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Research Article

Lifetime Exposure to Conversion Therapy and Psychosocial Health Among Midlife and Older Adult Men Who Have Sex With Men

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Abstract

Background and Objectives: Conversion therapies to minimize same-sex attractions are classified as a dangerous practice by numerous scientific institutions in the United States. These practices may contribute to poor long-term psychosocial health, thereby interrupting processes of healthy aging. Few studies have examined psychosocial differences between persons with and without prior experiences of conversion therapy. We assessed associations between prior conversion therapy experiences and psychosocial health among midlife and older men who have sex with men (MSM; age 40+ years). **Research Design and Methods:** Participants included a multicity sample of MSM (N = 1,156) enrolled in the Multicenter AIDS Cohort Study who completed health surveys (2016–2019) as part of their biannual study visits. Using multivariable regressions, we investigated the associations of prior conversion therapy with current depressive symptoms, internalized homophobia, post-traumatic stress, and cumulative psychosocial conditions. Using a trait-level measure (e.g., life purpose and perseverance), we tested whether resilience moderated these associations. **Results:** The full sample was predominantly non-Hispanic white with a mean age of 62.6 years. Fifteen percent of men (n = 171/1,156) reported prior conversion therapy. In multivariable models, men exposed to conversion therapy were more likely to have depressive symptoms and above-average internalized homophobia. Men exposed to conversion therapy had 2–2.5 times the odds of reporting 1 and ≥2 psychosocial conditions, respectively, compared with those who reported 0 conditions. Resilience did not moderate these associations.

Discussion and Implications: Conversion therapies are nonaffirming social stressors for MSM and may compromise critical psychosocial aspects of healthy aging among MSM.

Keywords: Sexual orientation change efforts, Stigma, Gay and bisexual men, Mental health, Aging

Men who have sex with men (MSM) in the United States are greater burdened by psychosocial health disparities (e.g., depression, substance abuse) across the life course compared to their heterosexual counterparts (King & Richardson, 2017). These disparities are more pronounced when accounting for intersecting marginalized statuses (e.g., race/ethnicity, HIV serostatus; Fredriksen-Goldsen, Hoy-Ellis, Goldsen, Emlet, & Hooyman, 2014). Researchers have previously underscored how minority stress contributes to psychosocial disparities that burden sexual minority populations over the life course (Meanley et al., 2019; Meyer, 2015). Sexual minority stress can co-occur and manifest as experiences of stigma at interpersonal (e.g., discrimination, violence) and psychological levels (e.g., internalized homophobia, sexual identity concealment). These experiences uniquely victimize same-sex-attracted persons based on their perceived or known sexual minority status and often elicit chronic stress and consequent psychosocial health sequelae, including depression and suicidality (Hoy-Ellis & Fredriksen-Goldsen, 2016; Meyer, 2015).

Monitoring minority stressors is pertinent to understanding psychosocial well-being across the life course in MSM populations. MSM currently in midlife and older adulthood (≥40 years old) were among the first generation of same-sex-attracted individuals to live openly about their sexual identities in increasing numbers (Wight, Harig, Aneschensel, & Detels, 2016; Wight, LeBlanc, DeVries, & Detels, 2012). While collectively fighting for visibility and acceptance, many were challenged to navigate explicit societal expectations that rigidly supported heterosexist norms on gender and sexuality (Orel, 2014). Pervasive societal homophobia increased these men's vulnerability to sexuality-related marginalization and, in turn, poor psychosocial well-being (Yarns, Abrams, Meeks, & Sewell, 2016). In prior studies, researchers have highlighted how homophobic experiences like sexuality-related family rejection in adolescence have been associated with negative psychosocial outcomes in adulthood (Austin, Herrick, & Proescholdbell, 2016). Minimizing adversity in adolescence and early adulthood, especially related to sexual identity integration, is critical to improving equity in long-term psychosocial development among same-sex-attracted adults (Clark, Caldwell, Power, & Stansfeld, 2010).

As a form of homophobic abuse and victimization, (Cella, 2014; Cramer, Golom, LoPresto, & Kirkley, 2008; Dubrowski, 2015), conversion therapies (interchangeably known as reparative therapies, sexual reorientation therapies, or sexual orientation change efforts) are among the minority stressors receiving increased attention from

public health researchers (Meanley et al., 2020; Ryan, Toomey, Diaz, & Russell, 2020). Rooted in stigmatizing beliefs toward homosexuality, conversion therapies were developed to minimize or eliminate sexual minorities' same-sex attractions and are likely to co-occur with other sexual minority stressors like sexuality-related family rejection (Beckstead, 2012); however, there is currently no valid scientific evidence demonstrating their effectiveness (Maccio, 2011). Common forms of conversion therapy include aversion/shock therapies, gender norm policing, individual psychotherapies, and religious-focused therapy (Beckstead, 2012). Though offered by a minority of counselors, therapists, and religious leaders, prominent scientific institutions like the American Medical Association, the American Psychological Association, and the National Association of Social Workers have denounced conversion therapy as dangerous, ineffective, and unethical (Maccio, 2011; Meanley et al., 2020). Currently, legislative conversion therapy bans are in effect in 20 states, the District of Columbia, and in several local municipalities across the United States (Movement Advancement Project, 2019).

Recent estimates indicated that nearly 700,000 sexual and gender minority adults will undergo conversion therapy in their lifetime, with about half of these cases estimated to occur in adolescence (Mallory, Brown, & Conron, 2018). In prior qualitative studies, participants described poor psychosocial consequences postconversion therapy that they attributed to the practice, including depression, suicidality, and internalized homophobia (Haldeman, 2002; Ryan et al., 2020; Shidlow & Schroeder, 2002). Research evidence continues to emerge that supports classifying conversion therapies as a health-compromising practice (Bradshaw, Dehlin, Crowell, Galliher, & Bradshaw, 2015; Meanley, Egan, & Bauermeister, 2018; Ryan et al., 2020). Scholars have recently suggested that conversion therapies often elicit post-traumatic effects arising from a failure to minimize same-sex attractions. These effects are exacerbated by ongoing experiences of sexual identity nonaffirmation from family and community networks (Horner, 2010; Mercer, 2017). The extent to which these associations have implications for same-sex-attracted individuals' psychosocial well-being in midlife and older adulthood warrants prioritized investigation.

Research with midlife and older MSM presents an opportunity to assess the long-term health implications of conversion therapy given that these men came of age when these therapies were developed and legally practiced in all 50 states (Beckstead, 2012). A recent study found that nearly one in five midlife and older MSM reported any prior conversion therapy (Meanley et al., 2020). Insight

into the associations between conversion therapy and later psychosocial health may inform interventions that facilitate healthy aging by enacting measures to prevent or interrupt potential negative health trajectories linked to sexual minority stress among MSM.

Lastly, despite lifetime risks and exposures to sexual minority stressors, numerous studies demonstrate resiliency in overcoming minority stress among MSM (Fredriksen-Goldsen, Kim, Shiu, Goldsen, & Emlet, 2015; Herrick et al., 2013). Resilience at the individual level refers to personal characteristics such as life purpose, perseverance, and optimism that promote one's ability to adapt to stress (King & Orel, 2012; Wagnild, 2009a). Over time, many midlife and older MSM have been able to capitalize on internal strengths complemented by social resources to minimize the psychosocial consequences imposed by sexual minority stressors and achieve a positive sense of sexual identity (Fredriksen-Goldsen et al., 2015; Herrick et al., 2013). Accounting for potential health-protective factors may inform resilience-focused interventions to improve psychosocial health for MSM who have undergone conversion therapy.

In this study, we sought to explore the associations between prior histories of conversion therapy and psychosocial well-being in midlife and older MSM. The primary outcomes were depressive symptoms, internalized homophobia, and post-traumatic stress disorder (PTSD). Researchers in prior studies have provided robust evidence indicating that psychosocial conditions often co-occur (Tsai & Burns, 2015); therefore, we sought to assess whether prior conversion therapy was associated with a cumulative (i.e., summation) measure of the three psychosocial conditions. We also aimed to test whether an individual-level indicator of resilience would serve as a compensatory (independent correlate) or risk-protective (moderating) factor when examining the associations that exposure to conversion therapy have with psychosocial and cumulative outcomes (Zimmerman et al., 2013). We hypothesized that conversion therapy would have independent, positive associations with depressive symptoms, internalized homophobia, PTSD, and cumulative psychosocial conditions, respectively, and that resilience would moderate these associations.

Design and Methods

Multicenter AIDS Cohort Study

Data for the current study come from the Healthy Aging Substudy of the Multicenter AIDS Cohort Study (MACS). Since its inception in 1984, the primary objective of the MACS has been to identify multilevel factors that inform the natural and treatment trajectories of the HIV epidemic among MSM across four urban areas of the United States (Baltimore, MD/Washington, DC; Chicago, IL; Pittsburgh, PA; and Los Angeles, CA). The MACS has enrolled 7,587 MSM, of whom 2,283 were alive and actively enrolled at

the start of the substudy. Active MACS participants visited their respective clinic every 6 months where they completed a battery of physiological exams and behavioral risk surveys. The design has been described extensively in prior publications (Kaslow et al., 1987). Only the methods for the current analysis are described. MACS study instruments are accessible at http://aidscohortstudy.org/.

The Healthy Aging Substudy consisted of six waves (6-month intervals from April 2016 to March 2019) of collecting behavioral and psychosocial health surveys (paper or computer tablet) conducted either at the participant's home or during biannual study visits. Eligibility for the substudy included being 40 years old by the first data collection wave (April 2016), being present for at least two consecutive MACS visits, and reporting any sexual intercourse with another man since enrolling in the MACS. The lower-age cutoff (40 years) was applied to be consistent with common definitions of middle age from prior sexual minority healthy aging studies (Jacobs & Kane, 2012). Participants provided informed consent prior to completing surveys. When submitted, their data were uploaded to a secure system accessible only to the research team. All study procedures were approved by the Institutional Review Boards at each MACS study site.

Measures

Outcomes: Negative Psychosocial Conditions

Psychosocial conditions were assessed using validated measures of depressive symptoms, internalized homophobia, and PTSD. Depressive symptoms are routinely collected at MACS visits using the original 20-item *Center for Epidemiological Studies—Depression* (*CES-D*) scale with sum scores dichotomously recoded based on clinically significant cutoffs ($0 = <16$; $1 = \geq 16$; Zhang et al., 2012). Internalized homophobia was calculated from the 10-item *Internalized Homophobia Scale* assessing participants' attitudes toward their sexual orientation and attraction to men (Herek, Cogan, Gillis, & Gunt, 1997). Items were scored using a five-point Likert scale (strongly disagree to strongly agree). Building off prior assessments of internalized homophobia among MACS participants (Herrick et al., 2013), we calculated the number of indicators from participants who responded with *agree* (3) or *strongly agree* (4) on any of the 10 items. Given no widespread accepted clinical cutoffs for internalized homophobia and a right-skewed distribution, we standardized the number of symptoms into *Z*-scores. These scores were dichotomized to reflect participants who reported sample-average or below ($Z \leq 0$; 0–1 symptoms) and above sample-average internalized homophobia ($Z > 0$; 2 or more symptoms). PTSD scores were calculated from responses to the 17-item *PTSD Checklist—Civilian version* (*PCL-C*; Lang & Stein, 2005). Items were summed and dichotomized based on recommended clinical cutoffs ($0 = <45$; $1 = \geq 45$; Bressler, Erford, & Dean, 2018). Similar to other studies assessing co-occurring psychosocial

conditions (Tsai & Burns, 2015), we added the three outcomes together to create a cumulative psychosocial condition score (0–3 conditions). Given the small proportion of participants who reported 3 conditions, we categorized the cumulative scores as follows: 0 = No condition; 1 = 1 condition, 2 = ≥2 conditions).

Prior Conversion Therapy

A dichotomous (0 = No, 1 = Yes) item was included, asking participants to indicate whether they had ever undergone conversion therapy to change their sexual orientation. Those who marked a "yes" response were provided a battery of items to specify the types of therapies undergone (psychotherapy, group-based therapy, prayer/religion-based therapy, gender role reinforcement, aversion therapy, pharmacological treatments, and other types), the age at which these therapies were initiated, the duration of time between therapy initiation and last session (1 session, <1 month, 1–6 months, 7–12 months, ≥12 months), the frequency at which sessions occurred (1 session at least 1 time per year, per month, per week, per day), and the extent to which undergoing conversion therapy was their decision (not at all, a little, somewhat, mostly, and completely; Meanley et al., 2020).

Resilience

Resilience was measured using the 14-item resilience scale (RS14; Aiena, Baczwaski, Schulenberg, & Buchanan, 2015). The RS14 defines resilience as a combination of protective factors including life purpose (e.g., having clear values), perseverance (e.g., motivation to persist in the face of difficulty), equanimity (e.g., ability to maintain composure and optimism), self-reliance (e.g., ability to problem-solve), and existential aloneness (e.g., comfort handling things on one's own) that shape an individual's capacity to withstand, adapt, or recover from stressors (Wagnild, 2009b). Items were scored using a seven-point Likert scale (0 = strongly disagree to 6 = strongly agree), summed, then averaged together, with higher scores reflecting higher resilience.

Covariates

Participants self-reported their age (date of birth), race/ethnicity (0 = non-Hispanic white; 1 = non-Hispanic black; 2 = other [inclusive of Asian, Alaskan Native, Native Hawaiian/Pacific Islander, Native American, Hispanic-all races, and multiracial participants; developed based on low percentages]), educational attainment (0 = high school or less; 1 = any college), and sexual identity (0 = gay/homosexual; 1 = other identity). Participants' current HIV serostatus was provided from tests prospectively collected at each visit by enzyme-linked immunosorbent assay and confirmed by Western blot (0 = negative; 1 = positive). MACS enrollment wave was classified using their participant identification (0 = before 2001; 1 = 2001 or later) and included to account for potential cohort effects.

Data Analysis

Of the six data collection waves, conversion therapy items were collected in Waves 2 (visit 66; October 2016 to March 2017), 3 (visit 67; April 2017 to September 2017), and 6 (visit 70; October 2018 to March 2019), resulting in an analytic sample of $N = 1,296$ unique midlife and older MSM. Psychosocial outcomes were collected across multiple waves. Only participants' most recent scores were assessed to capture current psychosocial conditions. Participants providing incomplete responses ($N = 140$; 10.8%) were excluded from the analysis, yielding a final analytic sample of $N = 1,156$. Providing incomplete responses was associated with younger age ($t_{(1294)} = 2.78$, $p = .005$), nongay sexual identity ($\chi^2_{(1)} = 19.72$, $p < .001$), less education ($\chi^2_{(1)} = 7.75$, $p = .005$), and MACS enrollment after 2001 ($\chi^2_{(1)} = 7.56$, $p = .006$). Upon generating descriptive statistics, bivariate tests of association (chi-square and t tests) were used to highlight differences in exposure to conversion therapy (none vs any) by psychosocial outcomes, resiliency, and sociodemographic characteristics.

For single-outcome models (i.e., depressive symptoms, internalized homophobia, PTSD), we conducted unadjusted logistic regressions to assess the associations that conversion therapy, resilience, and covariates had with each psychosocial outcome. In the interest of being conservative, we included statistically associated variables and covariates at $p < .10$ in multivariable models and controlled for sociodemographic characteristics observed to be relevant correlates to the psychosocial outcomes in prior research (Fredriksen-Goldsen et al., 2015; Friedman et al., 2015; Garbarski, 2015). In our first multivariable models, we assessed the main associations that prior conversion therapy and resilience had with each psychosocial outcome. Subsequent models were developed to assess resilience as a moderator of the association between prior conversion therapy and each psychosocial outcome by testing the interaction term, prior conversion therapy × resilience. We then assessed the association between conversion therapy and cumulative psychosocial health using multinomial regressions. Specifically, we repeated the same model-building procedures completed for the single-outcome models to examine differences between those who reported zero versus one, zero versus two, and one versus two or more conditions.

Results

Participant Characteristics

For the 1,156 participants, the mean (*SD*) age was 62.6 (8.6) years (Table 1). Most participants identified as non-Hispanic white (70.1%), reported gay as their sexual identity (89.4%), and were educated beyond high school (86.6%). Half (49.1%) of the sample were men living with HIV, and most participants enrolled in the MACS prior to 2001. Based on RS14 scores, participants exhibited high

Table 1. Sample Characteristics of 1,156 Midlife and Older Men Who Have Sex With Men

| Variable | Lifetime conversion therapy exposure | | | t or χ^2 | p |
	Full sample $N = 1,156$	No therapy $n = 985$ (85.2%)	Any therapy $n = 171$ (14.8%)		
Age (range 42–94 years), M (SD)	62.58 (8.59)	62.81 (8.47)	61.29 (9.16)	2.14	<.001
Race/ethnicity, n (%)				23.32	<.001
Non-Hispanic white	810 (70.1)	720 (88.9)	90 (11.1)		
Non-Hispanic black	220 (19.0)	167 (75.9)	53 (24.1)		
Other	126 (10.9)	98 (77.8)	28 (22.2)		
Sexual identity, n (%)				15.82	<.001
Gay	1,033 (89.4)	895 (86.6)	138 (13.4)		
Other	123 (10.6)	90 (73.2)	33 (26.8)		
HIV status, n (%)				7.01	.008
Negative	588 (50.9)	517 (87.9)	71 (12.1)		
Positive	568 (49.1)	468 (82.4)	100 (17.6)		
Education level, n (%)				6.00	.01
High school or less	155 (13.4)	122 (78.7)	33 (21.3)		
Any college	1,001 (86.6)	863 (86.2)	138 (13.8)		
Wave of MACS enrollment, n (%)				21.34	<.001
Before 2001	748 (64.7)	664 (88.8)	84 (11.2)		
2001 or later	408 (35.3)	321 (78.7)	87 (21.3)		
Resilience (range 0–6), M (SD)	4.80 (1.16)	4.87 (1.10)	4.43 (1.38)	4.53	<.001
Depressive symptoms, n (%)				35.67	<.001
CES-D score < 16	883 (76.4)	783 (88.7)	100 (11.3)		
CES-D score ≥ 16	273 (23.6)	202 (74.0)	71 (26.0)		
Internalized homophobia, n (%)				19.99	<.001
Average or below	977 (84.5)	852 (87.2)	125 (12.8)		
Above average	179 (15.5)	133 (74.3)	46 (25.7)		
Post-traumatic stress disorder, n (%)				22.20	<.001
PCL-C score < 45	1,055 (91.3)	915 (86.7)	137 (13.3)		
PCL-C score ≥ 45	101 (8.7)	70 (69.3)	34 (30.7)		
Cumulative number of negative psychosocial conditions				51.57	<.001
0 conditions	763 (66.0)	688 (90.2)	75 (9.8)		
1 condition	259 (22.4)	205 (79.2)	54 (20.8)		
≥2 conditions	134 (11.6)	92 (68.7)	42 (31.3)		

Note: CES-D = Center for Epidemiological Studies—Depression; MACS = Multicenter AIDS Cohort Study; PCL-C = PTSD Checklist—Civilian version.

mean resilience (mean [SD], 4.80 [1.16], range = 0–6). A quarter (23.6%) of participants had depressive symptom scores per *CES-D* scores at or above the cutoff of clinical significance (≥16), 15.5% had above-average internalized homophobia on the *Internalized Homophobia Scale*, and 9% had *PCL-C* scores classified as having PTSD (≥45).

A total of 171 participants (14.8%; Table 2) reported any prior conversion therapy experience, the most common consisting of psychotherapy (67.3%), group-based therapy (39.2%), and prayer/religion-based therapies (30.4%). The mean (SD) age at therapy initiation was 23.8 (10.2) years. Roughly a third of participants indicated limited decision-making power when therapy was initiated (29.8%), experienced sessions at least once per week when initiated (36.8%), and underwent conversion therapy for a duration of 6 or more months (36.9%). Prior therapy was more prevalent in participants who were older (*p* < .001),

have a racial/ethnic minority background (*p* < .001), do not identify as gay (*p* < .001), live with HIV (*p* = .008), had lower educational attainment (*p* = .01), and enrolled in the MACS after 2001 (*p* < .001) compared to their respective counterparts. Participants who reported conversion therapy had lower mean resilience scores and were more likely to be classified as having depressive symptoms, above-average internalized homophobia, and PTSD compared to those who reported no prior conversion therapy (*ps* < .001).

Regression Models

Depressive Symptoms

In unadjusted models (Table 3), conversion therapy was positively associated (odds ratio [OR] = 2.75, 95% confidence interval [CI]: 1.96–3.87) with having a *CES-D* score ≥ 16. Resilience was inversely associated

Table 2. Characteristics of Conversion Therapy Among Midlife and Older MSM Who Reported Any Lifetime Conversion Therapy Exposure, *n* = 171

Variable	
Conversion therapy type, *n* (%)[b]	
Psychotherapy	115 (67.3)
Group-based therapy	67 (39.2)
Prayer/religion-based	52 (30.4)
Gender role reinforcement	16 (9.4)
Aversion therapy	7 (4.1)
Pharmacological treatment	11 (6.4)
Other	18 (10.5)
Refuse to answer	6 (3.5)
Age therapy initiated (range 5–52 years), *M* (*SD*)[a]	23.83 (10.16)
Participant's decision to initiate therapy, *n* (%)	
Not at all	32 (18.7)
A little	19 (11.1)
Somewhat	19 (11.1)
Mostly	21 (12.3)
Completely	48 (28.1)
Refuse to answer	8 (4.7)
No response	24 (14.0)
Therapy frequency, *n* (%)	
I only had 1 session	24 (14.0)
At least 1 time per year	12 (7.0)
At least 1 time per month	33 (19.3)
At least 1 time per week	57 (33.3)
Everyday	6 (3.5)
Refuse to answer	15 (8.8)
No response	24 (14.0)
Therapy length, *n* (%)	
I only had 1 session	22 (12.9)
Less than 1 month	13 (7.6)
1–6 months	37 (21.6)
7–12 months	22 (12.9)
More than 12 months	41 (24.0)
Refuse to answer	11 (6.4)
No response	25 (14.6)

Notes: MSM = men who have sex with men.

[a]Mean score was calculated based on the 115 (67.3%) participants in the *Any Conversion Therapy* group that provided a response for Age Therapy Initiated variable.

[b]Responses were not mutually exclusive.

(OR = 0.37, 95% CI: 0.32–0.43) with having a *CES-D* score ≥ 16. These variables remained associated with depressive symptoms in the first multivariable model (conversion therapy: adjusted OR [AOR] = 1.72, 95% CI: 1.11–2.69; resilience: AOR = 0.43, 95% CI: 0.37–0.50; χ^2_8 = 33.06, *p* < .001). Younger age, having above-average internalized homophobia, and PTSD were also associated with having a *CES-D* score ≥ 16. In the second multivariable model (not shown), resilience did not moderate the association between lifetime conversion therapy and depressive symptoms (Conversion Therapy × Resilience: AOR = 1.20, 95% CI: 0.82–1.74).

Internalized Homophobia

In unadjusted models (Table 3), above-average internalized homophobia was positively associated with prior conversion therapy (OR = 2.36, 95% CI: 1.61–3.46) and inversely associated with resilience (OR = 0.81, 95% CI: 0.71–0.91). In the first multivariable model (χ^2_{11} = 97.92, *p* < .001), only conversion therapy remained positively associated with having above-average internalized homophobia (AOR = 1.55, 95% CI: 1.01–2.38). Above-average internalized homophobia was higher in men who did not identify as gay and those with a *CES-D* score ≥ 16 compared to their respective counterparts. In the second multivariable model (not shown), resilience did not moderate the association between lifetime conversion therapy and internalized homophobia (Conversion Therapy × Resilience: AOR = 1.13, 95% CI: 0.83–1.54).

Post-Traumatic Stress Disorder

In unadjusted models (Table 3), conversion therapy (OR = 2.89, 95% CI: 1.83–4.58) and resilience (OR = 0.52, 95% CI: 0.45–0.61) were associated with reporting a PTSD score at or above the clinical cutoff for probably diagnosis (*PCL-C* score ≥ 45). Only resilience remained inversely associated (AOR = 0.76, 95% CI: 0.63–0.92) with PTSD in the multivariable model (χ^2_{11} = 199.85, *p* < .001). Having a *CES-D* score ≥ 16 was positively associated with PTSD. In the second multivariable model (not shown), resilience did not moderate the association between lifetime conversion therapy and PTSD (AOR = 0.92, 95% CI: 0.61–1.38).

Cumulative Psychosocial Conditions

In unadjusted models (Table 4), prior conversion therapy was associated with higher odds of having one (OR = 2.42, 95% CI: 1.65–3.54) and two or more psychosocial conditions (OR = 4.19, 95% CI: 2.71–6.48), respectively, compared with having no conditions. Prior conversion therapy was associated with higher odds of having two or more psychosocial conditions compared to having one psychosocial condition (OR = 1.73, 95% CI: 1.08–2.79). Conversion therapy remained a statistically significant correlate in the multivariable models for cumulative psychosocial conditions only when comparing one versus no psychosocial conditions (AOR = 2.05, 95% CI: 1.34–3.13), and when assessing two or more conditions compared to zero conditions (AOR = 2.56, 95% CI: 1.49–4.41). Resilience was inversely associated with cumulative psychosocial conditions when comparing one versus zero conditions, two or more versus zero conditions, and two or more versus one condition. Reporting a sexual identity other than gay was associated with higher odds of reporting one versus zero conditions, and younger age was associated with lower odds of reporting two or more versus zero conditions. When testing moderation models (not shown), resilience did not moderate the associations

Table 3. Logistic Regression Models Assessing the Associations Between Conversion Therapy and Psychosocial Health Conditions, *N* = 1,156 Middle-Aged and Older Adult Men Who Have Sex With Men

Variables[a]	Depressive symptoms 0: CES-D < 16; 1: CES-D ≥ 16		Internalized homophobia 0: average or below; 1: above average		Post-traumatic stress disorder 0: PCL-C < 45; 1: PCL-C ≥ 45	
	Unadjusted OR (95% CI)	Adjusted 1 AOR (95% CI)	Unadjusted OR (95% CI)	Adjusted 1 AOR (95% CI)	Unadjusted OR (95% CI)	Adjusted 1 AOR (95% CI)
Any prior conversion therapy	2.75*** (1.96–3.87)	1.72* (1.11–2.69)	2.36*** (1.61–3.46)	1.55* (1.01–2.38)	2.89*** (1.83–4.58)	1.38 (0.79–2.41)
Resilience	0.37*** (0.32–0.43)	0.43*** (0.37–0.50)	0.81** (0.71–0.91)	0.98 (0.84–1.14)	0.52*** (0.45–0.61)	0.76** (0.63–0.92)
Age	0.96** (0.94–0.97)	0.98*** (0.96–1.01)	0.98* (0.96–0.99)	1.01 (0.98–1.03)	0.94** (0.92–0.97)	0.97 (0.93–1.00)
Race/ethnicity						
Non-Hispanic black	1.66** (1.19–2.32)	1.13 (0.69–1.83)	2.51*** (1.72–3.65)	1.38 (0.85–2.22)	1.96** (1.20–3.19)	1.02 (0.52–1.98)
Other	1.87** (1.24–2.82)	0.97 (0.54–1.74)	2.63*** (1.66–4.14)	1.87* (1.11–3.20)	1.64** (1.52–4.59)	1.30 (0.63–2.69)
Other sexual identity	1.27 (0.83–1.93)		4.80*** (3.20–7.19)	3.68*** (2.32–5.84)	2.12** (1.24–3.63)	1.84 (0.91–3.73)
HIV-positive serostatus (people living with HIV)	1.55** (1.18–2.04)	1.17 (0.82–1.67)	1.38 (1.00–1.90)	1.01 (0.70–1.43)	1.80** (1.19–2.75)	1.15 (0.69–1.90)
Any college education	0.49*** (0.34–0.70)	0.98 (0.60–1.61)	0.41*** (0.28–0.61)	0.68 (0.43–1.07)	0.46*** (0.28–0.75)	1.02 (0.55–1.89)
MACS enrollment 2001 or later	2.02** (1.53–2.66)	1.03 (0.65–1.63)	1.93*** (1.40–2.67)	1.03 (0.65–1.65)	2.28*** (1.51–3.43)	0.83 (0.44–1.56)
Depressive symptoms: CES-D ≥ 16			2.60*** (1.86–3.64)	2.13** (1.38–3.28)	30.99*** (12.32–35.78)	12.88*** (7.19–23.08)
Above-average internalized homophobia	2.60*** (1.86–3.64)	1.89** (1.24–2.90)			2.71*** (1.72–4.29)	1.41 (0.82–2.44)
Post-traumatic stress disorder: PCL-C ≥ 45	18.62*** (11.37–30.49)	10.14*** (5.92–17.37)	2.51*** (1.61–3.92)	1.14 (0.66–1.95)		

Notes: AOR = adjusted odds ratio; CES-D = Center for Epidemiological Studies—Depression; CI = confidence interval; MACS = Multicenter AIDS Cohort Study; OR = odds ratio; PCL-C = PTSD Checklist—Civilian version.
[a]Referent groups—No lifetime conversion therapy; non-Hispanic white; gay/homosexual; HIV–; high school education or less; MACS enrollment before 1987; CES-D < 16; above-average internalized homophobia; PCL-C < 45.

***p < .001. **p < .01. *p < .05.

Table 4. Multinomial Logistic Regression Models Assessing the Association Between Conversion Therapy and Cumulative Psychosocial Health Conditions, *N* = 1,156 Middle-Aged and Older Adult Men Who Have Sex With Men

	Cumulative number of negative psychosocial conditions					
	0: No conditions; 1: 1 condition		0: No conditions; 1: ≥2 conditions		0: 1 Condition; 1: ≥2 conditions	
	Unadjusted	Adjusted 1	Unadjusted	Adjusted 1	Unadjusted	Adjusted 1
Variables[a]	OR (95% CI)	AOR (95% CI)	OR (95% CI)	AOR (95% CI)	OR (95% CI)	AOR (95% CI)
Any prior conversion therapy	2.42** (1.65–3.54)	2.05** (1.34–3.13)	4.19*** (2.71–6.48)	2.56*** (1.49–4.41)	1.73* (1.08–2.79)	1.46 (0.88–2.43)
Resilience	0.52*** (0.45, 0.60)	0.52*** (0.45–0.60)	0.37*** (0.30–0.44)	0.41*** (0.34–0.50)	0.74*** (0.63–0.87)	0.75** (0.63–0.89)
Age	0.98** (0.96–0.99)	1.00 (0.98–1.02)	0.94*** (0.91–0.96)	0.97* (0.93–0.99)	0.94*** (0.91–0.96)	0.98 (0.95–1.01)
Race/ethnicity						
Non-Hispanic black	1.62** (1.13–2.32)	1.18 (0.74–1.88)	2.80*** (1.82–4.32)	1.38 (0.74–2.56)	1.73* (1.06–2.82)	1.44 (0.78–2.65)
Other	1.89** (1.22–2.94)	1.54 (0.91–2.63)	3.03*** (1.78–5.15)	1.68 (0.86–3.30)	1.60 (0.89–2.89)	1.14 (0.57–2.26)
Other sexual identity	3.03*** (1.99–4.63)	2.70*** (1.65–4.44)	2.98*** (1.77–5.04)	1.63 (0.81–3.30)	0.98 (0.57–1.69)	0.85 (0.46–1.57)
HIV-positive serostatus (people living with HIV)	1.30 (0.98–1.72)	1.07 (0.78–1.48)	2.07** (1.42–3.02)	1.24 (0.79–1.96)	1.59** (1.04–2.44)	1.28 (0.80–2.07)
Any college education	0.59* (0.39–0.88)	0.94 (0.59–1.52)	0.32*** (0.20–0.51)	0.68 (0.38–1.22)	0.55* (0.33–0.91)	0.72 (0.41–1.25)
MACS enrollment 2001 or later	1.82*** (1.36–2.43)	1.14 (0.75–1.74)	2.99*** (2.05–4.34)	1.04 (0.59–1.86)	1.64* (1.08–2.50)	0.92 (0.50–1.68)

Notes: AOR = adjusted odds ratio; CI = confidence interval; MACS = Multicenter AIDS Cohort Study; OR = odds ratio.

[a]Referent groups—No lifetime conversion therapy; non-Hispanic white; gay/homosexual; HIV–; high school education or less; MACS enrollment before 1987.

***$p < .001$. **$p < .01$. *$p < .05$.

between lifetime conversion therapy and cumulative psychosocial conditions when comparing one versus zero conditions (AOR = 1.39, 95% CI: 0.96–2.02), two or more versus one condition (AOR = 0.75–1.80), and two or more versus one condition (AOR = 0.72, 95% CI: 0.47–1.09).

Discussion and Implications

To our knowledge, our study was the first to examine the association between conversion therapy histories and psychosocial health in midlife and older adult MSM. Excluding PTSD, our analyses supported our hypothesis that MSM who underwent conversion therapy would have higher odds of having negative psychosocial conditions compared with MSM who had not. These findings support classifying conversion therapy as a sexual minority stressor that contributes to psychosocial health inequality—specifically for depressive symptoms and internalized homophobia—within community samples of MSM.

In our study, participants who reported prior conversion therapy were more likely to have current depressive symptoms compared to those who had not undergone conversion therapy. These findings parallel a recent MACS analysis with MSM that exhibited sexuality-related victimization in formative years were linked to long-term depressive symptoms (Surkan et al., 2020). Furthermore, in a prior MACS analysis, researchers observed that MSM were largely able to reconcile experiences of internalized homophobia over the life course (Herrick et al., 2013). Given that conversion therapy experiences were associated with above-average internalized homophobia in our sample, our findings suggest that these experiences may thwart the psychological processes that assist MSM in reconciling internalized homophobia over time.

Though sexual minority health experts argue that conversion therapies have the potential to elicit post-traumatic effects (Meanley et al., 2018; Ryan et al., 2020), our null finding may mask differences in psychosocial risk that could be distinguished by the type (e.g., psychotherapy vs shock or aversion therapy) and chronicity (e.g., single vs multiple sessions) of the experience; however, we were not statistically powered to assess these differences. Regarding co-occurring psychosocial health conditions, more than one in 10 participants reported at least two of the three negative psychosocial outcomes. Men who were exposed to conversion therapy had higher odds of reporting at least

two psychosocial conditions compared to those who had no exposure. These findings contribute support to organizations that denounce conversion therapy as unethical based on the potential danger imposed by these practices (Maccio, 2011; Meanley et al., 2020).

Resilience did not serve as a moderator of the associations between prior conversion therapy and negative psychosocial well-being; however, it was independently associated with our outcomes of interest. A possible interpretation for this finding is that our resilience instrument captures an intrapersonal, trait-focused measurement of the construct. Resilience embodies both internal assets as well as social resources that assist individuals in overcoming or avoiding adverse health (Wight et al., 2016). Identifying critical social resources that alleviate health consequences of minority stressors may better inform how resilience arises among MSM who underwent conversion therapy.

We observed that more than one in seven participants reported undergoing conversion therapy. Nearly 30% of these men indicated that initiating therapy was either *a little* or *not at all* their decision. Over 80% of those who reported conversion therapy specified that they underwent multiple sessions and for a duration exceeding 1 month. Our findings may reflect underestimates of conversion therapy given missing (i.e., skipped or refused) responses; nonetheless, these numbers elucidate that for many, undergoing conversion therapy was a chronic stressor.

Limitations

Our study has several limitations. The retrospective nature only permits us to argue conversion therapy as a contributing, rather than causal, factor of negative psychosocial health. The association of conversion therapy with psychosocial health may be confounded by alternative stressors experienced across the life course attributed to one's sexuality or other marginalized identities. Those who underwent conversion therapy may have been at greater risk of being exposed to other more severe, nonaffirming stressors compared with those who did not. Participants' responses were susceptible to recall bias as many reported undergoing conversion therapy as early as adolescence, thereby creating a significant time gap between therapy experience and current health statuses. Despite these limitations, our study design is supported by prior studies that acknowledge how sexual minority stressors often elicit enduring and salient effects (Wight et al., 2012). Our study provided an ethical means to better understand large-scale and potentially long-term health implications of conversion therapy as a practice considered dangerous by prominent health organizations.

Our findings may only be generalizable to MSM with similar characteristics. Participants were recruited from a community sample residing in four urban centers known to have greater available and accessible sexuality-affirming resources. As a result, recruiting participants from the MACS may introduce selection bias. The findings from our sample, who reside in highly resourced areas, may suggest that the magnitude of these associations is underestimated. As members of an existing cohort, barriers and motivations to participating in an HIV-focused study may differ from midlife and older MSM who are not enrolled in the cohort. Furthermore, sociodemographic variables like race/ethnicity were collapsed to account for limited variance among several groups. In fact, the MACS consists of a predominantly non-Hispanic white sample of MSM. This minimized our capacity to make meaningful between-group comparisons. Finally, we observed differences by age, sexual orientation, and education between the final analytic sample and participants excluded because of incomplete responses, which may have introduced potential type II error.

Future Research

Despite these limitations, our findings have implications for future research and public health. Qualitative studies may provide complementary insight into our findings. Specifically, qualitative interviews with midlife and older MSM who underwent conversion therapy may offer more detailed information on the severity and chronicity of their experiences including how these practices affected their psychosocial health across the life course.

Research efforts should seek to identify sources of resiliency, both internal assets and social/community resources, among MSM that prevent or facilitate overcoming adverse health attributed to conversion therapy. Future surveillance illuminating the role of conversion therapy and health should also further expand assessments of psychosocial variables (e.g., substance abuse, coping, and self-esteem). These psychosocial factors may serve as potential mediators of physical health statuses (e.g., HIV infection, HIV viral load) among MSM.

Lastly, replicating our methods with additional, more diverse community samples of midlife and older MSM (compared to the MACS) will be informative to understanding the robustness of conversion therapy's associations with health when considering a variety of social and cultural factors. For instance, researchers in a prior study observed higher odds of being exposed to conversion therapy among racial/ethnic minority MSM (Meanley et al., 2020). The extent to which cultural factors relevant to racial/ethnic minority communities (e.g., gender norms, religiosity/spirituality) intersect with exposures to conversion therapies and subsequent health statuses attributed to these victimizing experiences warrant further investigation.

Implications for Social Policy and Health Practice

Our findings provide support for the following actions toward advancing social policy and public health practice as they pertain to conversion therapy for sexual minority populations across the life course. Given projected estimates of conversion therapy exposure in the United States, there is potential for a high magnitude of harm imposed on sexual minorities by these practices (Mallory et al., 2018). Many states and local municipalities are continuing to pass legislation that bans licensed professionals from practicing conversion therapy on minors (Movement Advancement Project, 2019). To minimize exposure and prevent the long-term negative health impacts of these practices, we suggest that these restrictions should become federal law and expanded to include language prohibiting *anyone*, including nonlicensed professionals, from practicing conversion therapy.

Community interventions must support the ongoing existence and scaling-up of antihomophobic stigma initiatives. Initiatives should raise awareness of the harms of conversion therapy and address strategies to affirm and/or support same-sex-attracted individuals in one's community networks. Furthermore, little is understood regarding the recovery processes to undo the psychological damages imposed by conversion therapy experiences. Researchers suggest that recovery processes may differ based on the chronicity and severity of the type of conversion therapy undergone as well as the social conditions that led to their participation (e.g., family rejection or reconciling sexual identity with religious beliefs; Haldeman, 2012; Horner, 2010). Mental health and social service providers who work with midlife and older MSM should query clients about their experiences with and recovery from conversion therapy through practices that align with principles of sexual identity-affirmative therapy. Sexual identity-affirmative therapy addresses the socially and culturally relevant factors that shape sexual minorities' health and well-being, attending to the potential influences of social inequities (e.g., sexual minority stress) in their clients' lives (O'Shaughnessy & Speir, 2018). While there are limited interventions specific to conversion therapy recovery, health providers must use their platform to impart valuing all aspects of a clients' identity, elicit clients' psychological strengths, foster resilience, and identify healthy forms of coping to minimize the negative contributions that conversion therapy has imposed on their clients' long-term psychosocial health (Horner, 2010). Screening those who have experienced these practices will assist in identifying negative psychosocial conditions that warrant immediate attention. This may also assist care providers in linking individuals to sexuality-affirming and trauma-informed resources that could positively affect their psychosocial well-being.

Conclusions

Collectively, midlife and older adult MSM communities have been exposed to severe instances of homophobic victimization over the life course. Many from these generations navigated sexual minority visibility and acceptance at a time when homophobic attitudes were widely accepted, and lesbian, gay, bisexual, transgender, and queer protections were nonexistent. Conversion therapies are sexuality nonaffirming stressors that contribute to negative psychosocial health consequences for midlife and older MSM. Our findings elucidated that midlife and older adult MSM who had undergone conversion therapy during their lifetime had higher odds of depressive symptoms, above-average internalized homophobia, and at least two co-occurring psychosocial conditions compared to men with no prior conversion therapy history. Though our study provides important insights into the potential dangers of conversion therapies, these findings may offer only a glimpse into the magnitude of harm imposed by these practices. Specifically, the severity and chronicity of specific types (e.g., aversion or shock therapies) of conversion therapy may elicit enduring health consequences that require greater or more potent forms of intervention for psychological recovery over the remaining life course. Lastly, multilevel interventions must minimize exposures to sexual minority stressors like conversion therapies and assist those who have been exposed to these practices to develop and sustain psychosocial resilience. In doing so, health experts and providers may facilitate MSM to achieve optimal psychosocial well-being as one ages into older adulthood.

Conflict of Interest

None reported.

References

Aiena, B. J., Baczwaski, B. J., Schulenberg, S. E., & Buchanan, E. M. (2015). Measuring resilience with the RS-14: A tale of two samples. *Journal of Personality Assessment*, **97**, 291–300. doi:10.1080/00223891.2014.951445

Austin, A., Herrick, H., & Proescholdbell, S. (2016). Adverse childhood experiences related to poor adult health among lesbian, gay, and bisexual individuals. *American Journal of Public Health,* **106**, 314–320. doi:10.2105/ajph.2015.302904

Beckstead, A. L. (2012). Can we change sexual orientation? *Archives of Sexual Behavior*, **41**, 121–134. doi:10.1007/s10508-012-9922-x

Bradshaw, K., Dehlin, J. P., Crowell, K. A., Galliher, R. V., & Bradshaw, W. S. (2015). Sexual orientation change efforts through psychotherapy for LGBQ individuals affiliated with the Church of Jesus Christ of Latter-day Saints. *Journal of Sex & Marital Therapy*, **41**, 391–412. doi:10.1080/0092623X.2014.915907

Bressler, R., Erford, B. T., & Dean, S. (2018). A systematic review of the posttraumatic stress disorder checklist (PCL). *Journal of Counseling & Development,* **96**, 167–186. doi:10.1002/jcad.12190

Cella, A. S. (2014). A voice in the room: The function of state legislative bans on sexual orientation change efforts for minors. *American Journal of Law & Medicine*, **40**, 113–140. doi:10.1177/009885881404000104

Clark, C., Caldwell, T., Power, C., & Stansfeld, S. A. (2010). Does the influence of childhood adversity on psychopathology persist across the lifecourse? A 45-year prospective epidemiologic study. *Annals of Epidemiology*, **20**, 385–394. doi:10.1016/j.annepidem.2010.02.008

Cramer, R. J., Golom, F. D., LoPresto, C. T., & Kirkley, S. M. (2008). Weighing the evidence: Empirical assessment and ethical implications of conversion therapy. *Ethics & Behavior,* **18**, 93–114. doi:10.1080/10508420701713014

Dubrowski, P. R. (2015). The Ferguson V. Jonah verdict and a path towards national cessation of gay-to-straight "conversion therapy". *Northwestern University Law Review,* **110**, 77–117. https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1232&context=nulr_online

Fredriksen-Goldsen, K. I., Hoy-Ellis, C. P., Goldsen, J., Emlet, C. A., & Hooyman, N. R. (2014). Creating a vision for the future: Key competencies and strategies for culturally competent practice with lesbian, gay, bisexual, and transgender (LGBT) older adults in the health and human services. *Journal of Gerontological Social Work*, **57**, 80–107. doi:10.1080/01634372.2014.890690

Fredriksen-Goldsen, K. I., Kim, H. J., Shiu, C., Goldsen, J., & Emlet, C. A. (2015). Successful aging among LGBT older adults: Physical and mental health-related quality of life by age group. *The Gerontologist*, **55**, 154–168. doi:10.1093/geront/gnu081

Friedman, M. R., Stall, R., Silvestre, A. J., Wei, C., Shoptaw, S., Herrick, A.,…Plankey, M. W. (2015). Effects of syndemics on HIV viral load and medication adherence in the multicentre AIDS cohort study. *AIDS (London, England)*, **29**, 1087–1096. doi:10.1097/QAD.0000000000000657

Garbarski, D. (2015). Racial/ethnic disparities in midlife depressive symptoms: The role of cumulative disadvantage across the life course. *Advances in Life Course Research*, **23**, 67–85. doi:10.1016/j.alcr.2014.12.006

Haldeman, D. (2002). Helping gay and bisexual men recover from conversion therapies. *Journal of Gay & Lesbian Psychotherapy,* **5**, 119–132. doi:10.1300/J236v05n03_08

Haldeman, D. C. (2012). Sexual orientation conversion therapy: Fact, fiction, and fraud. In S. H. Dworkin & M. Pope (Eds.), *Casebook for counseling: lesbian, gay, bisexual, and transgender persons and their families* (pp. 297–306). Alexandria, VA: American Counseling Association.

Herek, G. M., Cogan, J. C., Gillis, J. R., & Gunt, E. K. (1997). Correlates of internalized homophobia in a community sample of lesbians and gay men. *Journal of the Gay and Lesbian Medical Association,* **2**, 17–25. https://psycnet.apa.org/record/2012-20784-001

Herrick, A. L., Stall, R., Chmiel, J. S., Guadamuz, T. E., Penniman, T., Shoptaw, S.,…Plankey, M. W. (2013). It gets better: Resolution of internalized homophobia over time and associations with positive health outcomes among MSM. *AIDS and Behavior*, **17**, 1423–1430. doi:10.1007/s10461-012-0392-x

Horner, J. (2010). Undoing the damage: Working with LGBT clients in postconversion therapy. *Columbia Social Work Review,* **34**, 107–125. doi:10.7916/d8-8xxa-aq93

Hoy-Ellis, C. P., & Fredriksen-Goldsen, K. I. (2016). Lesbian, gay, & bisexual older adults: Linking internal minority stressors, chronic health conditions, and depression. *Aging & Mental Health*, **20**, 1119–1130. doi:10.1080/13607863.2016.1168362

Jacobs, R. J., & Kane, M. N. (2012). Correlates of loneliness in midlife and older gay and bisexual men. *Journal of Gay & Lesbian Social Services,* **24**, 40–61. doi:10.1080/10538720.2012.643217

Kaslow, R. A., Ostrow, D. G., Detels, R., Phair, J. P., Polk, B. F., & Rinaldo, C. R., Jr. (1987). The Multicenter AIDS Cohort Study: Rationale, organization, and selected characteristics of the participants. *American Journal of Epidemiology*, **126**, 310–318. doi:10.1093/aje/126.2.310

King, S. D., & Orel, N. (2012). Midlife and older gay men living with HIV/AIDS: The influence of resiliency and psychosocial

stress factors on health needs. *Journal of Gay & Lesbian Social Services,* **24,** 346–370. doi:10.1080/10538720.2012.721669

King, S. D., Richardson, V. E. (2017). Mental health of older LGBT adults. *Annual Review of Gerontology and Geriatrics,* **37,** 59–75. doi:10.1891/0198-8794.37.59

Lang, A. J., & Stein, M. B. (2005). An abbreviated PTSD checklist for use as a screening instrument in primary care. *Behaviour Research and Therapy,* **43,** 585–594. doi:10.1016/j.brat.2004.04.005

Maccio, E. M. (2011). Self-reported sexual orientation and identity before and after sexual reorientation therapy. *Journal of Gay & Lesbian Mental Health,* **15,** 242–259. doi:10.1080/19359705.2010.544186

Mallory, C., Brown, T. N., & Conron, K. J. (2018). *Conversion therapy and LGBT youth.* Los Angeles, CA: The Williams Institute. https://williamsinstitute.law.ucla.edu/wp-content/uploads/Conversion-Therapy-LGBT-Youth-Jan-2018.pdf

Meanley, S., Egan, J. E., & Bauermeister, J. A. (2018). Policing heteronormativity and sexual risk-taking among young adult men who have sex with men in the Detroit Metro Area. *AIDS and Behavior,* **22,** 3991–4000. doi:10.1007/s10461-018-2257-4

Meanley, S. P., Stall, R. D., Hawk, M. E., Surkan, P. J., Shoptaw, S. J., Matthews, D. D.,…& Plankey, M. W. (2019). Multifactorial discrimination, discrimination salience, and prevalent experiences of internalized homophobia in middle-aged and older MSM. *Aging & Mental Health,* 1–8. doi:10.1080/13607863.2019.1594161

Meanley, S. P., Stall, R. D., Dakwar, O., Egan, J. E., Friedman, M. R., Haberlen, S. A.,…& Plankey, M. W. (2020). Characterizing experiences of conversion therapy among middle-aged and older men who have sex with men from the Multicenter AIDS Cohort Study (MACS). *Sexuality Research and Social Policy,* **17,** 334–342. doi:10.1007/s13178-019-00396-y

Mercer, J. (2017). Evidence of potentially harmful psychological treatments for children and adolescents. *Child and Adolescent Social Work Journal,* **34,** 107–125. doi:10.1007/s10560-016-0480-2

Meyer, I. H. (2015). Resilience in the study of minority stress and health of sexual and gender minorities. *Psychology of Sexual Orientation and Gender Diversity,* **2,** 209–213. doi:10.1037/sgd0000132

Movement Advancement Project. (2019). *Conversion therapy laws.* https://www.lgbtmap.org/equality-maps/conversion_therapy

O'Shaughnessy, T., & Speir, Z. (2018). The state of LGBQ affirmative therapy clinical research: A mixed-methods systematic synthesis. *Psychology of Sexual Orientation and Gender Diversity,* **5,** 82–98. doi:10.1037/sgd0000259

Orel, N. A. (2014). Investigating the needs and concerns of lesbian, gay, bisexual, and transgender older adults: The use of qualitative and quantitative methodology. *Journal of Homosexuality,* **61,** 53–78. doi:10.1080/00918369.2013.835236

Ryan, C., Toomey, R. B., Diaz, R. M., & Russell, S. T. (2020). Parent-initiated sexual orientation change efforts with LGBT adolescents: Implications for young adult mental health and adjustment. *Journal of Homosexuality,* **67,** 159–173. doi:10.1080/00918369.2018.1538407

Shidlow, A., & Schroeder, M. (2002). Changing sexual orientation: A consumer's report. *Professional Psychology: Research and Practice,* **33,** 249–259. doi:10.1037/0735-7028.33.3.249

Surkan, P. J., Wang, R., Huang, Y., Stall, R., Plankey, M., Teplin, L. A.,…Abraham, A. G. (2020). Victimization in early adolescence, stress, and depressive symptoms among aging sexual minority men: Findings from the multicenter AIDS cohort study. *LGBT Health,* **7,** 155–165. doi:10.1089/lgbt.2019.0036

Tsai, A. C., & Burns, B. F. (2015). Syndemics of psychosocial problems and HIV risk: A systematic review of empirical tests of the disease interaction concept. *Social Science & Medicine (1982),* **139,** 26–35. doi:10.1016/j.socscimed.2015.06.024

Wagnild, G. (2009a). A review of the resilience scale. *Journal of Nursing Measurement,* **17,** 105–113. doi:10.1891/1061-3749.17.2.105

Wagnild, G. (2009b). *The resilience scale user's guide for the US English version of the resilience scale and the 14-itme resilience scale (RS14).* Worden, MT: Resilience Center. https://www.resiliencecenter.com/products/publications-including-the-true-resilience-book/resilience-scale-users-guide/

Wight, R. G., Harig, F., Aneshensel, C. S., & Detels, R. (2016). Depressive symptom trajectories, aging-related stress, and sexual minority stress among midlife and older gay men: Linking past and present. *Research on Aging,* **38,** 427–452. doi:10.1177/0164027515590423

Wight, R. G., LeBlanc, A. J., de Vries, B., & Detels, R. (2012). Stress and mental health among midlife and older gay-identified men. *American Journal of Public Health,* **102,** 503–510. doi:10.2105/AJPH.2011.300384

Yarns, B. C., Abrams, J. M., Meeks, T. W., & Sewell, D. D. (2016). The mental health of older LGBT adults. *Current Psychiatry Reports,* **18,** 60. doi:10.1007/s11920-016-0697-y

Zhang, W., O'Brien, N., Forrest, J. I., Salters, K. A., Patterson, T. L., Montaner, J. S.,…& Lima, V. D. (2012). Validating a shortened depression scale (10 item CES-D) among HIV-positive people in British Columbia, Canada. *PLoS One,* **7,** e40793. doi:10.1371/journal.pone.00440793

Zimmerman, M. A., Stoddard, S. A., Eisman, A. B., Caldwell, C. H., Aiyer, S. M., & Miller, A. (2013). Adolescent resilience: Promotive factors that inform prevention. *Child Development Perspectives,* **7,** 215–220. doi:10.1111/cdep.12042