**ISF Research Proposal**

**Research Title:** Mental Health Consequences of Palestinian Adolescents’ and Parents’ Exposure to Multiple Types of Ethnic Discrimination: A Longitudinal Study Based on A Socio-Ecological Theoretical Framework

**PIs: Dr. Adeem A. Massarwi; Prof. Muhammad M. Haj-Yahia**

**The Charlotte B. and Jack J. Spitzer Department of Social Work, Ben-Gurion University of the Negev**

**Prof. Muhammad M. Haj-Yahia**

**Paul Baerwald School of Social Work and Social Welfare, The Hebrew University of Jerusalem**

**Keywords:** Ethnic discrimination; Arab ethnonational minority; parents; adolescents; risk behaviors; mental health**.**

**Scientific Abstract**

Ethnic discrimination refers to unjust and prejudicial actions and practices motivated by hostility towards an individual or a group of people based on their ethnic, racial, or national affiliation during interpersonal exchanges in the context of structural discrimination, taking the form of unjust policies and regulations against said minority group.

An established body of knowledge, including longitudinal analyses, has shown that experiencing ethnic discrimination is a major life stressor with a range of negative consequences for adults and children. Despite considerable literature on the subject, the existing evidence is based mainly on cross-cultural analyses of the experiences of ethnic discrimination in the West. Little attention has been paid to the impact of ethnic discrimination in non-Western contexts. The proposed study aims to contribute towards filling this gap by investigating the short-term, long-term, and cumulative effects of several types of ethnic discrimination (personal, online, and socio-structural) as experienced by Palestinian adolescents and their parents in Israel. Drawing on a socio-ecological theoretical framework, the study will examine individual, familial, and socio-contextual factors and their long-term effects on adolescent and parent mental health outcomes.

The proposed longitudinal study will collect data from 550 dyads of adolescents (aged 12−18) and their parents at three points in time, with a gap of a year (12 months) between each point in time using structured, anonymous, self-administered questionnaires to be completed online (via Qualtrics software). In order to reach a representative sample, dyads of participants (adolescents and their parents) will be recruited from secondary and high schools using a stratified probability sample. The stratum will be based on the locality socioeconomic status (SES) index developed by the Israeli Central Bureau of Statistics, where Arab localities will be selected randomly from each SES cluster. Structural Equation Modeling statistical analyses will be used in order to simultaneously model both mediation and moderation effects on multiple variables (i.e., predictors, mediators, moderators, covariates, and outcomes).

The proposed study will provide researchers, policymakers, and mental health practitioners with essential knowledge of the effects of several types of ethnic discrimination on adolescents and parents over time from an ecological perspective. The results of the study will be instrumental for planning and conducting future research on ethnic discrimination and in the design and development of effective prevention and intervention programs dealing with the impact of this problem.

**SCIENTIFIC BACKGROUND**

Over the past three decades, ethnic discrimination has received widespread recognition in health and mental health sciences (Odoms-Young, 2018; Priest & Williams, 2021; Trent et al., 2019; Williams & Mohammed, 2009). This has been expressed in increased research attention to the impact of ethnic discrimination, with strong international evidence of its multiple effects on the mental health of individuals, communities, and nations worldwide (Cormack et al., 2018; Lee et al., 2019; Paradies et al., 2015). Ethnic discrimination refers to unjust and prejudicial actions and practices motivated by hostility towards an individual or a group of people based on their ethnic affiliation and race during interpersonal exchanges (Dovidio et al., 2010; Lee et al., 2019). This aspect of ethnic discrimination represents one type of ethnic discrimination among many (Harrell, 1999; Jones, 1972). An established body of knowledge, including longitudinal analyses, has shown that experiencing ethnic discrimination is considered a major life stressor, with a range of negative consequences for adults and children (Andrade et al., 2021; Carter, 2007; Cave et al., 2020; Choi et al., 2023; Cooke et al., 2014; Priest et al., 2013). Findings of a systematic review conducted based on longitudinal studies have shown that personal incidents of ethnic discrimination experienced by adolescents (aged 12−18 years old) were strongly associated with poor mental health outcomes, behavior problems, and risk-taking behaviors, such as substance use (Cave et al., 2020).

Scholars have examined structural ethnic discrimination, where sociopolitical factors result in systematic discrimination against minority ethnic groups (Bailey et al., 2017; Harrell, 2000). Aspects of structural ethnic discrimination are reflected in laws, policies, and regulations embedded in organizations or institutions that concentrate power in the hands of ethnic majority groups (Alvarez et al., 2022). In such contexts, ethnic minorities face the unequal allocation of economic, organizational, professional, and social resources and enjoy fewer possibilities for social mobility than do ethnic majority citizens (Bailey et al., 2021; Gee & Ford, 2011; Harrell et al., 2011).

A recent systematic review of quantitative studies reported a significant association between self-reported perceptions of structural ethnic discrimination with a wide range of poor mental health outcomes and reduced well-being (Talamaivao et al., 2020). The phenomenon of children and adults getting to ethnic discrimination online has been receiving growing empirical attention recently (Keum & Li, 2023). This includes various aspects of ethnic discrimination occurring on the internet and different online platforms of social media (Keum & Cano, 2023; Volpe et al., 2021), such as racist online interactions (e.g., threats, insults, and abuse) and contents (e.g., videos and photos of hate crimes and systematic inequities), in addition to being directly victimized by others because of their ethnic affiliation or indirectly by witnessing racial victimization against others (Keum & Miller; 2017).

Previous studies have found a link between experiencing online ethnic discrimination and multiple adverse mental health outcomes and risk behaviors among adults and adolescents (Keum, 2022; Keum & Li, 2023; Maxie-Moreman & Tynes, 2022; Tynes et al., 2019; Umaña-Taylor, et al., 2015). Drawing on a socio-ecological theoretical framework, this study will investigate the long-term effects of several types of ethnic discrimination (personal, online, and structural) on adolescents’ and parents’ mental health and health-risk behaviors in Palestinian society, based on a longitudinal study design.

**Theoretical Framework**

This study will be guided by Bronfenbrenner’s (1979) Ecological Systems Theory. Acknowledging the human societies’ complex reality, this theory focuses on the connections between individuals and their wider environments, including the family and broader cultural, social, economic, and political systems that shape behaviors and access to resources (Alvarez et al., 2022). We argue that adolescents’ outcomes (mental health and involvement in risky behaviors) are affected by multiple factors in their immediate and broader environments, including: individual (personal experiences of ethnic discrimination offline and online, and adolescent cognitive structures); family (parental experience of ethnic discrimination offline and online, parental mental health, and parent-child relationships); and social (structural ethnic discrimination experienced by adolescents and their parents).

This proposed study will also integrate the Adverse Childhood Experience model (ACEs) (Felitti et al., 1998), General Strain Theory (GCT; Agnew, 1992;2002), and Social-Cognitive Theory (Bandura, 1986) enabling us to better understand the interactions between the study’s variables. The conceptualization of CEs has been expanded recently to include ethnic discrimination-related experiences as a risk factor that negatively affects child and adolescent outcomes (Bernard et al., 2021; Cronholm et al., 2015; Hutchins et al., 2022; Wang et al., 2019). In this theoretical model, adverse childhood experiences are defined as stressful and traumatic life events occurring prior to age 18 that place children at risk of negative developmental outcomes (Hankerson et al., 2022).

The ACEs model (Felitti et al., 1998) suggests that exposure to multiple stressful environmental and social factors is associated with a disruption in a child’s mental health outcomes and can lead to engaging in risky behaviors. The ACE model’s foundation is the “historical trauma” component, which refers to collective and intergenerational traumatic and stressful experiences of a group of individuals who have been systematically oppressed in previous generations (e.g., parental traumatic experiences). This historical trauma can be transmitted to subsequent generations through physiological, environmental, and social pathways (Bernard et al., 2021; Bowers & Yehuda, 2016; Ehlers et al., 2013; Sotero, 2006). Following this approach, both direct (personal) and indirect (generational) exposure to ACE risk factors may harm a child’s social, emotional, and cognitive functioning. This trauma, in turn, increases the risk of developing poor mental health outcomes (e.g., depression and anxiety) as well as engaging in risky behaviors (e.g., substance use).

In line with this approach, Bernard et al.’s (2021) extended ACE model emphasizes that parental experiences of ethnic discrimination are transmitted to children through biological and social pathways, such as parent-child relationships and parental mental health. Building on this theoretical model, we consider ethnic discrimination to be a multilevel risk factor that affects the outcomes of children and their caregivers. As biological pathways are beyond this proposed study’s scope, we will focus on social pathways only. By utilizing mediation analyses, we propose generally that the association between experiencing ethnic discrimination and different facets of adolescents’ well-being would be mediated by parental mental health and the parent-child relationship.

The third theoretical approach guiding the proposed study is the Social Cognitive Theory (Bandura, 1986), which focuses on the link between environmental inputs, cognitive structures, and behavioral outcomes. Based on this theoretical model, we will investigate the potential role of cognition constructs (adolescents’ self-esteem and future orientation) in mediating the association between adolescents’ experiences of ethnic discrimination and their well-being (mental health and health-risk behaviors). In addition, the GST will be integrated into the study’s theoretical model to try to explain the association between adolescents’ experiences of ethnic discrimination and involvement in health-risk behaviors.

Agnew’s (1992) GST focuses on two types of strain. The first refers to the *personal* strain experienced by the individual in cases of unjust treatment or negative manners by others. The second is the *vicarious* strain, which refers to life strains experienced by others close to the individual, such as family members. The individual may directly witness the strain experienced by others or may hear about it (e.g., from victims directly or in the media) (Broidy & Agnew, 1997). Agnew (1992, 2002) argues that these two types of strain lead to negative emotions that can create pressure on adolescents to reduce their strain and negative emotions by engaging in delinquent acts (e.g., substance use). In such cases, involvement in health-risk behaviors is perceived as a mechanism for coping with stress and a sort of delinquent coping (Agnew, 2002). Based on GST, it is reasonable to assume that discrimination experienced by adolescents and their parents is a major stressor that might explain adolescents’ involvement in risky behaviors.

**Individual factors**

**Adolescents’ experiences of personal ethnic discrimination:** Over the past two decades, the impact of ethnic discrimination on adolescents’ outcomes has received wide research attention due to its stressful nature and negative impact (Bernard et al., 2021; Carter, 2007; Saleem et al., 2019). Children and adolescents have been found to be vulnerable to the adverse mental and behavioral impact of discrimination due to the sensitivity of their developmental period, when they undergo physiological and emotional changes (Benner et al., 2018; Shonkoff et al., 2009).

Most existing studies concern adolescents of color in the United States and other Western contexts. Relatively few studies have focused on the effects of ethnic discrimination on Palestinian adolescents in Israel or other ethnic groups in the Middle East. To the best of our knowledge, one of the first studies to investigate ethnic discrimination among Palestinian adolescents, conducted by Massarwi and Khoury-Kassabri (2016), found that ethnic discrimination is a major risk factor for violent and aggressive behaviors among adolescents. Based on the adolescents’ self-report and with a cross-sectional design, Massarwi and Khoury-Kassabri’s (2016) study examined experiences of personal ethnic discrimination from an individual perspective only. Building on their findings, we will expand the existing knowledge by investigating the long-term effects of personal experiences of ethnic discrimination on adolescent outcomes by focusing on several factors of ethnic discrimination and investigating it at the micro and macro levels based on a longitudinal design.

**Adolescents’ experiences of online ethnic discrimination:** Online ethnic discrimination can be encountered in three ways: (a) via experiencing ethnic cyber-aggression directly from others on the internet, (b) vicariously witnessing ethnic cyber-aggression, and (c) via consumption of online content that emphasizes the racist reality in society (Keum & Miller, 2017). Similar to experiences of ethnic discrimination, a growing body of knowledge shows that online ethnic discrimination is associated with multiple adverse mental health and negative behavioral outcomes among adolescents from ethnic and racial minority groups (Tynes et al., 2020; Tynes et al., 2008; Umaña-Taylor et al., 2015). For example, findings of a recent study conducted among a sample of 407 US adolescents from diverse ethnic groups showed that adolescents’ exposure to online racial discrimination was associated with depressive symptoms, anxiety, alcohol use disorder, and drug use problems (Tao & Fisher, 2022). To the best of our knowledge, less is known about the effects of online ethnic discrimination on adolescents’ outcomes based on the results of longitudinal research. The proposed study aims to address this gap by examining the long-term consequences of online ethnic discrimination on Palestinian adolescents’ emotional and behavioral outcomes.

**Adolescents’ cognitive structures:** The Social Cognitive Theory (Bandura, 1986) focuses on the link between environmental inputs, cognitive structures, and behavioral outcomes; consequently, social experiences (e.g., experiences of ethnic discrimination) influence and shape the individuals’ cognition of the self. We aim to investigate the potential role of adolescents’ cognitive constructs on the self (self-esteem) and on mediating the association between experiences of ethnic discrimination and outcomes. Self-esteem is a cognitive structure that refers to an individual’s overall assessment of his/her value to others and society (Leary & Baumeister, 2000; Rosenberg, 1965). A well-established body of knowledge demonstrates that adolescents who are targets of ethnic discrimination are at risk of developing low self-esteem (Cénat et al., 2022; Liu et al., 2021;Park et al., 2018; Yang et al., 2019), especially in collective cultures where self-concept relies heavily on the evaluation of others (Lönnqvist et al., 2015; Oyserman et al., 2002; Paradies, 2006). Ethnic discrimination causes individuals to experience negative emotions, e.g., feeling unworthy, incompetent, and incapable, thus contributing to reducing self-esteem, which then predicts poor mental health outcomes (Sanders-Phillibs et al., 2009).

**Adolescents’ background variables (age, gender, and socioeconomic status [SES]):** While previous studies have shown that the effects of ethnic discrimination might vary by gender, these findings are mixed (Heard et al., 2018). Some findings demonstrate that girls showed more mental health problems and emotional distress than boys in response to ethnic discrimination (Ford et al., 2013), but males are at higher risk of being involved in risky behaviors (Assari et al., 2019). However, findings of a recent longitudinal study showed no significant gender effects (Murry et al., 2022). Due to the limited number of studies focusing on age, it is difficult to conclude whether the effects of ethnic discrimination on mental health varies by age. However, systematic reviews and meta-analyses of longitudinal studies (Benner et al., 2018; Cave et al., 2020) showed that a positive association between racial discrimination and emotional distress was stronger during early than in late adolescence. Findings concerning the SES are also mixed (Assari, 2017; Ford et al., 2013; Neblett et al., 2016). For example, a recent study conducted among a national sample of African Americans found that subjective SES moderates the association between exposure to ethnic discrimination and adolescents’ depressive symptoms. At the same time, objective SES measures (income and poverty income) did not interact with the association between ethnic discrimination and mental health outcomes (Assari et al., 2018). However, less is known about the moderation effect of SES based on longitudinal data.

**Parental factors**

**Parental experiences of ethnic discrimination:** The association between parental experiences of ethnic discrimination and adolescent outcomes has been documented across an increasing body of evidence in recent years (Condon et al., 2022; Galàn et al., 2022; Heard-Garris et al., 2018; Loyd et al., 2021; Savell et al., 2019) emphasizing the potential effect of intergenerational transmission of ethnic-related stressors from parents to their children (Bowers & Yehuda, 2016).

Studies conducted among ethnic minority families have indicated a significant association between caregivers’ experiences of ethnic discrimination and children’s poor mental health outcomes, including depressive symptoms (Ford et al., 2013; Gibbons et al., 2004; Holloway & Varner, 2021), as well as externalizing problems (Tran, 2014). Besides the existing evidence based on cross-sectional studies, a recent longitudinal study conducted among 897 dyads of African-American adolescents and their mothers found that maternal experiences of ethnic discrimination were linked with adolescents’ emotional and behavioral problems (Murry et al., 2022). Despite this existing evidence, knowledge of the long-term effects of parental experiences of ethnic discrimination on adolescents’ outcomes remains limited, and research in this area is in its infancy.

Furthermore, as most of the studies focused on parents’ *offline* experiences of ethnic discrimination, to the best of our knowledge, less is known about the effects of parents’ experiences of *online* ethnic discrimination on adolescents’ outcomes. Therefore, the current study aims to bridge this gap by investigating the long-term effects of the Palestinian parents’ personal experiences of ethnic discrimination (offline and online) and adolescents’ outcomes.

**Parental mental health:** An established body of knowledge, based on cross-sectional and longitudinal analyses shows that experiences of ethnic discrimination (offline and online) have numerous negative effects on parents’ mental health, including depression and anxiety (Gonzales et al., 2018; Keum & Li, 2023; Murry et al., 2022; Wheaton et al., 2018). For example, a longitudinal study conducted among a sample of 4000 households of ethnic minorities in the UK found that cumulative exposure to ethnic discrimination has negative long-term effects on adults’ mental health, such as high levels of depression and psychological distress (Wallace et al., 2016).

The proposed study will explore the role of parental mental health as a potential mediator in the association between parental experiences of ethnic discrimination and adolescents’ outcomes, based on a growing body of empirical evidence demonstrating that parental mental health might underly the mechanism of the relationship between parental experiences of ethnic discrimination and adolescents’ outcomes (Condon et al., 2022; Galàn et al., 2022; Holloway & Varner, 2021; McNeil et al., 2014; Murry et al., 2022; Park et al., 2018; Tran, 2014). For example, a study conducted among a nationally representative sample of 2632 dyads of New Zealand parents and their children found that parental psychological distress links parental experiences of ethnic discrimination and poor child emotional health (Paine et al., 2020). In light of this empirical evidence, we aim to better understand the underlying mechanism explaining the association between parental experiences of ethnic discrimination and adolescents’ outcomes by exploring the potential mediating role of parental mental health.

**Parent-adolescent relationship:** Drawing on the Family Stress Model (Conger et al., 2010; Conger & Donnellan, 2007; Masarik & Conger, 2017), research on ethnic discrimination argues that micro and macro levels of discrimination are a source of stress that can impair parenting practices and parent-child relationships (Anderson et al., 2015; Murry et al., 2008; Zedan & Haj-Yahia, 2023). Despite the fact that findings are mixed, most of the existing evidence in this area has indicated that parents who experience racial discrimination show reduced parenting quality, including harsh discipline and poor parent-child interactions (Ayón & Garcia, 2019; Gassman-Pines, 2015).

The findings of a longitudinal analysis showed that parental experiences of ethnic discrimination are associated with a negative parent-child relationship (Murry et al., 2022). Beyond the empirical evidence showing a direct link between experiences of ethnic discrimination and parenting, there increasing evidence that the parent-child relationship might serve as a mediator between parental experiences of ethnic discrimination and child’s outcomes (Condon et al., 2022; Kazmierski et al., 2023). For example, a study conducted among a sample of 252 African American parents and their adolescent children found that parents’ experiences of ethnic discrimination were linked with higher levels of parent-child conflict which in turn, predicted greater levels of depression among adolescents (Galàn et al., 2022).

Another study suggested that exposure to racial microaggressions and other race-related stressors can compromise parents’ mental health, which then negatively affects their family relationships, including increases in parent–child conflict and harsh parenting (Murry et al., 2018). In line with this existing body of knowledge, we will explore the mediating role of parent-adolescent relationships on the association between parents’ experiences of ethnic discrimination and adolescents’ outcomes.

**Socio-contextual factors**

**Structural ethnic discrimination:** Structural ethnic discrimination refers to structural and social policies and practices that operate on the macro-level and limit individuals’ access to services, resources, and socioeconomic mobility (Bailey et al., 2021; Braveman et al., 2022; Williams & Mohammed 2009). This type of ethnic discrimination compounds inequities between communities in various aspects of life, including income, wealth, health, employment, neighborhood structures, education, criminal justice, and civic participation. These multiple inequalities result in disadvantaged living conditions among oppressed communities (Bailey et al., 2017). Increasing empirical evidence has emerged concerning the damaging effects of structural ethnic discrimination on mental health outcomes. It has been demonstrated that lifelong limited access to key resources are major chronic and acute stressors associated with adverse mental health outcomes, including depressive symptoms (Gee & Ford, 2011; Gonzales et al., 2018; Hankerson et al., 2022; Hardeman et al., 2016; Sternthall et al., 2011; Turney et al., 2013; Williams, 2018; Youngmann & Kushnirovich, 2022).

The body of knowledge concerning the effects of structural ethnic discrimination on children’s and adolescents’ outcomes has been growing. Findings of previous studies have shown that exposure to structural ethnic discrimination is linked with poor mental health outcomes (Saleem & Lambert, 2016; Seaton & Yip ,2009; Torres et al., 2022) and increased risk behaviors, such as drug use (Sander-Phillips et al., 2009). For example, a recent cohort study conducted among 34,252 US adolescents (aged 12−16) has shown that structural ethnic discrimination was associated with a greater risk of developing depressive symptoms (Acker et al., 2023). Despite this existing body of knowledge, little is known about the long-term effects of structural racial discrimination on parents’ and adolescents’ outcomes, emphasizing the need for further research in this area.

**Arab Palestinian society in Israel: Background and aspects of ethnic discrimination**

Palestinian society in Israel is an indigenous ethnic minority group that comprises about 21% of Israel’s total population (Israel Bureau of Statistics, 2019). It is a community characterized by significantly lower SES and fewer social resources than the Jewish majority (Gharrah, 2015). Palestinian society has experienced various forms of ethnic discrimination expressed in both personal and structural manifestations. These are often expressed in the form of negative attitudes held against them because of their ethnic affiliation, such as being treated as security threats in public spaces (Nagar et al., 2022). Palestinians in Israel also suffer from low resource allocation in education, health, employment, social welfare, and housing (Soen, 2010; 2012). Moreover, compared to Jewish residential areas, the majority of Palestinians in Israel reside in economically deprived, disadvantaged neighborhoods and villages that impinge on their mental health and well-being (Daoud et al., 2017). Studies of Palestinians in Israel have shown that adults exhibit more depressive symptoms than their Jewish counterparts. These disparities are likely attributable to health and mental health disparities between Arabs and Jews arising from ethnic discrimination (Abu-Kaf & Braun-Lewensohn, 2015; Abu-Kaf & Priel, 2012; Khatib & Abu-Rass, 2022). Despite this body of knowledge, little is known about the long-term effects of multiple types of ethnic discrimination on Palestinian adolescents and their parents in Israel.

**RESEARCH OBJECTIVES AND EXPECTED SIGNIFICANCE**

The main objective of the proposed study is to investigate the short-term, long-term, and cumulative effects of the experiences of multiple types of ethnic discrimination among Palestinian adolescents and their parents. Based on an ecological perspective, the study will look at individual factors, familial factors, and socio-contextual factors and their effects on adolescents’ and parents’ outcomes. The impact of ethnic discrimination on adolescents and adults is well-established in the research literature.

Nevertheless, there is a substantial dearth of evidence concerning the long-term and cumulative effects of ethnic discrimination on adolescents and their parents based on longitudinal data. Most existing studies are based on cross-sectional analyses. To bridge this evidence gap, a longitudinal research design will be utilized, aiming to thoroughly understand the effects of ethnic discrimination on adolescents and parents over time.

Furthermore, the theoretical framework of the study acknowledges the need to understand the pathways in which different forms of ethnic discrimination operate on adolescents’ and parents’ outcomes, as the mechanisms underlying experiences of ethnic discrimination over time have been unexplored. Therefore, potential mediators (adolescent cognition, parent-child relationships, and parental mental health) on the associations between adolescents’ and parents’ experiences of ethnic discrimination and adolescents’ outcomes will be tested.

Furthermore, despite the extensive body of knowledge on the impact of ethnic discrimination on mental health outcomes among adolescents and adults, most of the studies were carried out among ethnic minority groups in Western countries (e.g., the US) and only a relatively few studies were conducted within the non-Western cultural context, particularly among dyads of adolescents and parents. Therefore, given this lack of research in non-Western contexts, another aim of the proposed study is to extend the existing knowledge on the impact of ethnic discrimination to a non-Western context, focusing on adolescents and parents from Palestinian society in Israel as an ethnic minority group. The proposed study will provide policymakers and mental health practitioners with important information on the effects of multiple types of ethnic discrimination on adolescents and parents over time. The results can be instrumental in designing and developing effective prevention and intervention programs dealing with the impact of ethnic discrimination based on an ecological perspective.

**DETAILED DESCRIPTION OF THE PROPOSED RESEARCH**

**The main research questions and hypotheses:**

**1.** What are the short-term and long-term effects of exposure to multiple types of racial discrimination on adolescents’ and parents’ outcomes?

**2.** How does the effect of exposure to multiple types of racial discrimination on adolescents’ and parents’ outcomes change over time?

**3.** The higher the levels of adolescents’ exposure to multiple types of racial discrimination, the higher the levels of their mental health distress and involvement in health-risk behaviors (At TI, T2 and T3).

**4.** The higher the levels of adolescents’ exposure to multiple types of racial discrimination, the lower the levels of adolescents’ self-esteem (cognition perception of self) (At TI, T2 and T3).

**5.** Parents’ exposure to multiple types of racial discrimination is negatively linked with parents’ mental health outcomes (at T1, T2, and T3).

**6.** The higher the levels of parents’ exposure to multiple types of racial discrimination, the more negative the parent-child relationships (At T1, T2, T3).

**7.** The associations between parents’ exposure to multiple types of racial discrimination and adolescents’ own exposure to multiple types of racial discrimination will be tested at T1, T2, and T3.

**Mediation pathways and indirect effects at T2 and T3:**

**8.** Parents’ mental health outcomes can mediate the association between parents’ exposure to multiple types of racial discrimination with adolescents’ mental health outcomes and involvement in health-risk behaviors (will be tested at T2 and T3 only?).

**9.** Parent-child relationships can mediate the association between parents’ exposure to multiple types of racial discrimination with adolescents’ mental health outcomes and health-risk behaviors. (will be tested at T2 and T3 only?)

**10.** Adolescents’ self-esteem (cognition perception of self) will mediate the association between adolescents’ exposure to multiple types of racial discrimination and adolescents’ outcomes (mental health and involvement in health-risk behaviors). (Also T2 and T3 only?)

**Moderation analyses:**

**11.** The moderating role of adolescents’ age, gender, and family SES will be tested on the association between the adolescents’ exposure to multiple types of racial discrimination with adolescents’ mental health and involvement in health-risk behaviors, at T1, T2, and T3.

**12.** The moderating role of adolescents’ age, gender, and family SES will be tested on the association between the parents’ exposure to multiple types of racial discrimination and parents’ mental health, at T1, T2, and T3.

**Sample size, research design, and** **procedure**

Given that power decreases as the level of complexity increases, we conducted a power analysis for the moderated mediation effect, which is the most complex hypothesis in the study. Having sufficient power for the moderated mediation effect suggests sufficient power for the other less complex effects. To estimate power, we used the pwr2ppl package in R. Assuming medium effect size associations (0.3 in a correlation metric) and alpha = .05, a sample of n = 480 (dyads) yielded a power of .80. Taking the more conservative sample size estimation and assuming a 30% attrition rate, a sample of n = 1100 dyads will be recruited (n =550 adolescents; n=550 parents).

The proposed study will employ a longitudinal research design to collect data from adolescents and their parents at three points in time separated by one year (12 months. Data will be collected from adolescents and their parents using structured, anonymous, self-administered questionnaires to be completed online (via Qualtrics software). In order to reach a representative sample, dyads of participants (i.e., adolescents and their parents) will be recruited from secondary schools using a stratified probability sample. The stratum will be based on the locality SES index developed by Israel’s Central Bureau of Statistics. This index is a measure often used to describe the SES of localities in Israel and is based on various social and economic indicators, such as education level, income, employment, housing characteristics, infrastructure, and receipt of social benefits (Gharrah, 2015). In the first stage, one Arab locality will be randomly sampled from each SES cluster. Second, one high school from each locality will be selected randomly from a list of schools provided by the Israeli Ministry of Education. Third, at each selected school, one class will be randomly selected from each grade level, and all students in the selected classes and their parents will be asked to participate in the study.

The study will be conducted among adolescents (aged 12−18) and their parents. After selecting the schools, the the study PIs will contact the principals and to provide information about the goals of the study and the schools’ role in recruiting the students and their parents. After obtaining the principals’ approval, consent forms and information sheets will be distributed by trained research assistants to the adolescents at school. They will be asked to pass the information sheets and consent forms on to either one of their parents.

Adolescents and parents will have one week to consider their willingness to participate in the study. They will be provided with the PIs’ contact details in the event they have any questions about the nature of the study. After a week, research assistants will revisit the schools to collect the consent forms from students who have agreed to participate. Upon approval, research assistants will contact adolescents and parents via phone to explain the study’s procedure. Adolescents and their parents will complete the questionnaires at home using Qualtrics software on their cellphones or computers by following a link. Completion of the questionnaires is expected to take about 30−40 minutes. All participants will be informed that they have the option to refuse to participate in the study. They will be free to withdraw from the study at any time and for any reason without any penalty. In addition, parents will be informed that they have the option to refuse to allow their adolescents to participate. Confidentiality and anonymity will be ensured at all stages of the study for all participants, and all data collected will be used for research purposes only. Participants will also be informed that their contact details will be securely saved for completing the data collection in the second and third stages of the data collection. The adolescents and their parents will be given a gift voucher after the completion of the data collection at T3 to compensate them for their time. The questionnaires, data collection procedures, information sheets, and informed consent forms for adolescents and parents will be reviewed by the Ben-Gurion University of the Negev and the Hebrew University of Jerusalem Internal Review Boards of Ethics as well as by the Israeli Ministry of Education.

**Measures**

**Independent variables**

**Personal experiences of ethnic discrimination.** Personal experiences of ethnic discrimination among adolescents and parents will be measured by The Everyday Discrimination Scale (Williams et al., 1997). The scale includes 9 items of negative and unfair treatment against ethnic minorities as part of their daily interactions with the majority community (e.g., “I have received bad service at a restaurant because of my ethnic affiliation”). This scale was translated into Arabic and adapted to the Israeli context, its internal reliability found to be 0. 93 in a previous study measuring Palestinian adolescents’ personal ethnic discrimination (Massarwi & Khoury-Kassabri, 2016). Participants in this study (adolescents and parents) will be asked to indicate how many times they have experienced each one of the 9 items over the past year. Responses are based on a 5-point Likert-type scale, ranging from 0 (never) to 5 (almost every day). One overall score will be derived by computing the mean of the responses on all items.

**Online experiences of ethnic discrimination.**Online experiences of ethnic discrimination among adolescents and parents will be measured by the short form of the Perceived Online Racism Scale (PORS-SF; Kuem, 2021), which is used to assess people’s experiences of racist online interactions and exposure to racist online content and information. The 15 items of the PORS-SF span three domains: personal experience of racial cyber-aggression (e.g., “I have received racist insults regarding my online profile [e.g., profile pictures, user ID.]”), vicarious exposure to racial cyber-aggression (e.g., “I have seen other racial/minority users being treated like a second-class citizen.”), and online-mediated exposure to racist reality (e.g., “I have seen online videos (e.g., YouTube) that portray my racial/ethnic group negatively”). Responses will be rated on a five-point Likert-type scale ranging from 1 (never) to 5 (all the time), with higher scores indicating greater exposure to online ethnic discrimination. Keum and Miller (2017) established good initial psychometric properties for the PORS with good internal consistency estimates (.90 to .95 across the subscales), construct validity relationships with racism-related stress, psychological distress, and unjust views of society (Keum & Li, 2022). This scale will be translated into Arabic and adapted to the Palestinian society in Israel for the purposes of the proposed study.

**Perceptions of structural ethnic discrimination.**Perceptions of structural ethnic discrimination among adolescents and parents will be measured using the Institutional Group Discrimination (IGD) developed by Daoud et al. (2018). This scale is a validated self-report 12-item scale that evaluates perceptions of structural discrimination against Arabs as a collective ethnic minority in Israel (Osman, 2015). Participants will be asked to rate their agreement with 12 statements that described systematic inequalities between Arabs and Jews that stem directly or indirectly from discriminatory institutional practices, such as: “Arab towns lack adequate healthcare services compared to Jewish towns; “Arab towns are underdeveloped compared to Jewish towns”; “Arabs in Israel have fewer employment opportunities compared to Jews.” Responses are rated on a 5-point Likert scale ranging from strongly disagree to strongly agree. This measure has shown good construct validity in previous testing (Daoud et al., 2018; Osman et al., 2015). One overall score will be derived by computing the mean of the items. The reliability value in the previous study was 0.93 (Daoud et al., 2018).

**Dependent variables**

**Adolescents’ mental health***.*This variable will be tested by using two tools measuring depression and psychological distress. Depressive symptoms will be measured by the 13-item Beck Depressive Index (BDI; [Beck et al., 1961](https://www.sciencedirect.com/science/article/pii/S0145213407001366?casa_token=Aj0gTF8ogD8AAAAA:TRPsuvqb4fkgH0LV2evVaCr3K0-ePBFaTaL8zVoYSWsq7lwCXcipgd2IPByCzQ2qxzw2nfRGYsQ#bib8)). The scale includes various symptoms such as sad mood, difficulties in making decisions, and exhaustion, rated for the past two weeks on a four-point Likert scale. This scale, frequently used among Palestinian samples, has been found to be reliable ([Qouta et al., 2005](https://www.sciencedirect.com/science/article/pii/S0145213407001366?casa_token=Aj0gTF8ogD8AAAAA:TRPsuvqb4fkgH0LV2evVaCr3K0-ePBFaTaL8zVoYSWsq7lwCXcipgd2IPByCzQ2qxzw2nfRGYsQ" \l "bib67);2007).

Psychological distress will be measured using the 10-item version of the Kessler Psychological Distress Scale (Kessler et al., 2003). The scale identifies extreme psychological distress symptoms in the general population, including nervousness, hopelessness, sadness, worthlessness, and fatigue. Responses are rated on a 5-point Likert-type scale ranging from 1 (none of the time) to 5 (all of the time). Responses are summed to create a total score (range = 10–50), with higher scores signifying higher psychological distress. In previous studies among Arab children, K10 had strong scale reliability with Cronbach’s alpha greater than 0.88 (Easton et al., 2017).

**Adolescents’ health-risk behaviors (Drug use and drinking alcohol)**. This variable will be measured using a scale developed by Johnston, O’Malley, and Bachman (1995), which has been widely used in Hebrew and Arabic translations in Israel (Schiff et al., 2008). This scale includes seven items, three relating to alcohol use and four relating to cigarette smoking and drug use. Responses are given on a 7-point Likert-type scale that examines the frequency of use during the past year, ranging from 1 = never to 7 = 30 times or more. In a previous study conducted among Arab adolescents in Israel, the reliability of the scale was 0.95 (Eseed & Khoury-Kassabri, 2018). One overall score will be derived by computing the mean of the items.

**Adolescents’ self-esteem.** Adolescent’s self-esteem will be measured by The Rosenberg Self-Esteem Scale (RSESR; Rosenberg, 1965), a 10-item self-report measure extensively used to assess evaluations of self-esteem (e.g., “I feel that I have a number of good qualities”) which are presented on a Likert scale from 1 (strongly agree) to 4 (strongly disagree). One overall score will be derived by computing the mean of the items. Previous studies have provided evidence for its reliability and validity among Arab adolescents in Israel, with reliability values ranging from .78 to .81 (Abu-Saad, 1999; Benish-Weisman et al., 2017; Peleg, 2009).

**Parental mental health*.*** This variable will be measured using The Brief Symptom Inventory (BSI) (Derogatis & Melisaratos’s, 1983). The BSI is a highly reliable and well-validated 53-item self-report symptom inventory designed to assess psychological symptoms ([Derogatis & Melisaratos, 1983](https://journals-sagepub-com.ezproxy.bgu.ac.il/reader/content/1863c30e3f8/10.1177/0886260519843280/format/epub/EPUB/xhtml/index.xhtml?hmac=1695917311-7q8aZJb%2ByL933fM6sm5pJpR8mx4fBj%2BHIllIMZIuDvo%3D" \l "bibr8-0886260519843280)). Each item of the BSI is rated on a 5-point scale of distress, ranging from 0 (not at all) to 4 (extremely). The BSI was selected to best reflect the following nine primary symptom dimensions: somatization (e.g., “feeling weak in parts of your body”), obsessive-compulsive behaviour (e.g., “having to check and double-check what you do”), depression (e.g., “feelings of worthlessness”), interpersonal sensitivity (e.g., “feelings of inadequacy, inferiority, and marked discomfort during interpersonal interactions”), anxiety (e.g., “feeling tensed or keyed up”), hostility (e.g., “having urges to beat, injure, or harm someone”), phobic anxiety (e.g., “feeling uneasy in crowds”), paranoid ideation (e.g., “feeling that most people cannot be trusted”), and psychoticism (e.g., “feeling very self-conscious with others”). [Derogatis and Melisaratos (1983)](https://journals-sagepub-com.ezproxy.bgu.ac.il/reader/content/1863c30e3f8/10.1177/0886260519843280/format/epub/EPUB/xhtml/index.xhtml?hmac=1695917311-7q8aZJb%2ByL933fM6sm5pJpR8mx4fBj%2BHIllIMZIuDvo%3D#bibr8-0886260519843280) reported that Cronbach’s alpha internal consistency coefficients for all nine dimensions ranged from a low of .71 for the psychoticism dimension to a high of .85 for depression. Cronbach’s alpha coefficients for the nine dimensions of the Arabic version of the BSI utilized in a previous study ranged .76 on the somatization dimension to.88 for depression and anxiety (Haj-Yahia & Tamish, 2001). One combined score will be computed for each participant by totalling their responses on all 53 items that measure all nine symptoms as a global index for psychological distress.

**Parent-adolescent relationship*.*** This variable will be measured using the Adolescent Family Process (AFP) scale (Vazsonyi et al., 2003). It includes 25 paternal and maternal items for measuring six subscales based on the adolescent perspective on his/her relationship with their parents: closeness (such as “My mother/father gives me the right amount of affection”); support (such as “My mother/father puts me down in front of other people”); and monitoring (such as “When I am not at home, my mother/father knows my whereabouts”). These will be rated on a five-point Likert-type response scale ranging from 1 = strongly disagree to 5 = strongly agree. Other subscales include communication (such as “How often do you talk to your mother/father about things that are important to you?”); conflict (such as “How often do you have disagreements or arguments with your mother/father?”); and peer approval (such as “How often does your mother/father approve of your friends?”). These will be rated on a five-point Likert-type scale ranging from 1 = never to 5 = very often (Pickering & Vazsonyi, 2010). One overall score will be derived by computing the mean of the items. Higher values represent better parent-adolescent relationships. This scale was used in previous studies among Arab adolescents in Israel with reliability values ranging from .76 to .87 (Khoury-Kassabri et al., 2019; Massarwi & Khoury-Kassabri, 2016). The same scale will be adapted to produce a parental version and parents will be asked to self-report their relationship with their adolescent.

**Background and sociodemographic variables*.*** Adolescents and parents will be asked to provide socio-demographic information, including age, gender, religion, type of locality of residence, area of residence, parental education, and family SES.

**Data analysis**

The research design includes longitudinal mediation and moderation hypotheses. Structural Equation Modeling (SEM) is most appropriate for these kinds of research hypotheses as SEM can simultaneously model both mediation and moderation effects on multiple variables (i.e., predictors, mediators, moderators, controls, and outcomes). Moreover, SEM uses full-information maximum likelihood estimation that can easily handle missing data that are common in longitudinal designs. In the SEM analytical approach, we will use the CLMP (cross-lagged panel model) and RI-CLMP (random intercept cross-lagged panel model) to assess the longitudinal effect of the between-participants and within-participant effects over time. Such analyses control for the baseline level in an outcome variable when estimating the longitudinal effect of the predictor at tn on the outcome at tn+1. The CLMP and RI-CLMP are the best methods for close-to-causal effects in non-experimental settings.

**Preliminary results**

Not applicable

**Resources available to the researcher to carry out the study**

**Dr. Adeem A. Massarwi**: Dr. Massarwi has extensive experience as a co-investigator of both national and international large-scale samples of children, adolescents, and parents. He has worked on a large-scale study that explored risk and protective factors among Arab adolescents in Israel in a sample of 3,260 adolescents from over 20 Arab schools. This experience will be instrumental in understanding the theoretical, methodological, and practical aspects of the current study.

**Prof. Muhammad M. Haj-Yahia**: Prof. Haj-Yahia has extensive experience in conducting quantitative large-scale surveys as well as qualitative studies about different topics related to family violence, school violence, community violence, and political violence (e.g., rates, risk factors, mental health effects), in many countries around the world (e.g., Israel, The Palestinian National Authority, Jordan, Turkey, Sri Lanka, Taiwan, Bangladesh). He has also supervised over 50 graduate students in writing their MSW theses and doctorate dissertations on topics related to the abovementioned domains of research. He has written and published over 120 articles in prominent refereed journals, edited two books published by Oxford University Press and Indiana University Press, and has written several research reports, all of on topics related to the abovementioned fields of research.

**Bibliography**

Abu-Kaf, S., & Braun-Lewensohn, O. (2015). Paths to depression among two different cultural contexts. *Journal of Cross-Cultural Psychology*, *46*(4), 612–630.

Abu-Kaf, S., & Priel, B. (2012). Vulnerabilities to depression and sense of coherence among Bedouin Arab and Jewish students: A test of a mediation model. *International Journal of Psychology and Counselling*, *4*(3), 31–40.

Abu-Saad, I. (1999). Self-esteem among Arab adolescents in Israel. *The Journal of Social Psychology*, *139*(4), 479−486.‏

Acker, J., Aghaee, S., Mujahid, M., Deardorff, J., & Kubo, A. (2023). Structural Racism and Adolescent Mental Health Disparities in Northern California. *JAMA Network Open*, *6*(8).

Anderson, R. E., Hussain, S. B., Wilson, M. N., Shaw, D. S., Dishion, T. J., & Williams, J. L. (2015). Pathways to pain: Racial discrimination and relations between parental functioning and child psychosocial well-being. *Journal of Black Psychology*, *41*(6), 491−512.‏

Andrade, N., Ford, A. D., & Alvarez, C. (2021). Discrimination and Latino health: A systematic review of risk and resilience. *Hispanic Health Care International*, *19*(1), 5−16.‏

Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology*, *30*(1), 47−88.‏

Agnew, R. (2002). Experienced, vicarious, and anticipated strain: An exploratory study on physical victimization and delinquency. *Justice Quarterly, 19*(4), 603–632.

Alvarez, K., Polanco-Roman, L., Samuel Breslow, A., & Molock, S. (2022). Structural racism and suicide prevention for ethnoracially minoritized youth: A conceptual framework and illustration across systems. *American Journal of Psychiatry*, *179*(6), 422−433.‏

Assari, S., Moghani Lankarani, M., & Caldwell, C. H. (2017). Discrimination increases suicidal ideation in black adolescents regardless of ethnicity and gender. *Behavioral Sciences*, *7*(4), 75.‏

Assari, S., Preiser, B., Lankarani, M. M., & Caldwell, C. H. (2018). Subjective socioeconomic status moderates the association between discrimination and depression in African American youth. *Brain sciences*, *8*(4), 71.‏

Assari, S., Mistry, R., Lee, D. B., Caldwell, C. H., & Zimmerman, M. A. (2019). Perceived racial discrimination and marijuana use a decade later; gender differences among Black youth. *Frontiers in Pediatrics*, *7*, 78.‏

Ayón, C., & García, S. J. (2019). Latino immigrant parents’ experiences with discrimination: Implications for parenting in a hostile immigration policy context. *Journal of Family Issues*, *40*(6), 805−831.‏

Beck, A. T., Ward, C. H., Mendelsohn, M., Mosck, L., & Erlaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, *18*, 561–571.

Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. T. (2017). Structural racism and health inequities in the USA: evidence and interventions. *The Lancet*, *389*(10077), 1453−1463.‏

Bailey, Z. D., Feldman, J. M., & Bassett, M. T. (2021). How structural racism works—racist policies as a root cause of US racial health inequities. *New England Journal of Medicine*, *384*(8), 768-773.‏

Bandura, A. (1986). *Social foundations of thought and action*. ~~‏~~

Benner, A. D., Wang, Y., Shen, Y., Boyle, A. E., Polk, R., & Cheng, Y. P. (2018). Racial/ethnic discrimination and well-being during adolescence: A meta-analytic review. American Psychologist, 73(7), 855–883.

Bernard, D. L., Calhoun, C. D., Banks, D. E., Halliday, C. A., Hughes-Halbert, C., & Danielson, C. K. (2021).

Making the “C-ACE” for a culturally-informed adverse childhood experiences framework to understand the pervasive mental health impact of racism on Black youth. *Journal of Child & Adolescent Trauma*, *14*, 233−47.‏

Benish‐Weisman, M., Daniel, E., & McDonald, K. L. (2020). Values and adolescents’ self‐esteem: The role of value content and congruence with classmates. *European Journal of Social Psychology*, *50*(1), 207−223.‏

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.

Bowers, M. E., & Yehuda, R. (2016). Intergenerational transmission of stress in humans. *Neuropsychopharmacology*, *41*(1), 232−244.‏

Braveman, P. A., Arkin, E., Proctor, D., Kauh, T., & Holm, N. (2022). Systemic and structural racism: Definitions, examples, health damages, and approaches to dismantling: Study examines definitions, examples, health damages, and dismantling systemic and structural racism. *Health Affairs*, *41*(2), 171−178.‏

Carter, R. T. (2007). Racism and psychological and emotional injury: Recognizing and assessing race-based traumatic stress. *The Counseling Psychologist*, *35*(1), 13−105.‏

Cave, L., Cooper, M. N., Zubrick, S. R., & Shepherd, C. C. (2020). Racial discrimination and child and adolescent health in longitudinal studies: A systematic review. *Social Science & Medicine*, *250*, 112864.‏

Cho, Y. J., Lee, W. J., Oh, H., Lee, J. O., Kim, B. K. E., & Jang, Y. (2021). Perceived racial discrimination and mental health in diverse groups of Asian Americans: the differing impacts by age, education, and ethnicity. *Journal of Immigrant and Minority Health*, 1−7.‏

Choi, Y., Jeong, E., & Park, M. (2022). Asian Americans’ parent-child conflict and racial discrimination may explain mental distress. *Policy Insights from the Behavioral and Brain Sciences*, *9*(1), 18−26.‏

Cooke, C. L., Bowie, B. H., & Carrere, S. (2014). Perceived discrimination and children’s mental health symptoms. *Advances in Nursing Science*, *37*(4), 299−314.‏

Condon, E. M., Barcelona, V., Ibrahim, B. B., Crusto, C. A., & Taylor, J. Y. (2022). Racial discrimination, mental health, and parenting among African American mothers of preschool-aged children. *Journal of the American Academy of Child & Adolescent Psychiatry*, *61*(3), 402−412.

‏Conger, R.D., Conger, K.J. & Martin, M.J. (2010) Socioeconomic status, family processes, and individual development. *Journal of Marriage and Family, 72*(3), 685–704.

Conger, R.D. & Donnellan, M.B. (2007) An interactionist perspective on the socioeconomic context of human development. *Annual Review of Psychology, 58*, 175–199.

Cormack, D., Stanley, J., & Harris, R. (2018). Multiple forms of discrimination and relationships with health and well-being: findings from national cross-sectional surveys in Aotearoa/New Zealand. *International Journal for Equity in Health*, *17*, 1−15.‏

Cronholm, P. F., Forke, C. M., Wade, R., Bair-Merritt, M. H., Davis, M., Harkins-Schwarz, M., Pachter, L. M., & Fein, J. A. (2015). Adverse childhood experiences: Expanding the concept of adversity. *American Journal of Preventive Medicine, 49*(3), 354–361.

Cénat, J. M., Darius, W. P., Dalexis, R. D., Kogan, C. S., Guerrier, M., & Ndengeyingoma, A. (2022). Perceived racial discrimination, internalized racism, social support, and self-esteem among Black individuals in Canada: A moderated mediation model. *Cultural Diversity and Ethnic Minority Psychology*.‏

Condon, E. M., Barcelona, V., Ibrahim, B. B., Crusto, C. A., & Taylor, J. Y. (2022). Racial discrimination, mental health, and parenting among African American mothers of preschool-aged children. *Journal of the American Academy of Child & Adolescent Psychiatry*, *61*(3), 402−412.‏

Easton, S. D., Safadi, N. S., Wang, Y., & Hasson, R. G. (2017). The Kessler psychological distress scale: translation and validation of an Arabic version. *Health and Quality of Life Outcomes*, *15*, 1−7.‏

Ehlers, C. L., Gizer, I. R., Gilder, D. A., Ellingson, J. M., & Yehuda, R. (2013). Measuring historical trauma in an American Indian community sample: Contributions of substance dependence, affective disorder, conduct disorder and PTSD. *Drug and alcohol dependence*, *133*(1), 180−187.‏

Eseed, R., & Khoury-Kassabri, M. (2018). Alcohol use among Arab Muslim adolescents: A mediation-moderation model of family, peer, and community factors. *American Journal of Orthopsychiatry, 88*(1), 88–98.

Daoud, N., Gao, M., Osman, A., & Muntaner, C. (2018). Interpersonal and institutional ethnic discrimination, and mental health in a random sample of Palestinian minority men smokers in Israel. *Social Psychiatry and Psychiatric Epidemiology*, *53*, 1111−1122.‏

Derogatis, L. R., & Melisaratos, N. (1983). The brief symptom inventory: an introductory report. *Psychological Medicine*, *13*(3), 595−605.‏

Dovidio, J. F., Hewstone, M., Glick, P., & Esses, V. M. (2010). Prejudice, stereotyping and discrimination: Theoretical and empirical overview. *Prejudice, Stereotyping and Discrimination*, 3−28.‏

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, *14*(4), 245−258.‏

Haj-Yahia, M. M., & Tamish, S. (2001). The rates of child sexual abuse and its psychological consequences as revealed by a study among Palestinian university students. *Child Abuse & Neglect*, *25*(10), 1303−1327.‏

Hardeman, R. R., Medina, E. M., & Kozhimannil, K. B. (2016). Structural racism and supporting black lives—the role of health professionals. *New England Journal of Medicine*, *375*(22), 2113−2115.

Harrell, C. J. P. (1999). *Manichean psychology*. Howard University Press.

Harrell, S. P. (2000). A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color. *American Journal of Orthopsychiatry, 70(1)*, 42–57.

Harrell, C. J. P., Burford, T. I., Cage, B. N., Nelson, T. M., Shearon, S., Thompson, A., & Green, S. (2011). Multiple pathways linking racism to health outcomes. *Du Bois Review: Social Science Research on Race*, *8*(1), 143–157.‏

Hankerson, S. H., Moise, N., Wilson, D., Waller, B. Y., Arnold, K. T., Duarte, C., ... & Shim, R. (2022). The intergenerational impact of structural racism and cumulative trauma on depression. *American Journal of Psychiatry*, *179*(6), 434−440.‏

Holloway, K., & Varner, F. (2021). Parenting despite discrimination: Does racial identity matter? *Cultural Diversity and Ethnic Minority Psychology*, *27*(4), 781.‏

Heard-Garris, N. J., Cale, M., Camaj, L., Hamati, M. C., & Dominguez, T. P. (2018). Transmitting trauma: A systematic review of vicarious racism and child health. *Social Science & Medicine*, *199*, 230–240.‏

Hutchins, H. J., Barry, C. M., Wanga, V., Bacon, S., Njai, R., Claussen, A. H., ... & Robinson, L. R. (2022). Perceived racial/ethnic discrimination, physical and mental health conditions in childhood, and the relative role of other adverse experiences. *Adversity and Resilience Science*, *3*(2), 181−194.‏

Israel Bureau of Statistics. (2019). Israel in numbers: On its 70th anniversary (Hebrew). <https://www.cbs.gov.il/he/mediarelease/DocLib/2018/104/11_18_104b.pdf>

Kazmierski, K. F., Borelli, J. L., & Rao, U. (2023). Multidimensional discrimination distress, controlling parenting, and parent–adolescent attachment relationships: Racial/ethnic differences. *Journal of Social Issues*, *79*(1), 334−359.‏

Kessler, R. C., Green, J. G., Gruber, M. J., Sampson, N. A., Bromet, E., Cuitan, M., ... & Zaslavsky, A. M. (2010). Screening for serious mental illness in the general population with the K6 screening scale: results from the WHO World Mental Health (WMH) survey initiative. *International Journal of Methods in Psychiatric Research*, *19*(S1), 4−22.‏

Keum, B. T. (2022). Impact of online racism on suicide ideation through interpersonal factors among racial minority emerging adults: the role of perceived burdensomeness and thwarted belongingness. *Journal of Interpersonal Violence*, 08862605221117247.

Keum, B. T., & Cano, M. A. (2021). Online racism, psychological distress, and alcohol use among racial minority women and men: A multi-group mediation analysis. *American Journal of Orthopsychiatry, 91*(4), 524–530.

Keum, B. T., & Miller, M. J. (2017). Racism in digital era: Development and initial validation of the Perceived Online Racism Scale (PORS v1. 0). *Journal of Counseling Psychology*, *64*(3), 310.‏

Keum, B. T., & Li, X. (2023). Online racism, rumination, and vigilance: Impact on distress, loneliness, and alcohol use. *The Counseling Psychologist*, *51*(3), 422−448.

Khatib, A., & Abo-Rass, F. (2022). Mental health literacy among Arab university students in Israel: A qualitative study. *International Journal of Social Psychiatry*, *68*(7), 1486−1493.‏

Khoury-Kassabri, M., Mishna, F., & Massarwi, A. A. (2019). Cyberbullying perpetration by Arab youth: The direct and interactive role of individual, family, and neighborhood characteristics. *Journal of Interpersonal Violence*, *34*(12), 2498−2524.‏

Gassman-Pines, A. (2015) Effects of Mexican immigrant parents’ daily workplace discrimination on child behavior and family functioning. *Child Development, 86*(4), 1175–1190.

Galán, C. A., Meza, J. I., Ridenour, T. A., & Shaw, D. S. (2022). Racial discrimination experienced by black parents: Enduring mental health consequences for adolescent youth. *Journal of the American Academy of Child & Adolescent Psychiatry*, *61*(10), 1251−1261.‏

Gee, G. C., & Ford, C. L. (2011). Structural racism and health inequities: Old issues, New Directions. *Du Bois Review: Social Science Research on Race*, *8*(1), 115−132.‏

Gibbons, F. X., Gerrard, M., Cleveland, M. J., Wills, T. A., & Brody, G. (2004). Perceived discrimination and substance use in African American parents and their children: a panel study. *Journal of Personality and Social Psychology*, *86*(4), 517.‏

Gharrah, R. (2015). *Arab society in Israel: Population, society, economy*. Jerusalem: Van Leer Institute.

Gonzales, E., Jung, L., Lee, Y., & Wang, Y. (2018). Cumulative Inequality: A Lens to Understand Structural Discrimination and its Effect on Health. *Innovation in Aging*, *2*(suppl\_1), 230−230.‏

Johnston, L. D., O’Malley, P. M., & Bachman, J. G. (1995). *National survey results on drug use from the Monitoring the Future study, 1975−1994. Volume I: Secondary school students*. National Institute on Drug Abuse.‏

Ford, K. R., Hurd, N. M., Jagers, R. J., & Sellers, R. M. (2013). Caregiver experiences of discrimination and African American adolescents’ psychological health over time. *Child Development*, *84*(2), 485−499.‏

Jones, J. M. (1972). *Prejudice and racism*. Reading: Addison-Wesley.

Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer theory. In *Advances in experimental social psychology* (Vol. 32, pp. 1–62). Academic Press.‏

Lee, R. T., Perez, A. D., Boykin, C. M., & Mendoza-Denton, R. (2019). On the prevalence of racial discrimination in the United States. *PloS One*, *14*(1), e0210698.‏

Liu, X., Xie, T., Li, W., Tao, Y., Liang, P., Zhao, Q., & Wang, J. (2023). The relationship between perceived discrimination and well-being in impoverished college students: a moderated mediation model of self-esteem and belief in a just world. *Current Psychology*, *42*(8), 6711−6721.

Loyd, A. B., Kürüm, E., Crooks, N., Maya, A., Emerson, E., & Donenberg, G. R. (2022). Investigating longitudinal associations between racial microaggressions, coping, racial/ethnic identity, and mental health in Black girls and women. *Journal of Research on Adolescence*, *32*(1), 69−88.‏

Lönnqvist, J. E., Hennig-Schmidt, H., & Walkowitz, G. (2015). Ethnicity-and sex-based discrimination and the maintenance of self-esteem. *PLoS One*, *10*(5), e0124622.‏

Massarwi, A. A., & Khoury-Kassabri, M. (2016). Serious physical violence among Arab-Palestinian adolescents: The role of exposure to neighborhood violence, perceived ethnic discrimination, normative beliefs, and, parental communication. *Child Abuse & Neglect*, *63*, 233−244.‏

Masarik, A.S. & Conger, R.D. (2017) Stress and child development: A review of the Family Stress Model. *Current Opinion in Psychology, 13*, 85–90.

Murry, V. M., Butler‐Barnes, S. T., Mayo‐Gamble, T. L., & Inniss‐Thompson, M. N. (2018). Excavating new constructs for family stress theories in the context of everyday life experiences of Black American families. *Journal of Family Theory & Review*, *10*(2), 384−405.‏

Murry, V. M., Harrell, A. W., Brody, G. H., Chen, Y. F., Simons, R. L., Black, A. R., ... & Gibbons, F. X. (2008). Long‐term effects of stressors on relationship well-being and parenting among rural African American women. *Family Relations*, *57*(2), 117−127.‏

Maxie‐Moreman, A. D., & Tynes, B. M. (2022). Exposure to online racial discrimination and traumatic events online in Black adolescents and emerging adults. *Journal of Research on Adolescence*, *32*(1), 254−269.‏

McNeil, S., Harris-McKoy, D., Brantley, C., Fincham, F., & Beach, S. R. (2014). Middle class African American mothers’ depressive symptoms mediate perceived discrimination and reported child externalizing behaviors. *Journal of Child and Family Studies*, *23*, 381−388.‏

Murry, V. M., Gonzalez, C. M., Hanebutt, R. A., Bulgin, D., Coates, E. E., Inniss-Thompson, M. N., ... & Cortez, M. B. (2022). Longitudinal study of the cascading effects of racial discrimination on parenting and adjustment among African American youth. *Attachment & Human Development*, *24*(3), 322−338.‏

Nagar, R., Shani, A., & Poria, Y. (2022). “You feel like a second-class guest”: Customer discrimination against Arab guests in Israeli hotels. *International Journal of Hospitality Management*, *103*, 103216.‏

Neblett Jr, E. W., Bernard, D. L., & Banks, K. H. (2016). The moderating roles of gender and socioeconomic status in the association between racial discrimination and psychological adjustment. *Cognitive and Behavioral Practice*, *23*(3), 385−397.‏

Odoms-Young, A.M. (2018). Examining the impact of structural racism on food insecurity: Implications for addressing racial/ethnic disparities. *Family & Community Health*, 41(Suppl 2 FOOD INSECURITY AND OBESITY), S3–S6.

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*(1), 3.‏

Osman A (2015) *Ethnic discrimination: measurement and associations with smoking related outcomes among Arab male current and former smokers in Israel*. Dissertation, University of South Carolina.

Paine, S. J., Donna, C., Stanley, J., & Harris, R. (2020). Caregiver experiences of racism are associated with adverse health outcomes for their children: A cross-sectional analysis of data from the New Zealand Health Survey. *Critical Public Health*, *30*(5), 509−520.‏

Paradies, Y. (2006). A systematic review of empirical research on self-reported racism and health. *International Journal of Epidemiology*, *35*(4), 888−901.‏

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., ... & Gee, G. (2015). Racism as a determinant of health: a systematic review and meta-analysis. *PloS one, 10*(9), e0138511.‏

Park, I. J., Du, H., Wang, L., Williams, D. R., & Alegría, M. (2018). Racial/ethnic discrimination and mental health in Mexican-origin youths and their parents: Testing the “linked lives” hypothesis. *Journal of Adolescent Health*, *62*(4), 480−487.‏

Pickering, L. E., & Vazsonyi, A. T. (2010). Does family process mediate the effect of religiosity on adolescent deviance? *Journal of Criminal Justice and Behavior*, *55,* 1–23.

Peleg, O. (2009). Test anxiety, academic achievement, and self-esteem among Arab adolescents with and without learning disabilities. *Learning Disability Quarterly*, *32*(1), 11−20.‏

Priest, N., Paradies, Y., Trenerry, B., Truong, M., Karlsen, S., & Kelly, Y. (2013). A systematic review of studies examining the relationship between reported racism and health and well-being for children and young people. *Social Science & Medicine*, *95*, 115−127.‏

Priest, N., & Williams, D. R. (2021). Structural racism: A call to action for health and health disparities research. *Ethnicity & Disease*, *31*(Suppl 1), 285.‏

Qouta, S., Punamaki, R. L., & El Sarraj, E. (2005). Mother-child expression of symptoms in life-endangering situation. *Journal of Clinical Child Psychology*, *10*, 151–165.

Qouta, S., Punamäki, R. L., Montgomery, E., & El Sarraj, E. (2007). Predictors of psychological distress and positive resources among Palestinian adolescents: Trauma, child, and mothering characteristics. *Child Abuse & Neglect*, *31*(7), 699−717.‏

Rosenberg, M. (1965). *Society and the adolescent child*. Princeton University Press.

Rosenberg, M. (1965). Rosenberg self-esteem scale. *Journal of Religion and Health*.‏

Saleem, F. T., & Lambert, S. F. (2016). Differential effects of racial socialization messages for African American adolescents: Personal versus institutional racial discrimination. *Journal of Child and Family Studies*, *25*, 1385−1396.‏

Saleem, F. T., Anderson, R. E., & Williams, M. (2019). Addressing the “Myth” of racial trauma: Developmental and ecological considerations for youth of color. *Clinical Child and Family Psychology Review, 23*, 1–14.

Sanders-Phillips, K., Settles-Reaves, B., Walker, D., & Brownlow, J. (2009). Social inequality and racial discrimination: Risk factors for health disparities in children of color. *Pediatrics*, *124*(Supplement\_3), S176−S186.‏

Savell, S. M., Womack, S. R., Wilson, M. N., Shaw, D. S., & Dishion, T. J. (2019). Considering the role of early discrimination experiences and the parent–child relationship in the development of disruptive behaviors in adolescence. *Infant Mental Health Journal*, *40*(1), 98-112.‏

Schiff, M., Benbenishty, R., & Hamburger, R. (2008). *Adolescents’ exposure to negative life events and substance use: Risk and protective factors—Comparison between adolescents who were born in the Former Soviet Union and those who were born in Israel*. Final report. Jerusalem, Hebrew: Israel Anti-Drug Authority (Hebrew).

Seaton, E. K., & Yip, T. (2009). School and neighborhood contexts, perceptions of racial discrimination, and psychological well-being among African American adolescents. *Journal of youth and adolescence*, *38*, 153-163.‏

Shonkoff, J. P., Boyce, W. T., & McEwen, B. S. (2009). Neuroscience, molecular biology, and the childhood roots of health disparities: building a new framework for health promotion and disease prevention. *JAMA*, *301*(21), 2252-2259.‏

Sternthal, M. J., Slopen, N., & Williams, D. R. (2011). Racial disparities in health: how much does stress really matter? 1. *Du Bois review: social science research on race*, *8*(1), 95-113.‏Burr J, Hartman JT, Matteson D. Black suicide in U.S. metropolitan areas: an examination of the racial inequality and social integration regulation hypothesis. *Soc Forces. 1999*;*77*(3):1049–1081

Sotero, M. (2006). A conceptual model of historical trauma: Implications for public health practice and research. *Journal of Health Disparities Research and Practice*, *1*(1), 93–108.‏

Soen, D., 2010. Respect and suspect him: Jewish students’ attitudes toward Arab Israelis, co-workers. *Educ. Its Surround*. 32, 249–265 (Hebrew).

Soen, D., 2012. Descent and exclusion: Arab Israelis at the bottom of the social pyramid. *Soc. Issues Isr. 13*, 6–31 (Hebrew).

Tao, X., & Fisher, C. B. (2022). Exposure to social media racial discrimination and mental health among adolescents of color. *Journal of Youth and Adolescence*, 1–15.‏

Tran, A. G. (2014). Family contexts: Parental experiences of discrimination and child mental health. *American Journal of Community Psychology*, *53*, 37–46.‏

Trent, M., Dooley, D. G., Dougé, J., Cavanaugh, R. M., Lacroix, A. E., Fanburg, J., ... & Wallace, S. B. (2019). The impact of racism on child and adolescent health. *Pediatrics*, *144*(2).‏

Talamaivao, N., Harris, R., Cormack, D., Paine, S. J., & King, P. (2020). Racism and health in Aotearoa New Zealand: a systematic review of quantitative studies. *The New Zealand Medical Journal (Online)*, *133*(1521), 55–5.‏

Torres, S. A., Sosa, S. S., Flores Toussaint, R. J., Jolie, S., & Bustos, Y. (2022). Systems of oppression: The impact of discrimination on Latinx immigrant adolescents’ well-being and development. *Journal of Research on Adolescence*, *32*(2), 501–517.‏

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*, 565–569.

Tynes, B. M., English, D., Del Toro, J., Smith, N. A., Lozada, F. T., & Williams, D. R. (2020). Trajectories of online racial discrimination and psychological functioning among African American and Latino adolescents. *Child Development, 91*, 1577–1593.

Tynes, B. M., Willis, H. A., Stewart, A. M., & Hamilton, M. W. (2019). Race-related traumatic events online and mental health among adolescents of color. *Journal of Adolescent Health, 65*(3), 371–377.

Turney, Kristin, Rebecca Kissane, and Kathryn Edin. 2013. “After Moving to Opportunity: How Moving to a Low-poverty Neighborhood Improves Mental Health among African American Women.” *Society and Mental Health* *3*(1):1–21.

Umaña-Taylor, A. J., Tynes, B. M., Toomey, R. B., Williams, D. R., & Mitchell, K. J. (2015). Latino adolescents’ perceived discrimination in online and offline settings: An examination of cultural risk and protective factors. *Developmental Psychology, 51*(1), 87–100.

Vazsonyi, A. T., Hibbert, J. R., & Blake Snider, J. (2003). Exotic enterprise no more? Adolescent reports of family and parenting processes from youth in four countries. *Journal of Research on Adolescence*, *13*(2), 129−160.‏

Volpe, V. V., Hoggard, L. S., Willis, H. A., & Tynes, B. M. (2021). Anti-Black structural racism goes online: A conceptual model for racial health disparities research. *Ethnicity & Disease, 31*(Suppl 1), 311–318.

Wallace, S., Nazroo, J., & Bécares, L. (2016). Cumulative effect of racial discrimination on the mental health of ethnic minorities in the United Kingdom. *American Journal of Public Health*, *106*(7), 1294−1300.‏

Wheaton, F. V., Thomas, C. S., Roman, C., & Abdou, C. M. (2018). Discrimination and depressive symptoms among African American men across the adult lifecourse. *The Journals of Gerontology: Series B*, *73*(2), 208−218.‏

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine, 32*(1), 20–47.

Williams, D. R. (2018). Stress and the mental health of populations of color: Advancing our understanding of race-related stressors. *Journal of Health and Social Behavior*, *59*(4), 466−485.‏

Williams, D. R., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socioeconomic status, stress, and discrimination. *Journal of Health Psychology, 2*, 335–351.

Wang, Y., Nerwen, R., & Gabris, C. (2019). Addressing adverse childhood experiences in diverse racial and ethnic settings: A review. *Current Opinion in Pediatrics*, *31*(2), 284–289.

Yang, T. C., Chen, I. C., Choi, S. W., & Kurtulus, A. (2019). Linking perceived discrimination during adolescence to health during mid-adulthood: Self-esteem and risk-behavior mechanisms. *Social Science & Medicine*, *232*, 434–443.‏

Youngmann, R., & Kushnirovich, N. (2021). Resource threat versus resource loss and emotional well-being of ethnic minorities during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *18*(23), 12590.‏

Zedan, H. F., & Haj-Yahia, M. M. (2023). The relationship between national racism and child abuse among Palestinians in Israel: the moderating role of coping strategies. *Child Abuse & Neglect*, *137*, 106004.‏