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Psychosocial Risk and Protective Factors for Depression Among Lesbian, Gay, Bisexual, and Queer Youth: A Systematic Review

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ABSTRACT
Many lesbian, gay, bisexual, or queer (LGBQ) youth suffer from depression. Identifying modifiable risk and protective factors for depression can inform the development of psychosocial interventions. The aim of this review is to evaluate the methodological characteristics and summarize the substantive findings of studies examining psychosocial risk and protective factors for depression among LGBQ youth. Eight bibliographic databases were searched, and 35 studies that met all inclusion criteria were included for review. Results show that prominent risk factors for depression include internalized LGBQ-related oppression, stress from hiding and managing a socially stigmatized identity, maladaptive coping, parental rejection, abuse and other traumatic events, negative interpersonal interactions, negative religious experiences, school bullying victimization, and violence victimization in community settings. Prominent protective factors include a positive LGBQ identity, self-esteem, social support from friends, and family support. LGBQ youth may face an array of threats to their mental health originating from multiple socioecological levels.

KEYWORDS
Bisexual; depression; gay; lesbian; psychosocial factors; queer; risk and protective factors; youth

Youth who are lesbian, gay, bisexual, or queer (LGBQ) represent a substantial and vulnerable minority group in the United States. Nationally representative data on youth showed that 6% to 7% of males and 13% to 15% of females self-identified as non-heterosexual (e.g., homosexual or bisexual; McCabe, Brewster, & Tillman, 2011; Savin-Williams & Ream, 2007). The transition from childhood to adulthood is often difficult; however, this period is particularly challenging for many youth who are LGBQ because of the array of risks that can compromise their mental health. Recent findings from the Youth Risk Behavior Survey demonstrate that 60% of LGBQ youth felt sad or hopeless almost every day for at least 2 weeks in the past year, compared to 26% of heterosexual youth (Kann et al., 2016). Further, compared to their heterosexual peers, LGBQ youth were about three times more likely to have thought about suicide (15% vs. 43%) and to have made a
plan to commit suicide (12% vs. 38%) and about five times more likely to have attempted suicide (6% vs. 29%; Kann et al., 2016). In order to prevent and intervene in mental health problems among LGBQ youth, we must first identify key factors in risk and resilience pathways. This study aimed to review and evaluate the empirical literature regarding psychosocial risk and protective factors for depression among LGBQ youth.

**Minority stress theory and LGBQ mental health**

The minority stress theory (Meyer, 2003, 2007) is the leading theory in the literature used to understand mental health problems among LGBQ people. According to the theory, LGBQ individuals can experience not only an array of typical life stressors (e.g., illness, injury, death of a loved one, and job loss), but also stressors specific to their minority sexual orientation identity (Meyer, 2003, 2007). These LGBQ-specific stressors can be categorized into four domains: prejudice events (e.g., harassment, violence, discrimination, rejection), expectations of prejudice events, concealment of identity, and the internalization of negative societal attitudes and beliefs (e.g., internalized homophobia).

Prejudice events can be experienced via multiple ecological systems. In a recent national study, 74% of LGBQ youth reported experiencing verbal harassment at school in the past year, and 17% were physically assaulted (e.g., punched, kicked, or injured with a weapon; Kosciw, Greytak, Palmer, & Boesen, 2014). In addition to aggression, many LGBQ people also experience rejection from loved ones after coming out. A national study found that about 40% of LGBQ people reported that a friend or family member rejected them because of their sexual orientation (Pew Research Center, 2013a). Unfortunately, many LGBQ youth experience hostility and rejection from the most important people in their lives—their parents, friends, and peers. In the face of hostile environments, many youth decide to conceal their LGBQ identity to prevent experiences of violence and rejection (Herek & Garnets, 2007). Hiding one’s identity versus coming out entails an ongoing process of assessing individuals and environments for safety, considering the positive and negative consequences of coming out or remaining in the closet, and determining how out to be and with whom. This decision process requires considerable mental energy and vigilance, which may be burdensome for LGBQ youth (Herek & Garnets, 2007). Finally, some LGBQ youth have internalized negative sociocultural views about their identities, such as viewing their identities and desires as abnormal, immoral, or a mental problem to be fixed. Various terms have been used to refer to this negative internalization (e.g., internalized homophobia, internalized biphobia, internalized homonegativity, internalized heterosexism); however, the term internalized LGBQ-related oppression will be used hereafter to refer to this form of
oppression that LGBTQ people face, which is associated with depression and anxiety (Herek, Gillis, & Cogan, 2015; Newcomb & Mustanski, 2010).

The minority stress framework also posits that a number of individual-and community-level factors can buffer against threats to mental health (Meyer, 2003, 2007). Examples include self-acceptance, positive LGBTQ identity, identity integration, family support, peer support, and cohesive and affirmative community. These protective factors may or may not be LGBTQ-specific. Although there is a great potential for wellbeing in this population, prejudice, violence, discrimination, and rejection experienced via families, peers, schools, neighborhoods, workplaces, service settings, and religious communities contribute to high rates of mental disorders and suicidality among LGBTQ youth (Institute of Medicine, 2011; Marshal et al., 2011).

**Purpose of the review**

Given recent findings identifying disproportionately higher levels of depression and suicidality among LGBTQ youth when compared to heterosexual youth (Kann et al., 2016; Marshal et al., 2011), a systematic review examining relationships between psychosocial factors and depression among LGBTQ youth is needed. Systematic reviews are useful in terms of understanding the state of the science in an area by summarizing what is known and moving science forward by providing directions for future research to improve on limitations in the extant research and address gaps identified in the literature.

This review focuses on psychosocial factors, which include psychological and social factors as well as those related to interactions between individuals and their social contexts. A person-in-environment or ecological systems framework (Bronfenbrenner, 2005; Bronfenbrenner & Morris, 1998; Kondrat, 2013) is useful in understanding the pathogenesis of depression among youth (Cairns, Yap, Pilkington, & Jorm, 2014; Shortt & Spence, 2006). Psychosocial factors can influence the mental health of youth through risk and protective pathways by fueling depression or mitigating risk for depression. And psychosocial factors are potentially modifiable factors amenable to change via individual, group, organizational, community, and policy interventions. Therefore, findings from this review may have implications for prevention and intervention development. Empirically supported psychosocial interventions aimed at preventing or treating depression among LGBTQ youth are virtually nonexistent. To inform the development of culturally sensitive, developmentally appropriate, and effective interventions for depression among LGBTQ youth, an understanding of risk and protective mechanisms for this population is needed. The roles of psychosocial factors in contributing to or reducing depression among LGBTQ youth has been the focus of empirical work in recent decades. However, a systematic review of the literature in this area has not been completed. Therefore, the purpose of
this study was to systematically review the methodological characteristics and substantive findings of studies examining psychosocial risk and protective factors for depression among LGBQ youth.

**Methods**

The preparation of this systematic review followed methods outlined in Cooper (2010) and Littell, Corcoran, and Pillai (2008) and adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) criteria (Moher, Liberati, Tetzlaff, & Altman, 2009). Protocols for bibliographic searches, study inclusion and exclusion, and data extraction were developed before beginning the systematic search for relevant studies. The term *study* referred to a completed product of research activities in the form of a final document describing the background, methods, and findings from empirical inquiry, such as a journal article, book chapter, master’s thesis, doctoral dissertation, monograph, or report. Multiple studies may have been derived from a single research project. This review was registered with PROSPERO, an international database of systematic reviews regarding health and social wellbeing.

**Inclusion criteria**

Studies were included in the review if they met the following criteria: (a) collected data from participants in the United States; (b) written in English; (c) published or written after January 1, 2000; (d) mean sample age was between 15 and 24 years; (e) assessed participants’ sexual orientation identity; (f) assessed depressive symptoms or a depressive disorder diagnosis (referred to collectively as “depression” hereafter) as a dependent variable using validated self-report measures or clinical diagnostic interviews; and (g) reported quantitative results on the relationship between psychosocial factors and depression among LGBQ youth.

Studies conducted outside of the United States were excluded because different nations often have different cultural values and social norms concerning sexuality, which translate into different social and institutional climates, and thereby different life experiences for LGBQ people. Indeed, international research shows considerable variance globally and regionally regarding acceptance of homosexuality (Pew Research Center, 2013b). For example, although the United States and Canada have many similarities, 60% of U.S. respondents approved of homosexuality versus 80% of Canadians. Accordingly, Canada preceded the United States in legalizing same-sex marriage by 10 years. In addition, recommendations for policy and practice based on the findings from this review will be based on U.S. systems, which may function differently in other countries. The time period selected allowed
for a review of the most recent scientific evidence completed over the past 15 years that may be relevant to LGBQ youth in contemporary U.S. society.

The sample age requirement was intended to target the youth population. This period of 15 to 24 years of age has been demarcated as “youth” by various health-focused organizations, such as the United Nations and Centers for Disease Control and Prevention, because this transitional period between childhood and adulthood is a particularly vulnerable and formative period of development. Youth navigate a number of critical tasks in the areas of identity formation, shifting family and friend relationships, initial sexual and romantic relationships, and education and employment, which have implications for mental health and development into adulthood (Nakkula & Toshalis, 2006). Among all age groups, those aged 15 to 24 have the highest 12-month prevalence rate of a major depressive episode (Substance Abuse and Mental Health Services Administration, 2014); thus understanding risk and protective mechanisms to inform intervention development is pressing given the prevalence of depression in this vulnerable and relatively early period of life. This age range was also chosen because individuals typically self-identify and come out as LGBQ during the ages of 15 to 21 (Pew Research Center, 2013a; Savin-Williams & Cohen, 2007). For LGBQ people, this period often marks the beginning of a lifetime of facing challenges associated with a socially stigmatized identity, navigating those challenges with resources and supports, and cultivating healthy and affirmative relationships with one’s self and others.

This review focused on studies that included LGBQ youth because they face unique issues in terms of coming out to others, managing a socially stigmatized identity, finding affirmative sources of community and support, becoming involved in LGBQ organizations or social networks, and confronting social institutions and systems that may be hostile or discriminatory regarding their identity (D’Augelli & Patterson, 2001; Rosario & Schrimshaw, 2013). Studies that combined LGBQ participants with heterosexual participants and then conducted analyses on these composite samples were not included because these findings would not be generalizable to LGBQ youth. Studies that collected data from both LGBQ and heterosexual youth were included as long as they performed subset analyses with subsamples comprised of solely LGBQ participants. Psychosocial factors were defined as psychological or social variables as well as those pertaining to the interaction of the individual and the social environment. Psychosocial factors did not include other mental or behavioral health problems (e.g., anxiety disorders, substance abuse, suicidality) or demographic factors (e.g., race, sex). Risk factors were defined as psychosocial variables with direct and positive associations with depression. Protective factors were defined as psychosocial variables with direct and inverse associations with depression as well as variables that buffered or moderated (Holmbeck, 1997) the effect of a risk factor on the outcome of depression.
**Search procedure**

A behavioral and social sciences librarian was consulted to assist with developing a search string and identifying relevant computerized bibliographic databases in which to search. The following search string was used to search all databases for studies published between January 1, 2000 and July 10, 2015: (gay OR lesbian OR bisexual OR homosexual OR queer OR “sexual minority”) AND (youth OR adolescent* OR teen*) AND (depress*). The search of multiple databases increases the likelihood of identifying all possible studies falling within the scope of the review; thus eight were searched. Some databases included gray literature, such as dissertations, to reduce the threat of publication bias. Searches were performed in the following databases via the EBSCO platform with terms searched within titles, abstracts, keywords, and subject headings: CINAHL (Cumulative Index to Nursing and Allied Health Literature), PsycINFO, and Social Work Abstracts. The following databases were searched via ProQuest with terms searched within abstracts: ASSIA (Applied Social Sciences Index and Abstracts), Dissertations & Theses Global, and Social Services Abstracts. Finally, PubMed was searched with terms searched within titles, abstracts, and subject headings. These more formal bibliographic database searches were supplemented with Internet searches of Google Scholar.

**Study screening methods**

After performing the bibliographic searches, 771 results were imported into the RefWorks program to assist with organization and duplicate removal. Following duplicate removal, 419 studies remained. The author and a trained research assistant independently screened each study to determine eligibility. A checklist of the inclusion and exclusion criteria was created prior to the search and was used for eligibility assessment. Most studies were included or excluded after reading the title and abstract; however, it was also necessary to examine the full source document of some studies to determine eligibility. To examine inter-rater agreement, the decisions of the two screeners were compared and Cohen’s kappa statistics were calculated with SPSS (version 21), which showed excellent agreement: kappa = 0.96, p < .01. There were only 14 disagreements between the screeners, which were resolved by the lead author examining the source documents. After screening, 384 studies were excluded because they did not meet all of the inclusion criteria. The most common reasons for exclusion included nonempirical papers, mean sample age outside of the 15 to 24 range, depression was not measured, depression measure was combined with a measure of another disorder or symptom class, LGBQ youth were not included in the sample, and foreign location. After completing the search and screening processes, 35 studies were included for extraction and review (Figure 1).
**Data extraction process**

A data extraction spreadsheet was developed to assist with identifying and collecting relevant information from the 35 included studies. Information extracted included the citation, purpose of the study, study design, sampling strategy and location, response rate, sample size and characteristics, measurement of depression, measurement of psychosocial factors, analyses performed, and results regarding the relationships between psychosocial factors and depression. The first author extracted this information, and then a trained research assistant compared the completed extraction sheet with the source documents to assess the accuracy of the extractions. There were only 10 points of disagreement between the extractor and checker, which were resolved together by examining the source documents and extractions simultaneously.

**Data synthesis**

Initial review of the included studies revealed that a quantitative synthesis, such as a meta-analysis, was not advisable due to the methodological heterogeneity of the studies in terms of variables, measures, and types of statistical associations reported. Thus a narrative thematic synthesis approach was used (Thomas, Harden, & Newman, 2012). First, categories were developed to
organize psychosocial factor findings into conceptually related domains (e.g., family factors and school factors). Next, individual findings were classified into each domain, and then results were summarized within each category. Across studies, factors that were differently named yet conceptually the same (e.g., family cohesion and family closeness) were aggregated under a common conceptual name for simplicity. Together, the author and a research assistant established the psychosocial categories, classified specific findings within each category, and determined which psychosocial variables were conceptually equivalent.

**Results**

A total of 35 studies were included in this review: 25 peer-reviewed journal articles, nine doctoral dissertations, and one book chapter. A summary of the methodological characteristics of these studies will be presented, followed by a synthesis of the substantive findings regarding the relationships between psychosocial factors and depression. Table 1 shows a summary of information extracted from each study.

**Methodological quality of studies**

**Designs**

Of the 35 studies, 28 (80%) were cross-sectional and seven were longitudinal. All studies relied on quantitative methods; none used mixed-methods. Only two studies (6%) used probability sampling, with the remaining studies using convenience, purposive, or snowball sampling. Fifteen studies sampled participants from a single city or locale (e.g., New York City or the San Francisco Bay Area), 11 studies used national samples, five studies sampled participants from multiple cities, and four studies sampled from one or two U.S. regions (e.g., the Midwest). Among the non-national studies, samples were drawn primarily from metropolitan or urban areas in the Northeast, Midwest, and Pacific regions. Few studies sampled participants from the Southeast, Southwest, and Mountain-Prairie regions. Recruitment sites varied across studies and included youth-serving organizations, college student groups, high schools, health clinics or centers, bars and night clubs, and Web sites. Response rates were reported in only four studies, which ranged from 39% to 80%.

**Samples**

Sample sizes varied from 52 to 1,504 participants across studies ($M = 296, SD = 327$). The average age of participants varied from 16.2 to 23.4 years ($M = 19.8, SD = 2.1$). In general, study samples were relatively equal in terms
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<tr>
<td>Baams et al., 2015</td>
<td>Quantitative cross-sectional study in three U.S. cities using convenience and snowball sampling from community agencies and college groups.</td>
<td>( N = 876; M \text{ age} = 18.3 (SD = 1.82); 53% \text{ gay or lesbian, 47}% \text{ bisexual; 54}% \text{ female, 46}% \text{ male; 39}% \text{ Latino, 20}% \text{ White, 25}% \text{ Black, 23}% \text{ multiracial, 6}% \text{ Asian, 3}% \text{ American Indian.} )</td>
<td>20-item BDI-Y ( (\alpha = .95). ) Psychosocial factors: LGBQ coming-out stress, sexual orientation victimization, perceived burdensomeness of self to others, feeling of thwarted social belonging, friend and family knowledge of sexual identity. Pearson correlations and multigroup bootstrap mediation analyses.</td>
<td>Depression was correlated with coming-out stress ( (r = .21^<em>), ) victimization ( (r = .15^</em>), ) perceived burdensomeness ( (r = .66^<em>), ) thwarted belongingness ( (r = .43^</em>), ) and others' knowledge of sexual identity ( (r = -.17^<em>). ) Depression was associated with perceived burdensomeness ( (B = .24^</em> \text{ for males, } B = .30^* \text{ for females}) ) and thwarted belonging ( (B = .02^* \text{ for males, } B = .02^* \text{ for females}). ) Among males and females, depression was not associated with being out to family ( (b = .16, b = .40), ) being out to friends ( (b = -.01, b = -.53), ) social support at T1 ( (b = 1.0, b = 1.0), ) being in a same-sex relationship at T2 ( (b = -2.1, b = -2.5), ) being in a same-sex relationship at both T1 and T2 ( (b = -1.3, b = -.5), ) being in an opposite-sex relationship at T1 ( (b = -1.4, b = 1.9), ) being in an opposite-sex relationship at T2 ( (b = 2.4, b = -.3). ) Among males and females, depression was associated with social support at T2 ( (b = -3.1^<em>, b = -2.9^</em>). )</td>
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<td>Bauermeister et al., 2010</td>
<td>Quantitative longitudinal study in New York, NY using convenience sampling from a community center.</td>
<td>( N = 528; M \text{ age} = 17.9 (SD = 1.3); 100% \text{ gay, lesbian, bisexual, or transgender; 54}% \text{ male, 46}% \text{ female; 42}% \text{ Latino, 23}% \text{ White, 21}% \text{ Black, 13}% \text{ other.} )</td>
<td>21-item BDI-II ( (\alpha = .91 \text{ at T2}). ) Psychosocial factors: out to family and friends; social support from friends, family, and significant other; presence of same-sex relationship; and presence of opposite-sex relationship. OLS regression.</td>
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<td>Boarts, 2008</td>
<td>Quantitative cross-sectional study in Cleveland, OH using convenience sampling from a LGBQ community center.</td>
<td>$N = 98$; $M_{\text{age}} = 19.6$ ($SD = 2.24$); 53% mostly homosexual, 28% mostly bisexual, 19% mostly heterosexual; 68% male, 32% female; 86% Black, 14% multiracial.</td>
<td>20-item CES-DC ($\alpha = .89$). Psychosocial factors: lifetime traumatic events (e.g., serious accident, natural disaster, abuse, assault, war, imprisonment, and life-threatening illness), interpersonal traumatic events, non-interpersonal traumatic events, internalized homophobia, number of sexual partners in lifetime and past year.</td>
<td>Depression was correlated with traumatic events ($r = .28^<em>$) and non-interpersonal traumatic events ($r = .30^</em>$). Depression was not correlated with interpersonal trauma ($r = .18$), internalized homophobia ($r = .20$), total number of lifetime sexual partners ($r = .02$), or number of sexual partners in the past year ($r = -.11$).</td>
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<td>Borders et al., 2014</td>
<td>Quantitative cross-sectional study in Ewing, NJ and across the United States using convenience sampling from a college and higher education LGBQ association listserv.</td>
<td>$N = 52$; $M_{\text{age}} = 19.7$ ($SD = 1.6$); 62% gay or lesbian, 24% bisexual, 8% queer, 6% pansexual; 76% female, 23% male, 2% transgender; 77% White, 10% Asian, 6% Black, 5% Latino, 1% American Indian.</td>
<td>20-item CES-DC ($\alpha = .87$). Psychosocial factors: sexual orientation uncertainty and rumination. Path analysis.</td>
<td>Depression was associated with sexual orientation uncertainty ($\beta = .31^<em>$) and rumination ($\beta = .59^</em>$).</td>
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<td>Burton et al., 2013</td>
<td>Quantitative longitudinal study in Pittsburgh, PA and Columbus, OH using convenience sampling from adolescent medicine clinics.</td>
<td>$N = 55$; $M_{\text{age}} = 17.0$ ($SD = 1.36$); 100% gay, lesbian, bisexual or mostly heterosexual; 85% female, 15% male; 78% person of color, 22% White.</td>
<td>20-item CES-D ($\alpha = .84$ at T2). Psychosocial factor: sexual minority victimization. Pearson correlations.</td>
<td>Depression was correlated with sexual minority-specific victimization ($r = .66^*$).</td>
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<td>Dahl, 2009</td>
<td>Quantitative cross-sectional study in the United States using convenience sampling from listservs of LGBQ organizations, university centers, and high school groups.</td>
<td>$N = 106; M age = 20.1 (SD = 1.8)$; 54% gay or lesbian, 32% bisexual, 20% queer or other; 62% female, 29% male, 1% transsexual; 75% White, 10% multiracial, 9% Latino, 4% Asian, 2% other.</td>
<td>20-item CES-D ($\alpha = .93$). Psychosocial factors: Positive and negative individual and communal religious experiences, negative family reaction to sexual orientation, positive family reaction to partner, public visibility of sexual orientation, violence and harassment, societal misunderstanding of sexual minorities, concerns about contracting HIV/AIDS, internalized sexual orientation conflict, total sexual minority stress, and religious-related sexual minority stress. Pearson correlations.</td>
<td>Depression was correlated with negative individual religious experiences ($r = .36*$), family meeting of partner ($r = -.27*$), violence and harassment ($r = .31*$), internalized sexual orientation conflict ($r = .34*$), and a composite sexual minority stress score ($r = .28*$). Depression was not correlated with positive individual religious experiences ($r = -.19$), positive communal religious experiences ($r = .06$), negative communal religious experiences ($r = .15$), family rejection of sexual orientation ($r = .13$), public visibility of sexual orientation ($r = .18$), societal misunderstanding ($r = .06$), concerns about contracting HIV/AIDS ($r = .19$), and rejection by religious community due to LGBQ identity ($r = .14$).</td>
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<td>Dahl &amp; Galliher, 2010</td>
<td>Quantitative cross-sectional study in the United States using convenience sampling from listservs of LGBQ organizations, university centers, and high school groups.</td>
<td>( N = 106; M \text{ age} = 20.1 \ (SD = 1.8); 54% \text{ gay or lesbian}, 32% \text{ bisexual}, 20% \text{ queer or other}; 62% \text{ female}, 29% \text{ male}, 1% \text{ transsexual}; 75% \text{ White}, 10% \text{ multiracial}, 9% \text{ Latino}, 4% \text{ Asian}, 2% \text{ other}. )</td>
<td>20-item CES-D (( \alpha = .93 )). Psychosocial factors: positive feelings about God, negative feelings about God, perceived personal benefits of faith, preoccupation with sin, hassle from religious community, religious community support, participation in organized religion, and self-esteem. Pearson correlations and OLS regression.</td>
<td>Depression was associated with positive feelings about God (( \beta = - .22 )), negative feelings about God (( r = .34^<em>, \beta = .31^</em> )), preoccupation with sin (( r = .34^* )), hassle from religious community (( r = .24^<em>, \beta = .26^</em> )), internalized sexual orientation conflict (( r = .34^* )), and self-esteem (( r = - .67^* )). Depression was not associated with positive feelings about God (( r = - .18 )), preoccupation with sin (( \beta = .17 )), perceived personal benefits of faith (( r = - .16, \beta = .00 )), religious community support (( r = .07, \beta = .10 )), and participation in organized religion (( r = - .00, \beta = - .17 )).</td>
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<td>D’Augelli, 2002</td>
<td>Quantitative cross-sectional study in the United States using convenience sampling from LGBQ community groups.</td>
<td>N = 542; M age = 19.1 (SD = 1.5); 74% gay or lesbian, 26% bisexual; 62% male, 38% female; 75% White, 8% Black, 4% Latino, 1% American Indian.</td>
<td>6-item BSI subscale (α = .80). Psychosocial factors: stress about coming out to 44, not worrying about quality of sex life, stress about coming out to heterosexual friends, religious beliefs about sexual orientation, worry about HIV/AIDS, parental knowledge of and reaction to sexual orientation, victimization based on sexual orientation. Pearson correlations.</td>
<td>Depression was correlated with victimization (r = .13*), not worrying about quality of sex life (r = -.27*), mother’s knowledge of youths’ sexual orientation (r = .10*), mother’s negative reaction to youths’ sexual orientation (r = .11*). Depression was not correlated with father’s knowledge of youths’ sexual orientation (r = .03), father’s negative reaction to youths’ sexual orientation (r = .05), stress about coming out to family (r = .06), stress about coming out to friends (r = -.08), anxiety about religious beliefs about sexuality (r = -.01), and worry about HIV/AIDS (r = .07 for males, r = -.00 for females).</td>
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<td>Dickenson &amp; Huebner, 2015</td>
<td>Quantitative cross-sectional study in Indianapolis, IN, Boston, MA, Philadelphia, PA, and Oakland, CA using convenience sampling from LGBQ community centers and social media websites.</td>
<td>N = 519; M age = 17.4 (SD = 1.4); 64% gay or lesbian, 29% bisexual, 7% other; 55% male, 45% female; 30% White, 27% Black, 20% multiracial, 23% other.</td>
<td>20-item CES-D (α = .90). Psychosocial factors: family support, ever had same-sex sexual contact, quantity of same-sex sexual contacts, number of same-sex sexual partners, ever had opposite-sex sexual contact, age of same-sex debut, current romantic partner, level of outness about one’s sexual orientation, and internalized homophobia. Pearson correlations.</td>
<td>Depression was correlated with family support (r = -.36*), ever had same-sex sexual contact (r = -.14*), number of same-sex sexual partners (r = .12*), age of same-sex debut (r = -.15*), having a romantic partner (r = -.11*), outness (r = -.13*), and internalized homophobia (r = .35*).</td>
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<td>Everett, 2013</td>
<td>Quantitative longitudinal study in the United States using probability sampling from schools.</td>
<td>N = 1,328; M age = 16.2; 86% mostly heterosexual or bisexual, 16% mostly gay or exclusively gay; 72% female, 28% male; 75% White, 12% Latino, 8% Black, 3% Asian, 2% other.</td>
<td>10-item CES-D (α = .80 at T2). Psychosocial factors: urbanicity of neighborhood, proportion of registered republican voters in the area, proportion of college-educated residents in neighborhood, proportion of same-sex couples in neighborhood. OLS regression.</td>
<td>Depression was associated with urbanicity at T1 (β = .09*) and percent decrease in republicans between T1 and T2 (β = -.31*). Depression was not associated with change in urbanicity (β = .06), percent of republicans at T1 (β = .22), percent of residents with college degrees at T1 (β = -.07), change in percent of college degrees (β = .01), having no same-sex couples in neighborhood at T1 (β = -.02), or having 1% of same-sex couples in neighborhood at T1 (β = -.94).</td>
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<td>Fischer, 2011</td>
<td>Quantitative cross-sectional study in the United States using convenience sampling from LGBQ youth-oriented websites.</td>
<td>N = 1,504; M age = 16.3 (SD = 1.3); 65% gay or lesbian, 26% bisexual, 9% queer or other; 51% female, 39% male, 10% transgender; 70% White, 10% Latino, 6% Black.</td>
<td>6-item BSI subscale (α = .84). Psychosocial factors: School belonging, comfort talking to teachers and staff about LGBQ issues, victimization severity at school, and community supportiveness of LGBQ people. SEM.</td>
<td>Depression was associated with school belonging (β = -.80*), victimization severity at school (β = -.12*), outness at school (β = -.051). Depression was not associated with comfort speaking to teachers and staff about LGBQ issues (β = -.04) and community support of LGBQ people (β = -.02).</td>
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<td>Friedman, 2002</td>
<td>Quantitative cross-sectional study in the Northeast and Midwestern United States using convenience sampling from gay community and university groups.</td>
<td>$N = 96$; $M$ age = 20.3 ($SD = 1.8$); 84% gay, 12% bisexual, 4% other; 100% male; 10% Black, 5% Asian, 70% White, 6% Latino, 7% other;</td>
<td>18-items from the CES-D, K-SADS, and SCID ($\alpha = .91$ to .94). Psychosocial factors: masculine and feminine gender-role orientation; being bullied during elementary, middle, and high school. Spearman correlations and path analysis.</td>
<td>Depression was correlated being bullied in elementary, middle, and high school, ($r = .62^<em>, r = .68^</em>$, $r = .61^<em>$). Depression was associated with being bullied in elementary, middle, and high school ($\beta = .49^</em>, \beta = .64^<em>,$ and $\beta = .57^</em>$). Depression was not associated with masculinity or femininity during elementary ($\beta = -.16$, $\beta = .13$), middle ($\beta = -.17$, $\beta = .12$), and high school ($\beta = -.06$, $\beta = .12$).</td>
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<td>Gattis et al., 2014</td>
<td>Quantitative cross-sectional study in the Midwestern United States using probability and convenience sampling from a university.</td>
<td>$N = 393$; $M$ age = 23.4 ($SD = 5.3$); 12% gay or lesbian, 8% mostly gay or lesbian, 17% bisexual, 63% mostly heterosexual; 67% female, 33% male; 75% White, 25% people of color.</td>
<td>6-item BSI subscale ($\alpha = .87$). Psychosocial factors: interpersonal discrimination, religious affiliation regarding same-sex marriage, importance of religion. OLS regression.</td>
<td>Depression was associated with interpersonal discrimination ($\beta = .39^<em>$), religious affiliation opposing same-sex marriage ($\beta = .26^†$), and religious importance ($\beta = -.14^</em>$). Depression was not associated with a religious affiliation with no position on same-sex marriage ($\beta = -.09$) or no religious affiliation ($\beta = -.05$).</td>
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<td>Heck et al., 2011</td>
<td>Quantitative cross-sectional study in the United States using convenience sampling from college or university LGBQ student organizations.</td>
<td>$N = 145$; $M$ age = 19.7 ($SD = 0.8$); 57% gay or lesbian, 37% bisexual, 5% other; 60% female, 33% male, 7% transgender; 71% White, 10% Black, 6% Asian, 5% Latino, 1% American Indian, 8% other.</td>
<td>21-item BDI-II ($\alpha = .92$). Psychosocial factors: childhood trauma, GSA in high school, community climate for LGBQ youth. ANCOVA.</td>
<td>Depression was associated with childhood trauma ($\eta^2p = .095^<em>$) and presence of a GSA in high school ($\eta^2p = .034^</em>$). Depression was not associated with community climate for LGBQ youth ($\eta^2p = .019$) or population size ($\eta^2p = .001$).</td>
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<td>Hightow-Weidman et al., 2011</td>
<td>Quantitative cross-sectional study in Bronx, NY, Chapel Hill, NC, Chicago, IL, Detroit, MI, Houston, TX, Los Angeles, CA, Oakland, CA using convenience sampling from HIV clinics.</td>
<td>N = 351; M age = 20.4 (SD = 2.0); 66% gay, 21% bisexual; 100% male; 68% Black, 20% Latino, 12% multiracial.</td>
<td>20-item CES-D. Psychosocial factors: racial harassment, sexuality harassment, family closeness, and friend contact. Logistic regression.</td>
<td>Depression was associated with racial harassment (OR = 1.83*), sexuality harassment (OR = 2.29*), family closeness (OR = 0.20*), and friend contact (OR = 0.41*).</td>
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<td>Kephart, 2013</td>
<td>Quantitative cross-sectional study in IN, KY, and VA using convenience sampling from university LGBQ student groups.</td>
<td>N = 52; M age = 21.4 (SD = 3.3); 100% lesbian or gay or bisexual; 63% male, 37% female; 89% White, 9% multiracial, 2% Asian.</td>
<td>21-item BDI-II (α = .95). Psychosocial factors: length of association with LGBQ student group, outness with parents, strength of LGBQ cultural identity, cultural outsider stress, family cohesion, family adaptability, interpersonal support, diversity of social network, of social network contact, meaning and purpose in life, religiosity, religious involvement, and family religiosity. Pearson correlations and OLS regression.</td>
<td>Depression was associated with LGBQ cultural identity (r = -.28*, β = -.31*), cultural outsider stress (r = -.31*, β = .35*), interpersonal support (r = -.48*, β = .52*), and meaning and purpose in life (r = -.75*, β = -.80*), diversity of social network (β = -.30*), and social network contact (β = -.27*). Depression was not associated with length of association with an LGBQ student group (r = -.08), outness with parents (r = -.12, β = -.08), family cohesion (r = -.10, β = -.12), family adaptability (r = -.00, β = -.07), diversity of social network (r = -.25), social network contact (r = -.27), personal relationship with God (r = -.13, β = -.16), religious involvement (r = .07), or family religiosity (r = .02).</td>
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<td>Khoury, 2013</td>
<td>Quantitative cross-sectional study in the United States using convenience and snowball sampling from online forums and social networking websites.</td>
<td>$N = 109$; $\text{M age} = 21.3$ (SD $= 2.2$); 51% gay or lesbian, 21% bisexual, 17% queer, 11% questioning; 36% male, 48% female, 16% transgender; 63% White, 16% multiracial, 8% Latino, 7% Asian, 5% Black.</td>
<td>21-item BDI-II. Psychosocial factors: social support from friends, LGBQ victimization at school and home, teasing and bullying during childhood. Pearson correlations and OLS regression.</td>
<td>Depression was associated with victimization ($r = 2.7^<em>, \beta = .22^</em>$), teasing and bullying ($r = .51^<em>, \beta = .48^</em>$), social support from friends during childhood and adolescence ($r = -.22^<em>, \beta = -.19^</em>$), social support from friends during emerging adulthood ($r = -.51^<em>, \beta = -.49^</em>$). Social support from friends during childhood and adolescence moderated the relation between victimization and depression ($\beta = -.17^*$), but not between teasing/bullying and depression ($\beta = -.03$). Social support from friends during emerging adulthood did not moderate the relation between depression and victimization ($\beta = -.01$) or teasing/bullying ($\beta = .00$).</td>
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<td>Madsen, 2013</td>
<td>Quantitative cross-sectional study in the United States using convenience sampling from university LGBQ centers, LGBQ student listservs, and social media websites.</td>
<td>N = 134; M age = 21.7 (SD = 3.5); 100% gay or lesbian; 52% female, 46% male, 2% neither; 64% White, 29% Latino, 12% multiracial, 9% Black, 8% Asian, 7% other.</td>
<td>20-item CES-D (α = .94). Psychosocial factors: LGBQ-related stressors (e.g., negative family reactions to sexual orientation, fear of rejection, anxiety about being out, concern about harassment and discrimination, and internalized homophobia) and use of coping strategies.</td>
<td>Depression was associated with composite sexual minority stress score (r = .31*, β = .30*), avoidance coping (r = .40*, β = .28*), suppression of emotions (r = .21*), use of LGBQ-affirming media (r = .18*), engaging in distracting activities (r = .28*), and LGBQ activism (β = -.25*). Depression was not associated with confronting anti-LGBQ perpetrators (r = -.09, β = .09), LGBQ activism (r = -.09), engaging in distracting activities (β = .07), use of LGBQ-affirming media (β = .05), seeking emotional support from LGBQ contacts (r = .06, β = .08), suppression of emotions (β = .01), analysis of anti-LGBQ experiences (r = .13), minimizing anti-LGBQ perpetrator (r = .15, β = .00), focus on optimism about the future (r = .15, β = .04), problem-solving coping (r = -.10, β = -.09), or social support coping (r = -.10, β = -.07).</td>
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<td>Page et al., 2013</td>
<td>Quantitative cross-sectional study in the United States using convenience sampling from LGBQ community centers, high school and college groups, and websites.</td>
<td>N = 170; M age = 19.5 (SD = 2.6); 78% gay or lesbian, 22% bisexual; 45% female, 55% male; 37% Latino, 35% White, 21% Black, 7% multiracial.</td>
<td>12-item subscale of the BASC-2 SRP-A. Psychosocial factors: LGBQ-related religious conflict, LGBQ-related religious comfort, family rejection, coming out stress with family and friends, discomfort with public visibility, violence and harassment, internalized homonegativity, coming out struggles, internal conflict about LGBQ identity, and self-esteem. Pearson correlations.</td>
<td>Depression was correlated with family rejection (r = .20*), coming out stress (r = .14†), stress related to public visibility of LGBQ identity (r = .28*), violence and harassment (r = .25*), internalized homonegativity (r = .17*), coming out struggles (r = .16*), internal conflict about LGBQ identity (r = .29*), and self-esteem (r = -.65*). Depression was not correlated with LGBQ-related religious conflict (r = .07) or LGBQ-related religious comfort (r = -.11).</td>
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<td>Rosario et al., 2001</td>
<td>Quantitative cross-sectional study in New York, NY using convenience sampling from LGBQ community organizations college student organizations.</td>
<td>$N = 156; M \text{ age} = 18.3 \ (SD = 1.7); 66%$ gay or lesbian, $31%$ bisexual, $3%$ other; $51%$ male, $49%$ female; $37%$ Latino, $35%$ Black, $22%$ White, $7%$ Asian or other.</td>
<td>6-item BSI subscale ($\alpha = .81$ to .83). Psychosocial factors: involvement in LGBQ activities, positive attitudes toward homosexuality, comfort with homosexuality, outness, self-esteem, number of sexual episodes, number of unprotected anal sex episodes, number of unprotected oral sex episodes, and number of unprotected vaginal-digital sex episodes. Pearson correlations.</td>
<td>Depression among males and females was correlated with positive attitudes toward homosexuality ($r = -.41^<em>, r = -.24^</em>$) and self-esteem ($r = -.61^<em>, r = -.62^</em>$). Depression among males and females was not associated with involvement in LGBQ nightlife activities ($r = -.06, r = .01$) or number of sex episodes ($r = -.01, r = -.13$). Among males, depression was correlated with comfort with homosexuality ($r = -.37^<em>$), outness ($r = -.61^</em>$), and number of unprotected oral sex episodes ($r = -.25^*$). Among males, depression was not correlated with number of unprotected anal sex episodes ($r = .13$). Among females, depression was not correlated with comfort with homosexuality ($r = -.16$), outness ($r = -.05$), or number of unprotected oral or vaginal-digital sex episodes ($r = .07, r = -.13$).</td>
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<td>Quantitative longitudinal study with 3 waves in New York, NY using convenience sampling from LGBQ community organizations college student organizations.</td>
<td>$N = 156; M \text{ age} = 18.3$ ($SD = 1.7$); 66% gay or lesbian, 31% bisexual, 3% other; 51% male, 49% female; 37% Latino, 35% Black, 22% White, 7% Asian or other.</td>
<td>6-item BSI subscale ($\alpha = .81$ to .83). Psychosocial factors: social support from family and friends, and negative social interactions. Pearson correlations and OLS regression.</td>
<td>Depression at T1 was correlated with self-esteem ($r = -.62^<em>,$ negative social interactions ($r = .43^</em>$), social support from friends ($r = -.35^<em>$), and social support from family ($r = -.23^</em>$). Depression at T2 was associated with self-esteem ($r = -.54^<em>$), negative social interactions ($r = .34^</em>$, $\beta = .20^<em>$). Depression at T2 was not associated with self-esteem ($\beta = -.14$), social support from friends ($r = -.10$, $\beta = .02$) or family ($r = -.07$, $\beta = .10$). Depression at T3 was associated with self-esteem ($r = -.37^</em>$), negative social interactions ($r = .30^<em>$), social support from friends ($r = -.20^</em>$), and social support from family ($r = -.26^*$). Depression at T3 was not associated with self-esteem ($\beta = -.17$), negative social interactions ($\beta = .11$), social support from friends ($\beta = -.08$), or social support family ($\beta = -.12$).</td>
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<td>Quantitative longitudinal study with two waves in New York, NY using convenience sampling from LGBQ community organizations college student organizations.</td>
<td>(N = 156; M \text{ age} = 18.3 (SD = 1.7); 66% \text{ gay or lesbian}; 31% \text{ bisexual}; 3% \text{ other}; 51% \text{ male}; 49% \text{ female}; 37% \text{ Latino}; 35% \text{ Black}; 22% \text{ White}; 7% \text{ Asian or other.} )</td>
<td>6-item BSI subscale ((\alpha = .74) to .82). Psychosocial factors: social support from family and friends, negative social interactions, interpersonal struggles about sexual orientation, and LGBQ identity integration. OLS regression.</td>
<td>Depression at T2 was associated with negative social interactions ((\beta = .20^<em>)), interpersonal struggles about sexual orientation ((\beta = -.20^</em>)), and consistently having high LGBQ identity integration ((\beta = -.27^\dagger)). Depression at T2 was not associated with family support ((\beta = -.11)), friend support ((\beta = -.12)), increased LGBQ identity integration ((\beta = -.01)), decreased LGBQ identity integration ((\beta = -.18)), or a consistently moderate LGBQ identity integration ((\beta = .01)).</td>
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<td>N = 156; M age = 18.3 (SD = 1.7); 66% gay or lesbian, 31% bisexual, 3% other; 51% male, 49% female; 37% Latino, 35% Black, 22% White, 7% Asian or other.</td>
<td>6-item BSI subscale (α = .81 to .83). Psychosocial factors: homelessness, social support from family and friends, negative social interactions, stressful life events (e.g., illness and injury), childhood sexual abuse. Pearson correlations and OLS regression.</td>
<td>Depression at T1 was associated with homelessness (r = .21*), negative social interactions (r = .43*, β = .36*), friend support (r = -.35*, β = -.27*), and family support (r = -.23*). Depression at T1 was not associated with stressful life events (r = .12, β = -.09), childhood sexual abuse (r = .07), or homelessness (β = .07). Depression at T2 was associated with homelessness (r = .22*), stressful life events (r = .17*), negative social interactions (r = .34*, β = .17†), and childhood sexual abuse (r = .16†). Depression at T2 was not associated with friend support (r = -.10, β = .02), family support (r = -.07), homelessness (β = .09), or stressful life events (β = .04). Depression at T3 was associated with negative social interactions (r = .30*, β = .22*), friend support (r = -.20*), and family support (r = -.26*). Depression at T3 was not associated with homelessness (r = .08, β = -.06), stressful life event (r = .04, β = .11), friend support (β = -.08), or childhood sexual abuse (r = .05).</td>
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<td>N = 156; M age = 18.3 (SD = 1.7); 66% gay or lesbian, 31% bisexual, 3% other; 51% male, 49% female; 37% Latino, 35% Black, 22% White, 7% Asian or other.</td>
<td>6-item BSI subscale (α = .81 to .83). Psychosocial factors: interpersonal struggles about sexual orientation, internalized homophobia, and discomfort with one’s sexuality.</td>
<td>Depression at T1 was correlated with interpersonal struggles about sexual orientation at T1 (r = .16*), internalized homophobia at T1 (r = .33*), and discomfort with homosexuality at T1 (r = .27*). Depression at T2 was correlated with interpersonal struggles about sexual orientation at T2 (r = .17*). Depression at T2 was not correlated with interpersonal struggles about sexual orientation at T1 (r = .13), internalized homophobia at T1 and T2 (r = .11, r = .12), or discomfort with homosexuality at T1 and T2 (r = .08, r = .11). Depression at T3 was correlated with internalized homophobia at T1, T2, and T3 (r = .21*, r = .18*, r = .20*); and discomfort with homosexuality at T1 and T3 (r = .20*, r = .22*). Depression at T3 was not correlated with interpersonal struggles about sexual orientation at T1, T2, and T3 (r = -.07, r = .11, r = -.02) or discomfort with homosexuality at T2 (r = .13).</td>
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<td>N = 164; M age = 18.3 (SD = 1.7); 66% gay or lesbian, 31% bisexual, 3% other; 51% male, 49% female; 37% Latino, 35% Black, 22% White, 7% Asian or other.</td>
<td>6-item BSI subscale (α = .82). Psychosocial factors: current religious affiliation and religiousness. Pearson correlations and OLS regression.</td>
<td>Depression was associated with being Catholic (β = -.26*), and religiousness (β = -.23*). Depression was not associated with having a current religious affiliation (β = -.18). Depression among males was associated with having a current religious affiliation (r = -.21†) and religiousness (r = -.23†). Depression among females was not associated with having a current religious affiliation (r = -.15) or religiousness (r = -.02).</td>
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<td>Russell et al., 2011</td>
<td>Quantitative cross-sectional study in the San Francisco, CA area using convenience sampling from LGBQ community organizations, bars, and clubs.</td>
<td>N = 245; M age = 22.8 (SD = 1.4); 70% gay or lesbian, 13% bisexual, 17% queer; 46% male, 45% female, 9% transgender; 51% Latino, 49% White.</td>
<td>20-item CES-D (α = .94). Psychosocial factors: LGBQ victimization at school, family of origin socioeconomic status. OLS and logistic regression.</td>
<td>Depression was associated with LGBQ school victimization (β = .27†), experiencing high levels of victimization (OR = 2.60*), and family socioeconomic status (β = -.13†). Depression was not associated with experiencing moderate victimization (OR = 1.12).</td>
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<td>20-item CES-D (α = .94). Psychosocial factors: outness in high school, anti-LGBQ victimization, self-esteem. Pearson correlations and SEM.</td>
<td>Depression was associated with being out in high school (r = -.22*, β = -.32†), hiding one’s LGBQ identity in high school (r = .24*, β = .18*), LGBQ victimization at school (r = .32*, β = .42†), and self-esteem (r = -.47†).</td>
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<td>20-item CES-D ($\alpha = .94$). Psychosocial factors: parental rejection. Logistic regression.</td>
<td>Depression was associated with parental rejection ($OR = 5.94^*.$)</td>
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<td>$N = 245; M \text{ age} = 22.8 \ (SD = 1.4); 70% \text{ gay or lesbian, 13}% \text{ bisexual, 17}% \text{ queer, 46}% \text{ male, 45}% \text{ female, 9}% \text{ transgender; 51}% \text{ Latino, 49}% \text{ White.}$</td>
<td>20-item CES-D ($\alpha = .94$). Psychosocial factors: Family acceptance, childhood religious affiliation, childhood family religiousness, and family of origin socioeconomic status. OLS regression.</td>
<td>Depression was associated with family acceptance ($\beta = -.29^<em>.$) and family socioeconomic background ($\beta = -.11^</em>.$). Depression was not associated with childhood religious affiliation ($\beta = .00$) or childhood family religiousness ($\beta = .04$).</td>
</tr>
<tr>
<td>Sheets &amp; Mohr, 2009</td>
<td>Quantitative cross-sectional study in the United States using convenience sampling from LGBQ student organizations and colleges.</td>
<td>$N = 210; M \text{ age} = 21.0 \ (SD = 1.8); 100% \text{ bisexual; 85}% \text{ female, 15}% \text{ male; 81}% \text{ White, 9}% \text{ Black, 4}% \text{ Latino, 3}% \text{ Asian, 1}% \text{ American Indian, 6}% \text{ other.}$</td>
<td>20-item CES-D ($\alpha = .92$). Psychosocial factors: general social support from family and friends, sexuality-specific social support from family and friends, internalized binegativity. Pearson correlations and OLS regression.</td>
<td>Depression was associated with general social support from friends ($r = -.34^<em>,$ $\beta = -.25^</em>,$) general social support from family ($r = -.33^<em>,$ $\beta = -.28^</em>,$). Depression was not associated with sexuality social support from friends ($r = -.11,$ $\beta = -.04,$) sexuality social support from family ($r = -.10,$ $\beta = .08,$) or internalized binegativity ($r = .11.$)</td>
</tr>
<tr>
<td>Author(s) and Year</td>
<td>Study Design, Location, and Sampling Strategy</td>
<td>Sample Description</td>
<td>Depression Measure, Psychosocial Factors Measured, and Analysis Methods</td>
<td>Results on the Relationships between the Psychosocial Factors and Depression</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------</td>
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<td>---------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sterzing, 2012</td>
<td>Quantitative cross-sectional study in St. Louis, MO and Indianapolis, IN using convenience sampling from LGBQ community organizations.</td>
<td>N = 125; M age = 17.2 (SD = 1.3); 60% gay or lesbian, 19% bisexual, 21% queer or questioning or other; 49% female, 41% male, 10% transgender; 69% White, 14% Black, 11% multiracial, 5% Latino, 1% American Indian.</td>
<td>6-item BSI subscale (α = .87). Psychosocial factors: Abuse, neglect, and bullying victimization at school. Spearman and Pearson correlations.</td>
<td>Depression was associated with emotional abuse (r = .28*), physical abuse (r = .31*), sexual abuse (r = .23*), verbal bullying (r = .34*), relational bullying (r = .34*), electronic bullying (r = .31*), physical bullying (r = .37*), and total bullying (r = .35*). Depression was not associated with emotional neglect (r = .13) or physical neglect (r = .15).</td>
</tr>
<tr>
<td>Thoma &amp; Huebner, 2013</td>
<td>Quantitative cross-sectional study in Indianapolis, IN, Boston, MA, Philadelphia, PA, and Oakland, CA using convenience sampling from community centers serving LGB youth and social media websites.</td>
<td>N = 276; M age = 17.5 (SD = 1.4); 59% gay or lesbian, 27% bisexual, 14% queer; 59% male, 33% female, 8% transgender; 57% Black, 43% multiracial.</td>
<td>20-item CES-D. Psychosocial factors: outness, experiencing racist discrimination, experiencing anti-LGBQ discrimination. OLS regression.</td>
<td>Depression was associated with experiencing racist discrimination (r = .25*, β = .27*) and experiencing anti-LGBQ discrimination (β = .21*). Depression was not correlated with outness (r = -.08) or experiencing anti-LGBQ discrimination (r = .10).</td>
</tr>
<tr>
<td>Toomey, 2011</td>
<td>Quantitative cross-sectional study in the San Francisco, CA area using convenience sampling from LGBQ community organizations, bars, and clubs.</td>
<td>N = 245; M age = 22.8 (SD = 1.4); 70% gay or lesbian, 13% bisexual, 17% queer or other; 47% male, 45% female, 9% transgender; 51% Latino, 49% White.</td>
<td>20-item CES-D (α = .94). Psychosocial factors: presence of high school GSA, participation in the GSA, effectiveness of GSA in making school safer, and LGBQ victimization at school. OLS regression.</td>
<td>Depression was associated with GSA presence (β = -.26*), victimization at school (β = .51*), and GSA effectiveness (β = -.206). Depression was not associated with GSA participation (β = -.277). GSA participation moderated the relation between victimization and depression (β = .67*). GSA presence and effectiveness did not moderate the relations between victimization and depression (β = .20, β = -.24).</td>
</tr>
</tbody>
</table>

(Continued)
<table>
<thead>
<tr>
<th>Author(s) and Year</th>
<th>Study Design, Location, and Sampling Strategy</th>
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<th>Depression Measure, Psychosocial Factors Measured, and Analysis Methods</th>
<th>Results on the Relationships between the Psychosocial Factors and Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toomey et al., 2010</td>
<td>Quantitative cross-sectional study in the San Francisco, CA area using convenience sampling from LGBQ community organizations, bars, and clubs.</td>
<td>$N = 245$; $M$ age = 22.8 ($SD = 1.4$); 70% gay or lesbian, 13% bisexual, 17% queer; 46% male, 45% female, 9% transgender; 51% Latino, 49% White.</td>
<td>20-item CES-D ($\alpha = .94$). Psychosocial factors: School victimization and gender non-conformity. Pearson correlations and SEM.</td>
<td>Depression was associated with school victimization ($r = .32^<em>$, $\beta = .39^</em>$) and gender non-conformity ($r = .21^*$).</td>
</tr>
<tr>
<td>Walker &amp; Longmire-Avital, 2013</td>
<td>Quantitative cross-sectional study in the United States using convenience sampling from college student organizations.</td>
<td>$N = 175$; $M$ age = 21.3 ($SD = 2.4$); 66% gay or lesbian, 34% bisexual; 57% male, 43% female; 100% Black.</td>
<td>20-item CES-D ($\alpha = .92$). Psychosocial factors: strength of religious faith, resiliency, and internalized homophobia. Pearson correlations.</td>
<td>Depression was correlated with resiliency ($r = -.45^<em>$) and internalized homophobia ($r = .16^</em>$). Depression was not correlated with strength of religious faith ($r = -.05$).</td>
</tr>
</tbody>
</table>

of males and females. In terms of sexual orientation, most study participants (i.e., approximately 50% to 70%) identified as gay or lesbian, followed by some (i.e., approximately 15% to 35%) who identified as bisexual, and few (i.e., approximately 5% to 15%) who identified as something else, such as queer, pansexual, or questioning. Samples were generally diverse in terms of race/ethnicity. Few studies reported other participant demographics such as socioeconomic status (SES), immigrant/citizenship status, and ability/disability status.

**Measurement of depression**

All studies used self-report scales to measure depression: 16 studies used the 20-item version of the Center for Epidemiologic Depression Scale (CES-D), one study used the 10-item version of the CES-D, one study used the 20-item version of the CES-D for Children, 10 studies used the 6-item depression subscale of the Brief Symptom Inventory, four studies used the 21-item Beck Depression Inventory II, one study used the 20-item Beck Depression Inventory for Youth, and one study used the 12-item Behavior Assessment System for Children 2nd edition Self-Report Adolescent version. In addition, one study used an 18-item measure, which combined items from the CES-D, Structured Clinical Interview for DSM-IV, and Schedule for Affective Disorders and Schizophrenia for School-Age Children. Internal consistency reliabilities (i.e., Cronbach’s alpha) for the depression scales ranged from .74 to .95. In many studies, depression was treated as a continuous variable; however, other studies applied cutoff scores to distinguish between depressive symptoms that were clinically significant or not.

**Relationships between psychosocial factors and depression**

Following the person-in-environment and ecological systems frameworks, findings will be discussed starting with individual factors, then interpersonal factors, followed by social environment factors. A box-score approach (Green & Hall, 1984) was used to illustrate the relationships between psychosocial factors and depression (see Table 2). Each entry in Table 2 reflects an effect size extracted from Table 1. The box-score method was modified to illustrate analyses and results that did or did not addressed temporal precedence and confounding, which bolsters the rigor of the box-score method by illustrating two key criteria for causal relationships.

**LGBQ identity factors**

Eighteen studies examined factors related to youths’ LGBQ identity (Baams, Grossman, & Russell, 2015; Bauermeister et al., 2010; Boarts, 2008; Borders, Guillén, & Meyer, 2014; Dahl, 2009; Dahl & Galliher, 2010; D’Augelli, 2002; Dickenson & Huebner, 2015; Friedman, 2002; Kephart, 2013; Rosario,
### Table 2. Box score results on the relationships between psychosocial factors and depression.

<table>
<thead>
<tr>
<th>Psychosocial Factor</th>
<th>Relationships between Factors and Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LGBQ Identity Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Internalized LGBQ-related oppression</td>
<td>± ± ± + + + + + + + + + + + + + + 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Stress related to hiding or managing one’s LGBQ identity</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Composite LGBQ-related stress</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Feeling different from the social norm</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Sexual orientation uncertainty</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Outness</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Positive LGBQ identity</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>LGBQ identity integration</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Gender role orientation</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td><strong>Psychological Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Use of maladaptive coping strategies</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Perceived burdensomeness of self</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Feeling of thwarted belonging</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Ruminaction</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Sense of meaning and purpose in life</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Resilient disposition</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Use of positive coping strategies</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td><strong>Family Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Parental rejection</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Homelessness</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Family support</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Family socioeconomic background</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Family acceptance</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Family meeting of partner</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Family cohesion and adaptability</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Family religiosity</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td><strong>Friend Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Friend support</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Contact with friends</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td><strong>Romantic or Sexual Partner Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Being in a romantic relationship</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Engagement in sexual activity</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Age of same-sex debut</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Not worrying about quality of sex life</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Worrying about HIV/AIDS</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td><strong>Other Interpersonal Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Negative social interactions</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Experiencing abuse, neglect, or other traumatic events</td>
<td>+ + + + + + 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Interpersonal LGBQ-related stressors</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Positive LGBQ identity</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Social support from multiple sources</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Diversity of social network</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Contact with social network</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td><strong>Religious Factors</strong></td>
<td></td>
</tr>
<tr>
<td>Negative individual religious experiences</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Negative communal religious experiences</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Conflict between religion and being LGBQ</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Religiousness</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Religious affiliation</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Positive individual religious experiences</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Positive communal religious experiences</td>
<td>+ + + + + + 0 0</td>
</tr>
<tr>
<td>Comfort between religion and being LGBQ</td>
<td>+ + + + + + 0 0</td>
</tr>
</tbody>
</table>

(Continued)
Internalized LGBQ-related oppression was the most prominent risk factor in this domain, with 13 out of 19 associations (68%) showing risk for depression. Three of these 13 associations were from longitudinal studies. Stress related to managing one’s LGBQ identity was also a risk factor, though these associations were based primarily on cross-sectional, non-multivariate studies. Viewing one’s LGBQ identity as positive was a protective factor, though this evidence was also based primarily on cross-sectional, non-multivariate studies. Results were mixed regarding outness or the extent that youth were open with others about their LGBQ identity. Nonetheless, 10 out of the 17 associations (59%) showed that outness was not related to depression, and four of these associations were based on multivariate, longitudinal analyses. Six of the 17 associations showed that outness was a protective factor, though none of these findings used longitudinal data. Results were also mixed regarding LGBQ identity integration, although this factor was examined by only one study. One’s gender role orientation or the extent to which one is masculine or feminine was largely unrelated to depression.

<table>
<thead>
<tr>
<th>Psychosocial Factor</th>
<th>Relationships between Factors and Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral position of religion on being LGBQ</td>
<td>0</td>
</tr>
<tr>
<td>School Factors</td>
<td></td>
</tr>
<tr>
<td>Experiencing bullying</td>
<td>++++ + + + + + + + + + + + + + + + + + +</td>
</tr>
<tr>
<td>GSA presence, effectiveness, or participation</td>
<td>— — — — 0 0 0 0</td>
</tr>
<tr>
<td>School belonging</td>
<td>—</td>
</tr>
<tr>
<td>Comfort speaking to school personnel about LGBQ issues</td>
<td>0</td>
</tr>
<tr>
<td>Neighborhood and Community Factors</td>
<td></td>
</tr>
<tr>
<td>Experiencing harassment or violence</td>
<td>± + + + + + + + + + + + + + + + + + +</td>
</tr>
<tr>
<td>Experiencing discrimination</td>
<td>+ + 0</td>
</tr>
<tr>
<td>Urbanicity or local population size</td>
<td>0 0 +</td>
</tr>
<tr>
<td>Presence or percent decrease of republics in neighborhood</td>
<td>— 0</td>
</tr>
<tr>
<td>Presence or percent increase of college-educated residents in neighborhood</td>
<td>0 0</td>
</tr>
<tr>
<td>Presence of same-sex couples in neighborhood</td>
<td>0 0</td>
</tr>
<tr>
<td>Community support of LGBQ people</td>
<td>0 0</td>
</tr>
<tr>
<td>Involvement in LGBQ nightlife venues</td>
<td>0 0</td>
</tr>
<tr>
<td>Societal Factors</td>
<td></td>
</tr>
<tr>
<td>Lack of societal acceptance and legal protection of LGBQ</td>
<td>0</td>
</tr>
<tr>
<td>people</td>
<td></td>
</tr>
</tbody>
</table>

Note: LGBQ = lesbian, gay, bisexual, transgender, or queer. + = positive association with depression (i.e., risk factor). — = negative association with depression (i.e., protective factor). 0 = no association with depression. Characters that are underlined represent a result from a longitudinal analysis. Characters that are bolded represent a result from a multivariate analysis. GSA = Gay-Straight Alliance.
Psychological factors
Eight studies examined psychological factors that were not explicitly related to youths’ LGBQ identity (Baams et al., 2015; Borders et al., 2014; Dahl & Galliher, 2010; Kephart, 2013; Madsen, 2013; Rosario et al., 2001; Russell et al., 2014; Walker & Longmire-Avital, 2013). Risk factors included perceived burdensomeness (i.e., feeling that you are a burden to others), feelings of thwarted belonging (i.e., feeling socially isolated and an unmet need of belonging), and use of maladaptive coping strategies (e.g., avoidance, suppression, and distraction); however, none of these findings were from longitudinal studies. Self-esteem was a prominent protective factor, with 8 out of 10 associations (80%) showing this relationship. Use of positive coping strategies (e.g., problem-solving, seeking social support, positive reinterpretation) was largely unrelated to depression.

Family factors
Thirteen studies examined family factors (D’Augelli, 2002; Dahl, 2009; Dickenson & Huebner, 2015; Hightow-Weidman, Phillips, Jones, Outlaw, & Fields, 2011; Kephart, 2013; Khoury, 2013; Rosario, Schrimshaw, & Hunter, 2005; Rosario et al., 2011; Rosario, Schrimshaw, & Hunter, 2012; Russell, Ryan, Toomey, Diaz, & Sanchez, 2011; Ryan, Huebner, Diaz, & Sanchez, 2009; Ryan, Russell, Huebner, Diaz, & Sanchez, 2010; Sheets & Mohr, 2009). Three out of five associations (60%) showed that family or parental rejection was a risk factor for depression; however, none of these studies were longitudinal. Only one study examined homelessness due to either running away or being evicted by parents. This study found mixed results, with homelessness being positively associated with depression measured as initial waves and being unrelated with depression assessed at later waves. The relationship between family support and depression was evenly mixed, with some studies showing a protective effect and others showing no effect. Although 2 of the 7 protective associations were based on longitudinal data, 5 of the 7 associations showing no effect were based on longitudinal data. Family religiousness, cohesion, and adaptability were unrelated to depression.

Friend factors
Six studies examined friend factors (Hightow-Weidman et al., 2011; Khoury, 2013; Rosario et al., 2005, 2011, 2012; Sheets & Mohr, 2009). The relationship between social support from friends and depression was evenly mixed, with some studies showing a protective effect and others showing no effect. Concurrent friend support was more often protective against depression than friend support in the past. Contact with friends may be a protective factor, though this was based on a single study.
Romantic or sexual partner factors
Six studies examined factors related to romantic or sexual partners (Bauermeister et al., 2010; Boarts, 2008; D’Augelli, 2002; Dahl, 2009; Dickenson & Huebner, 2015; Rosario et al., 2001). Being in a romantic relationship and engaging in sexual activity were often unrelated to depression. Concern about HIV/AIDS also appeared to be unrelated to mood regardless of gender, although this was based on two cross-sectional, non-multivariate studies. Not worrying about the quality of one’s sex life and initiation of same-sex sexual activity later in development may be protective factors, although the data were limited.

Other interpersonal factors
Ten studies examined interpersonal factors that could not be categorized into the above factors regarding family, friends, and romantic or sexual partners (Bauermeister et al., 2010; Boarts, 2008; Heck, Flentje, & Cochran, 2011; Kephart, 2013; Madsen, 2013; Rosario et al., 2005, 2011, 2012, 2002; Sterzing, 2012). Experiencing negative social interactions (e.g., being ignored or treated poorly) was a strong risk factor for depression, which was found in 11 of 12 associations (92%), primarily from longitudinal studies. Another risk factor was experiencing abuse, neglect, or another traumatic event (e.g., natural disaster, assault, war, serious accident) during childhood or adolescence, which was shown in 7 of 12 associations (58%). Interpersonal LGBQ-related stressors (e.g., arguments with family, friends, and work associates about homosexuality) were unrelated to depression in 5 out of 8 associations (63%), which were primarily longitudinal. Similarly, general stressful life events (e.g., the death of a loved one, the breakup of a romantic relationship, being robbed) were often unrelated to depression. Although some studies measured social support from a specific source (e.g., family or friends), one study assessed overall social support from various sources (e.g., family, friends, significant others, caring adults); however, the results were mixed, showing that concurrent social support was inversely related to depression and past social support was unrelated to current depression.

Religious factors
Eight studies examined religious factors (D’Augelli, 2002; Dahl, 2009; Dahl & Galliher, 2010; Gattis, Woodford, & Han, 2014; Kephart, 2013; Rosario, Yali, Hunter, & Gwadz, 2006; Ryan et al., 2010; Walker & Longmire-Avital, 2013). Negative individual and communal religious experiences were positively associated with depression, though these findings were not based on longitudinal studies. Having a conflict between youths’ religion and their LGBQ identity was found to be a risk factor only in 1 of 4 studies; however, this one study used a multivariate analysis, whereas the other three were bivariate, and all four studies were cross-sectional. Religiousness was unrelated to
depression in 7 out of 10 associations. The remaining three studies showed a
protective effect of religiousness on depression, although all of the 10 asso-
ciations that examined religiousness used cross-sectional data. Similarly,
religious affiliation was unrelated to depression in 4 out of 6 associations
(67%), with the remaining two showing a protective effect. None of these
studies were longitudinal. Positive individual and communal religious expe-
riences were primarily unrelated to depression, although this was based on two
cross-sectional studies.

School factors
Nine studies examined school-related factors (Fischer, 2011; Friedman,
2002; Heck et al., 2011; Khoury, 2013; Russell et al., 2011, 2014; Sterzing,
2012; Toomey, 2011; Toomey et al., 2010). Bullying victimization at
school was a consistent risk factor for depression, though no studies
that examined it were longitudinal. Findings were mixed regarding the
relations between youth involvement in a Gay-Straight Alliance (GSA)
or comparable group and depression. Four out of eight associations
showed that GSA presence, effectiveness, or involvement was protective
against depression and another four showed no association with depres-
sion. However, none of these studies were longitudinal.

Neighborhood and community factors
Twelve studies examined neighborhood and community factors (Baams
et al., 2015; Burton, Marshal, Chisolm, Sucato, & Friedman, 2013; Dahl,
2009; Everett, 2013; Fischer, 2011; Gattis et al., 2014; Heck et al., 2011;
Hightow-Weidman et al., 2011; Kephart, 2013; Khoury, 2013; Rosario
et al., 2001; Thoma & Huebner, 2013). Experiencing harassment or
violence in one’s community were consistent risk factors for depression.
Although less often investigated, discrimination was also shown to be a
risk factor. Involvement in LGBQ nightlife venues and the perceived
community climate regarding LGBQ people were unrelated to depres-
sion, although these findings were from cross-sectional, non-multivariate
studies.

Only two studies assessed neighborhood composition. In one study, the
population size of the city or town was unrelated to depression. Yet in
another study, living in a more urban neighborhood was positively associated
with depression; however, change in neighborhood urbanicity over time was
not related to depression. A decrease in the presence of registered republican
neighbors over a 7-year time period was protective against depression. The
proportion of republicans in one’s neighborhood 7 years prior was not
related to depression. Presence of same-sex couples and college-education
residents in one’s neighborhood were not related to depression.
Societal factors
One study examined societal factors (Dahl, 2009). Lack of societal acceptance and legal protection of LGBQ people were unrelated to depression. However, the analysis was cross-sectional and bivariate.

Discussion
The purpose of this study was to review psychosocial risk and protective factors for depression among LGBQ youth, guided by Meyer’s (2003, 2007) minority stress theory and the person-in-environment or ecological systems framework. The findings will be discussed by psychosocial domain in the context of the broader literature, and, when relevant, implications for policy and practice will be proposed.

LGBQ identity factors
Consistent with the minority stress theory (Meyer, 2003, 2007), viewing one’s LGBQ identity as positive was a protective factor against depression and internalized LGBQ-related prejudice was a prominent risk factor. The broader construct, internalized oppression, is experienced by several socially stigmatized minority groups (e.g., people of color, immigrants, girls and women, people with disabilities; David, 2014). And researchers have found links between internalized oppression, self-worth, and depression among multiple population groups (David & Derthick, 2014).

Internalized LGBQ-related oppression may respond well to cognitive behavioral therapy interventions to identify, challenge, and replace negative thoughts and feelings about being LGBQ (Craig, Austin, & Alessi, 2013; Durte-Velez, Bernal, & Bonilla, 2010; Safren, Hollander, Hart, & Heimberg, 2001). Reparative or conversion therapies that aim to change non-heterosexual orientations are unethical and harmful (American Psychological Association, 2009). Recently, a handful of states have enacted laws prohibiting psychotherapists from practicing reparative or conversion therapy with minors (Cella, 2014).

Results also showed that stress from hiding one’s LGBQ identity and managing coming out were risk factors. And being open with others about one’s LGBQ identity was inversely related to depression in several studies. Meyer (2003, 2007) viewed identity concealment as maladaptive coping motivated by a real threat (e.g., being attacked or fired from a job) or shame and guilt. Concealing one’s LGBQ identity is burdensome because it depletes cognitive resources, inhibits expression, and interferes with close interpersonal relationships (Bosson, Weaver, & Prewitt-Freilino, 2012; Critcher & Ferguson, 2014; Pachankis, 2007). Mental health practitioners need to familiarize themselves with LGBQ identity development models,
which have slight differences and some criticisms yet common themes and some empirical support (Eliason & Schope, 2007). LGBQ youth may need assistance from practitioners as they negotiate challenges in coming out to themselves and deciding if, when, and how to come out to others (Crisp & McCave, 2007; Matthews & Salazar, 2012). Although coming out can be difficult, it can also lead youth to opportunities for affiliation, support, and coping assistance (Meyer, 2003, 2007). In addition, the minority stress theory may need to be expanded to include stress related to coming out as a LGBQ-specific proximal stressor.

Findings on LGBQ identity integration were mixed. Identity integration refers to the extent to which one’s LGBQ identity is consolidated internally and externally and would reflect positive attitudes about being LGBQ, comfort with others knowing about one’s identity, comfort in disclosing one’s identity, and involvement in LGBQ social activities (Rosario et al., 2011). This factor was investigated in only one study, which found that only youth with a consistently high level of LGBQ identity integration were less likely to experience depression. Increasing, decreasing, and maintaining moderate identity integration over time were not related to depression. This tentative finding suggests that interventions early in the LGBQ self-identification process are important to instill an initial and lasting positive and cohesive identity.

Finally, many LGBQ youth are less likely to conform to traditional gender roles in their appearance and behavior (Li, Pollitt, & Russell, 2015). Among the reviewed studies, this factor was largely unrelated to depression. However, gender-nonconforming youth may be at increased risk for bullying and harassment as a means of enforcing strict gender norms (Friedman, Koeske, Silvestre, Korr, & Sites, 2006; O’Shaughnessy, Russell, Heck, Calhoun, & Laub, 2004; Toomey et al., 2010; Wyss, 2004).

**Psychological factors**

Reliance on maladaptive coping strategies was a risk factor, which is consistent with research among youth in the general population (Cairns et al., 2014; Shortt & Spence, 2006). Perceived burdensomeness and thwarted belonging were also risk factors for depression. These concepts originated from a theory of suicidal behavior (Joiner, 2005). Depression may mediate the relationship between suicidality and perceived burdensomeness and thwarted belonging, as demonstrated in a recent study (Barzilay et al., 2015). LGBQ youth may feel that coming out to family and friends then creates a burden on them because of possible increased stress in the relationship or stigma by association. LGBQ youth may need to be reminded of the benefits for themselves and loved ones of coming out (e.g., relief from hiding, interpersonal openness and honesty, and possible increased relationship
closeness). And thwarted belonging can be treated by encouraging youth to pursue relationships and interactions with accepting and affirming individuals, groups, and communities.

Self-esteem was a prominent protective factor, which aligns with research among youth in the general population (Costello, Swendsen, Rose, & Dierker, 2008; Shortt & Spence, 2006). Taken together that having a positive LGBQ identity and global self-esteem are protective against depression, self- and identity-focused interventions may need to target problematic self-concepts related to LGBQ identity and highlight that being LGBQ is just one of many parts of one’s identity. Having multiple self-aspects and a positive, holistic sense of self may mitigate the effects of stressors from a single domain of one’s self or identity (Brook, Garcia, & Fleming, 2008). According to Meyer (2003, 2007), integrating one’s LGBQ identity with other identities to achieve identity synthesis can moderate the impact of LGBQ-specific stressors and mental health outcomes.

Reliance on positive coping strategies was frequently examined yet often unrelated to depression, which is consistent with results from youth in the general population (Cairns et al., 2014). Meyer (2003, 2007) distinguished between individual and group coping processes. Group-level coping may be particularly useful for LGBQ populations because of the shared experience of stigma. For example, an LGBQ youth struggling with experiences of rejection, discrimination, and internalized oppression may be better helped by group coping, such as accessing a safe and support community of LGBQ individuals to process and to find meaning in the experiences, than by individual coping, such as taking an optimistic view of the future. Additional research on individual and group coping processes among LGBQ youth is needed.

**Family factors**

Family rejection can be particularly devastating for youth because family is one of the most important socioecological systems shaping health and development. Rejection by parents may have deleterious consequences in terms of attachment because youth lose their safe base—their family of origin—and attachment problems may lead to emotional turmoil, withdrawing from the social world, or viewing interpersonal bonding and relationships with close friends and significant others with caution and uncertainty (Rosario, 2015). Nonetheless, it is possible for parents to become more accepting of their LGBQ children over time, despite initial negative reactions (Beals & Peplau, 2006; Savin-Williams & Ream, 2003; Vincke & Van Heeringen, 2002). Family therapy interventions may be needed to help parents process their reactions to and accept their child’s LGBQ identity, help youth cope with difficult reactions from their family, and improve intrafamily communication. Family
therapy interventions have been developed recently with promising results (Diamond et al., 2013; Diamond & Shpigel, 2014; Fish & Harvey, 2005; Harper & Singh, 2014; LaSala, 2010; Parker, Tambling, & Franklin, 2011; Willoughby & Doty, 2010). Parents may also benefit from support groups, such as those offered by PFLAG (Broad, 2011).

In addition, homelessness may increase risk for depression, although the one study that examined this factor also found some nonsignificant associations. Other studies have found that homeless youth are at increased risk for depression as well as a range of other behavioral health problems (e.g., posttraumatic stress disorder, substance use disorders, sexually transmitted infections; Medlow, Klineberg, & Steinbeck, 2014). And homeless LGBQ youth have been found to be more depressed than homeless heterosexual youth (Whitbeck, Chen, Hoyt, Tyler, & Johnson, 2004).

**Friend factors**

The importance of friends increases during adolescence. Friends are often the first people who youth come out to as LGBQ (Beals & Peplau, 2006; Ryan & Futterman, 1998). Thus these initial responses may influence youths’ subsequent decisions to come out to other people in their lives (e.g., family members, neighbors, work associates). LGBQ youth reported that supportive friend reactions included accepting the information without commotion, being open-minded, signaling that they had suspected the news, continuing to be loving or caring, and respecting youth’s LGBQ friends (Benhorin, 2008). Friends can also play an important role as allies (Roe, 2015).

Support from friends who are also LGBQ may be particularly helpful because youth feel more comfortable talking with them about LGBQ issues, have a sense of shared experience, get advice about challenging issues that others have already navigated (e.g., difficult reactions from family members), and see positive LGBQ role models who are happy and comfortable with their identity (Benhorin, 2008; Roe, 2015). School- or community-based mutual support group interventions have been shown to be beneficial for LGBQ youth (Dietz & Dettlaff, 1997; Muller & Hartman, 1998; Thomas & Hard, 2011; Welch, 1996).

**Romantic or sexual partner factors**

Being in a romantic relationship, engaging in sexual activity, and concern about HIV/AIDS were unrelated to depression. Studies of youth in the general population have also found no relation between sexual activity and depression (Cairns et al., 2014). Future research should assess the quality of romantic relationships, which may likely be related to depression.
Other interpersonal factors

Experiencing abuse was a risk for depression, which is consistent with research among youth in the general population (Newton, Docter, Reddin, Merlin, & Hiller, 2010). Considerable research shows that compared to their heterosexual peers, LGBQ youth are more likely to experience physical and sexual abuse during childhood and adolescence (Friedman et al., 2011; Saewyc et al., 2006; Stoddard, Dibble, & Fineman, 2009). It is still uncertain if abuse more often occurs before or after youth self-identify as LGBQ or come out to others. Nonetheless, LGBQ youth who have been abused face stigma on two fronts, which can compromise their mental health and help-seeking behaviors.

Negative social interactions were also risk factors. Among youth in the general population, interpersonal problems also increased risk for depression (Newton et al., 2010). Due to the measurement format, it is uncertain if these negative social interactions were motivated by sexual orientation prejudice or not. Nonetheless, being disrespected or treated poorly by others can be harmful.

In addition, negative life events (e.g., death of a loved one, job loss, illness) may also increase risk for depression, although most studies found no significant effects. This finding contradicts the literature of youth in the general population, which shows that stressful life events are clear risk factors for depression (Newton et al., 2010; Shortt & Spence, 2006). A possible explanation is that among LGBQ youth, these events may be seen as secondary stressors because LGBQ-specific stressors (e.g., coming out struggles, interpersonal rejection, discrimination) are more salient to their identity and, therefore, perhaps have a more negative impact on mental health.

According to Meyer (2003, 2007), general stressors that are not LGBQ-specific can negatively affect mental health independently of and mutually with LGBQ stressors. More research is needed to understand and to disentangle main effects and interaction effects among stressors that are explicitly related to LGBQ stigma (e.g., rejection after coming out), completely unrelated to LGBQ identity (e.g., death of a family member), and those that may be implicitly related to LGBQ status (e.g., negative social interactions).

Religious factors

Findings were mixed regarding the role of youths’ religious affiliation and religiousness (i.e., strength of their faith or importance of religion in their lives). Among youth in the general population, the role of religiousness is also unclear, with some studies showing a protective effect against depression and other studies showing no evidence (Cairns et al., 2014; Cotton, Zebracki, Rosenthal, Tsevat, & Drotar, 2006; Shortt & Spence, 2006).
Negative religious experiences including negative feelings about one’s faith, affiliation with a religious organization that opposes LGBQ rights, and hassles from one’s religious community may increase risk for depression. Religion is often contentious for LGBQ people because many organized religions are hostile or intolerant toward this population (Chaves & Anderson, 2014; Pew Research Center, 2013a; Siker, 2007). Experiencing rejection by one’s religious community and internal conflict related to negative religious beliefs about being LGBQ likely contribute to identity struggles and mental health problems among LGBQ youth (Page, Lindahl, & Malik, 2013; Ream & Savin-William, 2005). Mental health practitioners may need to help LGBQ youth locate alternative interpretations of religious texts about being LGBQ, evaluate the pros and cons of remaining in nonaffirming religious organizations, process religious abuse, locate affirming religious communities, and explore alternatives to organized religion such as spirituality or nontheism (Bowland, Foster, & Vosler, 2013; Bozard & Sanders, 2011; Kocet, Sanabria, & Smith, 2011; Kubicek et al., 2009; Schuck & Liddle, 2001; Super & Jacobson, 2011). Leaders of religious organizations should consider historical and contemporary contexts of doctrines about sexuality and gender and their implications for LGBQ people. Central religious values of respect, kindness, compassion, unity, and peace are often not in sync with the positions of some religious organizations regarding LGBQ people.

**School factors**

Bullying was a commonly investigated and consistent risk factor for depression. In general, bullying is a prevalent problem in American schools (Kann et al., 2014; Wang, Iannotti, & Nansel, 2009); however, students who are vulnerable or who are members of minority groups (e.g., LGBQ students, immigrant students, students with disabilities) face disproportionately high rates of bullying victimization (Elamé, 2013; Peguero, 2012).

Anti-LGBQ bullying is significantly less prevalent in schools with antibullying policies that explicitly prohibit bullying based on sexual orientation and gender identity/expression; positive representations of LGBQ people, history, and events in the curricula; and effective bullying intervention by teachers and staff (Hall, 2017; Kosciw et al., 2014). Currently, only 20 states and the District of Columbia have anti-bullying laws enumerating protections based on sexual orientation and gender (Human Rights Campaign [HRC], 2015a). Similarly, only 32% of LGBQ students reported that LGBQ topics had been presented in their classes (Kosciw et al., 2014). Resources for infusing LGBQ topics into school curricula have been developed (see Gay, Lesbian, and Straight Education Network, 2015). Teachers are more likely to intervene in anti-LGBQ bullying when they know LGBQ students at their school, are aware of and concerned about general and LGBQ-specific
bullying, and feel comfortable intervening (Greytak & Kosciw, 2014). Training is essential to equip teachers and other school personnel with the attitudes, knowledge, and skills needed to effectively intervene (Greytak, Kosciw, & Boesen, 2013; Mishna, Newman, Daley, & Soloman, 2009). And teachers have indicated that intervening in bullying based on sexual orientation and gender identity/expression is an area in which they are most in need of additional training (Bradshaw, Wassdorp, O’Brennan, & Gulemetova, 2013, 2011).

GSAs may be protective against depression. GSAs are student-run groups or clubs most often found in high schools, which aim to make schools safer and more supportive for LGBQ students and their allies through social support; community-building; and awareness, educational, and advocacy activities. The presence of GSAs in schools is associated with less bullying and more positive school experiences for LGBQ students (Chesir-Teran & Hughes, 2009; Davis, Stafford, & Pullig, 2014; Lee, 2002; Roe, 2015; Russell, Muraco, Subramaniam, & Laub, 2009; Varjas et al., 2007; Walls, Kane, & Wisneski, 2010). The Equal Access Act of 1984 allows GSAs to be organized in schools that receive federal funds (Zirkel, 2005).

Neighborhood and community factors

Experiencing harassment and violence in one’s community was a consistent risk factor for depression. A common preventive intervention for bias-based violence is hate crimes law. Although the Matthew Shepard and James Byrd, Jr. Hates Crimes Prevention Act was enacted in 2009 and is one of the few pieces of federal legislation that is inclusive of sexual orientation and gender identity, only 16 states have hate crimes laws that include sexual orientation and gender identity (HRC, 2015b). Of the victims and survivors of anti-LGBQ hate crimes that reported them to the police, 58% indicated that police officers were indifferent or hostile toward them in their interactions (National Coalition of Anti-Violence Programs, 2013). Among U.S. adults, LGBQ victims of hate violence were more likely to be blamed for being attacked than heterosexual victims (Lyons, 2006). In addition, findings suggested that public displays of affection between same-sex couples were often viewed as a valid reason for hate violence against LGBQ people. Police officers, first responders, and victim service providers may benefit from training programs about using appropriate LGBQ-related terminology, examining biases that lead to problematic interactions with LGBQ victims, identifying and documenting anti-LGBQ hate violence, understanding the specific needs of survivors of anti-LGBQ violence, and addressing the barriers that LGBQ victims face in reporting hate crimes and accessing services (Ciarlante & Fountain, 2010). Mental health service providers working with victims of hate crimes may need to use trauma-focused interventions that
consider the social context of LGBQ individuals (Brown, 2008; Fallon & Seem, 2012).

Another mental health threat, discrimination, can exist in various social contexts in one’s community. Some examples of discrimination that LGBQ youth may face include being told that they cannot bring a same-sex date to the school prom, sent home from school to change clothes that are consistent with one’s gender identity, fired because coworkers were uncomfortable with their LGBQ identity, and denied access to rental housing because of their LGBQ identity. In terms of policy, sexual orientation and gender identity are not enumerated as protected classes in federal laws regarding discrimination in housing, education, and public and private employment (HRC, 2015c). In terms of state laws banning discrimination based on sexual orientation and gender identity, 20 address housing discrimination (HRC, 2015d), 14 address school-based discrimination (HRC, 2015e), and 20 address employment discrimination (HRC, 2015f).

In addition, the composition of youths’ neighbors may influence depression. Living in an area where neighbors are accepting of your identity and endorse sociopolitical positions that involve ending institutional discrimination may be beneficial for LGBQ youth (Hatzenbuehler, 2010). Many LGBQ people move to urban and metropolitan areas (e.g., San Francisco, Atlanta) because there are higher concentrations of other LGBQ people and people living in urban areas generally hold more progressive social positions (Aldrich, 2004; Black, Gates, Sanders, & Taylor, 2002; Cooke & Rapino, 2007; Knopp & Brown, 2003; Walther & Poston, 2004); however, these areas tend to have high costs of living.

**Strengths and limitations of the review**

This review used a rigorous approach to identify relevant studies by searching eight databases using an expert-informed search string. In addition, search records were independently screened by two screeners based on a priori inclusion criteria. Further, unpublished dissertations, a form of gray literature, were included to minimize publication bias. Nonetheless, unpublished research may be underrepresented in this review. This review distinguished substantive findings that were consistent and inconsistent across studies as well as findings on psychosocial factors that had been examined by only a single study, which precludes consensus of findings across studies. In addition, by presenting the methodological characteristics and substantive findings by study in Table 1, readers are able to assess the methodological rigor and trustworthiness of findings accordingly.
**Methodological considerations**

The majority of studies used cross-sectional designs. Although these designs are more feasible and cost-efficient, they do not allow researchers to examine causal relationships between psychosocial factors and depression. Another methodological limitation was that sampling strategies from many studies involved some form of convenience sampling of youth from a single city or area, which were typically urban. These methods raise questions concerning who is represented and not represented in the sample from the overall population and, thus, limit the generalizability of study findings. Convenience sampling is often used in studies of LGBQ youth because they are a hard-to-reach population.

Most studies were adequately powered based on sample sizes and analyses performed. However, statistical power was questionable for four studies that ran regression or regression-type models with samples of fewer than 100 participants. Samples included youth from various ages; however, many studies sampled youth who were 18 years or older perhaps because parental consent was not be required. Across studies, participants appeared to be diverse in terms of sex/gender, sexual orientation, and race/ethnicity. Most studies did not measure other demographics such as socioeconomic status, immigrant/citizenship status, and ability/disability status.

All studies used quantitative self-report scales to measure depressive symptoms, and no studies used a diagnostic interview administered by a mental health professional to assess depression. Although most depressive symptoms reflect subjective feelings and self-perceptions, which can be easily captured in self-report questionnaires, structured diagnostic interviews may be more appropriate when the outcome of interest is a diagnosis of a depressive disorder.

The psychosocial factors measured varied across studies. Although most studies used established scales to measure these variables, some studies relied on items developed by the researchers. And some studies did not report internal consistency reliabilities for psychosocial variables or provide adequate information about item content. Although studies generally used appropriate statistical methods to analyze the relationships between the psychosocial factors and depression, many studies did not perform multivariate analyses that included relevant covariates.

**Recommendations for future research**

Based on this review, there are a number of recommendations for future research. First, research on LGBQ youth has been an underfunded and understudied area (Boehmer, 2002; Coulter, Kenst, & Bowen, 2014; Institute of Medicine, 2011; Mustanski, 2015). An analysis of National
Institutes of Health (NIH) funding revealed that only 0.1% of funded projects focused on LGBQ health, excluding HIV/AIDS studies (Coulter et al., 2014). Only recently, in October 2016, were LGBQ people designated as a health disparity population by the National Institute on Minority Health and Health Disparities at the NIH. Lack of funding support may be a primary reason for the use of less rigorous research methods. Therefore, research on LGBQ mental health should be supported as a funding priority given the lack of past support as well as the needs and vulnerability of this population.

Second, future studies should use more rigorous designs and sampling methods. Longitudinal studies are needed to examine causal relationships between psychosocial factors and depression. In addition, explicitly including LGBQ youth in population-based samples could be accomplished relatively easily by simply including questions about sexual orientation identity in population-based studies of youth alongside other demographic questions such as racial/ethnic identity. Only 25 states that participated in the Youth Risk Behavior Survey asked questions about sexual orientation (Kann et al., 2016). In addition, given that LGBQ youth are a hard-to-reach and often hidden population, venue-based sampling, time-space sampling, respondent-driven sampling, and online sampling may be useful approaches that are more rigorous than simple convenience sampling and more feasible than random sampling (Meyer & Wilson, 2009).

Third, more research is needed on psychosocial factors that were understudied, including LGBQ identity integration, vigilance related to expectations of prejudice, LGBQ identity prominence, attributions style, use of emotion regulation strategies, optimism, family acceptance, early move out and housing instability, loss of friends, intimate partner violence, social support from a romantic partner, social network diversity and participation, school climate, LGBQ-specific community supports and resources, sociopolitical environment, involvement in LGBQ activism, and exposure to LGBQ topics in the media. Research is also needed to clarify the influence of factors with mixed findings, including outness and religiousness. Outness may be protective only for youth living in relatively accepting social environments and may depend on age or developmental circumstances. In addition, religious factors may be protective only when they involve LGBQ-affirming beliefs or settings. Multivariate analyses with direct, mediating, and moderating effects are needed to explore these questions.

Finally, future studies could disentangle risk and protective factors for depression among LGBQ youth as a heterogeneous population group. The influence of psychosocial factors may vary by age or development period (i.e., early adolescence, middle adolescence, late adolescence, and emerging adulthood), sex/gender (e.g., gay men vs. lesbians), and sexual orientation (e.g., gay vs. bisexual). LGBQ youth are not a monolithic group. Future research may benefit from an intersectional perspective as risk and protective factors
for depression may vary among LGBQ youth based on the intersection of sexual orientation identity with other social positions and their associated systems of oppression (e.g., heterosexism, racism).

**Conclusion**

Findings from this review supported many of the propositions in Meyer’s (2003, 2007) minority stress theory, and many of the findings paralleled those in the literature on youth in the general population; however, many LGBQ youth experience unique and additive stressors, which distinguishes their experience from the heterosexual majority. Although additional scholarship is needed to improve on study designs and methods in the existing literature and to continue to investigate the relationships between psychosocial factors and depression, intervention research is desperately needed. Evidence-based mental health interventions for LGBQ youth are virtually nonexistent. Evidence should be used to inform the development and testing of interventions at multiple levels (i.e., individual, group, organizational, community, and policy interventions) in order to prevent and treat mental health problems in this population.

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* Asterisks indicate studies that were included in the systematic review.


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