Typologies of Social Support and Associations with Mental Health Outcomes Among LGBT Youth

Elizabeth A. McConnell,¹ Michelle A. Birkett, PhD,² and Brian Mustanski, PhD²

Abstract

Purpose: Lesbian, gay, bisexual, and transgender (LGBT) youth show increased risk for a number of negative mental health outcomes, which research has linked to minority stressors such as victimization. Further, social support promotes positive mental health outcomes for LGBT youth, and different sources of social support show differential relationships with mental health outcomes. However, little is known about how combinations of different sources of support impact mental health.

Methods: In the present study, we identify clusters of family, peer, and significant other social support and then examine demographic and mental health differences by cluster in an analytic sample of 232 LGBT youth between the ages of 16 and 20 years.

Results: Using k-means cluster analysis, three social support cluster types were identified: high support (44.0% of participants), low support (21.6%), and non-family support (34.5%). A series of chi-square tests were used to examine demographic differences between these clusters, which were found for socio-economic status (SES). Regression analyses indicated that, while controlling for victimization, individuals within the three clusters showed different relationships with multiple mental health outcomes: loneliness, hopelessness, depression, anxiety, somatization, general symptom severity, and symptoms of major depressive disorder (MDD).

Conclusion: Findings suggest the combinations of sources of support LGBT youth receive are related to their mental health. Higher SES youth are more likely to receive support from family, peers, and significant others. For most mental health outcomes, family support appears to be an especially relevant and important source of support to target for LGBT youth.

Key words: child and adolescent development, LGBT youth, mental health needs.

Introduction

GBT YOUTH FACE MULTIPLE mental health disparities, including increased depressive symptoms, hopelessness, self-harm, and suicidality¹⁻⁴ as well as alcohol misuse^{5,6} and substance use.^{7,8} Several recent reports (e.g., Institute of Medicine^{9,10}) identify the extent of these disparities and advocate research on risk and protective factors for this population. Research has established that experiencing victimization places LGBT youth at risk for a number of negative mental health outcomes.^{1,8,10–14} In terms of sources of resiliency, social support (i.e., perceived support from members in one's social networks) has been linked to lower levels of suicidal ideation, psychological distress, hopelessness, and depressive symptoms.^{3,12–14} In studies including both heterosexual and LGBT youth, these effects were especially strong among LGBT youth.³ Thus, although victimization places LGBT youth at risk for negative mental health outcomes, research supports the potential of social support to reduce these outcomes for LGBT youth.¹⁴

However, research is just beginning to examine the role of different sources of social support, such as family, peers, or significant others. Much of this work for LGBT youth has focused on family support, which has been negatively associated with hopelessness, depressive symptoms, suicidality,^{13,15} and alcohol misuse.⁵ Conversely, family rejection has been associated with increased suicide attempts, depression, and risk behaviors.¹⁵ Research has also found family support to be more protective than peer or significant-other support for non-suicidal self-injury and alcohol use among adolescents¹⁶ and for school performance among multiethnic sexual minority youth.¹⁷

Thus, different sources of social support may differentially shape mental health outcomes for LGBT youth. In addition to considering the separate effects of different sources of social support, it is important to acknowledge LGBT youth

¹Department of Psychology, DePaul University, Chicago, Illinois.

²Department of Medical and Social Sciences, Feinberg School of Medicine, Northwestern University, Chicago, Illinois.

Present Investigation

In the present study, we identified clusters of three sources of social support: family, peer, and significant other. We then examined demographic differences across these clusters, as well as cluster differences across mental health outcomes. By creating cluster types based on relative levels of these sources of social support, we were able to document the prevalence of cluster types within a sample of LGBT youth and examine the relationship between these cluster types and a number of mental health outcomes, including hopelessness, loneliness, and symptoms of depression, anxiety, somatization, suicidality, and global severity. As victimization is important in predicting mental health outcomes for LGBT vouth, we examined the effect of social support cluster on mental health outcomes over and above lifetime victimization.

Method

Participants and procedures

Participants were a community sample of 248 youth aged 16 to 20 who lived in the Chicago area and self-identified as LGBT, "queer," "questioning," or attracted to the same gender. Participants were recruited via email, distributing flyers in LGBT-identified neighborhoods and events, and incentivized peer recruitment. Baseline data were part of a larger ongoing longitudinal study of LGBT youth (see Mustanski, Garofalo & Emerson, 2010).¹⁸ For sample demographics, see Table 1. A waiver of parental permission for minors was obtained to facilitate the inclusion of youth who may not be comfortable disclosing participation in LGBT related-research to their parent or guardian.¹⁹ All interviews were conducted in 2007 and 2008.

Measures

Lifetime LGBT victimization

Victimization on the basis of LGBT identity was assessed using a scale based on D'Augelli and colleagues.²⁰ This 10-

	TABLE 1. DEMOGRAPHICS AND STUDY VARIABLES BY CLUSTER TYPE											
	$\frac{Total}{Sample}$ (n=231-232 ^a)		Cluster 1 Low Support (n=50)		Cluster 2 Non-Family Support (n=80)		Cluster 3 High Support (n=102)					
	n	%	Ν	%	Ν	%	Ν	%	χ^2	df		
Birth Sex									5.58^	2		
Male	109	49.98	30	27.52	31	28.44	48	44.04				
Female	123	53.02	20	16.26	49	39.84	54	43.90				
Gender Identity									6.50	4		
Male	96	41.56	25	26.04	27	28.13	44	45.83	0.00			
Female	113	48.92	18	15.93	45	39.82	50	44.25				
Transgender	22	9.52	7	31.82	8	36.36	7	31.82				
Sexual Orientation									4.28	4		
Gav/Lesbian	143	61.90	54	37.76	62	43.36	27	18.88		-		
Bisexual	66	28.57	20	30.30	31	46.97	15	22.73				
Other ^b	22	9.52	6	27.27	8	36.36	8	36.36				
Race									3.72	6		
White	35	15.09	5	14.29	11	31.43	19	54.29				
African Amer	128	55.17	30	23.44	47	36.72	52	39.84				
Latino ^a	29	12.50	5	17.24	9	31.03	15	51.72				
Other	40	17.24	10	25.00	13	32.50	17	42.50				
Living Situation									4.08	4		
Parents	137	59.31	30	21.90	41	29.93	66	48.18				
Other stable	69	29.87	14	20.29	28	40.58	27	39.13				
Unstable	25	10.82	6	24.00	11	44.00	8	32.00				
SES									10.04*	4		
Upper class	17	7.36	2	11.76	3	17.65	12	70.59				
Middle class	162	70.13	33	20.37	55	33.95	74	45.68				
Lower class	52	22.51	15	28.85	22	42.31	15	28.85				
	М	SD	М	SD	М	SD	М	SD				
Age	18.75	1.33	18.91	1.19	18.74	1.35	18.67	1.38				

 $a^{n} = 231-232$. The sample size changes due to missing data for one participant on some demographics.

b"Other" includes participants who identify as questioning, unsure, and/or heterosexual.

SES, socio-economic status.

 $[*]P < .05; ^{P} < .10.$

SOCIAL SUPPORT CLUSTERS AND MENTAL HEALTH

item scale assesses lifetime frequency of verbal and physical threats, assault, and property damage on the basis of LGBT identity (e.g., "How many times in your life have you been punched, kicked, or beaten because you are LGBT?"). Response options range from 0 (*Never*) to 3 (*Three times or more*), with higher scores indicating greater experiences of victimization (alpha = .87).

Social support

Social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS).²¹ This 12item scale includes three subscales: family (e.g., "My family really tries to help me"), peer (e.g., "I can talk about my problems with my friends"), and significant-other support (e.g., "There is a special person with whom I can share my joys and sorrows"). Response options range from 1 (*Very strongly disagree*) to 7 (*Very strongly agree*), with higher scores indicating greater support (alpha=.89).

Mental health outcomes

Mental health outcomes were assessed in multiple ways: To assess hopelessness, we used the Brief Hopelessness Scale (BHS),²² which was adapted from the Hopelessness Scale for Children (HSC)²³ for use with ethnic minority youth. This 6-item scale was modified from a true/false response scale to response options of 0 (Strongly disagree) to 4 (Strongly disagree) (alpha=.85); To assess loneliness, we used the Social and Emotional Loneliness Scale for Adults (SELSA),²⁴ a 37-item scale with response options ranging from 1 (Very strongly disagree) to 7 (Very strongly agree) (alpha=.92); We assessed psychological distress using the Brief Symptom Inventory (BSI-18),²⁵ an 18-item measure of psychological distress experienced in the past week. Specifically, we examined BSI subscales for depression, anxiety, somatization, suicidality, and global severity; Finally, we assessed symptoms of major depressive disorder using a fully structured diagnostic instrument, the Diagnostic Interview Schedule for Children computerized version 4.0 (C-DISC).²⁶

Analytic strategy

We used cluster analysis to explore different patterns of social support among LGBT youth using the three subscale scores of the MSPSS (family, peer, and significant other) as grouping variables. We excluded participants who were missing data on the MSPSS, resulting in an analytic sample of 232 participants. Next we examined cluster group differences on demographic variables using a series of chi-square tests. Finally, we conducted eight separate regressions with cluster types as an independent variable and mental health outcomes as dependent variables. We included age, birth sex, race, and lifetime victimization as covariates in these models.

Results

Examining cluster types

We followed a two-step procedure to examine cluster types:²⁷ First, hierarchical cluster analysis was conducted using Ward's method²⁸ in SAS 9.3. In this step, we examined patterns of explained variance to determine the cluster solution that best fit the data. Results suggested a three-cluster solution maximized between-groups variability while mini-



FIG. 1. Mean levels of social support within each cluster type.

mizing within-groups variability. Second, we used nonhierarchical *k*-means clustering with PROC FASTCLUS in SAS 9.3 specifying two, three, four, and five cluster solutions. In this step, we specified the number of clusters and evaluated their respective solutions to decide on a final cluster solution. We found the three-cluster solution to be the most interpretable and to result in the largest increase in variance explained by cluster type.

In order to describe the configuration of sources of social support within each cluster, we followed other researchers²⁹ who divided the distribution for each cluster variable into thirds using \pm .43 standard deviations (SD) around the mean for each source of social support, thus defining "low" (i.e., the bottom third), "moderate" (i.e., the middle third), and "high" (i.e., the top third) levels in each cluster. For a visual depiction of social support cluster patterns, see Figure 1.

Cluster 1—Low Support. Cluster 1 (n=50; 21.6% of participants) was characterized by low levels of family (M=3.18, SD=1.21), peer (M=3.57, SD=1.14), and significant-other (M=3.46, SD=1.19) support.

Cluster 2—Non-Family Support. Cluster 2 (n = 80; 34.5% of participants) was characterized by low levels of family support (M = 2.86, SD = 1.09) and moderate levels of peer (M = 5.85, SD = 1.04) and significant-other (M = 6.11, SD = 0.88) support.

Cluster 3—High Support. Cluster 3 (n = 102; 44.0% of participants) was characterized by high levels of family (M = 5.82, SD = 0.86), peer (M = 6.07, SD = 0.92), and significant-other (M = 6.27, SD = 0.81) support.

Cluster Type Differences on Demographic Variables

Next, we compared cluster groups on a number of demographic variables (see Table 1). Significant differences were found for SES, $\chi^2(4, n=231)=10.04$, P<.05. Those who reported high- or middle-social class were most likely to fall within the high social support cluster (70.59% and 45.68%), while those who reported low social class were most likely to fall within the non-family support cluster (42.31%).

Mental Health Outcomes and Cluster Types

Finally, we conducted a series of regressions to examine patterns of association between cluster types and mental

	Cluster 1: Lo	w Support	Cluster 2: Non-Fo	amily Support	Cluster 3: High Support ^a		
Mental Health Outcome	β (SE)	t	β (SE)	t		F	
Hopelessness	0.40 (0.11)	3.66**	0.15 (0.09)	1.72	_	6.72*	
Loneliness ^b	1.64 (0.13)	12.37**	0.72 (0.11)	6.47**	—	77.74**	
BSI:							
Depression	0.83 (0.14)	5.74**	0.42 (0.12)	3.45**		17.22**	
Anxiety	0.63 (0.13)	4.76**	0.21 (0.11)	1.93		11.33**	
Somatization	0.54 (0.12)	4.54**	0.25 (0.10)	2.47*		10.53**	
Suicidality	0.75 (0.15)	4.99**	0.39 (0.12)	3.11*	_	13.15**	
Global Severity	0.66 (0.11)	5.92**	0.29 (0.09)	3.10*	_	17.82**	
C-DISC: MDD	3.09 (0.82)	3.78**	1.62 (0.68)	2.39*	—	7.60**	

TABLE 2. CLUSTER GROUP REGRESSION RESULTS ON MENTAL HEALTH OUTCOMES

^aCluster 3 (high social support) is the reference group.

^b95% Confidence Intervals of the regression coefficients for Cluster 1 and Cluster 2 do not overlap. All models included age, birth sex, race, and lifetime victimization as covariates.

*P < .05; **P < .001.

BSI, Brief Symptom Inventory; C-DISC, Computerized Diagnostic Interview Schedule for Children; MDD, Symptoms of Major Depressive Disorder.

health outcomes. All regressions included age, birth sex, race, and lifetime victimization as covariates, and social support cluster type was dummy-coded with the high support cluster as the comparison group (see Table 2). The mental health outcomes examined were: hopelessness, loneliness, depression, anxiety, somatization, suicidality, global severity (assessed using the BSI) and symptoms of major depressive disorder (assessed using the C-DISC). Across all outcomes, those within the low support cluster reported significantly more hopelessness, loneliness, depression, anxiety, somatization, suicidality, global severity, and symptoms of MDD than those in the high support cluster. Those in the non-family support cluster also reported worse outcomes than the high support cluster on all outcomes except for hopelessness and anxiety where there was no difference. By effect size, the greatest difference between the low support and high support clusters (t=12.37), as well as the non-family support and high support clusters (t=6.47), was found for loneliness. Finally, we examined the 95% confidence intervals of the regression coefficients to examine if the low support group and the non-family support group significantly differed from each other. There were no differences between the low support and non-family clusters except on loneliness, where the low support cluster reported being lonelier than the non-family support cluster.

Discussion

This study extends research on the role of social support for LGBT youth by identifying clusters of sources of social support among LGBT youth, examining demographic differences across clusters, and illustrating patterns of association between clusters and mental health outcomes. This approach promotes nuanced understanding of the role of social support for LGBT youth by examining various support sources concurrently. Most importantly, our results confirm the importance of family support for LGBT youth in several respects: First, the presence or absence of family support was important for differentiating cluster types, as evidenced by the non-family support cluster. This illustrates the existing variation in family support among LGBT youth; Second, although those in the non-family support cluster had high levels of friend and significant-other support, across most analyses they had worse mental health than with high support, and across six of seven outcomes they looked no different from those without any kind of support.

Cluster analysis revealed that around three-fifths of the sample reported low levels of family support, placing them in either the low or non-family support cluster types. Additionally, the mean of family support in the high support cluster was almost twice that in the low or non-family clusters, suggesting family support for LGBT youth may be concentrated among those who are rich in other sources of support.

Different demographic patterns in cluster group membership were found for SES as well as a trend for cluster differences by birth sex (P = .06). For birth sex, there were similar percentages of male and female-born participants in the high support cluster, while female-born participants were more represented in the non-family support cluster and maleborn participants were more represented in the low support cluster. Although preliminary, these results suggest some male-born LGBT youth struggle developing supportive relationships with peers and significant others. Masculinity research suggests pervasive societal attitudes around traditional masculinity (i.e., masculinity valuing dominance, assertiveness, and lack of emotion), ${}^{30-32}_{22}$ which is a strong predictor of homophobic attitudes³² and is rewarded in American culture.^{34–36} Traditional masculinity may discourage the development of healthy support systems for maleborn LGBT youth, and male-born LGBT youth who violate traditional masculinity expectations may be more vulnerable to social rejection.

For SES, almost three quarters of upper class youth fell into the high support cluster, suggesting these youth generally benefit from high levels of social support from multiple sources. By contrast, almost three quarters of lower SES youth fell into either the non-family or low support clusters, suggesting these youth were much more likely to lack family support and placing them at risk for a number of adverse mental health outcomes. Both findings are consistent with past research, which has found lower SES and male youth tend to have lower social support and suggests that SES may indirectly influence mental health through its association with social support.^{37–40} Further research is needed to explore potential mechanisms underlying these inequalities in the distribution of social support. Additionally, research has found those lower in social class are more likely to endorse traditional masculinity,⁴¹ which suggests the intersection of gender and social class may be important in predicting social support.

Social support clusters also showed different patterns of association with mental health outcomes among these youth: First, loneliness showed the largest differences by cluster type, with the high support cluster being the least lonely, followed by the non-family support cluster and finally the low support cluster. This suggests that even when lacking family support, LGBT youth who have supportive relationships with peers and significant others are significantly less lonely; Second, membership in the low support cluster group—but not the non-family support cluster group—was a significant predictor of hopelessness and anxiety relative to the high support cluster group, suggesting that youth low in all sources of social support are the most vulnerable for these outcomes. For hopelessness and anxiety, social support from peers and significant others—even in the absence of family support—may play an important protective role. As hopelessness is important in predicting suicidal behavior,42 peer and significantother social support may be targets for intervention to decrease LGBT suicidality; Finally, for almost all measures of psychological distress (i.e., depression, somatization, suicidality, and global severity) and for MDD symptoms, no differences were found between low and non-family clusters, but these two clusters were significantly different from the high support cluster. This was true whether outcomes were assessed using self-report (i.e., the BSI) or a structured diagnostic interview (i.e., the C-DISC). Findings suggest the significance of family support in predicting mental health outcomes for LGBT youth and are consistent with past research.13,15

Limitations and Directions for Future Research

First, findings are limited to a community sample of LGBT adolescents from Chicago, and the lack of a random sample is a major limitation of this study. Although the majority African-American sample is the strength of this study, given that this is an under-researched group, it also limited our power to test racial/ethnic differences. Future research should seek to replicate these findings in other age groups and geographic areas, including non-urban areas. Second, these data are cross-sectional and only examine patterns of association. Future research should incorporate a longitudinal framework to examine the direction of association among variables as well as how cluster group membership may change over time. Such research could contribute to emerging knowledge about developmental trajectories of risk and resilience for LGBT youth.¹⁴ Third, although we followed the two-step procedure for cluster analysis recommended by Gordon,²⁷ we did not have access to a comparable sample of LGBT youth in which to validate the cluster types identified in this analysis. Future research should examine whether these cluster types are present in other samples of LGBT youth.

The identification of the non-family support cluster was a striking finding from this study, and may reflect youth who experience familial rejection on the basis of their sexual orientation or gender identity. However, this was not explicitly assessed in the current study and should be a focus of future research. Research may also seek to examine the role of support from family of origin (i.e., biological, adoptive, or rearing family) versus chosen or found family (i.e., LGBT family) for LGBT youth, as non-traditional family structures may be an important source of social support. Additionally, greater understanding of the role familial and peer attitudes play in the development of support systems may provide implications for intervention. Finally, research should examine clusters of social support among heterosexual youth to determine if similar patterns exist among these youth.

While prior research has separately examined peer and family support,¹⁴ this study suggests that peer and family support frequently co-occur. Almost all individuals with strong family support also report strong peer support, however about half of individuals who report strong peer support also report strong family support. Additionally, the importance of peer, family, and significant-other support may vary for different subgroups of LGBT youth. For example, in a sample of mostly male-born 16- to 24-year olds, peer support was found to account for greater variance in psychological distress versus family support. However, family support was shown to interact with age, with family support showing a greater association with psychological distress for LGBT youth under 20 years old.¹⁴ Future research should examine how levels and sources of support shift over time and how these changes relate to risk for negative mental health outcomes.

By examining the role of social support from a personcentered approach (i.e., cluster analysis) rather than a variablecentered approach, this study provides new understandings of how relationships with family, peers, and significant others may function together to protect LGBT youth. Overall, findings suggest support plays a crucial role in LGBT youth loneliness, hopelessness, and mental health outcomes over and above experiences of victimization. Additionally, by examining cluster type prevalence and demographic differences, we are able to illustrate the extent to which LGBT youth may be missing important forms of support and which subpopulations (i.e., male-born youth, low SES youth) are important to target for intervention.

Acknowledgments

This project was sponsored by grants awarded to Brian Mustanski by the American Foundation for Suicide Prevention, the William T. Grant Foundation (Scholar's Award), and the National Institute of Mental Health (1R21MH095413-01; PI: Mustanski). For their support of and collaboration on this study, we thank the faculty and staff of the IMPACT LGBT Health and Development Program at Northwestern University Feinberg School of Medicine.

Author Disclosure Statement

No competing financial interests exist.

References

- Almeida J, Johnson RM, Corliss HL, et al.: Emotional distress among LGBT youth: The influence of perceived discrimination based on sexual orientation. J Youth Adolesc 2009;38:1001–1014.
- Bostwick WB, Meyer I, Aranda F, et al.: Mental health and suicidality among racially/ethnically diverse sexual minority youths. Am J Public Health 2014;104:1129–1136.
- Rutter PA: Young adult suicide and sexual orientation: What should counselors know? J LGBT Issues Couns 2006; 1:33–48.
- Safren SA, Heimberg RG: Depression, hopelessness, suicidality, and related factors in sexual minority and heterosexual adolescents. J Consult Clin Psychol 1999;67:859– 866.
- Newcomb ME, Heinz AJ, Mustanski B: Examining risk and protective factors for alcohol use in lesbian, gay, bisexual, and transgender youth: A longitudinal multilevel analysis. J Stud Alcohol Drugs 2012;73:783–793.
- Talley AE, Hughes TL, Aranda F, et al.: Exploring alcoholuse behaviors among heterosexual and sexual minority adolescents: Intersections with sex, age, and race/ethnicity. Am J Public Health 2014;104:295–303.
- Corliss HL, Rosario M, Birkett MA, et al.: Sexual orientation disparities in adolescent cigarette smoking: intersections with race/ethnicity, gender, and age. Am J Public Health 2014;104:1137–1147.
- Rosario M, Corliss HL, Everett BG, et al.: Mediation by peer violence victimization of sexual orientation disparities in cancer-related tobacco, alcohol, and sexual risk behaviors: pooled Youth Risk Behavior Surveys. Am J Public Health 2014;104:1113–1123.
- 9. Institute of Medicine: *The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding.* The National Academies Press, Washington, DC, 2011.
- Mustanski B, Van Wagenen A, Birkett M, et al.: Identifying sexual orientation health disparities in adolescents: analysis of pooled data from the Youth Risk Behavior Survey, 2005 and 2007. Am J Public Health 2014;104:211–217.
- Birkett M, Espelage DL, Koenig B: LGB and questioning students in schools: the moderating effects of homophobic bullying and school climate on negative outcomes. J Youth Adolesc 2009;38:989–1000.
- Liu RT, Mustanski B: Suicidal ideation and self-harm in lesbian, gay, bisexual, and transgender youth. Am J Prev Med 2012;42:221–228.
- Mustanski B, Liu RT: A longitudinal study of predictors of suicide attempts among lesbian, gay, bisexual, and transgender youth. Arch Sex Behav 2013;42:427–448.
- Mustanski B, Newcomb ME, Garofalo R: Mental health of lesbian, gay, and bisexual youths: A developmental resiliency perspective. J Gay Lesbian Soc Serv 2011;23: 204–225.
- Ryan C, Russell ST, Huebner D, et al.: Family acceptance in adolescence and health of LGBT young adults. J Child Adolesc Psychiatr Nurs 2010;23:205–213.
- Andrews T, Martin G, Hasking P: Differential and common correlates of non-suicidal self-injury and alcohol use among community-based adolescents. Advances in Mental Health 2012;11:55–66.

- Craig SL, Smith MS: The impact of perceived discrimination and social support on the school performance of multiethnic sexual minority youth. Youth Soc 2011; 46:30–50.
- Mustanski B, Garofalo R, Emerson EM: Mental health disorders, psychological distress, and suicidality in a diverse sample of lesbian, gay, bisexual, and transgender youths. Am J Public Health 2010;100:2426–2432.
- Mustanski B: Ethical and regulatory issues with conducting sexuality research with LGBT adolescents: a call to action for a scientifically informed approach. Arch Sex Behav 2011;40:673–686.
- D'Augelli AR, Hershberger SL, Pilkington NW: Lesbian, gay, and bisexual youth and their families: disclosure of sexual orientation and its consequences. Am J Orthopsychiatry 1998;68:361–371.
- 21. Zimet GD, Powell SS, Farley GK, et al.: Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. J Pers Assess 1990;55:610–617.
- 22. Bolland JM, McCallum DM, Lian B, et al.: Hopelessness and violence among inner-city youths. Matern Child Health J 2001;5:237–244.
- 23. Kazdin AE, Rodgers A, Colbus D: The hopelessness scale for children: psychometric characteristics and concurrent validity. J Consult Clin Psychol 1986;54:241–245.
- 24. DiTommaso E, Spinner B: Social and emotional loneliness: A re-examination of Weiss' typology of loneliness. Pers Individ Dif 1997;22:417–427.
- Derogatis LR: The Brief Symptom Inventory–18 (BSI-18): Administration, scoring, and procedures manual, 3rd Ed. Minneapolis, Minnesota: National Computer Systems, 2000.
- Shaffer D, Fisher P, Lucas C: The Diagnostic Interview Schedule for Children (DISC). In: *Comprehensive Handbook* of Psychological Assessment, Vol. 2: Personality Assessment. Edited by Hersen M. Hoboken, NJ: Wiley, 2004, pp 256–270.
- 27. Gordon AD: *Classification*. Boca Raton, FL: Chapman & Hall, 1999.
- 28. Ward JH: Hierarchical grouping to optimize an objective function. J Am Stat Assoc 1963;58:236–244.
- Spanierman LB, Poteat VP, Beer AM, et al.: Psychosocial costs of racism to whites: Exploring patterns through cluster analysis. J Couns Psychol 2006;53:434–441.
- 30. Epstein D: Disciplining and punishing masculinities: An introduction. Men Masc 2001;4:115–117.
- Mandel L, Shakeshaft C: Heterosexism in middle schools. In *Masculinities at School*. Edited by Lesko N. Thousand Oaks, CA: Sage, 2000, pp 75–103.
- Phoenix A, Frosh S, Pattman R: Producing contradictory masculine subject positions: Narratives of threat, homophobia and bullying in 11–14 year old boys. J Soc Issues 2003; 59:179–195.
- 33. Whitley BE Jr: Gender-role variables and attitudes toward homosexuality. Sex Roles 2001;45:691–721.
- Carrigan T, Connell B, Lee J: Toward a new sociology of masculinity. Theory Soc 1985;14:551–604.
- 35. Connell RW, Messerschmidt JW: Hegemonic masculinity: Rethinking the concept. Gend Soc 2005;19:829–859.
- Smiler AP: Conforming to masculine norms: Evidence for validity among adult men and women. Sex Roles 2006; 54:767–775.

SOCIAL SUPPORT CLUSTERS AND MENTAL HEALTH

- Canty-Mitchell J, Zimet GD: Psychometric properties of the Multidimensional Scale of Perceived Social Support in urban adolescents. Am J Community Psychol 2000;28: 391–400.
- Gecková A, van Dijk JP, Stewart R, et al.: Influence of social support on health among gender and socio-economic groups of adolescents. Eur J Public Health 2003;13:44– 50.
- 39. Miller B, Taylor J: Racial and socioeconomic status differences in depressive symptoms among Black and White youth: An examination of the mediating effects of family structure, stress, and support. J Youth Adolescence 2012;41: 426–437.
- Huurre T, Eerola M, Rahkonen O, et al.: Does social support affect the relationship between socioeconomic status and depression? A longitudinal study from adolescence to adulthood. J Affect Disord 2007;100:55–64.

- Levant RF, Richmond K: A review of research on masculinity ideologies using the Male Role Norms Inventory. J Mens Stud 2007;15:130–146.
- 42. Beck AT, Steer RA, Kovacs M, et al.: Hopelessness and eventual suicide: A 10-year prospective study of patients hospitalized with suicidal ideation. Am J Psychiatry 1985; 142:559–563.

Address correspondence to: Elizabeth A. McConnell Department of Psychology DePaul University 2219 North Kenmore Avenue Chicago, IL 60614

E-mail: emcconne@depaul.edu