* individuals, their own attitudes toward substance use will predict their behavior (Chen et al., 2012) and are influenced by the environment (Mayberry et al., 2009). The racial gaps that exist for *multiracial* youth in how they bond to their peers in school pose an elevated risk for several factors, including substance use (Yang & Anyon, 2016).

There have also been associations found for specific racial and/or ethnic backgrounds. For non-White young adults, there is a relationship found between ethnic identity and substance use (Carter et al., 2019). *Biracial Black* individuals are at particular risk for increased substance use (Goings et al., 2020), and Black/White youth experiences have been found to contribute to substance use rates (Goings et al., 2016). Nelon and colleagues (2019) add that the intersection of *bi/multiracial* youth and lesbian, gay, or bisexual (LGB) identities lend to higher rates of mental health issues and substance abuse. Marginalized identities within the LGB community are associated with more negative outcomes (Birkett et al., 2009; Eisenberg et al., 2022).

Other demographic factors can also impact biracial-biethnic youth's substance use, such as lower parental educational levels and lower socioeconomic status within the family (Lee et al., 2018). The experiences of trauma, including violence exposure or Adverse Childhood Experiences (ACEs), create related substance use patterns (Brady & Donenberg, 2006; Forster et al., 2019).

Alcohol. In regards to alcohol, there were found to be indirect effects of ethnicity on alcohol use through negative alcohol expectancies (Banks et al., 2019). Binge drinking is noted to be higher for ethnic minority college students due to perceived norms in college, particularly for Hispanic and Black students (McCabe et al., 2019). Cultural socialization and experiences of discrimination also impact developmental behaviors among racial and ethnic minorities (Riley et al., 2021; Zapolski & Clifton, 2019). Motivations for drinking were found to be associated with racial group membership and one's sense of belonging (Straka et al., 2020).

For biracial-biethnic youth, drinking motivations and consequences have been found to differ for monoracial and *multiracial* individuals, with greater risk factors (Albuja et al., 2021; Goings et al., 2020). In their study, Goodhines and colleagues (2020) found that past-year drinking or past two-week binge drinking frequencies were associated with a *multiracial* status. Black/American Indians were found to drink more drinks per episode than other biracial-biethnic groups, resulting in risk factors related to their drinking intensity (Goings et al., 2016). Black-identified *biracial/ethnic* individuals have heterogeneity in their alcohol use associated with their identity (Clark et al., 2012). Lastly, *multiracial/multiethnic* Asian Americans exhibited elevated substance use rates and have a greater risk of alcohol consumption (Ahmmad & Adkins, 2021).

Within an individual's family system, greater perceived monitoring, parental monitoring, and control are associated with greater alcohol use in female individuals (Bo et al., 2023; High et al., 2021). Socially, biracial-biethnic individuals with a small number of close friends and more affiliation with delinquent friends are associated with greater alcohol use (J.S. Hong et al., 2022a). Overall, current alcohol use may predispose minority groups, including biracial-biethnic individuals, to suicidality (Subica & Wu, 2018).

Marijuana. Marijuana, or cannabis, use may be preceded by alcohol or cigarette use in adolescents. Higher rates of marijuana use have been found in Hispanic/Latinx high school students, impacted by both immigration and generational status (Johnson et al., 2019). Experiences of discrimination and a history of impulsivity traits can also compound marijuana use (Riley et al., 2021).

Tobacco. Tobacco use can occur through cigarettes or e-cigarettes like vaping. Use of these substances is generally associated with higher rates in adolescents (DiFranza et al., 2012; Lanza et al., 2020; Kraus et al., 2022) and specifically for biracial-biethnic groups (Goings et al., 2018). Tobacco use was found by Ahmmad and Adkins (2021) to be higher among *multiracial/ multiethnic* Asian Americans. Current cigarette use predisposes adolescents to suicidality (Subica & Wu, 2018) and is impacted by regulation and prevention efforts (Johnson et al., 2019).

Prescription Stimulants. Regarding prescription stimulants, the rate of use has been found to be higher among non-White individuals (Carter et al., 2019) and particularly for racially diverse, low socioeconomic status high school students (Goodhines et al., 2020). Stimulant use has significant side effects and can cause psychiatric events (Wu et al., 2014). Lastly, illicit substance use was found to disproportionately impact biracial-biethnic adolescents compared to other racial and ethnic groups (Subica & Wu, 2018).

Academics. Psychosocial stressors in the environment can directly affect an individual's academic functioning. Academic achievement (e.g., SAT/ACT scores) is found to be associated with various demographic factors such as race, ethnicity, and socioeconomic status. Rural youth from diverse communities and low socioeconomic status can have different perceptions of academic achievement and expectations, impacted by class size and community (Irvin et al., 2011). First-generation status also contributes to college achievement outcomes and standardized

test scores, particularly those who have experienced ACEs or psychological stress (Gresham & Karatekin, 2022). An individual's standardized test scores predict later psychological distress and academic problems in college students (Gusler & Kiang, 2019). The stereotype of being high achieving targets Asian American students, resulting in fewer services and resources allocated to them (A.W. Cheng et al., 2017). For men, the existing "bro culture" in STEM fields can impact their academic achievement and success (Miller et al., 2021).

School engagement is another factor impacted by psychosocial stressors. Engagement in school for youth is impacted by risk factors, ethnic identity, and peer norms (Shin et al., 2007). Additionally, neighborhood incivilities and risky neighborhood conditions are predictors of school engagement (Daly et al., 2009). The disparity that exists among school suspensions for students of color also negatively impacts their sense of connectedness (Anyon et al., 2016).

Trauma. The experience of different forms of trauma are psychological stressors that impact an individual. Adverse Childhood Experiences (ACEs) disproportionately occur in urban, low socioeconomic status communities along with depressive symptoms, antisocial behavior, and drug use (Schilling et al., 2007). Folk and colleagues (2021) associate ACEs with juvenile justice involvement for youth. ACEs also impact college achievement and test scores by causing greater psychological distress (Gresham & Karatekin, 2022), as well as determining substance use patterns across ethnic groups (Forster et al., 2019).

Trauma in the form of physical and sexual abuse or neglect can result in an individual utilizing alcohol to cope with the abuse and depressive symptoms (Bayly et al., 2021). Dating abuse and physical abuse were found to be higher in minorities than in White individuals, as well as in single-parent households with less parental education (Foshee et al., 2009). Maltreatment is another form of trauma that causes psychological distress (Bayly et al., 2021). For *multiracial*

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youth, those who experienced maltreatment are at particular risk for the depression to Post-Traumatic Stress Disorder (PTSD) pathway, as well as other problems related to maltreatment (e.g., internalizing symptoms, substance use) (Kaur & Kearney, 2013). Additionally, maltreatment of siblings is associated with moral injury throughout development (Haight et al., 2022).

Mental Health. Mental health encompasses many factors, all of which can be impacted by psychosocial distress. Body and eating concerns are an area that highly impacts the adolescent and young adult populations. De Guzman and Nishina (2014) discuss the prevalence of body dissatisfaction after the transition to high school due to puberty and within a new peer context. Nishina and colleagues (2006) outline how physical development impacts peer victimization in both girls and boys, where faster development leads to greater body dissatisfaction. Attitudes about eating are also related to depressed mood and low self-esteem (Thomas et al., 2002). It was also found that *multiracial* groups had higher levels of eating disorder pathology, specifically *multiracial* American Indian and Hispanic/Latinx groups (Burke et al., 2021). For individuals with a high intensity of negative emotions, their eating habits can be further impacted (Boutelle et al., 2018).

Cognitive Style. An individual's cognitive style also impacts their mental health. Engaging in self-evaluation alters feelings of fitting in and feeling good (Phillips, 2019), while a negative cognitive style mediates stressful events and depressive symptoms (Dondanville & Possel, 2019). Negative affect and lack of family support are also related to identity concealment (Kiekens & Mereish, 2021).

Depression. For individuals who experience depressive symptoms, there are certain factors that can lead to the development of or exacerbation of symptoms. This includes less

connection with others (Albuja et al., 2019b), poor affect regulation (Burke et al., 2018), and cognitive style (Dondanville & Possel, 2019). Within cognitive styles, how an individual ruminates, or their style, is associated with depressive symptoms (Smith & Possel, 2022). There are also racial patterns within cognitive styles. For instance, reflective rumination was found to be in conjunction with depressive symptoms for Latino and *biracial* individuals (Cheref et al., 2015). Depressive symptoms were also found to be associated with negative attitudes toward counseling (Constantine & Gainor, 2004) and experiences of physical abuse (Bayly et al., 2021). Depression is also an important variable related to the development of PTSD symptoms in youth (Lemos-Miller & Kearney, 2006).

Race and ethnicity also directly relate to depressive symptoms. There has been found to be a link between racial/ethnic differences and depression (Gore & Aseltine, 2003). In evaluating the psychological health of Asian Americans, Anyon and colleagues (2014) found that Asian students report higher levels of depressive symptoms than other racial minority groups. When negative conversations about one's racial group occur after discrimination, there is a higher risk of depressive symptoms as well (DeLaney et al., 2021). *Multiracial* youth with low family cohesion is associated with elevated levels of PTSD, dissociation, depression & post-traumatic cognitions (Kaur & Kearney, 2013).

Stress. Biracial individuals may experience greater levels of subjective stress directly related to denial of their White identity (Albuja et al., 2019a). Sexual minority youth who experience disclosure stress are predisposed to have a "steeper incline" of depressive symptoms into adulthood (Mallory et al., 2021). Sexual or gender minority youth of color are at a greater risk for minority stress that contributes to depressive symptoms (Mereish et al., 2021). For youth who engage in unprotected anal sex acts, there is a correlation between ethnicity, major

depressive disorder (MDD) and PTSD (Beidas et al., 2012).

Anxiety. Anxiety symptoms can also derive from psychosocial stressors. Williams and colleagues (2002) found that anxiety is related to cultural identity formation for *mixed* adolescents. B*iracial/multiracial* women were found to have higher levels of anxiety about appearance evaluation and shape concerns (Ivezaj et al., 2010). Additionally, social anxiety symptoms impact youth's ability to form and maintain positive peer support networks impacting school engagement or performance (Scanlon et al., 2020).

Co-Occurring Disorders. Considering mental health pathology, the prevalence of co-occurring disorders is impacted by racial and ethnic disparities (Chisolm et al., 2009). Lanza and colleagues (2020) state that mental health concerns can co-occur with substance use in young adults, while Nelon and colleagues (2019) found that co-occurring mental and behavioral health outcomes are also related to experiences of victimization and substance use.

Suicidality. Suicidality was a significant area of discussion within the individual socioecological level related to psychosocial factors and race or ethnicity. Regarding suicidal ideation (SI), health risks, including SI, relate to the intersection of race or ethnicity and gender identities (Park et al., 2022). When evaluating the severity of an individual's suicidal ideation, racial minorities are less likely to agree on the severity compared to other groups due to the factors of concealment, shame, and stigma (Bell et al., 2021). Suicide attempts vary across racial and ethnic groups, dependent on certain interpersonal factors (Rosario-Williams et al., 2020); however, Bostwick and colleagues (2014) found that minorities do have higher rates of suicide attempts compared to non-minority groups.

The overall risk for suicide has been found to be higher among Latino and *biracial* adolescents with depressive symptoms (Cheref et al., 2015). Further, *multiracial* youth are

disproportionately burdened by suicidality (Subica & Wu, 2018), and there are ethnic disparities within suicidality (Wong et al., 2012). Other minority groups that are impacted include the Lesbian, Gay, and Bisexual (LGB) population due to high rates of homophobic teasing and school climate (Birkett et al., 2009). Lastly, Evans and colleagues (2001) found that victims or witnesses of violence are at an increased risk for suicidal behavior.

NSSI. Non-suicidal self-injury (NSSI) is impacted by several different factors, including capacity for affective regulation (Burke et al., 2018) and emotional exhaustion (Lin et al., 2021), which leads to greater concern about self-harm. It was also found that religion can significantly impact NSSI. For instance, adolescents within the church community experience shame regarding their behavior and try to conceal it from others (Kuentzel et al., 2012).

Physical Health. Psychosocial stressors can contribute to an individual's physical well-being when considering physical health. Cardiovascular reactivity, particularly in *multiracial* individuals, was found to be a result of discussions of discrimination or racial stress (Franco & O'Brien, 2020). Chronic illness is associated with gender differences and current partnerships (Berge et al., 2014).

Rates of obesity are found to be higher in *biracial* or *multiracial* individuals who reported high levels of appearance evaluation and shape concerns (Ivezaj et al., 2010). Other forms of psychological distress increase the prevalence of obesity in college students (C.H.E. Cheng et al., 2022), such as eating in response to negative emotions (Boutelle et al., 2018). An adolescent's physical activity can determine an individual's Body Mass Index (BMI), which was found to vary by racial or ethnic group (Eisenberg et al., 2014). Negative family functioning also contributes to physical activity levels, with racial or ethnic differences (Berge et al., 2013).

Sleep hygiene and poor sleep quality were found to impact academic performance for

different racial or ethnic groups and may be related to risk factors (Troxel et al., 2018). Peltz and colleagues (2019) also argue that family chaos and disorganization can impact sleep. For *multiracial* individuals, discrimination experiences and negative mood may be intermediate factors that impact insomnia severity and insufficient weekday sleep duration (Goodhines et al., 2020).

Behavior. A larger theme within behavior was engagement of violent or aggressive behavior in youth. Individuals who instigate violent or aggressive behavior toward their peers are at an increased risk for suicidal behavior (Evans et al., 2001). Peer relationships can also impact violent behaviors among juvenile offenders with racial or ethnic differences (Silverman & Caldwell, 2008). Multiracial youth, in particular, reported higher rates of violence than White and Asian American youth; this is compounded by growing up in low-income and single-parent families (Choi et al., 2012). An individual's school delinquency was found to be associated with student race and school attachment; *multiracial* youth were found to have elevated risk (Yang & Anyon, 2016).

Brady and Donenberg (2006) found that there is an association between violence exposure and risky behavior. When this occurs, active coping can exacerbate the association between violence exposure and psychological symptoms (Carothers et al., 2016). Of note, social and familial background, as well as violence within the home, have a greater risk for adolescent violent behavior than violent video games (DeCamp & Ferguson, 2017). There was also found to be an interactive effect of discrimination and impulsivity traits on substance use among minority youth (Riley et al., 2021).

There are various forms of risky behavior that are associated with psychosocial factors. Street racing, for instance, is at a higher rate for *multiracial* individuals from low-affluence

families (Kar et al., 2018). High-risk sexual behaviors, including having sex without a condom (Kapadia et al., 2015), sexual risk-taking (Brady & Donenberg, 20016) and frequency of sexual activity (Beal et al., 2001), are noted to impact an individual's well-being. High-risk sexual behaviors were also found to be associated with increased substance use and peer influences across genders (Beal et al., 2001; Brady & Donenberg, 2006). Landor and Halpern (2016) argue that an individual's developmental period contributes to the risk versus resilience levels. Lastly, help-seeking behaviors were limited for those with behavioral problems (Constantine & Gainor, 2004), and QTBIPOC individuals are at a larger risk of not seeking help (Arora et al., 2022).

Microsystem

Within the Microsystem, or interpersonal relationships, several themes and subthemes emerged, including:

- Peers (Friendship Quality, Peer Influences, Peer Risky Behavior)

- Family (Family Environment, Family Background, Parent-Teen Relationship, Parental Racial Attitude, Family Functioning, Parental Monitoring)

- Interpersonal/Social (Socialization Messages, Social Environment, Interpersonal Relations, Racial Factors).

Peers. Friendship quality can be impacted by friendship choices, having close friends, and friendship stability. *Multiracial* youth who choose friends from single-race groups feel more excluded due to their racial differences (Doyle & Kao, 2007). However, Hall and colleagues (2017) argue that friendship group diversity does not moderate negative effects, including ethnic discrimination and academic self-efficacy. "Traditional" friendship choices exacerbate stress in comparison to friendships based on cultural identity, which can reduce mental health problems

(Bhui et al., 2005). Racial homophily predicts types of friendships and the use of mutual friends (Echols & Graham, 2020).

How an adolescent develops close friendships with their peers can be impacted by alcohol use in the friendship and level of parental support (Hong et al., 2022a). Youth's experiences in their home environment also impact their ability to feel connected with others or their ethnic group, leading to feelings of rejection (Jourdan, 2006). For those who have close friends, the perceptions of the quality of their relationship were found to predict long-term outcomes and translate to parent-teen relationship quality (Allen et al., 2022). Lastly, friendship stability is impacted when conditions at school do not allow for regular contact or do not have ethnically diverse classrooms, resulting in some cross-ethnic and some same-ethnic friendships (Lessard et al., 2019).

Peer influences have a significant impact on risky behavior. For instance, peer substance use and their attitudes toward substance use during adolescence can lead to higher rates of increased behavioral and mental health risks, particularly for *multiracial* youth (Chen et al., 2012; Unger et al., 2001). Being the victim of bullying also serves as a health risk for youth, depending on their identity and positionality (Park et al., 2022). Bullying contributes to *biracial* adolescents being more susceptible to isolation and psychological problems as they develop (Hong et al., 2022b). For the LBG community, school can often be a place for homophobic bullying (Birkett et al., 2009).

Family. The family environment, where youth spend much of their time, can impact other interpersonal relationships. The home environment determines how an individual can meet developmental and complex interrelated needs (Mayberry et al., 2009). For instance, if a home

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environment does not allow an individual to share their thoughts or feelings, disconnection to ethnic groups might occur (Jourdon, 2006).

Family characteristics or background can impact their child's development and behavior. Parental education level is associated with adolescent substance use (Lee et al., 2018) and future dating abuse perpetration (Foshee et al., 2009). Parental socioeconomic status, such as those living in high-poverty communities, significantly predicts academic achievement (Irvin et al., 2011). For *multiracial* youth, there are differences in well-being depending on the gender and race of their parents (Schlabach, 2013). Parental identification also impacts self-identification and outcomes for *multiracial* young adults (Campbell, 2009) and their own racial perceptions or attitudes (Stepney et al., 2015).

Family functioning as a whole can either promote or impede youth's development. General levels of warmth, structure, and family meals can impact physical and mental health (Berge et al., 2013). Family cohesion, or lack thereof, was related to the development of PTSD-related symptoms and depression, with the highest rates in *multiracial* youth (Radina & Cooney, 2000). Regarding cohesion, Lorenzo-Blanco and colleagues (2013) found that *multiracial/multiethnic* youth experience less cohesion and support from mothers but may feel more supported or connected to their fathers. However, the perception of parent-teen relationships is relative to the quality of peer friendships (Allen et al., 2021). Conversely, parent-teen relationships can impact functioning in their peer relationships (Meter et al., 2019).

As *biracial* offspring develop, family values may also be split between those of each parent (Georgas & Kalantzi-Azizi, 1992). Factors such as parental monitoring can influence this trajectory. High levels of parenting monitoring and control among *multiracial* youth are associated with greater victimization as they develop (High et al., 2021). Bayly and Vasilenko

(2021) add that substance use (e.g., alcohol) was found to be a result of parenting behavior and single parenthood.

Family instability is noted to be a significant predictor of psychosocial stress. This can manifest through housing or parental instability and result in "a higher frequency of victimization, lower grades, diminished self-regulation capabilities and school engagement, weakened psychological health, and strained family and peer relationships" (Crume et al., 2019, p. 129).

Interpersonal/Social. Youth generally receive messages about socialization as they develop from sources including family, peers, and their environment. The level of family socialization can lead to increased risk and problem behaviors (Choi et al., 2005). For *multiracial* American youth, messages they receive from their parents have critical implications for their psychological well-being (Atkin et al., 2022). Specifically, around racial socialization, messages about race shape one's perception of racism and color-blind racial beliefs that may derive from society and the media (Alvarez et al., 2006; Barr & Neville, 2014). Lastly, parental political socialization and communicated messages impact youth's future political participation and commitment to social change (Diemer, 2012).

The social environment also determines biracial-biethnic youth's behavior. The desire for social approval is a salient factor in one's life, which can lead to a desire for high social status and peer approval inconsistent with personal values (Juvonen & Ho, 2008). Experiences of harassment create a greater vulnerability to the social environment across socio-demographic categories (Bucchianeri et al., 2013). Regarding racial or sexual harassment, Buchanan and colleagues (2009) note ethnicity as a significant predictor of harassment with minorities, including *multiracial* individuals at a higher risk; this may manifest in the form of "cultural

homelessness."

General interpersonal relations with others are another determining factor of psychological health. When interpersonal conflict occurs, individuals may experience an impact on their mental health with long-term effects. For adolescents, this often occurs in teen romantic relationships (Kansky & Allen, 2018). For young adults, Ahmmad and Adkins (2021) note that interethnic marriage for *multiracial/multiethnic* Asian Americans can affect their acculturation process and relate to substance use. Within the school setting, differences in racial groups can impact disparities in out-of-school suspension rates related to a sense of connectedness with adults (Anyon et al., 2016).

In the context of interpersonal relationships, racial and ethnic factors can contribute to interpersonal distress. Microaggressions are the dominant way in which these interpersonal stressors can occur. For biracial-biethnic youth, the effects of experiencing microaggressions were found to lead to mental health problems (Auguste et al., 2021), biological markers of stress (Majeno et al., 2021), and somatic health indicators (Torres-Harding et al., 2020). The context of microaggressions also impacts well-being. For instance, when they occur in school or workplace environments, students of color who endorse individualism have a higher risk for negative mental health symptoms (Farber et al., 2021). This may also occur in higher education environments that ignore racism throughout the system (Harris, 2017) and in non-diverse living environments (Meyers et al., 2020).

Additional racial-ethnic factors include racial boundaries and racial homophily. For *multiracial* people, those who set racial boundaries and degrees of intimacy can frame potential partners' perceptions of race (Buggs, 2019). The degree of racial homophily can predict friendships (Echols & Graham, 2020) or integration into single-race groups (Doyle & Kao,

2007).

Community/Organizational

The socioecological level of Community/Organizational included the following themes: School/University (Campus Climate, Campus Community, School District), Environment (Physical Environment, Neighborhood Racial Composition, Violence Exposure, Neighborhood Conditions, Housing Instability), and Community (Minority Bias, Group Climate, Social Integration, Social Groups, Group Dialogue, Collective Self-Esteem, Ethnic Spaces).

School/University. The campus climate at a university can determine biracial-biethnic youth's experience (Hong et al., 2022b). There is an importance in creating physical spaces for racial minority college students in order to improve their psychological health (King, 2011). If this space does not exist, there is a higher risk of engaging in risky behaviors, including vaping and other substance use (Felner et al., 2022), and less motivation to persist (Her & Thompson, 2022). The higher education environment was also found to directly impact an individual's attempts to study (Harris, 2017). For *multiracial* students, dialogue integrated into the curriculum either mitigates or exacerbates students' racialized experiences (Johnston-Guerrero & Chaudhari, 2016). For LGBQ individuals, the campus climate impacts mental health and suicidality (Birkett et al., 2009).

The community at a college campus is related to how student voices are heard. Kellogg and Liddell (2012) argue that listening to *multiracial* students' voices can change how racial identity is negotiated within a college setting. Ingram and colleagues (2014) further support this by noting the importance of spaces provided to *multiracial* students in the form of student organizations, training for staff, and racial visibility.

The above psychosocial stressors are also seen within the middle and high school context.

The diversity of the school, if limited, creates a high risk for students' experiences of violence, victimization, socioeconomic disadvantage, and health disparities (Kidd et al., 2021). Race and class inequality within the school environment additionally impacts well-being (Seider et al., 2016).

Environment. The physical environment an individual is in is an important factor to consider. Beyond one's home, the environment can contribute to experiences of discrimination for sexual and racial minority youth (Kapadia et al., 2015). Meyers, Aumer and colleagues (2020) posit that less diverse contexts can have negative impacts on racial minority groups. Experiences of invalidation and with perpetrators in the environment were found to be common experiences (Franco et al., 2016).

One's neighborhood, including racial composition and safety, can be a source of stress. Neighborhood conditions that pose risk impact youth's school engagement (Daly et al., 2009) and negatively predict prosocial behaviors (Davis et al., 2021). Exposure to violence and risk often co-occur as they represent different means of sensation seeking and were found to be used as a coping tool to escape (Brady & Donenberg, 2006). For female adolescents, there is a link between violence exposure and sensation seeking when utilizing active coping (Carothers et al., 2016).

Community. An individual's community has important implications for their well-being. The group climate impacts group members' perceptions can impact blindness to racial privilege and institutional discrimination (Muller & Miles, 2017). Within social groups, students of color are more likely to experience discrimination, be called names, and be excluded from their social groups (Byrd & Carter Andrews, 2016). The group dialogue also adversely impacts individuals' mental health. Types of conversations about negative experiences matter for racial minority

groups (DeLaney et al., 2021). Chen and colleagues (2018) found that Black/White *multiracial* individuals are more subject to minority bias.

The community also contributes to an individual's self-esteem. As individuals use more mature statuses of racial identity to interpret racial events in their environment, they experience higher collective self-esteem (Bianchi et al., 2002). *Multiracial* groups were found to have negative adjustment outcomes when they are not socially integrated; this is higher for American Indian/White individuals than other *multiracial* groups (Campbell & Eggerling-Boeck, 2006). Having ethnic spaces for underrepresented students of color can lead to belonging and engagement or result in other adverse effects (Kirby et al., 2020).

Macrosystem

Categories within the Macrosystem include the following themes and subthemes: Systematic Issues (Oppression, Diverse Structural Factors, Racial Classification, Model Minority, Institutional Discrimination, Juvenile Justice System), National/Global Issues (Politics, COVID-19 Pandemic, Mainstream Media, Social Construction, Access to Healthcare) and Policies/Law (Collegiate Athlete Policies, Marriage Laws, Legal Status).

Systematic Issues. A prominent theme when considering systematic issues is oppression. For *multiracial* individuals, Johnston-Guerrero and colleagues (2020) reflected that oppression was often felt based on physical appearance; however, higher levels of oppression are experienced by non-multiracial, minority individuals. Related to physical appearance, *multiracial* adolescents who are perceived as White reported receiving stereotype messages linked to being the oppressor, as "good" and "cultureless" (Jones et al., 2022).

For *multiracial*-identified youth, multiracial classification and identification were found to appear less likely in spaces with a history of legal regulation of intermarriage (e.g., Southern

United States), which blurs racial boundaries (Bratter & O'Connell, 2017). The perpetuation of the model minority also directly impacts Asian American youth, including their mental health (A.W. Cheng et al., 2017). Historically, there has been an inadequate description of the diversity of Asian-American Pacific Islander (AAPI) individuals, as they are often viewed as a homogenous group (Choi, 2008).

The Juvenile Justice System reflects many systematic issues within society. For individuals who are actively involved in the Juvenile Justice System, there are noted racial and ethnic differences within the population. There is also a significant influence of peer relationships on violence among juvenile offenders (Silverman & Caldwell, 2008). Symptoms of PTSD may compromise the safety of those in the Juvenile Justice System (Ford et al., 2018). Folk and colleagues (2021) note the importance of having trauma-responsive juvenile justice reform, particularly for individuals who have experienced ACEs due to ongoing masculine norms.

National/Global Issues. A recent and ongoing global issue, the COVID-19 pandemic, has been recently studied to determine certain effects for specific populations. Roulston and colleagues (2023) found that sexual minority youth of color are particularly in need of mental health care. Additionally, for student-athletes post-pandemic, there is a need to create inclusive, diverse spaces for marginalized groups within this system (Newman et al., 2023).

Healthcare and access to services is another area of need nationally. For transmasculine people of color, there are identified barriers to structural cissexism, racism, capitalism, and discrimination (Agénor et al., 2022). The LGBT community is also directly impacted by politics and recent shifts in equality; this is reflected in the movement for queer women of color (Alimohamed, 2010). When exploring barriers to mental health treatment for marginalized

youth, there are diverse structural factors that are important to consider (Roulston et al., 2022). Institutional discrimination and a lack of dialogue around this topic can also be a barrier (Muller & Miles, 2017).

Race and the social construction of race directly impact *multiracial* individuals and how they are categorized by society (Bonam & Shih, 2009). A factor that contributes to racial socialization is mainstream media. When color-blind racial beliefs and ideologies are portrayed in mainstream media, this negatively impacts mental health outcomes (Barr & Neville, 2014).

Policies/Laws. Marriage laws, particularly in the Southern United States, directly impact the *multiracial* group due to historical legal regulations regarding interracial marriages (Bratter & O'Connell, 2017). An individual's legal status is also associated with involvement in the juvenile justice system and a predisposition to PTSD symptoms (Ford et al., 2018).

Research Question Three: Positive Well-Being and Identity Development

What are the factors that promote positive well-being and identity in biracial-biethnic youth within multiple socioecological levels of analysis, including Individual, Microsystem, Community/Organizational, and Macrosystem?

Research question three focused on factors contributing to positive well-being and identity development in biracial-biethnic youth. A total of 177 studies addressed research question three. Of the total studies, 165 also addressed another research question, while only 12 studies focused on positive well-being and identity development. The socioecological levels of research question three are found within Table 5. The following sections outline the studies that addressed this question from a socioecological approach.

Table 5

Socioecological Levels of Research Question Three

Socioecological Level	Total	Percentage
Individual	85	48.0%
Individual, Microsystem	39	22%
Individual, Macrosystem	3	1.7%
Individual, Microsystem, Macrosystem	1	0.06%
Individual, Community/Organizational	21	11.9%
Individual, Microsystem, Community/Organizational	17	9.6%
Individual, Community/Organizational, Macrosystem	6	3.4%
Individual, Microsystem, Community/Organizational, Macrosystem	2	1.1%

Table 6

Major Themes of Research Question Three

Socioecological Levels	Key Words/Themes
Individual	**Coping Strategies:** Affective Regulation, Cognitive Strategies, Mindfulness Practice, Motivation to Cope, Psychological Resources **Identity:** Demographic Factors, Ego Identity, Identity Commitment, Identity Integration, Identity Reflexivity, Physical Appearance, Racial/Ethnic Identity, Self Representation **Physical Health:** Eating Habits, Physical Activity, Weight

Socioecological Levels	Key Words/Themes
	Protective Mechanisms: Autonomy, Mindset, Personal Characteristics, Prosocial Behavior, Self-Efficacy, Self-Esteem, Sense of Belonging
Microsystem	**Family Relationships:** Family Functioning, Family Influence, Parental Racial/Ethnic Identification, Parental Relationships, Parental Support, Parenting Styles
	Friendships: Peer Influences, Racial Composition, Social Support **Romantic Relationships:** Communication Style, Marriage, Relational Health
Community/Organizational	**Culture:** Acculturation, Cultural Appreciation, Cultural Contracts, Cultural Values **Community:** Social Cohesion, Community Support, Group Association, Neighborhood, Social Expectations, Public Regard **Environment:** Neighborhood, Geographic Location, School Environment (e.g., Class Size), School Composition (e.g., Diversity) **Socialization:** Cultural Socialization, Racial Socialization, Multiculturalism
Macrosystem	**Construction of Race:** Biological, Public Value of Race, Social Construction **Policy:** Access to Mental Health, Structural Interventions **Society:** Equitable Society, Media, Racial Climate, Social Climate **Sociopolitical Factors:** Institutional Dynamics, Social Activism, Sociopolitical Engagement/ Development

Individual

For research question three, the individual socioecological level included the following themes and subthemes (see Table 6)

- Coping Strategies (Affective Regulation, Cognitive Strategies, Mindfulness Practice, Motivation to Cope, Psychological Resources)

- Identity (Demographic Factors, Ego Identity, Identity Commitment, Identity Integration, Identity Reflexivity, Physical Appearance, Racial/Ethnic Identity, Self Representation)

- Physical Health (Eating Habits, Physical Activity, Weight)

- Protective Mechanisms (Autonomy, Mindset, Personal Characteristics, Prosocial Behavior, Self-Efficacy, Self-Esteem, Sense of Belonging).

Coping Strategies. An individual's toolkit of coping strategies can determine how they cope with psychosocial stressors as they arise. One's motivation to cope is a significant factor to consider in mediating trauma. For instance, Brady and Donenberg (2006) found that in response to violence, individuals who utilize coping skills are less likely to engage in risky behaviors. However, there is also evidence to support that using coping skills is more effective when violence exposure is low (Carothers et al., 2016). One's capacity for psychological resources acts as a protective influence on adolescents who experience socioeconomic status-based discrimination (Fernandez & Benner, 2022). Engagement with mindfulness practice has also been found to buffer the effects of sexual racism on symptoms of depression (Hidalgo et al., 2020).

Various cognitive strategies are associated with improved psychological health, including cognitive adjustment. The ethnic identity process may be more salient for early adolescents during periods of adjustment (Brittain et al., 2013). Cognitive flexibility is facilitated by having a space of authoring related to identity where intuition can be used (A. Chang, 2014). Lastly, engagement in reflective rumination differentially affects racial and ethnic groups (Cheref et al.,

2015). Regarding emotions, affective regulation is a skill that can assist with the promotion of well-being (Burke et al., 2018).

Identity. Racial and ethnic identity can have positive effects on identity development and well-being. Overall, ethnic identity can be a protective mechanism and is noted to be particularly strong for minorities (Tynes et al., 2008). This is specific to Asian, African American, and Hispanic youth, with no effect on m*ultiracial* youth (Zapolski et al., 2017). However, for *biracial* adolescents, Bracey and colleagues (2004) found that they had significantly higher levels of identity than White individuals and may benefit from having a *bicultural* identity. Psychological well-being also varies as a function of identity for *biracial* and *bicultural* individuals (Suzuki-Cumly & Hynes, 2004).

Positive development can occur with adolescents who experience ethnic identity match or when how they self-identify aligns with how they are perceived by peers (Nishina et al., 2018). Ethnic pride can also be a positive contributor. For *multiethnic* adolescents who participate in the traditions of their parental groups (e.g., Arab/European), ethnic pride and attachment correlated with higher levels of psychological well-being (Abu-Rayaa & Motkal, 2006). Nishina and colleagues (2010) found that for *multiracial* adolescents their identity was fluid and actively changed over the course of six middle school semesters.

Additionally, the ability to engage with component races, or being able to choose multiple racial groups rather than choosing one or denying both races, is associated with better psychological adjustment (Lusk et al., 2010). Getting to choose one's racial identity versus forced choice is associated with better outcomes (Clayton, 2020). For biracial-biethnic athletes, strong racial identity impacts satisfaction, team dynamics, and performance (Stanley & Robbins, 2011).

While physical appearance may have negative consequences, there are also positive aspects for biracial-biethnic youth. Having an ambiguous appearance can be associated with positive experiences and increased opportunities for certain ethnic groups (e.g., Asian Australians; McKie, 2018). Garay and colleagues (2021) also state that having a racially ambiguous appearance during engagement with social activism may be a positive factor. Overall, ethnic-racial typicality is related to the identity development process and well-being (Mitchell et al., 2018a).

In considering identity processes, identity integration for multiracial individuals was found to be an intervening factor between racial discrimination and depression (Reid Marks et al., 2020). *Multiracial* identity integration was found to be promoted by focusing on the positive aspects of multiculturalism (C.Y. Cheng & Lee, 2009). For survivors of trauma, the ability to engage in identity commitment with their survivor identity assists with utilizing social networks (Boyle & Rogers, 2020). Identity reflexivity, or "the ability to adopt different racial identity positions at different times," is important across the life course of multiracial individuals related to identity construction (Reddy, 2019, p. 327).

Other forms of identity can also contribute to positive identity development processes. For instance, ego identity status and the phases of achievement and moratorium are associated positively with higher levels of psychological well-being (Abu-Rayaa & Motkal, 2006). Religious identity may also be significant for biracial individuals. Davenport (2016) found that those who affiliate with ethnic religions are more likely than non-affiliated biracial individuals to identify exclusively as a minority, suggesting that cultural overlap between religious identities and racial backgrounds reinforces identification with that minority group. Rodríguez-García, Solana and colleagues (2021) add that the outcomes and experiences of mixed race individuals

are heterogeneous and dependent on religion. Demographic characteristics, including high

socioeconomic status (Choi et al., 2012; Hotlin et al., 2006; Irvin et al., 2011) and family

composition with low violence (Choi et al., 2012) are additional risk-reducing factors.

Physical Health. There are several factors that promote greater physical health. Eating

habits, such as breakfast intake, are associated with healthy body weight, particularly for women

(Berge et al., 2014). Physical activity is also positively associated with physical health (Duncan

et al., 2007).

Protective Mechanisms. Many protective mechanisms, including several associated with

mental health, were identified by researchers as influences on positive well-being. For instance,

autonomy and high levels of individualism are associated with a greater ability to cope with

microaggressions and mental health symptoms (Farber et al., 2021). An individual's self-efficacy

is significantly correlated with purpose in life (DeWitz et al., 2009). Her and Thompson (2022)

found that higher levels of self-efficacy have implications for students of color's intentions to

persist in higher education. Within the academic context, self-efficacy strongly predicts later

performance, persistence, and life choices (Brown, 2019). Lastly, community self-efficacy may

promote prosocial behavior (Davis et al., 2021).

Self-esteem has also been linked to positive well-being. Factors that can lead to high self-

esteem include having a cultural home, multicultural experiences, and more than one language

spoken as a child (Navarette & Jenkins, 2011). Bracey and colleagues (2004) found that high

levels of self-esteem are linked to resilience against discrimination and promote community

support and strong ethnic identity for all groups. High self-esteem is also associated with ethnic

identity and dual identification for adolescents with mixed parentage (Fatimilehin, 1999; Fisher

et al., 2017). Biracial women, in particular, when compared to African-American women, are

more satisfied with their skin color. Endorsement of a preference for dark skin tones is directly correlated with the highest value for self-esteem (Mucherach & Frazier, 2013)

Engagement in prosocial behavior is a protective factor for biracial-biethnic youth (Armstrong-Carter et al., 2021). Davis (2020) found gender differences between men and women. For men, empathic concern was positively associated with public prosocial behaviors. For women, empathic concern was negatively associated with public prosocial behaviors. In a separate study, Davis (2021) found that neighborhood risk, in combination with social cohesion and community self-efficacy, might actually promote prosocial behaviors.

A sense of belonging can be a mediating factor in identity development for biracial-biethnic youth. This may include national identity (Song & Aspinall, 2012), one's own racial or ethnic group (Wester & Trepal, 2015), having a racial or ethnic space (Kirby et al., 2020; Literate, 2010), or a general sense of belonging (Blake, 2019; Wilton et al., 2013). More specifically, ethnic belonging acts as a protective factor against substance use for non-White young adults (Carter et al., 2019). For *multiracial* individuals in the LGBTQ community, discrimination may promote a sense of belonging and finding kinship within the community (Felipe et al., 2020).

An individual's mindset and perspective can have a strong influence on their personal development. Willingness to engage in self-exploration during adolescence can assist with ethnic identity development (Brittain et al., 2013) and the development of a purpose in life (DeWitz et al., 2009). A desire to learn, particularly about one's ethnic identity, has been found to assist Asian American students in coping with Model Minority stereotypes (Borrero & Yeh, 2011). Critical reflection of past experiences directly impacts youth's systematic understanding of their environment and promotes positive youth development (Bowers et al., 2020).

Regarding empathy, ethnocultural empathy (Patterson et al., 2018) and empathic

perspective-taking (Muller & Miles, 2013) relate to the development of multicultural competence

and group engagement over time. In relationships, an individual's level of positive regard can be

reflected in their perception of their racial-ethnic background. In their study, Charmaraman and

Grossman (2010) found that more open-ended responses indicated higher levels of positive

regard.

Lastly, considering personal characteristics is of high importance. Fish and colleagues

(2021) relate that having an ally identity to marginalized groups is correlated with aspects of

personality, including ethnic identity and traits. An individual's level of resilience is tied to

higher levels of self-esteem and ability to cope with discrimination (Bracey et al., 2004).

Additionally, attachment to ethnic membership is associated with higher levels of psychological

well-being (Abu-Rayya & Motkal, 2006), and cultural values are noted to play a protective role

in mental health (Mossakowski & Darrah-Okike, 2022).

Microsystem

The second socioecological level of the Microsystem evaluated the themes and

subthemes of Family Relationships (Family Functioning, Family Influence, Parental

Racial/Ethnic Identification, Parental Relationships, Parental Support, Parenting Styles),

Friendships (Peer Influences, Racial Composition, Social Support) and Romantic Relationships

(Communication Style, Marriage, Relational Health).

Family Relationships. Family relationships are a significant consideration for both

identity and well-being in biracial-biethnic youth. Parental relationships are of particular

importance (De Anda & Riddel, 1991). Radina and Cooney (2000) found that *multiracial* girls

had more contact with their fathers and healthier parental relationships in general comparable to

single-race peers. This is also supported by the work of Lorenzo-Blanco and colleagues (2013), who found that *multiracial/multiethnic* youth may have less cohesion with their mothers but feel more supported and connected by their fathers. Parents were also noted to be influential in the cultural identity development of *multiracial* children. Exposure to ethnic majority and minority cultures from a young age may assist with instilling a sense of worth and independence (Jackson, 2009).

Parental ethnic identity and closeness influence how biracial individuals perceive and cope with discrimination (Campbell & Eggerling-Boeck, 2006), depending on both gender and race (Schlabach, 2013). Perceived parental ethnic identity and beliefs can impact *biracial* identity development and their ability to cope with discrimination (Stepney et al., 2015).

While parenting styles are thought to have a negative impact on development, there are also positive impacts of certain styles. This can include warmth, involvement with the child (Bayly & Vasilenko, 2021), positive parenting (Bo et al., 2021), and parenting practices that can mitigate the effects of discrimination through open conversation (Dotterer & Lowe, 2015). A parent's values and how they are shared with children were also noted to be a positive factor (Georgas & Kalantzi-Azizi, 1992). Families where ethnic differences were embraced, spent time with relatives in other countries, and accepted that differences are natural had more positive outcomes (Barnes, 2001).

How parental support is provided to children creates a foundation for how children and adolescents develop and navigate their other relationships. Parental support was found to be negatively correlated with delinquent peers and alcohol use, as well as lower peer victimization (Hong et al., 2022b). Parental warmth also facilitated more adolescent self-disclosure, less knowledge discrepancy, and less maladaptive adolescent outcomes (Dotterer & Day, 2019).

Perceived family social support by adolescents directly relates to an adolescent's school engagement (Daly et al., 2009), and reciprocal interactions can predict learning in the classroom (Borrero & Yeh, 2011).

Families are noted to play a significant role in how individuals understand their identities. Childs and colleagues (2021) acknowledge how racial schemas, nationally and globally, can challenge expressed beliefs about the occupancy of particular identities. Identity choice affirmation by families is protective against these schemas. There was also found to be an interactive effect between racial attitudes and empathic concern in predicting altruistic prosocial behaviors (Davis, 2020). High family cohesion is noted to lead to greater psychological health in *multiracial* individuals (Kaur & Kearney, 2013).

Beyond values, how a family functions can help youth develop the necessary skills to have healthy psychological functioning. Positive family functioning includes healthy communication, having rules and structure, and using problem-solving skills (Berge et al., 2013). Family environments may also influence maturation, which in turn influences the degree of traditionalism and integration in terms of friendships (Bhui et al., 2005). Sibling conversations and levels of individuality within the family are also noted to be protective (Cardwell & Soliz, 2020).

Family composition and having a two-parent household increase the well-being of youth (Choi et al., 2012; González et al., 2006). Both parental education and parental socioeconomic status, particularly when high, reduce changes in adolescent risky behavior, including substance abuse (Lee et al., 2018). Economic prosperity can also have a distinct racial whitening effect on *biracial* individuals' self-identification (Davenport, 2016).

Family influence on youth particularly relates to race and culture. Parental awareness, understanding of race issues, and communication about race issues can create a strong family influence (Crawford & Alaggia, 2008). When biracial-biethnic youth have a minority and majority (e.g., White) parent, the culture and religion of both parents can have a strong influence (Jackson, 2009). *Multiracial* identity integration, racial conflict, and racial distance are significant intervening factors between the racial discrimination and depression relationship (Reid Marks et al., 2020).

Friendships. There are many factors that individuals might consider in their friendship choices with peers. Bhui and colleagues (2005) note that traditional friendship choices may minimize the stress related to facing "new dress, beliefs, diets, attitudes, religion, and lifestyle" (p. 300). Additionally, integrated cultural identity based on friendship choices is related to fewer mental health problems among adolescents of all ethnic groups (Bhui et al., 2005).

The racial composition of friendship dyads is also important to consider. Cross-race dyads can impact friendship choices through the use of a mutual friend (Echols & Graham, 2020). Additionally, racial boundaries and degrees of intimacy between friends (Buggs, 2019) as well as open discussions about discrimination (Cardwell et al., 2020; DeLaney et al., 2021), determine closeness. Spending time together outside of school at each other's homes was particularly important for fostering stable cross-ethnic friendships (Lessard et al., 2019).

The amount of social support within friendships acts as a protective factor for an individual's well-being. Characteristics of friendships such as social capital or support (E.S. Chang et al., 2010), acceptance by others, and diversity of friends (De Anda & Riddel, 1991) can create healthier relationships. For *multiracial* individuals, social support was a key factor in developing self-esteem (Austin et al., 2021), leading to less substance use (Fisher et al., 2019).

Positive peer influences also limit smoking behavior (Udry et al., 2003) and negative alcohol expectancies (Banks et al., 2019). Daly and colleagues (2009) found that age significantly modified the relationship between perceived social support and perceived neighborhood crime on adolescent school engagement.

Romantic Relationships. Romantic relationships emerge in salience as youth age, relative to their developmental stage. Within romantic relationships, healthy communication styles are linked to concurrent mental health and psychological well-being (Kansky & Allen, 2018). Relational health also differentially predicts the well-being of students of color (Schmidt et al., 2014). Of note, in the process of dating, *multiracial* men and women are often afforded a heightened status in online dating (Curington et al., 2015). In considering marriage, interethnic marriage can facilitate faster acculturation for individuals of color (Ahmmad & Adkins, 2021).

Community/Organizational

The themes and subthemes that comprise the Community/Organizational socioecological level of research question three include the following:

- Culture (Acculturation, Cultural Appreciation, Cultural Contracts, Cultural Values)
- Community (Social Cohesion, Community Support, Group Association, Neighborhood, Social Expectations, Public Regard)
- Environment (Neighborhood, Geographic Location, School Environment [e.g., Class Size], School Composition [e.g., Diversity])
- Socialization (Cultural Socialization, Racial Socialization, Multiculturalism) are

Culture. When considering culture, the acculturation experience is noted to be important. Acculturation processes are influenced by many factors, including food, media, communication, transnationalism, and parent-adolescent relationships (Ferguson et al., 2017). Gender roles also

impact acculturative experiences, with there being a lower risk of mental health problems only among girls in relation to experiences such as clothing choices (Bhui et al., 2005).

How youth integrate culture into their identity can be impacted by values and cultural appreciation. Anh Allen and Suyemoto (2011) found that Asian American women had an increased appreciation for culture and uniqueness related to shifts in relation to self rather than others. Additionally, cultural values play a protective role in coping with discrimination for international and out-of-state domestic college students (Mossakowski & Darrah-Okike, 2022). The cultural contract, or social-cultural agreement, has been found to help *biracial* women negotiate their identities in society (Orbe et al., 2015).

Community. One's community has the ability to impact the developmental trajectory of an individual significantly. Strong community support has been tied to higher levels of self-esteem in adolescence (Bracey et al., 2004). Social cohesion and community self-efficacy also promote prosocial behavior (Davis et al., 2021).

The group association of biracial-biethnic youth influences both well-being and identity. If individuals are associated with multiple ethnic groups, they may have lower stress levels, more positive affect, and more school citizenship behavior (Binning et al., 2009; Jourdan, 2006). Group identity is an essential consideration of *multiracial* groups. Campbell and Eggerling-Boeck (2006) noted the importance of not categorizing these groups into a single multiracial category; this can lead to greater happiness and social integration. If a *biracial* individual is experiencing psychological distress, it would be necessary to tease apart group-specific associations and constructions (Christophe et al., 2022).

Having a perceived similarity to minority ingroups may lead to improved psychological functioning (Good et al., 2010). Group consciousness also contributes to building ethnic-racial

identity and promotes certainty, clarity, and public regard (Booth et al., 2022). Tynes and

colleagues (2008) found that within groups, ethnic identity remains stronger for ethnic

minorities. Still, intergroup interaction has become a salient and influential aspect of the online

experience for European Americans.

Brittain and colleagues (2013) discuss the role of social expectations within one's

community. They note that social expectations increase as individuals transition out of

adolescence and into young adulthood, such that individuals are expected to take on more adult

roles and responsibilities. Public regard and one's perception of their public regard are associated

with a sense of freedom, with higher public regard leading to more feelings of freedom (Albuja

et al., 2020b). Public regard also contributes to ethnic-racial identity development in adolescents

(Booth et al., 2022).

Environment. Diversity of one's general environment, including municipalities, schools,

neighborhoods, and families, is a positive factor (Zoller Booth et al., 2014). This can be

dependent on geographic location, as racial categorization can differ in different societies or

locations due to regulations (Metcalfe, 2022). Levine and colleagues (2019) showed that students

of color have better cardiometabolic health when their school emphasizes diversity.

Neighborhood composition was also noted to directly impact racial identity development. Hitlin

and colleagues (2006) argue that youth who reside in predominantly White neighborhoods have

reduced odds of changing their racial identity.

School composition at various levels of education can be either a negative or positive

influence. Ethnically diverse schools and general school diversity were found to mitigate mental

health outcomes for *multiracial* youth (Fisher et al., 2014; Lessard et al., 2019). Regarding

identity, ethno-racially integrated schools have been shown to create positive and non-conflicted

identity development (Gillen-O'Neel et al., 2015). In higher education settings, how students of color find college classes supportive or not supportive contributes to their overall well-being (Lott & Rogers, 2011). The larger racial climate is also significant (Ford & Malaney, 2012). As Wallace (2004) states, it is important to address human diversity in relation to school processes.

Further, Irvin and colleagues (2011) found smaller school class sizes to predict higher achievement when compared to overall school size. The school community also matters for biracial-biethnic youth. Having a safe and supportive environment helps secure ethnic identity, which then affects the ability to form close relationships (Benner & Graham, 2009). Kellogg and Liddell (2012) found that for *multiracial* students, institutions that understand how racial identity is negotiated within the college community can support the complexity of multiracial identity. Established school norms were noted to impact school engagement and academic outcomes (Shin et al., 2007).

Socialization. General socialization practices and messages can manifest as a pattern for *multiracial* youth as they grow up related to the ethnic-racial identity endorsement (Christophe & Stein, 2021). Socialization also frames multiculturalism and highlights the positive aspects of it. Multiracial social programs and politics that consider objective membership in racial categories as well as subjective perception can help facilitate positive socialization experiences for youth (Cheng & Lee, 1999).

Cultural socialization can be illustrated through positive conversations about race and ethnicity, helping students cope with negative conversations; this positively affects racial and ethnic identity development (Elias et al., 2022). Cultural socialization practices also rely heavily on parents and peers to assist with these processes during emerging adulthood (Nelson et al., 2018).

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Lastly, racial socialization can occur within families and schools. Messages about race from parents are often protective in nature (Felipe et al., 2022). Fatimilehin (1999) elaborates on this point, noting that the ability to claim dual identification increases with age. While living with both parents, receiving proactive messages from family is associated with high self-esteem and more encounter and immersion attitudes. School interactions are also crucial for racial socialization, dependent on school composition (Bratter & Heard, 2009).

Macrosystem

The final socioecological level, the Macrosystem, is associated with the themes and subthemes of the Construction of Race (Biological, Public Value of Race, Social Construction), Policy (Access to Mental Health, Structural Interventions), Society (Equitable Society, Media, Racial Climate, Social Climate) and Sociopolitical Factors (Institutional Dynamics, Social Activism, Sociopolitical Engagement/ Development).

Construction of Race. How race has been historically constructed and viewed in society is a significant factor to consider. Spencer and colleagues (2000) note the importance of understanding both race and ethnicity as social and political constructs for *multiracial* adolescents. It was also found that *multiracial* individuals subscribed less to the notion that racial differences were biologically based. Due to this, they are more likely to inhibit stereotypes in response to race salience and were less affected by race-based stereotypes than were monoracial participants (Shih et al., 2007). In the context of intimate interracial relationships, such as marrying or adopting someone of a different race, *multiracial* individuals report more comfort in these relationships, which is mediated by viewing race as a social construct (Bonam & Shih, 2009). In considering the public value of race, Sanchez and Garcia (2009) find that believing race is biologically based versus socially constructed can be argued differently.

Policy. Policies surrounding mental health can be particularly challenging for certain minority groups, including transgender people of color who face healthcare discrimination (Agenor et al., 2022) and "multiethnic" lesbian and bisexual adolescents (Craig & Keane, 2014). Access to mental health services for these groups and within higher education institutions can increase protective factors (Duran, 2021). Structural interventions targeting discriminatory practices can further improve policies that currently limit minority groups (Espinosa et al., 2020).

Society. Different societies and aspects of society can impact an individual's identity and well-being. In American society, changes such as increased numbers of minorities, more tolerance, and more discussions of acceptance for racial groups are highlighted as progressive movement (Sullivan & Ghara, 2015). Movement such as this has suggested that *multiracial* youth are at greater liberty to embrace all of their racial identities when given the opportunity to (Herman, 2009). Internationally, similar movements appear to be occurring. Paragg (2015) discusses shifts toward an equitable society in Canada, which assists with the positionality of *multicultural* or *mixed race* individuals who live there.

On college campuses, it is vital to foster meaningful racial climate change on college campuses through amending racial scripts, inter-intra group dialogue, and social justice (Ford & Malaney, 2012). Across mainstream media, there are noticeable changes in notions of beauty that are moving away from reflecting a White standard (Kelch-Oliver & Leslie, 2007; Sims, 2012).

Sociopolitical Factors. Sociopolitical engagement has been found to relate directly to ally identity (Fish et al., 2021). The development of sociopolitical engagement can assist youth of color in negotiating sociopolitical barriers that constrain their vocational expectations (Diemer, 2009). For *multiracial* individuals, engagement in social activism can help shift the

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perception of being multiracial, as they can be seen as part of the community (Garay et al., 2019).

Quality Appraisal

Table 7 displays the results of the quality appraisal analysis. The quality appraisal indicated that most studies were scored as Strong ($n = 206$) and Good/Adequate ($n = 64$), followed by Exemplary ($n = 60$) and Weak ($n = 30$). Low-quality studies had one or a combination of the following: Did not report racial/ethnic parental breakdown, did not report age range, did not report gender data, had a small sample size of biracial-biethnic participants (< 10%), or did not include study limitations. However, high-quality studies did the following: Provided detailed racial/ethnic participant data as well as racial/ethnic parental breakdown data, provided detailed methodological design, recognized study limitations, and provided detailed directions for future research.

Table 7

Quality Appraisal of Included Studies

Quality Appraisal Rating	Total/Percentage
Exemplary	n=60, 18%
Strong	n=206, 61.9%
Good/Adequate	n=64, 19.2%
Weak	n=3, 0.9%

Chapter IV: Discussion

Overview

This systematic review aimed to summarize and synthesize the most recent literature on psychosocial factors impacting identity development in biracial-biethnic youth, with particular attention to aspects of identity development, negative well-being, and positive well-being. This systematic review also aimed to identify specific psychosocial factors within the four distinct socioecological levels of functioning: Individual, Microsystem, Community/Organizational, and Macrosystem. This chapter will discuss the patterns and themes that emerged in this systematic review of the literature as related to the well-being and identity development of biracial-biethnic youth. The implications of the findings will also be discussed in relation to racial and ethnic identity, age, geographic location, education level, and both positive and negative well-being, as well as strengths, limitations, and directions for future research.

Multicultural psychology in the United States emerged in 1980, and although those with racially or ethnically mixed ancestry is not a novel concept, one's identification as *multiracial* is relatively recent (Song, 2021). Interestingly, however, no studies meeting the inclusion criteria were published between 1980 and 1990, with only a few studies between 1990 and 2000. The majority of studies included in this review were published after the year 2000. This may be reflective of the recency of identifying as more than one race or ethnicity has been acknowledged and, to some extent, accepted in American society.

The Operationalization of Biracial-Biethnic

There were many terms used with historical implications for individuals who identify as more than one race and ethnicity. These terms, including *mixed* and *mixed race,* were developed in reference to colonization and the language that reflects racial hierarchies (Reyes, 2020). Other

terms referencing specific racial or ethnic groups that are no longer socially acceptable included

mulatto and *mestizo*. While these terms were found in the literature analyzed, there appeared to

be a movement away from their use in articles published after the year 2010. This is supported

by changes to the United States Census that occurred in 2000, where the enumeration of multiple

race responses was initiated (DaCosta, 2020). Aside from the highlighted terms, the majority of

other articles used independent terms that they created or referenced. Examples of these

independent terms included *ethnoracially mixed*, *multiracial/multicultural*, *mixed identity*, and

multiple non-Hispanic. This further supports the idea that there is no consistent way to define

more than one race or ethnicity in the literature. The author of this systematic review also chose

to operationalize their own term of biracial-biethnic for the purpose of this study, which

ultimately aligns with the ambiguity of how to describe individuals of more than one race or

ethnicity in the literature.

Within the included literature, there was no identified, consistent way to operationalize

language for individuals who identify with two or more racial and ethnic backgrounds. While a

large majority (40.2%) of studies utilized the term *multiracial*, the remaining included studies

used a myriad of other terms to encompass having multiple racial or ethnic backgrounds. The use

of *multiracial* may align with the use of this term in society and modern media (Atkin et al.,

2022a). This is also reflected in the author's choice to operationalize the term biracial-biethnic to

utilize in this systematic review.

Language as Social Advocacy

When evaluating how authors defined or operationalized the terms they used, the large

majority of authors did not provide a rationale. For studies that did provide a rationale, their term

was largely operationalized as individuals with more than two racial or ethnic backgrounds.

However, the inclusion of ethnicity to describe individuals who identify as more than one ethnicity was found to be a pattern within the included literature. This might reflect a push to highlight ethnicity in addition to or in place of race. There is evidence to support that the use of the term ethnicity is evolving, but it is still often used in conjunction with race; however, there is a lack of consensus and still an area of ongoing disagreement (Mauro et al., 2022). This is also reflected in the author's decision to evaluate both racial and ethnic identification for the identified population.

In considering the results of this systematic review, there is no consensus on how to define or categorize individuals who identify as more than one race or ethnicity. This may be reflective of the shifts that have occurred for the rapidly growing biracial-biethnic population in recent years, in parallel to challenging the racial structure of the United States. Suyemoto and colleagues (2020) emphasize that as a social construct, race varies across time and context. For the biracial-biethnic population, racial and ethnic categorization is additionally impacted by an individual's phenotype, which does not always fit directly into monoracial categories and can cause greater confusion within society.

Within the field of psychology, there is a movement toward promoting greater racial equality in various aspects, including research. However, the terms and language used to describe racial and ethnic categories have become a point of contention. For instance, the choice of researchers to capitalize terms used for racial and ethnic groups within the literature is a social justice issue. The 2020 APA Publication Manual itself states that while racial and ethnic groups are proper nouns and should be capitalized, terms such as *multiracial* and *biracial* should be in lowercase, with the exception of specific subgroups (Atkin et al., 2022b).

There are arguments for and against capitalizing the "M" in multiracial in order to legitimize this racial category; however, this is challenged by the notion that capitalizing these terms perpetuates race as a social construction. While this author followed the American Psychological Association Guidelines for "Bias Free Language" (American Psychological Association, 2019) for race and ethnicity, the author acknowledges the possible implications of not capitalizing terms associated with the biracial-biethnic population in this systematic review and other literature. Although there is no one answer, there is a clear impact of the language used on the identity development of biracial-biethnic youth and a need to have more intentional and frequent racial- and ethnic-conscious discussions for this population.

Negative Identity Development

A theme that emerged in this review was the diversity within negative identity development. The experiences of identity distress, conflict, confusion, and diffusion are experiences that have impeded identity development in youth. One of the main sources of identity challenges relates to one's phenotype and misclassification by observers. How an individual views themself in the form of self-esteem can also lead to negative identity development and negative well-being. If an individual identifies with one racial or ethnic group while being perceived by others as a different race or ethnicity, they may experience identity conflict, beginning at a young age. This identity conflict can create anxiety around social interactions and a diffuse sense of self that changes in various situations. For biracial-biethnic youth, these experiences occur at a higher frequency than other racial or ethnic groups.

Phenotype and physical appearance can also be impacted by societal and cultural standards of beauty. For instance, in certain cultures or racial groups, there may be higher value placed on individuals with lighter skin (Mucherah & Frazier, 2013; Reece, 2019). This can

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intersect with gender as well, with how men and women with lighter skin are perceived in society and in interpersonal relationships. This is important to consider as intersectionality further compounds challenges with navigating physical appearance for biracial-biethnic youth within their peer relationships, families, communities and social groups.

In considering interpersonal relationships, family was noted to have a significant role in a youth's life, specifically parents. How parents identify themselves and socialize with their children has a direct negative or positive correlation to their youth's identity (Atkin et al., 2022b). Intergroup relationships with peers and the community were also noted to be a significant factor. Experiences of discrimination related to racial or ethnic identity from peers and other relationships also directly impact identity development. If biracial-biethnic individuals have experienced racism and developed a negative association with their identity, this can impact their individual and interpersonal functioning, rooted in their own challenges with identity. These issues impact how one identifies themselves and are particularly salient for biracial-biethnic individuals since how parents identify or embrace the multiracial identity of their child can influence their own identity.

Lastly, systemic factors such as mainstream culture, social media, and the presence of figures in society were prominent themes noted to impact biracial-biethnic youth identity development. This aligns with how society has evolved over time. While there is greater acceptance of biracial-biethnic individuals, there is still ongoing and relevant discrimination and lack of acceptance toward these individuals and other marginalized groups (e.g., Black individuals). Dialogue within the community as whole and various groups directly impact the acceptance and group associations of biracial-biethnic individuals. This is a reflection of the

larger society and can be related to institutional policies, social and structural influences, and public health (Grilo et al., 2023).

Psychosocial Factors and Substance Use

Within the results of research question two, a clear dominant theme was substance use as a psychosocial factor that impacts biracial-biethnic youth. Youth who engage in substance use are most likely to be youth with *multiracial* or other marginalized identities (e.g., Black youth) (Goings et al., 2020). The influence on youth's substance use cuts across both the individual and microsystem levels, as relationships with both peers and family members can act as a risk factor for biracial-biethnic youth. When considering the importance of interpersonal relations for development, authors largely noted alcohol use as a significant factor, but high rates are also correlated with other substances, including marijuana, nicotine, and tobacco. This may be due to the general increase of substance use for youth in recent years, as there has been a greater ease of access to substances (e.g., legalization of marijuana) across the United States.

In considering overall trends in substance use since 1975, factors including the medicalization and legalization of the recreational use of marijuana and the use of e-cigarettes (e.g., vaping) are salient contributors that increase overall access to substances (Johnston et al., 2022). It is noted that all articles that identified substance abuse as a significant psychosocial factor were published after the year 2000. Another notable consideration over the last few years is the COVID-19 pandemic, which may account for increased substance use and mental health concerns during the quarantine period for adolescents and young adults (Layman et al., 2022). Thus, this may account for substance abuse trends and the high prevalence of substance use for the biracial-biethnic population. Additionally, the impacts of the COVID-19 pandemic must be evaluated.

Specific risk factors may act as psychosocial stressors, as well as exposure to trauma in childhood, which can lead to increased risk of mental health concerns, substance use, and other risky behavior (e.g., risky sexual behavior). Concerning mental health, a trend within the literature was acknowledging how overall psychological distress or diagnoses impact biracial-biethnic youth. It appears that the most common source of this psychological distress relates to experiences of trauma, including discrimination and adverse childhood experiences (e.g., physical and emotional abuse). This distress may not be specific to biracial-biethnic youth but to youth in general, indicating the need to evaluate and address the significance of trauma on development for all youth.

Another issue and concern raised was related to microaggressions and discrimination. Experiences of microaggressions and discrimination impact both identity development and the well-being of biracial-biethnic youth. These experiences are noted to be a significant contributor to stress, negative well-being, and identity conflict in youth. Specifically related to identity, there appeared to be a shared experience of questioning which racial, ethnic, or community group to identify with. These negative experiences were also noted to be related to phenotype or perceived race and ethnicity due to racial ambiguity. However, racial ambiguity can also be a strength for individuals in promoting identification as *multiracial* (Norman & Chen, 2020). Racial ambiguity may allow biracial-biethnic individuals the freedom of choice of how they self-identify and identify with others, which could support the solidification of identity as they develop.

These themes were reflected in the numbers in which research question two had the highest number of included articles that analyzed psychosocial stressors. This may be due to the high prevalence of negative experiences and interactions that impact identity development and

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well-being in biracial-biethnic youth. However, within ethnic-racial identity development literature, evidence supports that marginalized interpersonal experiences may serve as an "entry point" or motivating factor for understanding social identity and reflecting on their own racial-ethnic identity (Mathews et al., 2020). This may reflect the focus on the stressors or negative experiences without further exploring how one can use these experiences for positive development.

Protective Factors

Research question three evaluated protective factors related to biracial-biethnic youth's well-being. At the individual level, how youth cope with the stress they experience in their daily life related to their racial or ethnic identity was discussed. At all socioecological levels, many protective mechanisms were identified, including relationships. This conclusion is fitting, given the significance of interpersonal relationships and interpersonal experiences in one's development. This also relates to the importance of interpersonal identity development, which has been found to directly impact psychosocial functioning in adolescents (Hatano et al., 2020).

The impact of positive relationships on biracial-biethnic youth lies in direct contrast with youth's negative identity experiences and psychosocial well-being. Overall, support from family, peers, and social groups can mediate stressful experiences, which shows the significance of interpersonal interactions and how they shape one's development and sense of belonging. When considering one's sense of belonging, if a youth feels welcomed and supported, they are more likely to engage with their support system and utilize it when in distress. This transfers across experiences in school, groups, and in the general community (Johnson et al., 2007). Having a general sense of belonging in various contexts can also contribute to positive identity

development for biracial-biethnic youth, as their identity may stay more consistent in these contexts.

Biracial-Biethnic Identity in the United States and Other Countries

The final data set of included studies was primarily conducted within the United States, with a small percentage completed internationally. International studies were clustered in Canada, Europe, and South America, with some additional outliers in other countries. The author intentionally did not limit these studies to the United States to evaluate how different cultures and those in different geographical locations experience the development and well-being of biracial-biethnic youth. However, the limited amount of international studies might represent an even greater need to evaluate the biracial-biethnic youth population, as the social landscape in other countries may be experiencing the same growth as the United States.

It is also noted that historically, studies on *mixed race or ethnicity* have been conducted in English-speaking countries (Törngren et al., 2021), which may explain the highest number of international studies taking place in Canada and the United Kingdom. While the concept of *mixedness* is a global phenomenon that has been promoted by international mobility and interactions of individuals from different origins, the lack of international studies may be best explained by limitations in language and how race and skin color pose significant to social inclusion around the world (Törngren et al., 2021).

Within the United States, the racial and ethnic landscape and diversity of the biracial-biethnic community have significantly increased since 1990, particularly within *multiracial* subgroups in various regions (Charmaraman et al, 2014). This may contribute to the prevalence and growing research on biracial-biethnic individuals in the United States and a more open dialogue surrounding the diversity of identifying as more than one race or ethnicity.

Sociocultural Aspects of Biracial-Biethnic Identity

The year of publication was also reflected in certain themes that emerged when analyzing the data. This might reflect how, in recent years, certain psychosocial factors have been more widely focused on and studied in the literature (e.g., substance abuse). This is another example of how articles published after the year 2000 largely discussed the concept of negative well-being, which further emphasizes a potential shift in the literature to evaluate these factors.

In evaluating trends in the overall sample of included studies, many authors drew from larger national studies conducted within the broader United States. For instance, a frequently referenced study was the *National Longitudinal Study of Adolescent Health* (2018). The authors' use of drawing from previous studies seems to provide a larger sample size with higher percentages of biracial-biethnic individuals in comparison to some studies that did not draw from more extensive studies. However, the rate of biracial-biethnic participants varied but was typically small relative to the entire sample, and the demographic data provided was predominantly general (e.g., did not include racial/ethnic breakdown).

Socioecological Levels

The four socioecological levels included in the analysis of this systematic review were all addressed within each research question, with varying frequencies. Many included studies analyzed multiple socioecological levels within research, with a focus on the Individual and Microsystem levels.

For studies that only analyzed the Individual socioecological level, the focus was often on internal factors. For example, when evaluating the area of negative identity development, common internal factors were how an individual self-labels, their beliefs about race and ethnicity, racial consciousness, and their cognitive style. However, the results of this systematic

review appear to be inconsistent with the literature, which highlights positive psychosocial factors that occur on the individual level. For instance, resilience is a positive Individual factor that was evaluated for ethnic minority youth (Henderson et al., 2016). This may be related to the dominance of negative psychosocial factors when evaluating racial and ethnic identity development.

While all of the included studies analyzed the Individual socioecological level, the Individual and Microsystem were the most common combination of socioecological levels for each research question. This is consistent with much of the literature that utilizes a socioecological framework that highlights the influence of the interpersonal, or Microsystem, on an individual's well-being. This finding aligns with how impactful interpersonal relationships can be on an individual's well-being. Research that included factors at the Microsystem level emphasized the role of family and peers, which aligns with the developmental period of biracial-biethnic youth. For instance, within the socioecological framework for mental health and well-being, the literature has found a bi-directional influence between family and mental health (Ruepert, 2017). This emphasizes the influence of the environments that the youth interact with, most frequently being the home and school environments. These relationships can have a significant negative or positive impact on identity and well-being; therefore, their interactions with the other socioecological levels should be considered.

Research evaluating the Community/Organizational level seemed to be limited, as the number of included studies that reflected this socioecological level was lower than Individual and Microsystem for all research questions. While the Community/Organizational level is discussed in the literature, this is not consistent for the biracial-biethnic population. This may reflect the need to focus on the intergroup dynamics of biracial-biethnic youth. Lastly, a lack of

literature evaluated psychosocial factors that occurred at the Macrosystem level. The number of studies that analyzed the Macrosystem was less than ten for each research question. This highlights the limited information about the impact of factors within the Macrosystem and the need for focus to be placed on this area, to be discussed further in future directions for research.

Study Participant Characteristics

In considering the characteristics of study participants, the major categories included in the data analysis revealed some trends. Age was scattered relatively evenly across the identified age range based on the mean age of participants in each study. This demonstrates the true age span in which identity development occurs and accurately reflects the age range identified by the author for this systematic review. Regarding gender, the majority of studies reported gender through the use of the male-female binary. This aligns with how gender has historically been categorized within society within a gender binary (Hyde et al., 2019). However, there was a percentage of studies that included transgender or non-binary individuals, which may reflect how the notion of gender has been expanded in recent years (Vincent, 2020). Overall, how gender is described in the biracial-biethnic literature is evolving with the push against the gender binary.

In considering race and ethnicity, biracial-biethnic participants seemed to fall within two major categories: having a small percentage of participants or having the majority of participants in each study. This may reflect the focus on majority or popular minority groups rather than biracial-biethnic individuals in the included studies. In studies that provided racial or ethnic breakdowns, the groups were predominately White/Minority and Minority/Minority combinations. This aligns with how the majority of early research on the biracial-biethnic population focused on the specific subgroup of the Black/White dyad in the United States

(Charmaraman, 2014). However, the inclusion of additional subgroup dyads reflects the diversity within current research and the acknowledgment of changes in the racial/ethnic landscape.

For studies that included 100% biracial-biethnic participants, the data was often obtained through qualitative means, including interviews or thematic analysis. The use of qualitative techniques provided rich narratives about biracial-biethnic youth's experiences and often correlated with a discussion about their maternal and paternal ancestries. It was also noted that the authors of these studies frequently identified as biracial-biethnic themselves. This may speak to the personal motivation of researchers for conducting studies on biracial-biethnic individuals and the reason for a limited amount of studies that focused entirely on this population.

There were additional demographic areas (e.g., religion/spirituality, socioeconomic) in which the author expected the included studies would provide further detail. This may indicate the need to expand on the intersectionality of biracial-biethnic youth, as these additional identities can also influence racial/ethnic identity development and well-being.

Strengths and Limitations

There are several strengths of this systematic review. A significant strength was the high number of articles included in this review ($N = 333$), which provided a large amount of data to extract. A second strength was the author's use of research assistants through the quality appraisal and data extraction process to ensure the validity and consistency of the data being extracted. For studies that were high in quality, which exceeded low-quality studies, the data extracted was comprehensive and provided the specific racial or ethnic breakdowns of participants, which allowed the author of this systematic review to conduct further analysis. Many included studies also addressed more than one research question, which provided additional information to extract.

This review has the potential to make valuable and significant contributions to the field of multicultural psychology, providing individuals with knowledge of factors to be mindful of when working with biracial-biethnic identified youth. This review is also timely in synthesizing the existing literature, particularly to create visibility for the need to operationalize and legitimize language used when discussing biracial-biethnic youth.

This literature review is not without limitations. While the sample size of articles was large, a limited number of studies solely evaluated biracial-biethnic youth. Rather, findings were reduced when only a small percentage of the participants within each sample were biracial-biethnic. Regarding the age of participants, many studies provided an age range of participants that did not meet the author's inclusion criteria (13 to 25), which required the use of the mean age to determine fit. Many of these studies were also longitudinal in nature, which led to participant age exceeding the identified age range and, as a result, being excluded from the final data extraction. For youth whose age fell on the lower end of the age range (e.g., ages 13 to 18), authors would often only include parental reports or perceptions of their child's experiences and did not directly assess the children, which led to exclusion.

Additional limitations include a dominance of research from North America, a limited amount of biracial-biethnic subgroup information provided for biracial-biethnic participants, longitudinal studies, and data from nationally-based studies. Methodological factors, including seven databases and narrowed search criteria (e.g., year of publication, peer-reviewed, published in English), may not have accounted for all possible articles. Low-quality studies were missing significant information (e.g., participant age), which led to exclusion from this systematic review.

Directions for Future Research

 Beyond this systematic review, there is a need to support the physical and mental health of biracial-biethnic youth and their families. While this area was not evaluated in this systematic review, the need has been demonstrated by the significant amount of factors that negatively contribute to the well-being of biracial-biethnic youth. Specific treatment interventions and modalities were not evaluated in this systematic review, but evidence supports a need to identify specific ways to support biracial-biethnic youth. Through the search and screening process and overall review of the literature, this may be an area that is lacking for this population. This information could help inform and educate clinicians, school or university-based staff, and other professionals about the unique experiences of individuals who identify with more than one race or ethnicity.

 Additional research could focus strictly on the biracial-biethnic population rather than drawing conclusions from a small sample size within a larger participant pool to further understand their specific experiences, both negative and positive. This might mean focusing on the international biracial-biethnic youth population in countries outside of the United States in order to gain more insight into how culture, migration, and geographic location can impact this population. A plethora of information was extracted from the literature related to identity development, which is a crucial aspect of development for all adolescents and young adults. Therefore, this is a needed area of continued study with particular attention on intersectionality. This is an emerging area in the literature that can provide rich data on how multiple aspects of identity and systems of oppression can contribute to identity development. One might also specifically consider the role of gender and cultural standards of beauty and its impact on

identity. In considering future studies on the topic of biracial-biethnic youth, the characteristics of high-quality studies should be the standard of all literature going forward.

Lastly, when considering the socioecological levels of analysis, there was a lack of data that analyzed psychosocial factors within the Macrosystem. This includes laws, policies, healthcare, and historical implications. In order to elicit greater systemic change for the biracial-biethnic population, there is a call to research to focus on this socioecological level to better understand how factors within the macrosystem could both positively and negatively impact biracial-biethnic youth.

Closing Remarks

The broader goals of this systematic review were to

- Identify specific psychosocial factors, both positive and negative, that impact biracial-biethnic youth's well-being.

- Evaluate psychosocial factors that both positively and negatively impact identity development in biracial-biethnic youth.

The experiences of biracial-biethnic individuals have become an emerging topic of focus in recent years. This study specifically looked at biracial-biethnic youth and their critical development years. The need to study this population is reflected in how society, the media, and policies have evolved over time. One example of this is the recent change in certain demographic forms that allow individuals to not be confined by specific boxes but rather give them the opportunity to choose. While this example may seem insignificant, it represents the ability to select one's identity rather than being chosen for it. My hope is that changes like this, and others, on a larger level, will continue to emphasize the importance of the experiences of biracial-biethnic youth.

This population deserves the same attention and support as other marginalized groups. May future research be able to highlight the importance of supporting the well-being and identity development of youth who identify with more than one race or ethnicity.

REFERENCES

Abu-Rayya, H. M. (2006). Ethnic identity, ego identity, and psychological well-being among mixed-ethnic Arab-European adolescents in Israel. *British Journal of Developmental Psychology*, *24*(4), 669–679. https://doi.org/10.1348/026151005X59196

Agénor, M., Geffen, S. R., Zubizarreta, D., Jones, R., Giraldo, S., McGuirk, A., Caballero, M., & Gordon, A. R. (2022). Experiences of and resistance to multiple discrimination in health care settings among transmasculine people of color. *BMC Health Services Research*, *22*(1), 1–17. https://doi.org/10.1186/s12913-022-07729-5

Ahmmad, Z., & Adkins, D. E. (2020). Ethnicity and acculturation: Asian American substance use from early adolescence to mature adulthood. *Journal of Ethnic and Migration Studies*, 1–27. https://doi.org/10.1080/1369183X.2020.1788927

AhnAllen, J. M., & Suyemoto, K. L. (2011). Influence of interracial dating on racial and/or ethnic identities of Asian American women and White European American men. *Asian American Journal of Psychology*, *2*(1), 61–75. https://doi.org/10.1037/a0023325

Albuja, A. F., Gaither, S. E., Sanchez, D. T., Straka, B., & Cipollina, R. (2019a). Psychophysiological Stress Responses to Bicultural and Biracial Identity Denial. *Journal of Social Issues*, *75*(4), 1165–1191. https://doi.org/10.1111/josi.12347

Albuja, A. F., Sanchez, D. T., & Gaither, S. E. (2019b). Identity Denied: Comparing American or White Identity Denial and Psychological Health Outcomes Among Bicultural and Biracial People. *Personality and Social Psychology Bulletin*, *45*(3), 416–430. https://doi.org/10.1177/0146167218788553

Albuja, A. F., Sanchez, D. T., & Gaither, S. E. (2020a). Intra-race intersectionality: Identity denial among dual-minority biracial people. *Translational Issues in Psychological Science*, *6*(4), 392–403. https://doi.org/10.1037/tps0000264

Albuja, A. F., Sanchez, D. T., & Gaither, S. E. (2020). Supplemental Material for Intra-Race Intersectionality: Identity Denial Among Dual-Minority Biracial People. *Translational Issues in Psychological Science*, *6*(4), 392–403. https://doi.org/10.1037/tps0000264.supp

Albuja, A., Straka, B., Desjardins, M., Swartzwelder, H. S., & Gaither, S. (2021). Alcohol Use and Related Consequences for Monoracial and Multiracial Native American/American Indian College Students. *Experimental and Clinical Psychopharmacology*, *29*(5), 487–500. https://doi.org/10.1037/pha0000475

Aldana, A., Rowley, S. J., Checkoway, B., & Richards-Schuster, K. (2012). Raising Ethnic-Racial Consciousness: The Relationship Between Intergroup Dialogues and Adolescents' Ethnic-Racial Identity and Racism Awareness. *Equity and Excellence in Education*, *45*(1), 120–137. https://doi.org/10.1080/10665684.2012.641863

Alderete, E., Monteban, M., Gregorich, S., Kaplan, C. P., Mejía, R., & Pérez-Stable, E. J. (2012). Smoking and exposure to racial insults among multiethnic youth in Jujuy, Argentina. *Cancer Causes & Control : CCC*, *23 Suppl 1*, 37–44. https://doi.org/10.1007/s10552-012-9906-0

Alimahomed, S. (2010). Thinking outside the rainbow: Women of color redefining queer politics and identity. *Social Identities*, *16*(2), 151–168. https://doi.org/10.1080/13504631003688849

Allen, J. P., Costello, M., Kansky, J., & Loeb, E. L. (2022). When friendships surpass parental

    relationships as predictors of long-term outcomes: Adolescent relationship qualities and

    adult psychosocial functioning. *Child Development*, *93*(3), 760–777.

    https://doi.org/10.1111/cdev.13713

Alvarez, A. N., Juang, L., & Liang, C. T. H. (2006). Asian Americans and racism: When bad

    things happen to "model minorities." *Cultural Diversity and Ethnic Minority Psychology*,

    12(3), 477–492. https://doi.org/10.1037/1099-9809.12.3.477

American Psychological Association (2019, August). *Race and Ethnicity Guidelines in*

    Psychology: Promoting Responsiveness and Equity.

    https://www.apa.org/about/policy/guidelines-race-ethnicity.pdf

American Psychological Association (2017, August). *Multicultural Guidelines: An Ecological*

    Approach to Context, Identity, and Intersectionality.

    http://www.apa.org/about/policy/multicultural-guidelines.pdf

Anyon, Y., Ong, S. L., & Whitaker, K. (2014). School-based mental health prevention for Asian

    American adolescents: Risk behaviors, protective factors, and service use. *Asian*

    American Journal of Psychology, *5*(2), 134–144. https://doi.org/10.1037/a0035300

Anyon, Y., Zhang, D., & Hazel, C. (2016). Race, Exclusionary Discipline, and Connectedness to

    Adults in Secondary Schools. *American Journal of Community Psychology*, 342–352.

    https://doi.org/10.1002/ajcp.12061

Armstrong-Carter, E., Do, K. T., Guassi Moreira, J. F., Prinstein, M. J., & Telzer, E. H. (2021). Examining a new prosocial risk-taking scale in a longitudinal sample of ethnically diverse adolescents. *Journal of Adolescence*, *93*(3), 222–233. https://doi.org/10.1016/j.adolescence.2021.11.002

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American psychologist*, *55*(5), 469. https://doi.org/10.1037/0003-066X.55.5.469

Arora, S., Gonzalez, K. A., Abreu, R. L., & Gloster, C. (2022). "Therapy Can Be Restorative, but Can Also Be Really Harmful": Therapy Experiences of QTBIPOC Clients. *Psychotherapy*, *59*(4), 498–510. https://doi.org/10.1037/pst0000443

Atkin, A. L., & Ahn, L. H. R. (2022a). Profiles of Racial Socialization Messages from Mothers and Fathers and The Colorblind and Anti-Black Attitudes of Asian American Adolescents. *Journal of Youth and Adolescence*, *51*(6), 1048–1061. https://doi.org/10.1007/s10964-022-01597-2

Atkin, A. L., Christophe, N. K., Stein, G. L., Gabriel, A. K., & Lee, R. M. (2022b). Race terminology in the field of psychology: Acknowledging the growing multiracial population in the US. *American Psychologist*, *77*(3), 381. https://doi.org/10.1037/amp0000975

Atkin, A. L., Jackson, K. F., White, R., & Tran, A. G. (2022c). A qualitative examination of familial racial-ethnic socialization experiences among multiracial American emerging adults. *Journal of Family Psychology*, *36*(2), 179. https://doi.org/10.1037/fam0000918

118

Auguste, E. E., Cruise, K. R., & Jimenez, M. C. (2021). The effects of microaggressions on

   depression in young adults of color: Investigating the impact of traumatic event

   exposures and trauma reactions. *Journal of Traumatic Stress*, *34*(5), 985-994.

   https://doi.org/10.1002/jts.22675

Austin, S., Lee, F., & Palmer, S. (2021). A mixed-methods exploration of ethnic identity and

   self-esteem among mixed-race adolescent girls. *Educational and Child Psychology*,

   38(4), 76–93. https://doi.org/10.53841/bpsecp.2021.38.4.76

Balogun, B., & Joseph-Salisbury, R. (2021). Black/white mixed-race experiences of race and

   racism in Poland. *Ethnic and Racial Studies*, *44*(2), 234–251.

   https://doi.org/10.1080/01419870.2020.1729390

Banks, D. E., Winningham, R. D., Wu, W., & Zapolski, T. C. (2019). Examination of the

   indirect effect of alcohol expectancies on ethnic identity and adolescent drinking

   outcomes. *American Journal of Orthopsychiatry*, *89*(5), 600.

   https://doi.org/10.1037/ort0000390

Barnes, D. (2001). Multiethnic parentage: A potentially valuable resource in the quest for social

   cohesion. *Journal of Ethnic and Cultural Diversity in Social Work*, *10*(3), 31–48.

   https://doi.org/10.1300/J051v10n03_03

Barr, S. C., & Neville, H. A. (2014). Racial Socialization, Color-Blind Racial Ideology, and

   Mental Health Among Black College Students: An Examination of an Ecological Model.

   Journal of Black Psychology, *40*(2), 138–165.

   https://doi.org/10.1177/0095798412475084

Basit, T. N. (2009). White British; dual heritage; British Muslim: Young Britons'
conceptualization of identity and citizenship. *British Educational Research Journal*,
35(5), 723–743. https://doi.org/10.1080/01411920802688747

Bayly, B. L., & Vasilenko, S. A. (2021). An ecological latent class model of adolescent risk and
protective factors: Implications for substance use and depression prevention.
International Journal of Behavioral Development, *45*(4), 355–367.
https://doi.org/10.1177/01650254211005567

Beal, A. C., Ausiello, J., & Perrin, J. M. (2001). Social influences on health-risk behaviors
among minority middle school students. *Journal of Adolescent Health*, *28*(6), 474–480.
https://doi.org/10.1016/S1054-139X(01)00194-X

Beidas, R. S., Birkett, M., Newcomb, M. E., & Mustanski, B. (2012). Do psychiatric disorders
moderate the relationship between psychological distress and sexual risk-taking
behaviors in young men who have sex with men? A longitudinal perspective. *AIDS
Patient Care and STDs*, *26*(6), 366–374. https://doi.org/10.1089/apc.2011.0418

Bell, K. A., Gratch, I., Ebo, T., & Cha, C. B. (2022). Examining Discrepant Reports of
Adolescents' Self-Injurious Thoughts and Behaviors: A Focus on Racial and Ethnic
Minority Families. *Archives of Suicide Research*, *26*(3), 1505–1519.
https://doi.org/10.1080/13811118.2021.1925607

Benner, A. D., & Graham, S. (2009). The transition to high school as a developmental process
among multiethnic urban youth. *Child development*, *80*(2), 356-376.
https://doi.org/10.1111/j.1467-8624.2009.01265.x

Bernal, M. E., & Padilla, A. M. (1982). Status of minority curricula and training in clinical psychology. *American Psychologist*, *37*(7), 780. https://doi.org/10.1037/0003-066X.37.7.780

Berge, J. M., Wall, M., Larson, N., Loth, K. A., & Neumark-Sztainer, D. (2013). Family functioning: Associations with weight status, eating behaviors, and physical activity in adolescents. *Journal of Adolescent Health*, *52*(3), 351–357. https://doi.org/10.1016/j.jadohealth.2012.07.006

Bhui, K., Stansfeld, S., Head, J., Haines, M., Hillier, S., Taylor, S., Viner, R., & Booy, R. (2005). Cultural identity, acculturation, and mental health among adolescents in east London's multiethnic community. *Journal of Epidemiology and Community Health*, *59*(4), 296–302. https://doi.org/10.1136/jech.2003.014456

Bianchi, F. T., Zea, M. C., Belgrave, F. Z., & Echeverry, J. J. (2002). Racial identity and self-esteem among black Brazilian men: Race matters in Brazil too! *Cultural Diversity and Ethnic Minority Psychology*, *8*(2), 157–169. https://doi.org/10.1037/1099-9809.8.2.157

Binning, K. R., Unzueta, M. M., Huo, Y. J., & Molina, L. E. (2009). The interpretation of multiracial status and its relation to social engagement and psychological well-being. *Journal of Social Issues*, *65*(1), 35–49. https://doi.org/10.1111/j.1540-4560.2008.01586.x

Birkett, M., Espelage, D. L., & Koenig, B. (2009). LGB and questioning students in schools: The moderating effects of homophobic bullying and school climate on negative outcomes. *Journal of Youth and Adolescence*, *38*(7), 989–1000. https://doi.org/10.1007/s10964-008-9389-1

Blake, M. K. (2019). Self and Group Racial/Ethnic Identification Among Emerging Adults. *Emerging Adulthood*, *7*(2), 138–149. https://doi.org/10.1177/2167696818799013

Bo, A., Zhang, L., Lu, W., & Chen, D. G. (2023). Moderating Effects of Positive Parenting on the Perceived Peer Alcohol Use and Adolescent Alcohol Use Relationship: Racial, Ethnic, and Gender Differences. *Child and Adolescent Social Work Journal*, *40*(3), 345–360. https://doi.org/10.1007/s10560-021-00780-x

Bonam, C. M., & Shih, M. (2009). Exploring multiracial individuals' comfort with intimate interracial relationships. *Journal of Social Issues*, *65*(1), 87–103. https://doi.org/10.1111/j.1540-4560.2008.01589.x

Booth, M. Z., Curran, E. M., Frey, C. J., Gerard, J. M., & Bartimole, J. (2014). Ethnic Identity, Gender, and Adolescent Attitude toward School: Adaptive Perspectives in Diverse Settings HHS Public Access. *Midwest Educ Res (Akron)*, *26*(2), 3–27. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4392378/

Booth, M. Z., Gerard, J. M., Deom, G. M., & Frey, C. J. (2022). Deconstructing adolescent ethnicity: A longitudinal analysis of ethnic-racial identity development and self-categorization. *Journal of Adolescence*, *94*(3), 366–379. https://doi.org/10.1002/jad.12028

Borrero, N. E., & Yeh, C. J. (2011). The Multidimensionality of Ethnic Identity Among Urban High School Youth. *Identity*, *11*(2), 114–135. https://doi.org/10.1080/15283488.2011.555978

Bostwick, W. B., Meyer, I., Aranda, F., Russell, S., Hughes, T., Birkett, M., & Mustanski, B. (2014). Mental health and suicidality among racially/ethnically diverse sexual minority youths. *American Journal of Public Health*, *104*(6), 1129–1136. https://doi.org/10.2105/AJPH.2013.301749

Boutelle, K. N., Braden, A., Knatz-Peck, S., Anderson, L. K., & Rhee, K. E. (2018). An open trial targeting emotional eating among adolescents with overweight or obesity. *Eating Disorders*, *26*(1), 79–91. https://doi.org/10.1080/10640266.2018.1418252

Bowers, E. P., Winburn, E. N., Sandoval, A. M., & Clanton, T. (2020). Culturally relevant strengths and positive development in high achieving youth of color. *Journal of Applied Developmental Psychology*, *70* (July). https://doi.org/10.1016/j.appdev.2020.101182

Bowles, D. D. (1993). Bi-racial identity: Children born to African-American and White couples. *Clinical Social Work Journal, 21*(4), 417 – 428 https://doi.org/10.1007/BF00755575

Boyle, K. M., & Rogers, K. B. (2020). Beyond the Rape "Victim"– "Survivor" Binary: How Race, Gender, and Identity Processes Interact to Shape Distress. *Sociological Forum*, *35*(2), 323–345. https://doi.org/10.1111/socf.12584

Bracey, J. R., Bámaca, M. Y., & Umaña-Taylor, A. J. (2004). Examining ethnic identity and self-esteem among biracial and monoracial adolescents. *Journal of Youth and Adolescence*, *33*(2), 123–132. https://doi.org/10.1023/B:JOYO.0000013424.93635.68

Brackett, K. P., Marcus, A., McKenzie, N. J., Mullins, L. C., Tang, Z., & Allen, A. M. (2006).

    The effects of multiracial identification on students' perceptions of racism. *Social Science*

    Journal, *43*(3), 437–444. https://doi.org/10.1016/j.soscij.2006.04.016

Brady, S. S., & Donenberg, G. R. (2006). Mechanisms linking violence exposure to health risk

    behavior in adolescence: Motivation to cope and sensation seeking. *Journal of the*

    American Academy of Child and Adolescent Psychiatry, *45*(6), 673–680.

    https://doi.org/10.1097/01.chi.0000215328.35928.a9

Bratter, J., & Heard, H. E. (2009). Mother's, father's, or both? parental gender and parent-child

    interactions in the racial classification of adolescents. *Sociological Forum*, *24*(3), 658–

    688. https://doi.org/10.1111/j.1573-7861.2009.01124.x

Bronfenbrenner, U. (1992). *Ecological systems theory*. Jessica Kingsley Publishers.

    https://psycnet.apa.org/record/2004-22011-010

Brown, C. S. (2019). Sexualized gender stereotypes predict girls' academic self-efficacy and

    motivation across middle school. *International Journal of Behavioral Development*,

    43(6), 523–529. https://doi.org/10.1177/0165025419862361

Bucchianeri, M. M., Eisenberg, M. E., & Neumark-Sztainer, D. (2013). Weightism, racism,

    classism, and sexism: Shared forms of harassment in adolescents. *Journal of Adolescent*

    Health, *53*(1), 47–53. https://doi.org/10.1016/j.jadohealth.2013.01.006

Buchanan, N. C. T., Bergman, M. E., Bruce, T. A., Woods, K. C., & Lichty, L. L. (2009). Unique and joint effects of sexual and racial harassment on college students' well-being. *Basic and Applied Social Psychology*, *31*(3), 267–285. https://doi.org/10.1080/01973530903058532

Buggs, S. G. (2019). Color, Culture, or Cousin? Multiracial Americans and Framing Boundaries in Interracial Relationships. *Journal of Marriage and Family*, *81*(5), 1221–1236. https://doi.org/10.1111/jomf.12583

Burke, N. L., Hazzard, V. M., Karvay, Y. G., Schaefer, L. M., Lipson, S. K., & Rodgers, R. F. (2021). Eating disorder prevalence among multiracial US undergraduate and graduate students: Is multiracial risk different than the sum of each identity? *Eating Behaviors*, *41*. https://doi.org/10.1016/j.eatbeh.2021.101501

Burke, T. A., McArthur, B. A., Daryanani, I., Abramson, L. Y., & Alloy, L. B. (2018). Latent classes of trait affect and cognitive affective regulation strategies are associated with depression, non-suicidal self-injury, and well-being. *Journal of Affective Disorders*, *225*, 180-187. https://doi.org/10.1016/j.jad.2017.08.015

Byrd, C. M., & Carter Andrews, D. J. (2016). Variations in students' perceived reasons for, sources of, and forms of in-school discrimination: A latent class analysis. *Journal of School Psychology*, *57*, 1–14. https://doi.org/10.1016/j.jsp.2016.05.001

Cameron, S. C., & Wycoff, S. M. (1998). The destructive nature of the term race: Growing beyond a false paradigm. *Journal of Counseling & Development*, *76*(3), 277-285. https://doi.org/10.1002/j.1556-6676.1998.tb02543.x

Campbell, M. E. (2009). Multiracial groups and educational inequality: A rainbow or a divide? *Social Problems*, *56*(3), 425–446. https://doi.org/10.1525/sp.2009.56.3.425

Campbell, M. E., & Eggerling-Boeck, J. (2006). "What about the children?" The psychological and social well-being of multiracial adolescents. *Sociological Quarterly*, *47*(1), 147–173. https://doi.org/10.1111/j.1533-8525.2006.00041.x

Cardwell, M. E., & Soliz, J. (2020). Examining the Role of Sibling Interaction in Multiethnic-racial Identity Development in the United States. *Identity*, *20*(1), 58–72. https://doi.org/10.1080/15283488.2019.1707678

Cardwell, M. E., Soliz, J., Crockett, L. J., & Bergquist, G. L. (2020). Critical incidents in the development of (multi) ethnic-racial identity: Experiences of individuals with mixed ethnic-racial backgrounds in the U.S. *Journal of Social and Personal Relationships*, *37*(5), 1653–1672. https://doi.org/10.1177/0265407520906256

Carothers, K. J., Arizaga, J. A., Carter, J. S., Taylor, J., & Grant, K. E. (2016). The Costs and Benefits of Active Coping for Adolescents Residing in Urban Poverty. *Journal of Youth and Adolescence*, *45*(7), 1323–1337. https://doi.org/10.1007/s10964-016-0487-1

Carter, J., Peralta, R. L., & Xi, J. (2019). The Association Between Ethnic Identity and Non-Medical Prescription Drug Use Among A Sample of College Students: Does a Sense of Ethnic Belonging Matter? *Substance Use and Misuse*, *54*(2), 203–213. https://doi.org/10.1080/10826084.2018.1501065

Causadias, J. M., Vitriol, J. A., & Atkin, A. L. (2018). Do we overemphasize the role of culture in the behavior of racial/ethnic minorities? Evidence of a cultural (mis) attribution bias in American psychology. *American Psychologist*, *73*(3), 243. http://dx.doi.org/10.1037/amp0000099.supp

Chang, A. (2014). Identity Production in Figured Worlds: How Some Multiracial Students Become Racial Atravesados/as. *Urban Review*, *46*(1), 25–46. https://doi.org/10.1007/s11256-013-0247-4

Chang, E. S., Greenberger, E., Chen, C., Heckhausen, J., & Farruggia, S. P. (2010). Nonparental adults as social resources in the transition to adulthood. *Journal of Research on Adolescence*, *20*(4), 1065–1082. https://doi.org/10.1111/j.1532-7795.2010.00662.x

Charmaraman, L., & Grossman, J. M. (2010). Importance of Race and Ethnicity: An Exploration of Asian, Black, Latino, and Multiracial Adolescent Identity. *Cultural Diversity and Ethnic Minority Psychology*, *16*(2), 144–151. https://doi.org/10.1037/a0018668

Charmaraman, L., Woo, M., Quach, A., & Erkut, S. (2014). How have researchers studied multiracial populations? A content and methodological review of 20 years of research. *Cultural Diversity and Ethnic Minority Psychology*, *20*(3), 336. https://doi.org/10.1037/a0035437

Chaudhari, P., & Pizzolato, J. E. (2008). Understanding the epistemology of ethnic identity development in multiethnic college students. *Journal of College Student Development*, *49*(5), 443–458. https://doi.org/10.1353/csd.0.0028

Chen, H. J., Balan, S., & Price, R. K. (2012). Association of Contextual Factors with Drug Use and Binge Drinking among White, Native American, and Mixed-Race Adolescents in the General Population. *Journal of Youth and Adolescence*, *41*(11), 1426–1441. https://doi.org/10.1007/s10964-012-9789-0

Chen, J. M., & Hamilton, D. L. (2012). Natural ambiguities: Racial categorization of multiracial individuals. *Journal of Experimental Social Psychology*, *48*(1), 152–164. https://doi.org/10.1016/j.jesp.2011.10.005

Chen, J. M., Pauker, K., Gaither, S. E., Hamilton, D. L., & Sherman, J. W. (2018). Black + White = Not White: A minority bias in categorizations of Black-White multiracials. *Journal of Experimental Social Psychology*, *78*(November 2017), 43–54. https://doi.org/10.1016/j.jesp.2018.05.002

Cheng, A. W., Chang, J., O'Brien, J., Budgazad, M. S., & Tsai, J. (2017). Model Minority Stereotype: Influence on Perceived Mental Health Needs of Asian Americans. *Journal of Immigrant and Minority Health*, *19*(3), 572–581. https://doi.org/10.1007/s10903-016- 0440-0

Cheng, C. H. E., Thomas Tobin, C. S., & Weiss, J. W. (2022). Psychological distress, social context, and gender patterns in obesity among a multiethnic sample of U.S. college students. *Journal of American College Health*, *70*(6), 1615–1623. https://doi.org/10.1080/07448481.2020.1817032

Cheng, C. Y., & Lee, F. (2009). Multiracial identity integration: Perceptions of conflict and

distance among multiracial individuals. *Journal of Social Issues*, *65*(1), 51–68.

https://doi.org/10.1111/j.1540-4560.2008.01587.x

Cheref, S., Lane, R., Polanco-Roman, L., Gadol, E., & Miranda, R. (2015). Suicidal ideation

among racial/ethnic minorities: Moderating effects of rumination and depressive

symptoms. *Cultural Diversity and Ethnic Minority Psychology, 21*(1), 31–

40. https://doi.org/10.1037/a0037139

Childs, E. C., Lyons, A., & Jones, S. L. (2021). Migrating mixedness: exploring mixed identity

development in New York City. *Journal of Ethnic and Migration Studies*, *47*(4), 782–

801. https://doi.org/10.1080/1369183X.2019.1654153

Chisolm, D. J., Mulatu, M. S., & Brown, J. R. (2009). Racial/ethnic disparities in the patterns of

co-occurring mental health problems in adolescents in substance abuse treatment. *Journal

of Substance Abuse Treatment*, *37*(2), 203–210. https://doi.org/10.1016/j.jsat.2008.11.005

Choi, Y., He, M., Herrenkohl, T. I., Catalano, R. F., & Toumbourou, J. W. (2012). Multiple

Identification and Risks: Examination of Peer Factors Across Multiracial and Single-

Race Youth. *Journal of Youth and Adolescence*, *41*(7), 847–862.

https://doi.org/10.1007/s10964-012-9750-2

Choi, Y., Karachi, T. W., Gillmore, M. R., & Catalano, R. F. (2005). Applicability of the social

development model to urban ethnic minority youth: Examining the relationship between

external constraints, family socialization, and problem behaviors. *Journal of Research on

Adolescence*, *15*(4), 505–534. https://doi.org/10.1111/j.1532-7795.2005.00109.x

Christophe, N. K., Atkin, A. L., Stein, G. L., Chan, M., Abidog, C., Gabriel, A. K., Lee, R. M., Wu, C. S., & Yoo, H. C. (Brandon). (2022). Examining Multiracial Pride, Identity-Based Challenges, and Discrimination: An Exploratory Investigation Among Biracial Emerging Adults. *Race and Social Problems*, *14*(1), 22–38. https://doi.org/10.1007/s12552-021-09325-4

Clark, T. T., Doyle, O., & Clincy, A. (2013a). Age of first cigarette, alcohol, and marijuana use among U.S. biracial/ethnic youth: A population-based study. *Addictive Behaviors*, *38*(9), 2450–2454. https://doi.org/10.1016/j.addbeh.2013.04.005

Clark, T. T., Nguyen, A. B., & Kropko, J. (2013b). Epidemiology of Drug Use among Biracial/Ethnic Youth and Young Adults: Results from a U.S. Population-Based Survey. *Journal of Psychoactive Drugs*, *45*(2), 99–111. https://doi.org/10.1080/02791072.2013.785804

Clayton, K. A. (2020). Biracial Identity Development at Historically White and Historically Black Colleges and Universities. *Sociology of Education*, *93*(3), 238–255. https://doi.org/10.1177/0038040720926163

Constantine, M. G., & Gainor, K. A. (2019). Depressive symptoms and attitudes toward counseling as predictors of biracial college women's psychological help-seeking behavior. *Biracial Women in Therapy: Between the Rock of Gender and the Hard Place of Race*, *3149*, 147–158. https://doi.org/10.1300/J015v27n01_10

130

Côté, J. E., & Levine, C. (1987). A formulation of Erikson's theory of ego identity formation. *Developmental review*, *7*(4), 273-325. https://doi.org/10.1016/0273-2297(87)90015-3

Cotter, K. L., & Smokowski, P. R. (2016). Perceived Peer Delinquency and Externalizing Behavior Among Rural Youth: The Role of Descriptive Norms and Internalizing Symptoms. *Journal of Youth and Adolescence*, *45*(3), 520–531. https://doi.org/10.1007/s10964-015-0382-1

Craig, S. L., & Keane, G. (2014). The Mental Health of Multiethnic Lesbian and Bisexual Adolescent Females: The Role of Self-Efficacy, Stress and Behavioral Risks. *Journal of Gay and Lesbian Mental Health*, *18*(3), 266–283. https://doi.org/10.1080/19359705.2013.879846

Crawford, S. E., & Alaggia, R. (2008). The best of both worlds?: Family influences on mixed race youth identity development. *Qualitative Social Work*, *7*(1), 81–98. https://doi.org/10.1177/1473325007086417

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *Droit et Societe*. https://doi.org/10.3917/drs1.108.0465

Crumé, H. J., Nurius, P. S., & Fleming, C. M. (2019). Cumulative adversity profiles among youth experiencing housing and parental care instability. *Children and Youth Services Review*, *100*(November 2018), 129–135. https://doi.org/10.1016/j.childyouth.2019.02.042

Cruz-Janzen, M. I. (1999). "You are not enough": The "faceless" lives of biethnic and biracial

    Americans, a challenge for truly inclusive multicultural education. *Multicultural*

    Perspectives. https://doi.org/10.1080/15210969909539922

Curington, C. V., Lin, K. H., & Lundquist, J. H. (2015). Positioning Multiraciality in

    Cyberspace: Treatment of Multiracial Daters in an Online Dating Website. *American*

    Sociological Review, *80*(4), 764–788. https://doi.org/10.1177/0003122415591268

D'Amico, E. J., Davis, J. P., Tucker, J. S., Seelam, R., & Stein, B. D. (2021). Opioid misuse

    during late adolescence and its effects on risk behaviors, social functioning, health, and

    emerging adult roles. *Addictive Behaviors*, *113*(October 2020), 106696.

    https://doi.org/10.1016/j.addbeh.2020.106696

D'Amico, E. J., Rodriguez, A., Tucker, J. S., Dunbar, M. S., Pedersen, E. R., Shih, R. A., Davis,

    J. P., & Seelam, R. (2020). Early and Late Adolescent Factors that Predict Co-use of

    Cannabis with Alcohol and Tobacco in Young Adulthood. *Prevention Science*, *21*(4),

    530–544. https://doi.org/10.1007/s11121-020-01086-7

DaCosta, K. A. (2020). Multiracial categorization, identity, and policy in (mixed) racial

    formations. *Annual Review of Sociology*, *46*, 335-353.

    https://doi.org/10.1146/annurev-soc-121919-054649

Daly, B. P., Shin, R. Q., Thakral, C., Selders, M., & Vera, E. (2009). School engagement among

    urban adolescents of color: Does perception of social support and neighborhood safety

    really matter? *Journal of Youth and Adolescence*, *38*(1), 63–74.

    https://doi.org/10.1007/s10964-008-9294-7

Davenport, L. D. (2016). The Role of Gender, Class, and Religion in Biracial Americans' Racial

    Labeling Decisions. *American Sociological Review*, *81*(1), 57–84.

    https://doi.org/10.1177/0003122415623286

Davis, A. N. (2020). Considering Racial Attitudes and Empathic Concern as Predictors of

    Prosocial Behaviors Among Emerging Adults. *Race and Social Problems*, *12*(3), 279–

    287. https://doi.org/10.1007/s12552-019-09278-9

Davis, A. N., Taylor, T., & Gallarza, W. (2021). A Person-Centered Examination of Community

    Characteristics and Prosocial Behaviors Among Young Adults. *Journal of Adult

    Development*, *28*(4), 276–285. https://doi.org/10.1007/s10804-021-09370-8

De Anda, D., & Riddel, V. A. (1991). Ethnic identity, self-esteem, and interpersonal

    relationships among multiethnic adolescents. *Journal of Multicultural Social Work*, *1*(2),

    83–98. https://doi.org/10.1300/J285v01n02_06

De Guzman, N. S., & Nishina, A. (2014). A longitudinal study of body dissatisfaction and

    pubertal timing in an ethnically diverse adolescent sample. *Body Image*, *11*(1), 68–71.

    https://doi.org/10.1016/j.bodyim.2013.11.001

DeCamp, W., & Ferguson, C. J. (2017). The Impact of Degree of Exposure to Violent Video

    Games, Family Background, and Other Factors on Youth Violence. *Journal of Youth and

    Adolescence*, *46*(2), 388–400. https://doi.org/10.1007/s10964-016-0561-8

DeLaney, E. N., Williams, C. D., Elias, M. J., Walker, C. J., Smith, T. H., Adkins, A., Lozada, F.
T., & Dick, D. M. (2021). Racial discrimination and depressive symptoms mediated by
conversations about race among students of color. *Journal of American College Health*,
0(0), 1–5. https://doi.org/10.1080/07448481.2021.1998071

Dewitz, S. J., Woolsey, M. L., & Walsh, W. B. (2009). College student retention: An exploration
of the relationship between self-efficacy beliefs and purpose in life among college
students. *Journal of College Student Development*, *50*(1), 19–34.
https://doi.org/10.1353/csd.0.0049

Diemer, M. A. (2009). Pathways to Occupational Attainment Among Poor Youth of Color: The
Role of Sociopolitical Development. *The Counseling Psychologist*, *37*(1), 6–35.
https://doi.org/10.1177/0011000007309858

Diemer, M. A. (2012). Fostering Marginalized Youths' Political Participation: Longitudinal
Roles of Parental Political Socialization and Youth Sociopolitical Development.
American Journal of Community Psychology, *50*(1–2), 246–256.
https://doi.org/10.1007/s10464-012-9495-9

DiFranza, J. R., Sweet, M., Savageau, J. A., & Sanouri Ursprung, W. W. (2012). The assessment
of tobacco dependence in young users of smokeless tobacco. *Tobacco Control*, *21*(5),
471–476. https://doi.org/10.1136/tc.2011.043810

Dondanville, A. A., & Pössel, P. (2019). The impact of cognitive styles and depressive

symptoms on the relation between perceived everyday discrimination and blood pressure

in adolescents. *Translational Issues in Psychological Science*, *5*(4), 335–345.

https://doi.org/10.1037/tps0000206

Dotterer, A. M., & Day, E. (2019). Parental Knowledge Discrepancies: Examining the Roles of

Warmth and Self-Disclosure. *Journal of Youth and Adolescence*, *48*(3), 459–468.

https://doi.org/10.1007/s10964-018-0926-2

Dotterer, A. M., & Lowe, K. (2015). Perceived discrimination, parenting, and academic

adjustment among racial/ethnic minority adolescents. *Journal of Applied Developmental

Psychology*, *41*, 71–77. https://doi.org/10.1016/j.appdev.2015.08.003

Doyle, J. M., & Kao, G. (2007). Friendship choices of multiracial adolescents: Racial

homophily, blending, or amalgamation? *Social Science Research*, *36*(2), 633–653.

https://doi.org/10.1016/j.ssresearch.2006.12.001

Duncan, S. C., Duncan, T. E., Strycker, L. A., & Chaumeton, N. R. (2007). A cohort-sequential

latent growth model of physical activity from ages 12 to 17 years. *Annals of Behavioral

Medicine*, *33*(1), 80–89. https://doi.org/10.1207/s15324796abm3301_9

Duran, A. (2021). "Outsiders in a niche group": Using intersectionality to examine resilience for

queer students of color. *Journal of Diversity in Higher Education*, *14*(2), 217–227.

https://doi.org/10.1037/dhe0000144

Echols, L., & Graham, S. (2020). Meeting in the Middle: The Role of Mutual Biracial Friends in Cross-Race Friendships. *Child Development*, *91*(2), 401–416. https://doi.org/10.1111/cdev.13179

Eisenberg, M. E., Gower, A. L., Watson, R. J., Rider, G. N., Thomas, D. S., & Russell, S. T. (2022). Substance Use Behaviors Among LGBTQ+ Youth of Color: Identification of the Populations Bearing the Greatest Burden in Three Large Samples. *Journal of Adolescent Health*, *71*(3), 317–323. https://doi.org/10.1016/j.jadohealth.2022.04.007

Eisenberg, M. E., Larson, N. I., Berge, J. M., Thul, C. M., & Neumark-Sztainer, D. (2014). The Home Physical Activity Environment and Adolescent BMI, Physical Activity, and TV Viewing: Disparities Across a Diverse Sample. *Journal of Racial and Ethnic Health Disparities*, *1*(4), 326–336. https://doi.org/10.1007/s40615-014-0040-4

Elias, M. J., DeLaney, E. N., Williams, C. D., Hawa, S., Walker, C. J., Lozada, F. T., Su, J., & Dick, D. M. (2022). Cultural Socialization and Ethnic-Racial Identity Mediated by Positive and Negative Conversations about Race: Exploring Differences among Asian American, African American, Latinx, Multiracial, and White Students. *Identity*, *22*(4), 282–297. https://doi.org/10.1080/15283488.2021.1999815

Espinosa, A., Anglin, D. M., & Pandit, S. (2020). Emotional self-efficacy informs the interrelation between discrimination, ethnic identity and psychotic-like experiences. *Emotion*, *22*(6), 1347–1358. https://doi.org/10.1037/emo0000922

Evans, W. P., Marte, R. M., Betts, S., & Silliman, B. (2001). Adolescent suicide risk and peer-related violent behaviors and victimization. *Journal of Interpersonal Violence*, *16*(12), 1330-1348. https://doi.org/10.1177/088626001016012006

Farber, R., Wedell, E., Herchenroeder, L., Dickter, C. L., Pearson, M. R., & Bravo, A. J. (2021). Microaggressions and Psychological Health Among College Students: A Moderated Mediation Model of Rumination and Social Structure Beliefs. *Journal of Racial and Ethnic Health Disparities*, *8*(1), 245–255. https://doi.org/10.1007/s40615-020-00778-8

Fatimilehin, I. A. (1999). Of jewel heritage: Racial socialization and racial identity attitudes amongst adolescents of mixed African-Caribbean/ White parentage. *Journal of Adolescence*, *22*(3), 303–318. https://doi.org/10.1006/jado.1999.0223

Feliciano, C. (2016). Shades of race: How phenotype and observer characteristics shape racial classification. *American Behavioral Scientist*, *60*(4), 390-419. https://doi.org/10.1177/0002764215613401

Felipe, L. C., Garrett-Walker, J. J., & Montagno, M. (2020). Monoracial and Multiracial LGBTQ+ People: Comparing Internalized Heterosexism, Perceptions of Racism, and Connection to LGBTQ+ Communities. *Psychology of Sexual Orientation and Gender Diversity*, *9*(1), 1–11. https://doi.org/10.1037/sgd0000440

Felner, J. K., Andrzejewski, J., Strong, D., Kieu, T., Ravindran, M., & Corliss, H. L. (2022). Vaping Disparities at the Intersection of Gender Identity and Race/Ethnicity in a Population-Based Sample of Adolescents. *Nicotine and Tobacco Research*, *24*(3), 349–357. https://doi.org/10.1093/ntr/ntab152

Ferguson, K. T., Ferguson, Y. L., & Ferguson, G. M. (2017). "I am Malawian, Multicultural or British": Remote acculturation and identity formation among urban adolescents in Malawi. *Journal of Psychology in Africa*, *27*(2), 122–131. https://doi.org/10.1080/14330237.2017.1301701

Fernandez, C. C., & Benner, A. D. (2022). Psychological Resources as a Buffer Between Racial/Ethnic and SES-based Discrimination and Adolescents' Academic Well-being. *Journal of Youth and Adolescence*, *51*(4), 599–613. https://doi.org/10.1007/s10964-022-01570-z

Fish, J., Aguilera, R., Ogbeide, I. E., Ruzzicone, D. J., & Syed, M. (2021). When the personal is political: Ethnic identity, ally identity, and political engagement among Indigenous people and people of color. *Cultural Diversity and Ethnic Minority Psychology*, *27*(1), 18–36. https://doi.org/10.1037/cdp0000341

Fisher, S., Reynolds, J. L., Hsu, W. W., Barnes, J., & Tyler, K. (2014). Examining Multiracial Youth in Context: Ethnic Identity Development and Mental Health Outcomes. *Journal of Youth and Adolescence. 43*(10). https://doi.org/10.1007/s10964-014-0163-2

Fisher, S., Wheeler, L. A., Arora, P. G., Chaudry, J., & Barnes-Najor, J. (2019). Ethnic identity and substance use in multiracial youth: the moderating role of support networks. *Substance Use and Misuse*, *54*(9), 1417–1428. https://doi.org/10.1080/10826084.2019.1573834

Fisher, S., Zapolski, T. C., Sheehan, C., & Barnes-Najor, J. (2017). Pathway of protection:

 Ethnic identity, self-esteem, and substance use among multiracial youth. *Addictive*

 behaviors, *72*, 27-32. https://doi.org/10.1016/j.addbeh.2017.03.003

Folk, J. B., Ramos, L. M. C., Bath, E. P., Rosen, B., Marshall, B. D. L., Kemp, K., Brown, L.,

 Conrad, S., & Tolou-Shams, M. (2021). The prospective impact of adverse childhood

 experiences on justice-involved youth's psychiatric symptoms and substance use. *Journal*

 of Consulting and Clinical Psychology, *89*(6), 483–498.

 https://doi.org/10.1037/ccp0000655

Ford, J. D., Charak, R., Modrowski, C. A., & Kerig, P. K. (2018). PTSD and dissociation

 symptoms as mediators of the relationship between polyvictimization and psychosocial

 and behavioral problems among justice-involved adolescents. *Journal of Trauma and*

 Dissociation, *19*(3), 325–346. https://doi.org/10.1080/15299732.2018.1441354

Ford, K. A., & Malaney, V. K. (2012). "I now harbor more pride in my race": The Educational

 Benefits of Inter- and Intraracial Dialogues on the Experiences of Students of Color and

 Multiracial Students. *Equity and Excellence in Education*, *45*(1), 14–35.

 https://doi.org/10.1080/10665684.2012.643180

Forster, M., Rogers, C. J., Benjamin, S. M., Grigsby, T., Lust, K., & Eisenberg, M. E. (2019).

 Adverse Childhood Experiences, Ethnicity, and Substance Use among College Students:

 Findings from a Two-State Sample. *Substance Use and Misuse*, *54*(14), 2368–2379.

 https://doi.org/10.1080/10826084.2019.1650772

Foshee, V. A., Benefield, T., Suchindran, C., Ennett, S. T., Bauman, K. E., Karriker-Jaffe, K. J., McNaughton Reyes & Mathias, J. (2009). The development of four types of adolescent dating abuse and selected demographic correlates. *Journal of Research on Adolescence*, *19*(3), 380-400. https://doi.org/10.1111/j.1532-7795.2009.00593.x

Franco, M. G., Katz, R., & O'Brien, K. M. (2016). Forbidden identities: A qualitative examination of racial identity invalidation for Black/White Biracial individuals. *International Journal of Intercultural Relations*, *50*, 96–109. https://doi.org/10.1016/j.ijintrel.2015.12.004

Franco, M., & O'Brien, K. M. (2020). Taking Racism to Heart: Race-Related Stressors and Cardiovascular Reactivity for Multiracial People. *Journal of Multicultural Counseling and Development*, *48*(2), 83–94. https://doi.org/10.1002/jmcd.12167

Franco, M., Katz, R., Pickens, J., & Brunsma, D. L. (2020). From my own flesh and blood: An exploratory examination of discrimination from family for Black/White Multiracial people. *Qualitative Social Work*, *19*(2), 246–266. https://doi.org/10.1177/1473325018815734

Gaither, S. E., Sommers, S. R., & Ambady, N. (2013). When the half affects the whole: Priming identity for biracial individuals in social interactions. *Journal of Experimental Social Psychology*, *49*(3), 368-371. https://doi.org/10.1016/j.jesp.2012.12.012

Garay, M. M., Meyers, C., Remedios, J. D., & Pauker, K. (2021). Looking like vs. acting like your race: Social activism shapes perceptions of multiracial individuals. *Self and Identity*, *20*(5), 594–619. https://doi.org/10.1080/15298868.2019.1659848

Garcia, G. M., Hedwig, T., Hanson, B. L., Rivera, M., & Smith, C. A. (2019). The Relationship Between Mixed Race/Ethnicity, Developmental Assets, and Mental Health Among Youth. *Journal of Racial and Ethnic Health Disparities*, *6*(1), 77–85. https://doi.org/10.1007/s40615-018-0501-2

Georgas, J., & Kalantzi-Azizi, A. (1992). Value acculturation and response tendencies of biethnic adolescents. *Journal of cross-cultural psychology*, *23*(2), 228-239. https://doi.org/10.1177/0022022192232007

Giamo, L. S., Schmitt, M. T., & Outten, H. R. (2012). Perceived discrimination, group identification, and life satisfaction among multiracial people: A test of the rejection-identification model. *Cultural Diversity and Ethnic Minority Psychology*, *18*(4), 319–328. https://doi.org/10.1037/a0029729

Gillem, A. R., Cohn, L. R., & Throne, C. (2001). Black identity in biracial Black/White people: A comparison of Jacqueline who refuses to be exclusively Black and Adolphus who wishes he were. *Cultural Diversity and Ethnic Minority Psychology*, *7*(2), 182–196. https://doi.org/10.1037/1099-9809.7.2.182

Gillen-O'Neel, C., Mistry, R. S., Brown, C. S., Rodriguez, V. C., White, E. S., & Chow, K. A. (2015). Not Excluded From Analyses: Ethnic and Racial Meanings and Identification Among Multiethnic/Racial Early Adolescents. *Journal of Adolescent Research*, *30*(2). https://doi.org/10.1177/0743558414560626

Goings, T. C., Butler-Bente, E., McGovern, T., & Howard, M. O. (2016). Prevalence and

    correlates of substance use in Black, White, and biracial Black–White adolescents:

    Evidence for a biracial intermediate phenomena. *American Journal of*

    Orthopsychiatry, *86*(5), 527. https://doi.org/10.1037/ort0000166

Goings, T. C., Hidalgo, S. T., McGovern, P., & Ennett, S. (2020). Alcohol trajectories among

    biracial black subgroups: Testing the intermediate substance use hypothesis. *Addictive*

    Behaviors, *101*(February 2019), 106006. https://doi.org/10.1016/j.addbeh.2019.05.030

Goings, T. C., Salas-Wright, C. P., Howard, M. O., & Vaughn, M. G. (2018). Substance use

    among bi/multiracial youth in the United States: Profiles of psychosocial risk and

    protection. *American Journal of Drug and Alcohol Abuse*, *44*(2), 206–214.

    https://doi.org/10.1080/00952990.2017.1359617

González, A. G., Umana-Taylor, A. J., & Bámaca, M. Y. (2006). Familial ethnic socialization

    among adolescents of Latino and European descent: Do Latina mothers exert the most

    influence? *Journal of Family Issues*, *27*(2), 184–207.

    https://doi.org/10.1177/0192513X05279987

Good, J. J., Chavez, G. F., & Sanchez, D. T. (2010). Sources of self-categorization as minority

    for mixed-race individuals: Implications for affirmative action entitlement. *Cultural*

    Diversity and Ethnic Minority Psychology, *16*(4), 453–460.

    https://doi.org/10.1037/a0020128

Goodhines, P. A., Taylor, L. E., Zaso, M. J., Antshel, K. M., & Park, A. (2020). Prescription stimulant misuse and risk correlates among racially-diverse urban adolescents. *Substance use & misuse*, *55*(14), 2258-2267. https://doi.org/10.1080/10826084.2020.1800740

Gore, S., & Aseltine Jr, R. H. (2003). Race and ethnic differences in depressed mood following the transition from high school. *Journal of health and social behavior*, 370-389. https://doi.org/10.2307/1519785

Gough, D. (2015). Qualitative and mixed methods in systematic reviews. *Systematic reviews*, *4*(1), 1-3. https://doi.org/10.1186/s13643-015-0151-y

Gran-Ruaz, S., Feliciano, J., Bartlett, A., & Williams, M. T. (2022). Implicit Racial Bias Across Ethnoracial Groups in Canada and the United States and Black Mental Health. *Canadian Psychology*, *63*(4), 608–622. https://doi.org/10.1037/cap0000323

Gresham, B., & Karatekin, C. (2023). The role of adverse childhood experiences (ACEs) in predicting academic problems among college students. *Child Abuse and Neglect*, *142*(November 2021), 105595. https://doi.org/10.1016/j.chiabu.2022.105595

Grilo, S. A., Santelli, J. S., Nathanson, C. A., Catallozzi, M., Abraido-Lanza, A., Adelman, S., & Hernandez, D. (2023). Social and structural influences on multiracial identification and health: A public health mandate to precisely measure, theorize, and better understand multiracial populations. *Journal of Racial and Ethnic Health Disparities*, *10*(1), 427-445. https://doi.org/10.1007/s40615-022-01234-5

Gusler, S., & Kiang, L. (2019). Childhood peer victimization experiences and adult

    psychological adjustment: Examining race/ethnicity and race-related attributions. *Journal*

    of Social and Personal Relationships, *36*(1), 337–358.

    https://doi.org/10.1177/0265407517729765

Haight, W., Cho, M., Soffer-Elnekave, R., Nashandi, N. J. C., & Suleiman, J. (2022). Moral

    injury experienced by emerging adults with child welfare histories in developmental and

    sociocultural contexts: "I knew the system was broken." *Children and Youth Services*

    Review, *139* (October 2021), 106537. https://doi.org/10.1016/j.childyouth.2022.106537

Hall, A. R., Nishina, A., & Lewis, J. A. (2017). Discrimination, friendship diversity, and STEM-

    related outcomes for incoming ethnic minority college students. *Journal of Vocational*

    Behavior, *103*, 76-87. https://doi.org/10.1016/j.jvb.2017.08.010

Halldórsdóttir Gudjonsson, B. E. (2018). 'I wish color had no history': an exploration of identity

    through student performance poetry. *Ethnography and Education*, *13*(3), 322–339.

    https://doi.org/10.1080/17457823.2017.1422134

Harrell, S. P. (2021). Individual Study Quality Appraisal Form for Systematic Reviews.

    Pepperdine University. https://drive.google.com/drive/search?q=critical%20appraisal

Harris, J. C. (2017). Multiracial college students' experiences with multiracial microaggressions.

    Race Ethnicity and Education, *20*(4), 429–445.

    https://doi.org/10.1080/13613324.2016.1248836

Hatano, K., Sugimura, K., Crocetti, E., & Meeus, W. H. (2020). Diverse-and-dynamic pathways

in educational and interpersonal identity formation during adolescence: Longitudinal

links with psychosocial functioning. *Child Development*, *91*(4), 1203-1218.

https://doi.org/10.1111/cdev.13301

Helms, J. E. (Ed.). (1990). *Black and White racial identity: Theory, research, and practice.*

Greenwood Press. https://psycnet.apa.org/record/1990-97496-000

Henderson, D. X., DeCuir-Gunby, J., & Gill, V. (2016). "It really takes a village": A

socio-ecological model of resilience for prevention among economically disadvantaged

ethnic minority youth. *The journal of primary prevention*, *37*, 469-485.

https://doi.org/10.1007/s10935-016-0446-3

Her, P., & Thompson, M. N. (2022). Examining the Persistence Intentions of College Students of

Color. *Journal of Career Assessment*, *30*(1), 41–59.

https://doi.org/10.1177/10690727211010382

Herman, M. R. (2009). The black-white-other achievement gap: testing theories of academic

performance among multiracial and monoracial adolescents. *Sociology of Education*,

82(1), 20–46. https://doi.org/10.1177/003804070908200102

Herring, R. D. (1995). Developing biracial ethnic identity: A review of the increasing

dilemma. *Journal of Multicultural Counseling & Development, 23*, 29–39.

https://doi.org/10.1002/j.2161-1912.1995.tb00264.x

Hidalgo, M. A., Layland, E., Kubicek, K., & Kipke, M. (2020). Sexual racism, psychological

symptoms, and mindfulness among ethnically/racially diverse young men who have sex

with men: A moderation analysis. *Mindfulness*, *11*, 452-461.

https://doi.org/10.1007/s12671-019-01278-5

Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A.

(2019). Cochrane handbook for systematic reviews of interventions. In *Cochrane

Handbook for Systematic Reviews of Interventions*.

https://doi.org/10.1002/9781119536604

High, V. M., Challa, S. A., Scharer, J. L., & Taylor, M. J. (2023). The mediating effects of

alcohol use and parental monitoring on dating violence victimization among multiracial

and monoracial youth. *Journal of Ethnic and Cultural Diversity in Social Work*, *32*(2),

91–101. https://doi.org/10.1080/15313204.2020.1870602

Hitlin, S., Brown, J. S., & Elder, G. H. (2006). Racial self-categorization in adolescence:

Multiracial development and social pathways. *Child Development*, *77*(5), 1298–1308.

https://doi.org/10.1111/j.1467-8624.2006.00935.x

Hollingsworth, L. D. (1997). Effect of transracial/transethnic adoption on children's racial and

ethnic identity and self-esteem: A meta-analytic review. *Marriage & Family Review*,

25(1-2), 99-130. https://doi.org/10.1300/J002v25n01_07

Hong, J. S., Yan, Y., Clark Goings, T. T., Takahashi, L. M., Tabb, K. M., & Voisin, D. R. (2022a). Potential Pathways From Peer Victimization to Alcohol Use Among Biracial Adolescents: The Intervening Role of Parental Support. *Journal of School Health*, *92*(8), 786–793. https://doi.org/10.1111/josh.13166

Hong, J. S., Yan, Y., Espelage, D. L., Tabb, K. M., Caravita, S. C. S., & Voisin, D. R. (2022b). Peer Victimization and Adverse Psychosocial Wellbeing of Black/White Biracial Adolescents: Is Ease of Talking With Family a Protective Buffer? *School Psychology Review*, *0*(0), 1–14. https://doi.org/10.1080/2372966X.2022.2034474

Hong, Q. N., Pluye, P., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., ... & Rousseau, M.C. (2018). Mixed methods appraisal tool (MMAT), version 2018. IC Canadian Intellectual Property Office, Industry Canada. https://www.mcgill.ca/familymed/research/projects/mmat

Hubbard, R. R., & Utsey, S. O. (2015). A Qualitative Study of Biracial Identity Among Afro-Germans Living in Germany. *Identity*, *15*(2), 89–112. https://doi.org/10.1080/15283488.2015.1023438

Hud-Aleem, R., & Countryman, J. (2008). Biracial identity development and recommendations in therapy. *Psychiatry (Edgmont)*, *5*(11), 37. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2695719/

Hyde, J. S., Bigler, R. S., Joel, D., Tate, C. C., & van Anders, S. M. (2019). The future of sex and gender in psychology: Five challenges to the gender binary. *American Psychologist*, *74*(2), 171. https://doi.org/10.1037/amp0000307

Ingram, P., Chaudhary, A. K., & Jones, W. T. (2014). How do biracial students interact with others on the college campus. *College Student Journal*, *48*(2), 297–311. https://eric.ed.gov/?id=EJ1034971

Irvin, M. J., Meece, J. L., Byun, S. yong, Farmer, T. W., & Hutchins, B. C. (2011). Relationship of School Context to Rural Youth's Educational Achievement and Aspirations. *Journal of Youth and Adolescence*, *40*(9), 1225–1242. https://doi.org/10.1007/s10964-011-9628-8

Ivezaj, V., Saules, K. K., Hoodin, F., Alschuler, K., Angelella, N. E., Collings, A. S., Saunders-Scott, D., & Wiedemann, A. A. (2010). The relationship between binge eating and weight status on depression, anxiety, and body image among a diverse college sample: A focus on Bi/Multiracial women. *Eating Behaviors*, *11*(1), 18–24. https://doi.org/10.1016/j.eatbeh.2009.08.003

Jackson, K. F. (2009). Beyond race: Examining the facets of multiracial identity through a life-span developmental lens. *Journal of Ethnic and Cultural Diversity in Social Work*, *18*(4), 293–310. https://doi.org/10.1080/15313200903310759

Jackson, K. F., & Lecroy, C. W. (2009). The influence of race and ethnicity on substance use and negative activity involvement among monoracial and multiracial adolescents of the Southwest. *Journal of Drug Education*, *39*(2), 195–210. https://doi.org/10.2190/DE.39.2.f

James, A. D., & Tucker, M. B. (2003). Racial ambiguity and relationship formation in the United States: Theoretical and practical considerations. *Journal of Social and Personal Relationships*, *20*(2), 153-169. https://doi.org/10.1177/0265407503020002002

Jensen, C., Koerten, H., Mattei, G., Grant Weinandy, J., Froemming, M., Dulek, E., & Dworsky,

    D. (2023). Examination of ethnic racial identity exploration and commitment in emerging

    adults: Group comparisons and specific features of multiracial identity. *Journal of*

    American College Health, *71*(2), 616–625.

    https://doi.org/10.1080/07448481.2021.1900197

Johnson, D. R., Soldner, M., Leonard, J. B., Alvarez, P., Inkelas, K. K., Rowan-Kenyon, H. T.,

    & Longerbeam, S. D. (2007). Examining sense of belonging among first-year

    undergraduates from different racial/ethnic groups. *Journal of College Student*

    Development, *48*(5), 525-542. https://doi.org/10.1353/csd.2007.0054

Johnson, R. M., Fleming, C. B., Cambron, C., Dean, L. T., Brighthaupt, S. C., & Guttmannova,

    K. (2019). Race/ethnicity differences in trends of marijuana, cigarette, and alcohol use

    among 8th, 10th, and 12th graders in Washington state, 2004–2016. *Prevention Science*,

    20, 194-204. https://doi.org/10.1007/s11121-018-0899-0

Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick,

    M. E. (2022). Monitoring the future national survey results on drug use, 1975-2021:

    Overview, key findings on adolescent drug use.

    https://monitoringthefuture.org/wp-content/uploads/2022/08/mtf-overview202

Johnston-Guerrero, M. P., & Chaudhari, P. (2016). "Everyone is Just Mixed to Me": Exploring

    the Role of Multiraciality in College Students' Racial Claims. *Equity and Excellence in*

    Education, *49*(3), 254–266. https://doi.org/10.1080/10665684.2016.1194098

Johnston-Guerrero, M. P., Tran, V. T., & Combs, L. (2020). Multiracial identities and

    monoracism: Examining the influence of oppression. *Journal of College Student*

    Development, *61*(1), 18–33. https://doi.org/10.1353/csd.2020.0001

Jones, C. M., & Rogers, L. O. (2022). "There Are Stereotypes for Everything": Multiracial

    Adolescents Navigating Racial Identity under White Supremacy. *Social Sciences*, *11*(1).

    https://doi.org/10.3390/socsci11010019

Jourdan, A. (2006). The impact of the family environment on the ethnic identity development of

    multiethnic college students. *Journal of Counseling and Development*, *84*(3), 328–340.

    https://doi.org/10.1002/j.1556-6678.2006.tb00412.x

Juvonen, J., & Ho, A. Y. (2008). Social motives underlying antisocial behavior across middle

    school grades. *Journal of Youth and Adolescence*, *37*(6), 747–756.

    https://doi.org/10.1007/s10964-008-9272-0

Kansky, J., & Allen, J. P. (2018). Long-term risks and possible benefits associated with late

    adolescent romantic relationship quality. *Journal of youth and adolescence*, *47*, 1531-

    1544. https://doi.org/10.1007/s10964-018-0813-x

Kapadia, F., Bub, K., Barton, S., Stults, C. B., & Halkitis, P. N. (2015). Longitudinal Trends in

    Sexual Behaviors Without a Condom Among Sexual Minority Youth: The P18 Cohort

    Study. *AIDS and Behavior*, *19*(12), 2152–2161.

    https://doi.org/10.1007/s10461-015-1175-y

Kaplan, S. (2003). If There Are No Races, How Can Jews Be a" Race"? *Journal of Modern Jewish Studies*, *2*(1), 79-96. https://doi.org/10.1080/14725880305901

Kar, I. N., Guillaume, C., Sita, K. R., Gershon, P., & Simons-Morton, B. G. (2018). US adolescent street racing and other risky driving behaviors. *Journal of Adolescent Health*, *62*(5), 626-629. https://doi.org/10.1016/j.jadohealth.2018.01.006

Kaur, H., & Kearney, C. A. (2013). Ethnic identity, family cohesion, and symptoms of post-traumatic stress disorder in maltreated youth. *Journal of Aggression, Maltreatment and Trauma*, *22*(10), 1085–1095. https://doi.org/10.1080/10926771.2013.845278

Kelch-Oliver, K., & Leslie, L. A. (2007). Biracial females' reflections on racial identity development in adolescence. *Journal of Feminist Family Therapy*, *18*(4), 53–75. https://doi.org/10.1300/J086v18n04_03

Kellogg, A. H., & Liddell, D. L. (2012). "Not half but double": Exploring critical incidents in the racial identity of multiracial college students. *Journal of College Student Development*, *53*(4), 524–541. https://doi.org/10.1353/csd.2012.0054

Kidd, K. M., Sequeira, G. M., Douglas, C., Paglisotti, T., Inwards-Breland, D. J., Miller, E., & Coulter, R. W. S. (2021). Prevalence of gender-diverse youth in an urban school district. *Pediatrics*, *147*(6), 1–3. https://doi.org/10.1542/peds.2020-049823

Kiekens, W. J., & Mereish, E. H. (2022). The Association Between Daily Concealment and Affect Among Sexual and Gender Minority Adolescents: The Moderating Role of Family and Peer Support. *Journal of Adolescent Health*, *70*(4), 650–657. https://doi.org/10.1016/j.jadohealth.2021.11.019

Kilanowski, J. F. (2017). Breadth of the socio-ecological model. *Journal of Agromedicine*, *22*(4), 295-297. https://doi.org/10.1080/1059924X.2017.1358971

King, A. R. (2011). Environmental influences on the development of female college students who identify as multiracial/biracial-bisexual/pansexual. *Journal of College Student Development*, *52*(4), 440–455. https://doi.org/10.1353/csd.2011.0050

King, A. R. (2013). Mixed Messages: How Primary Agents of Socialization Influence Adolescent Females who Identify as Multiracial-Bisexual. *Journal of LGBT Youth*, *10*(4), 308–327. https://doi.org/10.1080/19361653.2013.825198

Kirby, T. A., Tabak, J. A., Ilac, M., & Cheryan, S. (2020). The Symbolic Value of Ethnic Spaces. *Social Psychological and Personality Science*, *11*(7), 867–878. https://doi.org/10.1177/1948550620913371

Kraus, A., Moskowitz, D. A., Ma, J., & Macapagal, K. (2022). Cigarette Use and Vaping Among Sexual and Gender Minority (SGM) Adolescents Assigned Male at Birth: Patterns of Use and Associations with Demographic and Psychosocial Factors. *International Journal of Behavioral Medicine*, *29*(5), 685–690. https://doi.org/10.1007/s12529-021-10037-7

Kuentzel, J. G., Arble, E., Boutros, N., Chugani, D., & Barnett, D. (2012). Nonsuicidal Self-Injury in an Ethnically Diverse College Sample. *American Journal of Orthopsychiatry*, *82*(3), 291–297. https://doi.org/10.1111/j.1939-0025.2012.01167.x

Landor, A. M., & Halpern, C. T. (2016). Prevalence of high-risk sexual behaviors among

    monoracial and multiracial groups from a national sample: Are multiracial young adults

    at greater risk?. *Archives of Sexual Behavior*, *45*, 467-475.

    https://doi.org/10.1007/s10508-015-0647-5

Lanza, H. I., Motlagh, G., & Orozco, M. (2020). E-cigarette use among young adults: A latent

    class analysis examining co-use and correlates of nicotine vaping. *Addictive Behaviors*,

    110(June), 106528. https://doi.org/10.1016/j.addbeh.2020.106528

Law, M., Stewart, D., Pollock, N., Letts, L., Bosch, J., & Westmorland, M. (1998) Critical

    Review Form, Quantitative Studies. *McMaster University*.

    https://www.healthevidence.org/our-appraisal-tools.aspx

Layman, H. M., Thorisdottir, I. E., Halldorsdottir, T., Sigfusdottir, I. D., Allegrante, J. P., &

    Kristjansson, A. L. (2022). Substance use among youth during the COVID-19 pandemic:

    a systematic review. *Current psychiatry reports*, *24*(6), 307-324.

    https://doi.org/10.1007/s11920-022-01338-z

Lee, J. O., Cho, J., Yoon, Y., Bello, M. S., Khoddam, R., & Leventhal, A. M. (2018).

    Developmental Pathways from Parental Socioeconomic Status to Adolescent Substance

    Use: Alternative and Complementary Reinforcement. *Journal of Youth and Adolescence*,

    47(2), 334–348. https://doi.org/10.1007/s10964-017-0790-5

Lemos-Miller, A., & Kearney, C. A. (2006). Depression and ethnicity as intermediary variables

    among dissociation, trauma-related cognitions, and PTSD symptomatology in youths.

    Journal of Nervous and Mental Disease, *194*(8), 584–590.

    https://doi.org/10.1097/01.nmd.0000230407.12687.ba

Lessard, L. M., Kogachi, K., & Juvonen, J. (2019). Quality and Stability of Cross-Ethnic

    Friendships: Effects of Classroom Diversity and Out-of-School Contact. *Journal of Youth*

    and Adolescence, *48*(3), 554–566. https://doi.org/10.1007/s10964-018-0964-9

Letts, L., Wilkins, S., Law, M., Stewart, D., Bosch, J., & Westmorland, M. (2007) Critical

    Review Form, Qualitative Studies (Version 2.0). *McMaster University.*

    https://www.healthevidence.org/our-appraisal-tools.aspx

Levine, C. S., Markus, H. R., Austin, M. K., Chen, E., & Miller, G. E. (2019). Students of color

    show health advantages when they attend schools that emphasize the value of diversity.

    Proceedings of the National Academy of Sciences of the United States of America,

    116(13), 6013–6018. https://doi.org/10.1073/pnas.1812068116

Levy, A., van Zomeren, M., Saguy, T., & Halperin, E. (2017). Intergroup emotions and gateway

    groups: Introducing multiple social identities into the study of emotions in conflict.

    Social and Personality Psychology Compass, *11*(6), e12320.

    https://doi.org/10.1111/spc3.12320

Lin, H. C., Li, M., Stevens, C., Pinder-Amaker, S., Chen, J. A., & Liu, C. H. (2021). Self-Harm and Suicidality in US College Students: Associations with Emotional Exhaustion versus Multiple Psychiatric Symptoms. *Journal of Affective Disorders*, *280*, 345–353. https://doi.org/10.1016/j.jad.2020.11.014

Literte, P. E. (2010). Revising race: How biracial students are changing and challenging student services. *Journal of College Student Development*, *51*(2), 115–134. https://doi.org/10.1353/csd.0.0122

Livingston, G. (2017). The rise of multiracial and multiethnic babies in the U.S. https://www.pewresearch.org/fact-tank/2017/06/06/the-rise-ofmultiracial-and-multiethnic-babies-in-the-u-s/

Lorenzo-Blanco, E. I., Bares, C. B., & Delva, J. (2013). Parenting, Family Processes, Relationships, and Parental Support in Multiracial and Multiethnic Families: An Exploratory Study of Youth Perceptions. *Family Relations*, *62*(1), 125–139. https://doi.org/10.1111/j.1741-3729.2012.00751.x

Lott, B., & Rogers, M. R. (2011). Ethnicity Matters for Undergraduate Majors in Challenges, Experiences, and Perceptions of Psychology. *Cultural Diversity and Ethnic Minority Psychology*, *17*(2), 204–210. https://doi.org/10.1037/a0023673

Lusk, E. M., Taylor, M. J., Nanney, J. T., & Austin, C. C. (2010). Biracial identity and its relation to self-esteem and depression in mixed black/white biracial individuals. *Journal of Ethnic and Cultural Diversity in Social Work*, *19*(2), 109–126. https://doi.org/10.1080/15313201003771783

Mallory, A. B., Pollitt, A. M., Bishop, M. D., & Russell, S. T. (2021). Changes in disclosure

    stress and depression symptoms in a sample of lesbian, gay, and bisexual

    youth. *Developmental Psychology, 57*(4), 570–583. https://doi.org/10.1037/dev0001168

Majeno, A., Urizar, G. G., Halim, M. L. D., Nguyen-Rodriguez, S. T., & Gonzalez, A. (2021).

    Examining the role of ethnic microaggressions and ethnicity on cortisol responses to an

    acute stressor among young adults. *Cultural Diversity and Ethnic Minority Psychology*,

    27(1), 135–144. https://doi.org/10.1037/cdp0000401

Marks, A. K., Patton, F., & Coll, C. G. (2011). Being Bicultural: A Mixed-Methods Study of

    Adolescents' Implicitly and Explicitly Measured Multiethnic Identities. *Developmental*

    Psychology, *47*(1), 270–288. https://doi.org/10.1037/a0020730

Markus, H.R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion,

    and motivation. Psychological Review, 98, 224–253.

    https://doi.org/10.1037/0033-295X.98.2.224

Mauro, M., Allen, D. S., Dauda, B., Molina, S. J., Neale, B. M., & Lewis, A. C. (2022). A

    scoping review of guidelines for the use of race, ethnicity, and ancestry reveals

    widespread consensus but also points of ongoing disagreement. *The American Journal of*

    Human Genetics. https://doi.org/10.1016/j.ajhg.2022.11.001

Mathews, C. J., Medina, M. A., Bañales, J., Pinetta, B. J., Marchand, A. D., Agi, A. C., ... &

    Rivas-Drake, D. (2020). Mapping the intersections of adolescents' ethnic-racial identity

    and critical consciousness. *Adolescent Research Review*, *5*, 363-379.

    https://doi.org/10.1007/s40894-019-00122-0

Mayberry, M. L., Espelage, D. L., & Koenig, B. (2009). Multilevel modeling of direct effects

 and interactions of peers, parents, school, and community influences on adolescent

 substance use. *Journal of Youth and Adolescence*, *38*(8), 1038–1049.

 https://doi.org/10.1007/s10964-009-9425-9

McArthur, B. A., Burke, T. A., Connolly, S. L., Olino, T. M., Lumley, M. N., Abramson, L. Y.,

 & Alloy, L. B. (2019). A longitudinal investigation of cognitive self-schemas across

 adolescent development. *Journal of Youth and Adolescence*, *48*, 635-647.

 https://doi.org/10.1007/s10964-018-00981-1

McCabe, B. E., Lee, D. L., & Viray, T. (2019). Does ethnicity moderate the link between

 drinking norms and binge drinking in college students?. *International journal of mental*

 health and addiction, *17*, 493-501. https://doi.org/10.1007/s11469-018-0036-0

McKie, I. A. S. (2018). Navigating mixedness: The information behaviours and experiences of

 biracial youth in Australia. *Cosmopolitan Civil Societies*, *10*(2), 67–86.

 https://doi.org/10.5130/ccs.v10i2.5941

Mereish, E. H., Parra, L. A., Watson, R. J., & Fish, J. N. (2022). Subtle and Intersectional

 Minority Stress and Depressive Symptoms Among Sexual and Gender Minority

 Adolescents of Color: Mediating Role of Self-Esteem and Sense of Mastery. *Prevention*

 Science, *23*(1), 142–153. https://doi.org/10.1007/s11121-021-01294-9

Metcalfe, J. (2022). Dominant Narratives of Whiteness in Identity Construction of Mixed-Race

 Young Adults in Post-Apartheid South Africa. *Social Sciences*, *11*(5).

 https://doi.org/10.3390/socsci11050205

Meter, D. J., Ehrenreich, S. E., & Underwood, M. K. (2019). Relations between Parent

   Psychological Control and Parent and Adolescent Social Aggression. *Journal of Child*

   and Family Studies, *28*(1), 140–151. https://doi.org/10.1007/s10826-018-1240-z

Meyers, C., Aumer, K., Schoniwitz, A., Janicki, C., Pauker, K., Chang, E. C., Gaither, S. E., &

   Williams, A. (2020). Experiences with microaggressions and discrimination in racially

   diverse and homogeneously white contexts. *Cultural Diversity and Ethnic Minority*

   Psychology, 26(2), 250–259. https://doi.org/10.1037/cdp0000293

Miller, B., Rocks, S., Catalina, S., Zemaitis, N., Daniels, K., & Londono, J. (2019). The missing

   link in contemporary health disparities research: a profile of the mental and self-rated

   health of multiracial young adults. *Health Sociology Review*, *28*(2), 209–227.

   https://doi.org/10.1080/14461242.2019.1607524

Miller, R. A., Vaccaro, A., Kimball, E. W., & Forester, R. (2021). "It's Dude Culture": Students

   With Minoritized Identities of Sexuality and/or Gender Navigating STEM Majors.

   Journal of Diversity in Higher Education, *14*(3), 340–352.

   https://doi.org/10.1037/dhe0000171

Mitchell, L. L., Kathawalla, U. K., Ajayi, A. A., Fish, J., Nelson, S. C., Peissig, L. H., & Syed,

   M. (2018a). Ethnic-racial typicality and its relation to ethnic identity and psychological

   functioning. *Cultural diversity and ethnic minority psychology*, *24*(3), 400.

   https:doi.org/10.1037/cdp0000193

Mitchell, L. L., Kathawalla, U. K., Ajayi, A. A., Fish, J., Nelson, S. C., Peissig, L. H. M., &
Syed, M. (2018b). Ethnic-racial typicality and its relation to ethnic identity and
psychological functioning. *Cultural Diversity and Ethnic Minority Psychology*, *24*(3),
400–413. https://doi.org/10.1037/cdp0000193

Miville, M. L., Constantine, M. G., Baysden, M. F., & So-Lloyd, G. (2005). Chameleon
Changes: An Exploration of Racial Identity Themes of Multiracial People. *Journal of
Counseling Psychology*, *52*(4), 507. https://doi.org/10.1037/0022-0167.52.4.507

Mossakowski, K., & Darrah-Okike, J. (2022). Why does local identity influence mental health
among university students in Hawaiʻi? *Journal of American College Health*, *0*(0), 1–10.
https://doi.org/10.1080/07448481.2022.2056418

Mucherah, W., & Frazier, A. D. (2013). How deep is skin-deep? The relationship between skin
color satisfaction, estimation of body image, and self-esteem among women of African
descent. *Journal of Applied Social Psychology*, *43*(6), 1177–1184.
https://doi.org/10.1111/jasp.12081

Muller, J. T., & Miles, J. R. (2017). Intergroup dialogue in undergraduate multicultural
psychology education: Group climate development and outcomes. *Journal of Diversity in
Higher Education*, *10*(1), 52–71. https://doi.org/10.1037/a0040042

Navarrete, V., & Jenkins, S. R. (2011). Cultural homelessness, multiminority status, ethnic
identity development, and self esteem. *International Journal of Intercultural Relations*,
35(6), 791–804. https://doi.org/10.1016/j.ijintrel.2011.04.006

Nelon, J. L., De Pedro, K. T., Gilreath, T. D., Patterson, M. S., Holden, C. B., & Esquivel, C. H.

    (2019). A latent class analysis of the co-occurrence of sexual violence, substance use, and

    mental health in youth. *Substance Use and Misuse*, *54*(12), 1938–1944.

    https://doi.org/10.1080/10826084.2019.1618337

Nelson, S. C., Syed, M., Tran, A. G., Hu, A. W., & Lee, R. M. (2018). Pathways to ethnic-racial

    identity development and psychological adjustment: The differential associations of

    cultural socialization by parents and peers. *Developmental psychology*, *54*(11), 2166.

    https://doi.org/10.1037/dev0000597

Neville, H. A., & Mobley, M. (2001). Social identities in contexts: An ecological model of

    multicultural counseling psychology processes. *The Counseling Psychologist*, *29*(4), 471-

    486. https://doi.org/10.1177/0011000001294001

Newman, T. J., Turgeon, S., Moore, M., Bean, C., Lee, L., Knuettel, M., & Osmers Rahill, C.

    (2023). The dual pandemic: COVID-19, systemic racism, and college student-athlete

    mental health. *International Journal of Sport and Exercise Psychology*, *21*(1), 156–173.

    https://doi.org/10.1080/1612197X.2022.2026997

Nishina, A., Ammon, N. Y., Bellmore, A. D., & Graham, S. (2006). Body dissatisfaction and

    physical development among ethnic minority adolescents. *Journal of Youth and*

    Adolescence, *35*(2), 189–201. https://doi.org/10.1007/s10964-005-9012-7

Nishina, A., Bellmore, A., Witkow, M. R., Nylund-Gibson, K., & Graham, S. (2018).

> Mismatches in Self-Reported and Meta-Perceived Ethnic Identification across the High

> School Years. *Journal of Youth and Adolescence*, *47*(1), 51–63.

> https://doi.org/10.1007/s10964-017-0726-0

Norman, J. B., & Chen, J. M. (2020). I am Multiracial: Predictors of Multiracial identification

> strength among mixed ancestry individuals. *Self and Identity*, *19*(5), 501-520.

> https://doi.org/10.1080/15298868.2019.1635522

Nuttgens, S. (2010). Biracial identity theory and research juxtaposed with narrative

> accounts of a biracial-biethnic individual. *Child and Adolescent Social Work Journal*,

> *27*(5), 355-364. https://doi.org/10.1007/s10560-010-0209-6

Oh, R. (2005). Interracial marriage in the shadows of Jim Crow: Racial segregation as a system

> of racial and gender subordination. *UC Davis L. Rev.*, *39*, 1321.

> https://engagedscholarship.csuohio.edu/fac_articles/1019

Oikawa, S., & Yoshida, T. (2007). An identity based on being different: A focus on Biethnic

> individuals in Japan. *International Journal of Intercultural Relations*, *31*(6), 633–653.

> https://doi.org/10.1016/j.ijintrel.2007.05.001

Oishi, S. (2014). Socioecological psychology. *Annual review of psychology*, *65*, 581-609.

> https://doi.org/10.1146/annurev-psych-030413-152156

Oishi, S., & Graham, J. (2011). Social ecology: Lost and found in psychological science.

> *Perspectives on Psychological Science*, *5*(4), 356-377.

> https://doi.org/10.1177/1745691610374588

Orbe, P. M., Harrison, R., Kauffman, L. D., & Laurent, V. (2015). Evolutions of Cultural

 Contractual Understanding: Exploring Biracial Women's Communicative Experiences.

 Howard Journal of Communications, *26*(4), 422–443.

 https://doi.org/10.1080/10646175.2015.1080638

Paragg, J. (2015). " Canadian-first": mixed race self-identification and Canadian

 belonging. *Canadian Ethnic Studies*, *47*(2), 21-44. https://doi.org/10.1353/ces.2015.0017

Park, I. Y., Speer, R., Whitfield, D. L., Kattari, L., Walls, E. N., & Christensen, C. (2022).

 Predictors of bullying, depression, and suicide attempts among youth: The intersection of

 race/ethnicity by gender identity. *Children and Youth Services Review*, *139*(April),

 106536. https://doi.org/10.1016/j.childyouth.2022.106536

Parker, K., Horowitz, J. M., Morin, R., & Lopez, M. H. (2020). *Race and multiracial Americans*

 in the U.S. census. Pew Research Center's Social & Demographic Trends Project.

 https://www.pewresearch.org/social-trends/2015/06/11/chapter-1-race-and-

 multiracial-americans-in-the-u-s-census/

Patterson, C. A., Papa, L. A., Reveles, A. K., & Domenech Rodríguez, M. M. (2018).

 Undergraduate student change in cultural competence: Impact of a multicultural

 psychology course. *Scholarship of Teaching and Learning in Psychology*, *4*(2), 81–92.

 https://doi.org/10.1037/stl0000108

Pauker, K., & Ambady, N. (2009). Multiracial faces: How categorization affects memory at the

 boundaries of race. *Journal of Social Issues*, *65*(1), 69–86.

 https://doi.org/10.1111/j.1540-4560.2008.01588.x

Pauker, K., Meyers, C., Sanchez, D. T., Gaither, S. E., & Young, D. M. (2018). A review of

    multiracial malleability: Identity, categorization, and shifting racial attitudes. *Social and*

    Personality Psychology Compass, *12*(6), e12392. https://doi.org/10.1111/spc3.12392

Peltz, J. S., Rogge, R. D., & O'Connor, T. G. (2019). Adolescent sleep quality mediates family

    chaos and adolescent mental health: A daily diary-based study. *Journal of Family*

    Psychology, *33*(3), 259–269. https://doi.org/10.1037/fam0000491

Pentek, C., & Eisenberg, M. E. (2018). School resource officers, safety, and discipline:

    Perceptions and experiences across racial/ethnic groups in Minnesota secondary schools.

    Children and Youth Services Review, *88*(August 2017), 141–148.

    https://doi.org/10.1016/j.childyouth.2018.03.008

Phillips, L. (2019). Fitting in and feeling good: Patterns of self-evaluation and psychological

    stress among biracial adolescent girls. *Biracial Women in Therapy: Between the Rock of*

    Gender and the Hard Place of Race, *3149*, 217–236.

    https://doi.org/10.1300/J015v27n01_15

Phinney, J. S. (1989). Stages of ethnic identity development in minority group adolescents. *The*

    Journal of Early Adolescence, *9*(1-2), 34-49. https://doi.org/10.1177/0272431689091004

Phinney, J. S., & Alipuria, L. L. (1996). At the interface of cultures: Multiethnic/multiracial high

    school and college students. *Journal of Social Psychology*, *136*(2), 139–158.

    https://doi.org/10.1080/00224545.1996.9713988

Poston, W. C. (1990). The biracial identity development model: A needed addition. *Journal of Counseling & Development*, *69*(2), 152-155. https://doi.org/10.1002/j.1556-6676.1990.tb01477.x

Radina, M. E., & Cooney, T. M. (2000). Relationship quality between multiracial adolescents and their biological parents. *American Journal of Orthopsychiatry*, *70*(4), 445-454. https://doi.org/10.1037/h0087763

Reddy, G. (2019). Fluidity amidst structure: multi-racial identity constructions across the life course of Malaysians and Singaporeans. *Social Identities*, *25*(3), 327–344. https://doi.org/10.1080/13504630.2018.1499222

Reece, R. L. (2019). Coloring Racial Fluidity: How Skin Tone Shapes Multiracial Adolescents' Racial Identity Changes. *Race and Social Problems*, *11*(4), 290–298. https://doi.org/10.1007/s12552-019-09269-w

Reid Marks, L., Thurston, I. B., Kamody, R. C., & Schaeffer-Smith, M. (2020). The role of multiracial identity integration in the relation between racial discrimination and depression in multiracial young adults. *Professional Psychology: Research and Practice*, *51*(4), 317. https://dx.doi.org/10.1037/pro0000315

Renn, K. A. (2003). Understanding the identities of mixed-race college students through a developmental ecology lens. *Journal of college student development*, *44*(3), 383-403. https://doi.org/10.1353/csd.2003.0032

Reyes, A. (2020). Coloniality of Mixed Race and Mixed. *The oxford handbook of language and race*, 186. https://doi.org/10.1093/oxfordhb/9780190845995.013.11

Riley, T. N., Clifton, R. L., Khazvand, S., & Zapolski, T. C. B. (2021). Discrimination and

    Substance Use: Examining the Moderating Role of Impulsivity among Racial-Ethnic

    Minority Adolescents. *Substance Use and Misuse*, *56*(6), 897–904.

    https://doi.org/10.1080/10826084.2021.1899235

Rivas-Drake, D., Syed, M., Umaña-Taylor, A., Markstrom, C., French, S., Schwartz, S. J., ... &

    Ethnic and Racial Identity in the 21st Century Study Group. (2014). Feeling good, happy,

    and proud: A meta-analysis of positive ethnic–racial affect and adjustment. *Child*

    development, *85*(1), 77-102.   https://doi.org/10.1111/cdev.12175

Rockquemore, K. A., & Brunsma, D. L. (2002). Socially embedded identities: Theories,

    typologies, and processes of racial identity among Black/White biracials. *Sociological*

    Quarterly, *43*(3), 335-356. https://doi.org/10.1111/j.1533-8525.2002.tb00052.x

Rodríguez-García, D., Solana, M., Ortiz, A., & Ballestín, B. (2021). Blurring of colour lines?

    Ethnoracially mixed youth in Spain navigating identity. *Journal of Ethnic and Migration*

    Studies, *47*(4), 838–860. https://doi.org/10.1080/1369183X.2019.1654157

Romo, R. (2011). Between black and brown: Blaxican (Black-Mexican) multiracial identity in

    California. *Journal of Black Studies*, *42*(3), 402–426.

    https://doi.org/10.1177/0021934710376172

Root, M. P. (1990). Resolving" other" status: Identity development of biracial individuals.

    Women & Therapy, *9*(1-2), 185-205. https://doi.org/10.1300/j015v09n01_11

Root, M. P. P. (1998). Experiences and processes affecting racial identity development: Preliminary results from the Biracial Sibling Project. *Cultural Diversity & Mental Health*, *4*(3), 237–247. https://doi.org/10.1037//1099-9809.4.3.237

Rosario-Williams, B., Rowe-Harriott, S., Ray, M., Jeglic, E., & Miranda, R. (2022). Factors precipitating suicide attempts vary across race. *Journal of American College Health*, *70*(2), 568–574. https://doi.org/10.1080/07448481.2020.1757680

Roulston, C., McKetta, S., Price, M., Fox, K. R., & Schleider, J. L. (2023). Structural correlates of mental health support access among sexual minority youth of color during COVID-19. *Journal of Clinical Child & Adolescent Psychology*, *52*(5), 649-658. https://doi.org/10.1080/15374416.2022.2034633

Sahay, S., & Piran, N. (1997). Skin-color preferences and body satisfaction among south asian-canadian and european-canadian female university students. *Journal of Social Psychology*, *137*(2), 161–171. https://doi.org/10.1080/00224549709595427

Sanchez, D. T., & Bonam, C. M. (2009). To disclose or not to disclose biracial identity: The effect of biracial disclosure on perceiver evaluations and target responses. Journal of Social Issues, 65(1), 129–149. https://doi.org/10.1111/j.15404560.2008.01591.x

Sanchez, D. T., & Garcia, J. A. (2009). When race matters: Racially stigmatized others and perceiving race as a biological construction affect biracial people's daily well-being. *Personality and Social Psychology Bulletin*, *35*(9), 1154–1164. https://doi.org/10.1177/0146167209337628

Sanchez, D. T., Shih, M., & Garcia, J. A. (2009). Juggling multiple racial identities: malleable racial identification and psychological well-being. *Cultural Diversity and Ethnic Minority Psychology*, *15*(3), 243. https://doi.org/10.1037/a0014373

Scanlon, C. L., Del Toro, J., & Wang, M. Te. (2020). Socially Anxious Science Achievers: The Roles of Peer Social Support and Social Engagement in the Relation Between Adolescents' Social Anxiety and Science Achievement. *Journal of Youth and Adolescence*, *49*(5), 1005–1016. https://doi.org/10.1007/s10964-020-01224-y

Schilling, E. A., Aseltine, R. H., & Gore, S. (2007). Adverse childhood experiences and mental health in young adults: A longitudinal survey. *BMC Public Health*, *7*, 1–10. https://doi.org/10.1186/1471-2458-7-30

Schlabach, S. (2013). The Importance of Family, Race, and Gender for Multiracial Adolescent Well-being. *Family Relations*, *62*(1), 154–174. https://doi.org/10.1111/j.1741-3729.2012.00758.x

Schmidt, C. K., Piontkowski, S., Raque-Bogdan, T. L., & Ziemer, K. S. (2014). Relational Health, Ethnic Identity, and Well-Being of College Students of Color: A Strengths-Based Perspective. *The Counseling Psychologist*, *42*(4), 473–496. https://doi.org/10.1177/0011000014523796

Seider, S., Graves, D., El-Amin, A., Clark, S., Soutter, M., Tamerat, J., Jennett, P., Gramigna, K., Yung, J., Kenslea, M., & Sklarwitz, S. (2016). Preparing adolescents attending progressive and no-excuses urban charter schools to analyze, navigate, and challenge race and class inequality. *Teachers College Record*, *118*(12), 1–54. https://doi.org/10.1177/016146811611801206

Shih, M., & Sanchez, D. T. (2005). Perspectives and research on the positive and negative implications of having multiple racial identities. Psychological Bulletin, 131(4), 569–591. https://doi.org/10.1037/0033-2909.131.4.569

Shih, M., Bonam, C., Sanchez, D., & Peck, C. (2007). The social construction of race: Biracial identity and vulnerability to stereotypes. *Cultural Diversity and Ethnic Minority Psychology*, *13*(2), 125. https://doi.org/10.1037/1099-9809.13.2.125

Shih, M., Wilton, L. S., Does, S., Goodale, B. M., & Sanchez, D. T. (2019). Multiple racial identities as sources of psychological resilience. Social and Personality Psychology Compass, 13(6), 1–14. https://doi.org/10.1111/spc3.12469

Shin, R., Daly, B., & Vera, E. (2007). The Relationships of Peer Norms, Ethnic Identity, and Peer Support to School Engagement in Urban Youth. *Professional School Counseling*, *10*(4), 379–388. https://doi.org/10.5330/prsc.10.4.l0157553k063x29u

Silverman, J. R., & Caldwell, R. M. (2008). Peer relationships and violence among female juvenile offenders: An exploration of differences among four racial/ethnic populations. *Criminal Justice and Behavior*, *35*(3), 333–343. https://doi.org/10.1177/0093854807311114

Sims, J. P. (2012). Beautiful stereotypes: The relationship between physical attractiveness and

    mixed race identity. *Identities*, *19*(1), 61–80.

    https://doi.org/10.1080/1070289X.2012.672838

Smedley, A., & Smedley, B. D. (2005). Race as biology is fiction, racism as a social problem is

    real: Anthropological and historical perspectives on the social construction of race.

    American psychologist, *60*(1), 16. https://doi/org/10.1037/0003-066X.60.1.16

Smith, E., & Pössel, P. (2022). The Associations Between Everyday Discrimination, Brooding,

    Reflection, and Symptoms of Depression in Adolescents. *Journal of Child and Family*

    Studies, *31*(6), 1630–1644. https://doi.org/10.1007/s10826-022-02314-0

Song, M. (2010). Is there "a" mixed race group in Britain? the diversity of multiracial

    identification and experience. *Critical Social Policy*, *30*(3), 337–358.

    https://doi.org/10.1177/0261018310367672

Song, M. (2021). Who counts as multiracial?. *Ethnic and Racial Studies*, *44*(8), 1296-1323.

    https://doi.org/10.1080/01419870.2020.1856905

Song, M., & Aspinall, P. (2012). Is racial mismatch a problem for young "mixed race" people in

    Britain? The findings of qualitative research. *Ethnicities*, *12*(6), 730–753.

    https://doi.org/10.1177/1468796811434912

Spencer, M. S., Icard, L. D., Harachi, T. W., Catalano, R. F., & Oxford, M. (2000). Ethnic

    identity among monoracial and multiracial early adolescents. *Journal of Early*

    Adolescence, *20*(4), 365–387. https://doi.org/10.1177/0272431600020004001

Stanley, C. T., & Robbins, J. E. (2011). Racial identity and sport: The case of a bi-racial athlete. *International Journal of Sport and Exercise Psychology*, *9*(1), 64–77. https://doi.org/10.1080/1612197X.2011.563127

Stepney, C. T., Sanchez, D. T., & Handy, P. E. (2015). Perceptions of parents' ethnic identities and the personal ethnic-identity and racial attitudes of biracial adults. *Cultural Diversity and Ethnic Minority Psychology*, *21*(1), 65–75. https://doi.org/10.1037/a0037542

Straka, B. C., Gaither, S. E., Acheson, S. K., & Swartzwelder, H. S. (2020). "Mixed" Drinking Motivations: A Comparison of Majority, Multiracial, and Minority College Students. *Social Psychological and Personality Science*, *11*(5), 676–687. https://doi.org/10.1177/1948550619883294

Subica, A. M., & Wu, L. T. (2018). Substance Use and Suicide in Pacific Islander, American Indian, and Multiracial Youth. *American Journal of Preventive Medicine*, *54*(6), 795–805. https://doi.org/10.1016/j.amepre.2018.02.003

Sullivan, J. M., & Ghara, A. (2015). Racial Identity and Intergroup Attitudes: A Multiracial Youth Analysis. *Social Science Quarterly*, *96*(1), 261–272. https://doi.org/10.1111/ssqu.12089

Suyemoto KL, Curley M, & Mukkamala S (2020). What do we mean by "ethnicity" and race"? A consensual qualitative research investigation of colloquial understandings. *Genealogy*, 4(81), 1–24. https://doi.org/10.3390/genealogy4030081

Suzuki-Crumly, J., & Hyers, L. L. (2004). The Relationship among Ethnic Identity,

    Psychological Well-Being, and Intergroup Competence: An Investigation of Two Biracial

    Groups. *Cultural Diversity and Ethnic Minority Psychology*, *10*(2), 137–150.

    https://doi.org/10.1037/1099-9809.10.2.137

Thomas, C. L., James, A. C., & Bachmann, M. O. (2002). Eating attitudes in English secondary

    school students: Influences of ethnicity, gender, mood, and social class. *International*

    Journal of Eating Disorders, *31*(1), 92-96. https://doi.org/10.1002/eat.10000

Törngren, S. O., Irastorza, N., & Rodríguez-García, D. (2021). Understanding multiethnic and

    multiracial experiences globally: Towards a conceptual framework of mixedness. *Journal*

    of Ethnic and Migration Studies, *47*(4), 763-781.

    https://doi.org/10.1080/1369183X.2019.1654150

Torres-Harding, S., Torres, L., & Yeo, E. (2020). Depression and Perceived Stress as Mediators

    Between Racial Microaggressions and Somatic Symptoms in College Students of Color.

    American Journal of Orthopsychiatry, *90*(1), 125–135.

    https://doi.org/10.1037/ort0000408

Townsend, S. S. M., Markus, H. R., & Bergsieker, H. B. (2009). My choice, your categories: The

    denial of multiracial identities. *Journal of Social Issues*, *65*(1), 185–204.

    https://doi.org/10.1111/j.1540-4560.2008.01594.x

Tran, A. G. T. T. (2021). Looking forward to student-athlete mental health: Racial/ethnic trends

    from 2010 to 2015. *Journal of American College Health*, *69*(8), 942–950.

    https://doi.org/10.1080/07448481.2020.1725018

Troxel, W. M., Tucker, J. S., Ewing, B., Miles, J. N., & D'Amico, E. J. (2018). Sleepy teens and

energy drink use: results from an ethnically diverse sample of youth. *Behavioral sleep*

medicine, *16*(3), 223-234. https://doi.org/10.1080/15402002.2016.1188390

Tynes, B. M., Giang, M. T., & Thompson, G. N. (2008). Ethnic identity, intergroup contact, and

outgroup orientation among diverse groups of adolescents on the internet.

Cyberpsychology and Behavior, *11*(4), 459–465. https://doi.org/10.1089/cpb.2007.0085

Tynes, B. M., Giang, M. T., Williams, D. R., & Thompson, G. N. (2008). Online Racial

Discrimination and Psychological Adjustment Among Adolescents. *Journal of*

Adolescent Health, *43*(6), 565–569. https://doi.org/10.1016/j.jadohealth.2008.08.021

Udry, J. R., Li, R. M., & Hendrickson-Smith, J. (2003). Health and Behavior Risks of

Adolescents with Mixed-Race Identity. *American Journal of Public Health*, *93*(11),

1865–1870. https://doi.org/10.2105/AJPH.93.11.1865

Unger, J. B., Rohrbach, L. A., Cruz, T. B., Baezconde-Garbanati, L., Howard, K. A., Palmer, P.

H., & Johnson, C. A. (2001). Ethnic variation in peer influences on adolescent smoking.

Nicotine and Tobacco Research, *3*(2), 167–176.

https://doi.org/10.1080/14622200110043086

United States Census Bureau (2021). *2020 census illuminates racial and ethnic*

composition of the country.

https://www.census.gov/library/stories/2021/08/improved-race-ethnicity-measures

-reveal-united-states-population-much-more-multiracial.html

Vincent, B. (2020). Breaking down barriers and binaries in trans healthcare: The validation of

non-binary people. In *Non-binary and Genderqueer Genders* (pp. 14-19). Routledge.

https://doi.org/10.1080/15532739.2018.1534075

Wallace, K. R. (2004). Situating multiethnic identity: Contributions of discourse theory to the

study of mixed heritage students. *Journal of Language, Identity, and Education*, *3*(3),

195-213. https://doi.org/10.1207/s15327701jlie0303_2

Weiland, S. (1993). Erik Erikson: Ages, stages, and stories. *Generations: Journal of the

American Society on Aging*, *17*(2), 17-22. http://www.jstor.org/stable/44878414

Wester, K. L., & Trepal, H. C. (2015). Nonsuicidal self-injury: Exploring the connection among

race, ethnic identity, and ethnic belonging. *Journal of College Student Development*,

56(2), 127–139. https://doi.org/10.1353/csd.2015.0013

Whaley, A. L., & Francis, K. (2006). Behavioral health in multiracial adolescents: The role of

Hispanic/Latino ethnicity. *Public Health Reports*, *121*(2), 169–174.

https://doi.org/10.1177/003335490612100211

Williams, J., Bolland, K. A., Hooper, L., Church, W., Tomek, S., & Bolland, J. (2014). Say it

Loud: The Obama Effect and Racial/Ethnic Identification of Adolescents. *Journal of

Human Behavior in the Social Environment*, *24*(7), 858–868.

https://doi.org/10.1080/10911359.2014.909343

Wilton, L. S., Sanchez, D. T., & Garcia, J. A. (2013). The Stigma of Privilege: Racial Identity and Stigma Consciousness Among Biracial Individuals. *Race and Social Problems*, *5*(1), 41–56. https://doi.org/10.1007/s12552-012-9083-5

Wong, S. S., Sugimoto-Matsuda, J. J., Chang, J. Y., & Hishinuma, E. S. (2012). Ethnic differences in risk factors for suicide among American high school students, 2009: The vulnerability of multiracial and Pacific Islander adolescents. *Archives of Suicide Research*, *16*(2), 159–173. https://doi.org/10.1080/13811118.2012.667334

Wu, L. T., Swartz, M. S., Brady, K. T., Blazer, D. G., & Hoyle, R. H. (2014). Nonmedical stimulant use among young Asian-Americans, Native Hawaiians/Pacific Islanders, and mixed-race individuals aged 12-34 years in the United States. *Journal of Psychiatric Research*, *59*, 189–199. https://doi.org/10.1016/j.jpsychires.2014.09.004

Yang, J., & Anyon, Y. (2016). Race and risk behaviors: The mediating role of school bonding. *Children and Youth Services Review*, *69*, 39–48. https://doi.org/10.1016/j.childyouth.2016.07.019

Zapolski, T. C. B., & Clifton, R. L. (2019). Cultural socialization and alcohol use: The mediating role of alcohol expectancies among racial/ethnic minority youth. *Addictive Behaviors Reports*, *9*(November 2018), 100145. https://doi.org/10.1016/j.abrep.2018.100145

Zapolski, T. C. B., Fisher, S., Banks, D. E., Hensel, D. J., & Barnes-Najor, J. (2017). Examining the Protective Effect of Ethnic Identity on Drug Attitudes and Use Among a Diverse Youth Population. *Journal of Youth and Adolescence*, *46*(8), 1702–1715. https://doi.org/10.1007/s10964-016-0605-0

APPENDIX A

Search Syntax

1. (Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color") AND (Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Quality of Life)

2. (Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color") AND (Identity or Self Identity OR Self-Identity OR Self Concept OR Self-Concept OR Identity Development OR Identity Formation OR Identity Construction OR Identity Conflict OR Identity Crisis OR Role Confusion) AND (Youth OR Adolescents OR Young People OR Teens OR Young Adults or Emerging Adults)

3. (Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color") AND (Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional OR Wellbeing OR Well-Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life)

4. (Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color") AND (Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional OR Wellbeing OR Well-Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life) AND (Identity or Self Identity OR Self-Identity OR Self Concept OR Self-Concept OR Identity Development OR Identity Formation OR Identity Construction OR Identity

Conflict OR Identity Crisis OR Role Confusion) AND (Youth OR Adolescents OR Young People OR Teens OR Young Adults or Emerging Adults)

5. (Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR person "of color") AND (Identity or Self Identity OR Self-Identity OR Self Concept OR Self-Concept OR Identity Development OR Identity Formation OR Identity Construction OR Identity Conflict OR Identity Crisis OR Role Confusion) AND (Youth OR Adolescents OR Young People OR Teens OR Young Adults or Emerging Adults)

APPENDIX B

Search Documentation Record

SEARCH DOCUMENTATION RECORD

*Remember to **save and export your searches** (with Abstracts!) to use in Phase 1 of your SCREENING AND SELECTION process

Search Date	FULL SEARCH ID#	TYPE OF SEARCH	DATABASE/SOURCE	SEARCH TERM ID#s	SEARCH SYNTAX OR OTHER GUIDELINES FOR THE SEARCH	FIELDS SEARCHED	SEARCH SPECIFIER: Years	SEARCH SPECIFIER: Publication Type	(Columns for Other Specifiers as Needed)	# of Records
12/15/2021	001	Electronic Database	PsychInfo	1, 02	Biracial-Biethnic OR Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Youth OR Adolescents OR Young People OR Teens OR Young Adults OR Emerging Adults	Title, Keywords, Abstract	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	5,289
12/15/2021	002	Electronic Database	PsychInfo	1, 03	Biracial-Biethnic OR Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Identity OR Self Identity OR Self-Identity OR Self Concept OR Self-Concept	Title, Keywords, Abstract	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	563
12/15/2021	003	Electronic Database	PsychInfo	01, 04	Biracial-Biethnic OR Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Identity Development OR Identity Formation OR Identity Construction	Title, Keywords, Abstract	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	393
12/15/2021	004	Electronic Database	PsychInfo	01, 05	Biracial-Biethnic OR Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Identity Conflict OR Identity Crisis OR Role Confusion OR Identity OR Identity Development				
6/5/2022	005	Electronic Database	PsychInfo	01, 06	Biracial-Biethnic OR Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Ethnic OR BIPOC OR Black/White Parent OR "person of color" AND Psychosocial OR Social OR Emotional OR Psychosocial Impacts OR Psychosocial Effects OR Psychological				
6/5/2022	006	Electronic Database	PsychInfo	01, 07	Biracial-Biethnic OR Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Ethnic OR BIPOC OR Black/White Parent OR "person of color" AND Well-Being OR Wellbeing OR Well Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life				
6/5/2022	007	Electronic Database	PsychInfo	01, 06, 07	Biracial-Biethnic OR Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional AND Well-Being OR Wellbeing OR Well Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life				

Date	ID	Source Type	Database	Codes	Search Terms / Fields	Year Range	Material	Language	Count
					Title, Keywords, Abstract	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	2,925
					Title, Keywords, Abstract	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	3,198
					Title, Keywords, Abstract	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	3,777
					Title, Keywords, Abstract	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	590
6/5/2022	011	Electronic Database	EBSCO Host (All)	01, 02, 03, 04, 05, 06, 07	Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color"AND Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional OR Wellbeing OR Well-Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life AND Identity or Self Identity OR Self-Identity OR Self Concept OR Self-Conept OR Identity Development OR Identity Formation OR Identity Construction OR Identity Conflict OR Identity Crisis OR Role Confusion AND Youth OR Adolescents OR Young People OR Teens OR Young Adults or Emering Adults				
6/5/2022	012	Electronic Database	Academic Search Complete	01, 02, 03, 04, 05, 06, 07	Biracial-Biethnic OR Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color"AND Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional OR Wellbeing OR Well-Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life AND Identity or Self Identity OR Self-Identity OR Self Concept OR Self-Conept OR Identity Development OR Identity Formation OR Identity Construction OR Identity Conflict OR Identity Crisis OR Role Confusion AND Youth OR Adolescents OR Young People OR Teens OR Young Adults or Emering Adults				
					Title, Abstract, Keywords	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	198
					Title, Keywords, Abstract	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	62
					Title, Keywords, Abstract	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	9

Date	#	Type	Database	Codes	Search Terms	Field	Years	Source	Language	Count
6/5/2022	008	Electronic Database	Scopus	01, 02, 06, 07	Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional AND Wellbeing OR Well-Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life					
6/5/2022	009	Electronic Database	PsychInfo	01, 02, 03, 04, 05, 06, 07	Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional OR Wellbeing OR Well-Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life AND Identity or Self Identity OR Self-Identity OR Self Concept OR Self-Conept OR Identity Development OR Identity Formation OR Identity Construction OR Identity Conflict OR Identity Crisis OR Role Confusion AND Youth OR Adolescents OR Young People OR Teens OR Young Adults or Emering Adults					
6/5/2022	010	Electronic Database	Scopus	01, 02, 03, 04, 05, 06, 07	Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional OR Wellbeing OR Well-Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life AND Identity or Self Identity OR Self-Identity OR Self Concept OR Self-Conept OR Identity Development OR Identity Formation OR Identity Construction OR Identity Conflict OR Identity Crisis OR Role Confusion AND Youth OR Adolescents OR Young People OR Teens OR Young Adults or Emering Adults					
						Title, Abstract, Keywords	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	635
						Title, Abstract, Keywords	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	260
6/5/2022	013	Electronic Database	ERIC	01, 02, 03, 04, 05, 06, 07	Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional OR Wellbeing OR Well-Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life AND Identity or Self Identity OR Self-Identity OR Self Concept OR Self-Conept OR Identity Development OR Identity Formation OR Identity Construction OR Identity Conflict OR Identity Crisis OR Role Confusion AND Youth OR Adolescents OR Young People OR Teens OR Young Adults or Emering Adults					
6/5/2022	014	Electronic Database	Education Full Text	01, 02, 03, 04, 05, 06, 07	Biracial-Biethnic OR Biracial OR Multiracial OR Mixed Race OR More Than One Race OR Biethnic OR Multiethnic OR Biracial-Biethnic OR BIPOC OR Black/White Parent OR "person of color" AND Psychosocial OR Psychosocial Factors OR Psychosocial Impacts OR Psychological OR Social OR Emotional OR Wellbeing OR Well-Being OR Mental Health OR Physical Health OR Happiness OR Life Satisfaction OR Quality of Life AND Identity or Self Identity OR Self-Identity OR Self Concept OR Self-Conept OR Identity Development OR Identity Formation OR Identity Construction OR Identity Conflict OR Identity Crisis OR Role Confusion AND Youth OR Adolescents OR Young People OR Teens OR Young Adults or Emering Adults					
						Title, Abstract, Keywords	1980 -2022	Peer-Reviewed Journals/Books	English (Language)	51
						Title, Abstract, Keywords	1980 -2022	Peer-Reviewed Journals/Books	English	153
									TOTAL:	18,103

APPENDIX C

Screening and Selection Record

AUTHOR	YEAR	ABBREVIATED TITLE	DATABASES/ SOURCES	TITLE AND/OR KEYWORD SCREEN: DECISION - DATE	ABSTRACT SCREEN: DECISION - DATE
Abascal, Maria	20200401	Contraction as a response to group threat: Demographic decline and Whites' classification of people who are ambiguously White.	PsychInfo	YES - 8/10/22	YES - 8/11/22
Abdin, Edimansyah; Subramaniam, Mythily; Picco, Louisa; Pang, Shirlene; Vaingankar, Janhavi Ajit; Shahwan, Shazana; Sagayadevan, Vathsala; Zhang, Yunjue; Chong, Siow Ann	2017	The importance of considering differential item functioning in investigating the impact of chronic conditions on health-related quality of life in a multi-ethnic Asian population.	PsycInfo	YES - 6/17/22	YES - 7/3/22

DECISION NOTE KEY:	Lit Review / Not Empirical	Parental Perception	Monoracial/ethnic Groups	Non-Biological Parent	Unrelated	Too Small %
	Intervention / Tx	Missing Info	Too Young/Old	MR/ME = Mono	Program Evaluation	

FULL-TEXT SCREEN (Y/N)? *If no, state reason	INCL (SO): Published Study in English	INCL (SO): Peer-Reviewed Journal/Book	INCL(SO): Year Published (1980-2022)	INCL (RV): At Least One Level of Analysis	INCL(PAR): Identifies as More Than One Race/Ethnicity	INCL(PAR): Age (13 - 25)	INCL (M): Empirical (Quant, Qual, Mixed Methods)	EXCL: Non-Biological Parent	EXCL: Treatment Intervention
Y	Y	Y	Y	Y	Y	Y	Y	N	N
Y	Y	Y	Y	Y	Y	N	Y	N	N

REVIEWER DECISION - DATE *If no, state reason	DECISION NOTES	SECONDARY/ CONFIMATORY DECISION	FINAL DECISION	FINAL DECISION DATE	OTHER IMPORTANT INFORMATION
YES (AL) - 9/19/22	Monoracial/ethnic Groups	N - MD (5/4/23)	NO	5/4/23	All White participants
Y (AL- 9/29/22) - In Phase 2 chair review folder	Too Young/Old	N - MD (5/4/23)	NO	5/4/23	Too Old

The above is a sample of the complete Screening and Selection Record. The full database is available upon request

APPENDIX D

Evidence Table of Included Studies

Authors	Publication Year	Title	RQ 1: Negative Well-Being & Identity Conflict	RQ 2: Psychosocial Factors	RQ 3: Positive Well-Being & Identity	RQ3: Well-Being (1), Identity (2), Both (3)
Abu-Rayya, Hisham Motkal	2006	Ethnic Identity, Ego Identity, and Psychological Well-Being among Mixed-Ethnic Arab-European Adolescents in Israel	☑	☐	☑	3

Focus of Study (Variables, Keywords, Population, etc.)	Pyschosocial Factors (positive)	Pyschosocial Factors (negative)	Identity Factors (positive)	Identity Factors (negative)
Explored the relationship between ethnic identity, ego identity, and psychological wellbeing among mixed-ethnic adolescents with European mothers and Arab fathers in Israel.	*Psychological well-being	*Psychological well-being	*Ethnic identity, ego identity	*Ethnic identity, ego identity

Research Methodology	Design /Measures Used	Socioecological Levels (individual, microsystem, community/organizational, macrosystem)	Sample Characteristics (Description)	Sample Characteristics (Gender)
Quantitative	N/A	Individual	"Mixed-ethnic adolescents"	49.60% Female and 50.40% Male

Biracial-Biethnic Breakdown/Percentage	Results / Key Findings
European Mother, Arab Father (100%)	-Mixed-ethnic adolescents, who participate socially in the traditions and activities of the Arab or European group display Arab or European ethnic pride and attachment and are aware of (or clear about) their achieved and reflected upon Arab or European ethnic membership, had higher levels of psychological wellbeing; -Ego identity statuses achievement or moratorium were shown to associate positively with higher levels of psychological wellbeing, while foreclosure or diffusion were linked with lower levels among the cohort's mixed-ethnic adolescents.

*The above is a sample of the complete Evidence Table of Included Studies. The full database is available upon request

APPENDIX E

Central Database

Central Database							
Document ID#	Author	Publication Year	Title	Source (e.g., PsychInfo)	Publication Type (e.g., Peer-Reviewed Journal, Book)	Publication Status	Study Location (Geographic)
001	Abu-Rayya, Hisham Motkal	2006	Ethnic Identity, Ego Identity, and Psychological Well-Being among Mixed-Ethnic Arab-European Adolescents in Israel	EBSCO Host (ALL)	Peer Reviewed Journal	Published	International (Israel)

Study Aim / Purpose		Research Method (General)	Research Design or Approach (Specific)		Types of Outcome Measures		References to Other Relevant Studies
Explored the relationship between ethnic identity, ego identity, and psychological wellbeing among mixed-ethnic adolescents with European mothers and Arab fathers in Israel.		Quantitative	N/A		Questionnaires (Arabic then translated): MEIM, EOM-EIS, Ryff's Psychological Well-Being Scale		N/A

Study Research Variables	Operationalization of Biracial-Biethnic	Biracial-Biethnic Defined (How authors define 2+ races/ethnicities - term used)	Socioecological Level(s): Individual, Microsystem (Relationships), Community/ Organizational, and Macrosystem (Systems, Policy)	Psychosocial Factors (Positive)	Psychosocial Stressors (Negative)	Positive Identity (e.g., confidence in identity)	Identity Conflict (Negative) (e.g., identity confusion)
	Mixed Ethnic	Mixed-Ethnic	Individual	*Psychological well-being	*Psychological well-being	*Ethnic identity, ego identity	*Ethnic identity, ego identity

Data Collection Setting / Recruitment	Sample/ Population Description	Sample Size (# of Participants)	Participant Characteristics: Age (Mean and/or Range)	Participant Characteristics: Gender (%)
Recruited via telephone list	"Mixed-ethnic adolescents"	n=127	13-18 (Mean=15.63)	49.60% Female and 50.40% Male

Participant Characteristics: Race/Ethnicity Biracial-Biethnic Breakdown/Percentage (Self-Identified)	Participant Characteristics: Maternal Race/Ethnicity (If provided)	Participant Characteritics: Paternal Race/Ethnicity (If provided)	Participant Characteristics: Religious/Spiritual Beliefs (%)	Participant Characteristics: SES (%)	Participaant Characteristics: Family Type/Dynamic (e.g., married, single parent household)	Participant Characteristics: Education Level (e.g., elementary, middle, college, post-grad)	NOTES: (Optional)
European Mother, Arab Father (100%)	European, 37.80% born in W. European countires, remainder in E. Europe	Arab	N/A	Middle/Upper-Middle	N/A	Grade school	

Inclusion Criteria	Exclusion Criteria	Key Results (Results/Discussion)	Author's Conclusions
Y	N	-Non-significant correlation between Arab/European ethnic identification; -Non-significant gender or ego identity; -Significant for Arab and European ethnic identity & psych well-being	-Mixed-ethnic adolescents, who participate socially in the traditions and activities of the Arab or European group display Arab or European ethnic pride and attachment and are aware of (or clear about) their achieved and reflected upon Arab or European ethnic membership, had higher levels of psychological wellbeing; -Ego identity statuses achievement or moratorium were shown to associate positively with higher levels of psychological wellbeing, while foreclosure or diffusion were linked with lower levels among the cohort's mixed-ethnic adolescents.

Study Limitations	Author's Recommendations / Implications	Future Directions/ Research	NOTES: (Optional)
Researcher bias, questionnaires in Arabic, respondents motivated to participate	N/A	Define relations between individual differences in ethnic/ego identity formation	Did not include recommendations

*The above is a sample of the complete Central Database. The full database is available upon request

APPENDIX F

Data Collection and Extraction Form

AUTHOR	YEAR	ABBREVIATED TITLE	DATABASES/ SOURCES	TITLE AND/OR KEYWORD SCREEN: DECISION - DATE	ABSTRACT SCREEN: DECISION - DATE
Abascal, Maria	20200401	Contraction as a response to group threat: Demographic decline and Whites' classification of people who are ambiguously White.	PsychInfo	YES - 8/10/22	YES - 8/11/22
Abdin, Edimansyah; Subramaniam, Mythily; Picco, Louisa; Pang, Shirlene; Vaingankar, Janhavi Ajit; Shahwan, Shazana; Sagayadevan, Vathsala; Zhang, Yunjue; Chong, Siow Ann	2017	The importance of considering differential item functioning in investigating the impact of chronic conditions on health-related quality of life in a multi-ethnic Asian population.	PsycInfo	YES - 6/17/22	YES - 7/3/22

FULL-TEXT SCREEN (Y/N)? *If no, state reason	INCL (SO): Published Study in English	INCL (SO): Peer-Reviewed Journal/Book	INCL(SO): Year Published (1980-2022)	INCL (RV): At Least One Level of Analysis	INCL(PAR): Identifies as More Than One Race/Ethnicity
Y	Y	Y	Y	Y	Y
Y	Y	Y	Y	Y	Y

INCL(PAR): Age (13 - 25)	INCL (M): Empirical (Quant, Qual, Mixed Methods)	EXCL: Non-Biological Parent	EXCL: Treatment Intervention
Y	Y	N	N
N	Y	N	N

REVIEWER DECISION - DATE *If no, state reason	DECISION NOTES	SECONDARY/ CONFIMATORY DECISION	FINAL DECISION	FINAL DECISION DATE	OTHER IMPORTANT INFORMATION
YES (AL) - 9/19/22		Y - MD (4/20/23)	YES	4/20/23	
Y (AL- 9/29/22) - In Phase 2 chair review folder		Y - MD (4/20/23)	YES	4/20/23	

*The above is a sample of the complete Data Collection and Extraction Form. The full record is available upon request

APPENDIX G

Quality Appraisal

Quality Appraisal				
DOCUMENT ID#	AUTHOR(S)	YEAR	TITLE	METHODOLOGY
001	Abu-Rayya, Hisham Motkal	20061101	Ethnic Identity, Ego Identity, and Psychological Well-Being among Mixed-Ethnic Arab-European Adolescents in Israel	Quantitative

RATING SCALE:	Strong = 3	Good/Adequate = 2	Weak = 1	Missing = 0	Not Applicable = N/A
Specific Design/ Approach (If Applicable)	Strength of Literature Foundation / Rationale	Clarify and Specificity of Research Aims/ Objectives/ Questions	Quality of Resarch Design	Sample Selection & Characteristics	Measures / Data Collection Tools
	Current/relevant references, sufficient background literature review, rationale	Research questions / hypotheses outlined in study	Provides clear desription of design / methodological approach	Sufficient description of sample characteristics/ recruitment	Rationale forselection, appropriateness for variables
N/A	3	3	3	3	3

Data Collection Procedures	Analysis of Data	Discussion of Study Limitations	Overall Rating	Additional Notes
Procedures / recruitment clearly described	Presentation of results - clear and comprehensive	Identify and discuss limitations, relevance to study	Exemplary = All 3's, Strong = Mostly 3's, Good/Adequate = Mostly 2's, Weak = Mostly 1's or 0	
3	3	3	Exemplary	

The above is a sample of the complete Quality Appraisal Form. The full record is available upon request

APPENDIX H

IRB Non-Human Subjects Notification Form

PEPPERDINE UNIVERSITY

Graduate & Professional Schools Institutional Review Board

December 2, 2022

Protocol #: **12122**

Project Title: PSYCHOSOCIAL FACTORS IMPACTING IDENTITY DEVELOPMENT IN BIRACIAL- BIETHNIC YOUTH: A SOCIOECOLOGICAL ANALYSIS

Dear Melanie:

Thank you for submitting a "GPS IRB Non-Human Subjects Notification Form" for *PSYCHOSOCIAL FACTORS IMPACTING IDENTITY DEVELOPMENT IN BIRACIAL-BIETHNIC YOUTH: A SOCIOECOLOGICAL ANALYSIS* project to Pepperdine University's Institutional Review Board (IRB) for review. The IRB has reviewed your submitted form and all ancillary materials. Upon review, the IRB has determined that the above-titled project meets the requirements for *non-human subject research* under the federal regulations 45 CFR 46.101 that govern the protection of human subjects.

Your research must be conducted according to the form submitted to the IRB. If changes to the approved project occur, you will be required to submit *either* a new "GPS IRB Non-Human Subjects Notification Form" or an IRB application via the eProtocol system (httpw://irb.pepperdine.edu) to the Institutional Review Board.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intentions, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at https://community.pepperdine.edu/irb/policies/.

Please refer to the protocol number denoted above in all further communication or correspondence related to this approval.

On behalf of the IRB, we wish you success in this scholarly pursuit.

Sincerely,

Institutional Review Board (IRB),
Pepperdine University

cc: Mrs. Katy Carr, Assistant Provost for Research
Dr. Judy Ho, Graduate School of Education and Psychology IRB Chair