

Table 2. Summary of social support, health outcomes, and main findings

<i>ID</i>	<i>Source of Social Support</i>	<i>Age</i>	<i>Identities Covered</i>	<i>Methods (Sample Size)</i>	<i>Health Outcomes</i>	<i>Main Findings</i>
1	<ul style="list-style-type: none"> • partnership status (ACASI-administered relationship roster): • cohabitation, dating, and single life compared to heterosexual marriage. 	18 to 26	categorized as LG based on self-reported "100% homosexual" or "mostly homosexual" status (bisexuals excluded), heterosexual comparison	prospective cohort (13,591) (<i>Add Health</i>) heterosexual males=6,254, heterosexual females=6,984 gay=134, lesbian=83	<ul style="list-style-type: none"> • binge drinking • marijuana use • hard drug use (including LSD, PCP, ecstasy, mushrooms, speed, ice, heroin, or pills) • depressive symptoms (CES-D) 	<ul style="list-style-type: none"> • For gay/lesbian young adults in the late 1990s/ early 2000s, cohabitation did not have the same health-protective effect that legal marriage or even cohabitation does for heterosexuals: lesbian and gay young adults in cohabiting relationships reported the highest levels of substance use of all partnership groups, gay or heterosexual. • Lesbians/gay men in cohabiting relationships had the highest predicted probability of both marijuana (.49) and hard drug use (.26). Despite being the most serious form of relationship legally and socially available to lesbian and gay individuals at this time, cohabitation did not appear to curb risky behaviors.
2	<ul style="list-style-type: none"> • sexuality specific (Adapted versions of the Social Support Behaviors Scale assessing Emotional Support and Advice/Guidance subscales used): both overall and disaggregated by family, heterosexual friends, and LGB friends • non-sexuality specific (both overall and disaggregated) 	18 to 21	self-identified as LGB or "unlabeled"	cross-sectional (98) male=66, female=32 gay=59, lesbian=16, bisexual=19, unlabeled=5	<ul style="list-style-type: none"> • emotional distress (Emotional Symptoms Index of BASC-2 SRP) 	<ul style="list-style-type: none"> • Perceived availability of sexuality support was stratified by family members ($t(92) = -9.24$) and heterosexual peers ($t(92) = -3.79$), where sexuality support was perceived as being less available than non-sexuality support. In contrast, sexual minority friends were seen as equally supportive across sexuality related and non-sexuality related domains ($t(92) = 1.92$). Sexual minority friends were also rated as providing the highest levels of sexuality support compared to both family members ($t(92) = 10.9$) and heterosexual friends ($t(92) = 4.51$). Heterosexual friends provided higher levels of sexuality support than family members ($t(92) = 6.50$). • In the final model predicting emotional distress with main effects for sexuality support, sexuality stress, the interaction of sexuality stress and sexuality support, only the moderating effect between sexuality stress and social support was significant. • Increased availability of sexuality support attenuated the link between young people's experiences of sexuality stress and their emotional distress. The main effect model predicting emotional distress from non-sexuality support (controlling for gender) was not significant.

3	<p>• school peer social isolation (two measures of social isolation: (a) in-degree, which is the number of students in the school who nominated the participant and (b) out-degree, which is the number of students in the school that were nominated by the participant)</p>	high school students	romantic same-sex attraction, both-sex attraction, and opposite-sex only attraction	<p>cross-sectional (14,319) (<i>Add Health</i>) same-sex attracted=151, both-sex attracted=708, only opposite-sex attracted=13,353</p>	<p>• depressive symptoms (11-item version of CES-D)</p>	<ul style="list-style-type: none"> • After controlling for social isolation in a full mediation model, the association between same-sex attraction and depression was no longer significant. • Social isolation remained significantly associated with depressive symptoms among sexual minority males even after adjusting for peer victimization. Among males (but not females), social isolation partially mediated the association between sexual minority status and depressive symptoms. The association between social isolation and depression was strongest for sexual minority males compared to all other groups (i.e., sexual minority females and opposite-sex attracted males and females).
4	<p>"Does your high school have a gay-straight student alliance, queer alliance, or group for LGBT students and their allies?" with yes/no response options.</p>	high school adolescents ≥ 16	self-identified as LGBT	<p>cross-sectional (490) male=179, female=257, transgender=39 gay/lesbian=213, bisexual=132, heterosexual=40, queer=32, unsure/other=58</p>	<p>• lifetime drug use was assessed with yes/no response options (disaggregated) to having ever used: cocaine, ecstasy, GHB/ketamine/rohypnol, hallucinogens, heroin, inhalants, marijuana, methamphetamines, steroids, prescription stimulants ("Recreational/Non-medical use"), anti-anxiety medication or prescription pain medications ("Recreational/Non-medical use" with examples given for the different drug classes)</p>	<ul style="list-style-type: none"> • Relative to those with a GSA, those without reported significantly more lifetime drug use or misuse (OR: 1.89, CI: 1.17-3.03). • Youth without a GSA were more likely to use cocaine (OR: 3.11, CI: 1.23-7.86), hallucinogens (OR: 2.59, CI: 1.18-5.70), marijuana (OR: 2.22, CI: 1.37-3.59), and recreational or non-medical use of ADHD medication (OR: 2.00, CI: 1.02-3.92) and prescription pain medication (OR: 2.00, CI: 1.10-3.65). • There were no detectable differences for ecstasy, GHB/Rohypnol, inhalants, meth, steroids, or anti-anxiety medications, although the sample may have been too small.

5	<ul style="list-style-type: none"> • LGBT connectedness (assessed by answering on scale of 1-3 “How much do you see yourself personally as being part of the local (in your area) LGBTQ community?”) • peer 	18 to 24	young sexual minority women (identified by same-sex sexual experiences with a woman in the last year)	cross-sectional (471) lesbian=258, bisexual=154, other=59	<ul style="list-style-type: none"> • smokers (every day or sometimes) compared to non-smokers (not at all) • heavy smoker (smoked five or more cigarettes a day) compared to light smoker (less than five cigarettes a day) • every day smoker compared to some day smoker 	<ul style="list-style-type: none"> • A one standard deviation increase in social support from peers was associated with a 23% decreased odds of being a smoker as compared to a nonsmoker. • A one point increase on the LGBT connectedness item was associated with a 33% reduced odds of being a smoker as compared to being a non-smoker. • A one point increase in LGBT community connectedness was associated with a 39 % reduced odds of being a heavy smoker as a compared to being a light smoker. • Peer support did not have any observed relationship to the amount of cigarettes smoked. However, a one point increase in feelings of LGBT community connectedness was associated with a 36 % reduced odds of being a heavy smoker as compared to a light smoker.
6	<ul style="list-style-type: none"> • overall social support (The Individual Protective Factors Index) 	adolescent	same-sex, both-sex, or opposite-sex only attractions	cross-sectional (1,533) male=610, female=537 both-sex attracted=169, female same-sex only=13, male same-sex only=20, only opposite-sex attractions=1,212	<ul style="list-style-type: none"> • suicide proneness (Life Attitudes Schedule-Short Form) • depression (CES-D) 	<ul style="list-style-type: none"> • Social support moderated the mediating effect of depression in the relationship between sexual attraction status and suicide proneness. The mediated effects of depression were stronger and significant for bisexuals ($\beta=0.251$) and for exclusive same sex attraction ($\beta=0.490$) in the lower half of the social support distribution, relative to the weaker association and, in the case of the bisexual attraction group not significant relationship, in the group with stronger social support ($\beta=.49$ for exclusive same-sex attraction).
7	<ul style="list-style-type: none"> • overall social support (MSPSS) 	16 to 22	self-identified as GLB, questioning/unsure/other, male-to-female transgender, or female-to-male transgender	prospective cohort (246) (2 years) male=121, female=125, male to female=12, female to male=8 gay=83, lesbian=68, bisexual=70, questioning/unsure=23	<ul style="list-style-type: none"> • current suicidal ideation (BSI) • attempted suicide (DISC) 	<ul style="list-style-type: none"> • Lower social support was associated with greater suicidal ideation. This relationship was tested with time-lagging wave-to-wave variables as well and the results were unchanged. This indicated that low social support had both a concurrent and a predictive effect on suicidal ideation.

8	<ul style="list-style-type: none"> • high (family, peer, significant other (MSPSS)) • non-family (high support from peer, significant other) • low support (all sources) 	16 to 20	self-identified as LGBT, “queer,” “questioning,” or attracted to the same gender	<p>prospective cohort (232) <i>part of Project Q2</i> (5.5 years) male=109, female=123, transgender=22</p> <p>gay/lesbian=143, bisexual=66, other=22</p>	<ul style="list-style-type: none"> • depression (BSI-18) • anxiety (BSI-18) • somatization (BSI-18) • suicidality (BSI-18) • global severity (BSI-18) • symptoms of major depression disorder (C-DISC) 	<ul style="list-style-type: none"> • Compared to high support cluster, the low support cluster had significantly more depression, anxiety, symptoms of MDD, and suicidality. • The non-family support cluster had worse outcomes than the high support cluster on all outcomes of interest except anxiety. • The non-family support group had similar outcomes to the low-support group except for significantly less loneliness.
9	<ul style="list-style-type: none"> • high (family, peer, significant other (MSPSS)) • non-family (peer, significant other) • low support 	16 to 20 at recruitment, followed for 5.5 years	self-identified as LGBT, “queer,” “questioning,” or same gender attracted	<p>prospective cohort (232) <i>part of Project Q2</i> (5.5 years) male=96, female=113, transgender=22</p> <p>gay/lesbian=143, bisexual=66, questioning/unsure/heterosexual=22</p>	<ul style="list-style-type: none"> • psychological distress (BSI) 	<ul style="list-style-type: none"> • Membership in the low-support group was associated with greater distress across all observations relative to the high support type; there were no significant differences between the non-family support group and the high-support group.
10	<ul style="list-style-type: none"> • family (MSPSS) • peer 	16 to 20	self-identified as LGBT	<p>prospective cohort (248) male=113, female=124, male to female=13, female to male=8</p> <p>gay/lesbian=146, bisexual=68, questioning/unsure/other=23</p>	<ul style="list-style-type: none"> • symptoms of major depressive disorder (DISC) • conduct disorder (DISC) • suicide attempts (DISC both within the lifetime and most recent 12-month period) 	<ul style="list-style-type: none"> • MDD symptoms mediated the relationship between family social support and suicide attempts.
11	<ul style="list-style-type: none"> • parents • peers 	16 to 24	self-identified LGB (transgender people removed from study)	<p>cross-sectional (425)</p> <p>gay=251, lesbian=66, male bisexual=48, female bisexual=60</p>	<ul style="list-style-type: none"> • psychological distress (Brief Symptom Inventory) 	<ul style="list-style-type: none"> • Parental support ($\beta = -.26$) and peer support ($\beta = -.16$) both reduced mental distress.

12	<ul style="list-style-type: none"> • parents 	18 to 26	self-identified as bisexual, mostly/completely homosexual, or mostly/completely heterosexual	cross-sectional (11,153) (<i>Add Health</i>) male=5,513, female=5,640 gay=121, lesbian=72, bisexual women=152, bisexual men=40, heterosexual=10,768	<ul style="list-style-type: none"> • depression (CES-D, dichotomous) • suicidal thoughts (last 12 months) • heavy drinking (past 12 months) • drug use (past 12 months) 	<ul style="list-style-type: none"> • Bisexual and lesbian women had higher levels of depressive symptoms and odds of both marijuana and hard drug use than heterosexual women. The associations were fully mediated by parental support. • Lesbian and bisexual women had over twice the odds of reporting suicidal thoughts compared to heterosexual women; this association was partially mediated by parental support. • Bisexual women had greater odds of frequent heavy drinking relative to heterosexual women; there was no evidence that this association was explained by parental support. • Gay men had higher levels of depressive symptoms and suicidal thoughts than heterosexual men, and these associations were partially mediated by parental support. • There were no sexual orientation differences among men on any of the substance use outcomes.
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13	<ul style="list-style-type: none"> • family 	7th to 12th grade	self-reported "same-sex attraction" and "other-sex attracted"	cross-sectional (13,140) (<i>Add Health</i>) male=6,398, female=6,742, other-sex attracted=12,375 same-sex attracted girls=324, same-sex attracted boys=441	<ul style="list-style-type: none"> • binge drinking (consuming 5 or more alcoholic drinks in a row) • illegal drug use (marijuana, cocaine, inhalants, or other illegal drugs) • depressive symptoms (CES-D, 20 items from the Depression Scale) 	<ul style="list-style-type: none"> • Perceived parental support was associated with a reduction in depressive symptoms ($\beta = -3.220$, $p < .001$), a reduction in binge drinking ($\beta = -.504$, and $p < .001$), and a reduction drug use ($\beta = -.527$, and $p < .001$). • For same-sex attracted girls and depression, the magnitude of the coefficient is reduced by 41% when including family support ($p < .001$). Parental support reduced the magnitude of the relationship between same-sex attraction for girls and binge drinking by 40% ($p < .001$). Parental support reduces the magnitude of the coefficient in the relationship between same sex attraction for girls and illegal drug use by 19% ($p < .001$). • Same-sex attraction was more strongly related to alcohol and drug use for girls than boys, and family relationships were less protective. The magnitude of the coefficient for same-sex attraction was reduced to a greater extent for girls than for boys (40 vs. 9 % for depressive symptoms, 18 vs. 13 % for drug use).
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14	<ul style="list-style-type: none"> • family (Procidano's and Heller's measures, adapted) • friends (Procidano's and Heller's measures, adapted) • negative social relationships (social obstruction scale) 	14 to 21	self-identified as LGB or reported a history of same-sex attractions or behavior	<p>prospective cohort (156) (1 year) male=80, female=76</p> <p>gay/lesbian=103, bisexual=48, other=5</p>	<ul style="list-style-type: none"> • depressive symptoms (BSI) • anxious symptoms (past week with BSI) • substance abuse symptoms (DISC) 	<ul style="list-style-type: none"> • More negative social relationships and less support from friends were uniquely related to more depressive symptoms. • Youth with high levels of negative social relationships experienced the greatest increase in anxious symptoms from time 1 to time 2; by comparison, homeless youth with low levels of negative social relationships did not differ from non-homeless youth on anxious symptoms.
15	<ul style="list-style-type: none"> • adult in a school setting 	adolescents	self-identified as LGB, heterosexual comparison	<p>cross-sectional (8,910) YRBS survey</p> <p>male=3913, female=4994</p> <p>heterosexual=7882, LGB=1028</p>	<ul style="list-style-type: none"> • alcohol use (30 day) • illicit drug use (lifetime) • marijuana use (30 day) • depressive symptoms (past 12 mo.) • suicide ideation (12 mo.) • suicide attempt (12 mo.) 	<ul style="list-style-type: none"> • Compared to heterosexual students, LGB students with a perceived supportive adult connection at school were still more likely to report substance use and suicidal ideation and behavior than heterosexual students without an adult connection. • LGB students without an adult connection had the poorest outcomes across all variables, ranging from 31% with suicide attempts and 57% with depressive symptomatology in the past 12 months. • While heterosexuals with an adult connection were the reference group for all tests performed, confidence intervals suggested trends toward significance when comparing outcomes for LGB students with an adult connection to those without.
16	<ul style="list-style-type: none"> • being in a steady relationship • close family • close friends • LGBTQ community connectedness (participation in LGBQ social groups, internet forums, and LGBQ-oriented parties) 	youth < 18 compared to adults ≥ 18	self-identified LGBQ	<p>cross-sectional (890)</p> <p>male=124, female=114</p> <p>gay/lesbian=148, bisexual=54, questioning=35, queer=1</p>	<ul style="list-style-type: none"> • mental distress (Mental Health Inventory) • well-being (Mental Health Inventory) 	<ul style="list-style-type: none"> • High levels of family ($\beta=.41$), friends ($\beta=.25$) support, and being in a steady relationship ($\beta=.11$) were all significantly associated with higher well-being. • Family support was the strongest predictor of low levels of mental distress. • LGBTQ community connectedness and being in a steady relationship were not associated with mental distress among LGBQ youth.

17	<ul style="list-style-type: none"> • family (Hebrew translation of the questionnaire developed by Abbey, Abramis, and Caplan) • friends (Hebrew translation of the questionnaire developed by Abbey, Abramis, and Caplan) 	16 to 23	self-identified as LGB	<p>cross-sectional (461) male=233, female=230</p> <p>gay/lesbian=339, bisexual=122</p>	<ul style="list-style-type: none"> • psychological distress (Mental Health Inventory) • psychological well-being (Mental Health Inventory) 	<ul style="list-style-type: none"> • Family support had the strongest negative effect on youth's mental distress, whereas friends' and family support had the strongest positive effect on well-being. • Friends' support was significantly and positively associated with well-being ($\beta = .23$), and significantly but negatively associated with mental distress ($\beta = -.16$). • Family support was significantly associated with mental health outcomes: positively with well-being ($\beta = .28$) and negatively with mental health ($\beta = -.26$). • No gender differences were found.
18	<ul style="list-style-type: none"> • parents (MSPSS substituting family for "parent") 	12 to 24	Transgender (self-identification of an internal gender identity different than the one assigned at birth)	<p>cross-sectional (66) male to female=32 female to male=34</p>	<ul style="list-style-type: none"> • quality of life (life satisfaction and perceived burden associated with being transgender, adapted from a measure used with HIV patients) • depressive symptoms (past few days with Beck Depression Inventory) 	<ul style="list-style-type: none"> • Parental support was significantly associated with lower depressive symptoms ($\beta = -.263$).
19	<ul style="list-style-type: none"> • overall (created measure: parents, teachers, and friends) • social stressors (created measure: witnessing or experiencing physical and sexual violence, the desire to run away from home, and the suicide of a close friend or family member) 	7th to 12th grade	same-sex attraction, only opposite-sex attraction	<p>prospective cohort (11,911) (<i>Add Health</i>) male=5,717, female=6,194</p> <p>same-sex attracted=787, only opposite attracted=11,124</p>	<ul style="list-style-type: none"> • depressed mood (continuous scale that closely approximates CES-D) • suicidal tendencies (past year based on (a) suicidal thoughts (b) a suicide attempt (c) a suicide attempt that required medical attention) 	<ul style="list-style-type: none"> • The inclusion of the social support variables explained 25% of the relationship between same-sex attraction and depressive symptoms. • Controlling for stress variables, all of the social support variables were significantly and negatively related to depressive symptoms. In the full model, the linear regression showed protective effects for parents care ($\beta = -.045$), teachers care ($\beta = -.030$), and peers care ($\beta = -.026$). • Adolescents who felt more cared about by parents (OR: .710, log regression with no CI) and teachers (OR: .838) were significantly less likely to have suicidal tendencies. • Feeling cared about by peers significantly increases the odds of suicidal tendencies (OR: 1.149).