

## Research Article

# The Unfolding of LGBT Lives: Key Events Associated With Health and Well-being in Later Life

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Received June 17, 2016; Editorial Decision date November 7, 2016

**Decision Editor:** Charles A. Emlen, PhD

## Abstract

**Purpose of the Study:** Life events are associated with the health and well-being of older adults. Using the Health Equity Promotion Model, this article explores historical and environmental context as it frames life experiences and adaptation of lesbian, gay, bisexual, and transgender (LGBT) older adults.

**Design and Methods:** This was the largest study to date of LGBT older adults to identify life events related to identity development, work, and kin relationships and their associations with health and quality of life (QOL). Using latent profile analysis (LPA), clusters of life events were identified and associations between life event clusters were tested.

**Results:** On average, LGBT older adults first disclosed their identities in their 20s; many experienced job-related discrimination. More had been in opposite-sex marriage than in same-sex marriage. Four clusters emerged: “Retired Survivors” were the oldest and one of the most prevalent groups; “Midlife Bloomers” first disclosed their LGBT identities in mid-40s, on average; “Beleaguered At-Risk” had high rates of job-related discrimination and few social resources; and “Visibly Resourced” had a high degree of identity visibility and were socially and economically advantaged. Clusters differed significantly in mental and physical health and QOL, with the Visibly Resourced faring best and Beleaguered At-Risk faring worst on most indicators; Retired Survivors and Midlife Bloomers showed similar health and QOL.

**Implications:** Historical and environmental contexts frame normative and non-normative life events. Future research will benefit from the use of longitudinal data and an assessment of timing and sequencing of key life events in the lives of LGBT older adults.

**Keywords:** Life course, Life span, Identity development, Work, Kin and family relationships, Latent profile analysis

Significant events “mark transitions from one life-cycle stage (or state) to another that are accompanied by changes in roles, expectations, responsibilities, and behaviors” (Alwin, 2012, p. 208). Such key life events are responded to through lifelong, multidimensional processes of adaptation and integration (Spiro, Settersten, & Aldwin, 2016) within the trajectory of the life course (Taylor, 2010) and may have long-term influence on aging adults’ health and

well-being. The contextualization of the life course differs for individuals from historically marginalized communities, who as a result of disadvantage may experience unique as well as common life events, yet who might through adaptation develop distinct resources and resilience in response to larger social context and adversity encountered. Lesbian, gay, bisexual, and transgender (LGBT) older adults consistently report distinct life events rarely examined in

gerontological research, which primarily center around sexual and gender identity development, historical marginalization and discrimination in work and other settings, and unique kin relations (Fredriksen-Goldsen, Emler, et al., 2013; Fredriksen-Goldsen, Kim, Shiu, Goldsen, & Emler, 2015; Muraco & Fredriksen-Goldsen, 2016).

### Equity and the Life-Course Perspective

To date, most life-course research has conceptualized life events from a heteronormative perspective, emphasizing patterns related to family (marriage, childbirth, divorce, and bereavement) and work (unemployment, reemployment, retirement, relocation; Luhmann, Hofmann, Eid, & Lucas, 2012) and omitting important events related to sexual and gender identity that may characterize LGBT older adults' lives, such as coming out (Muraco & Fredriksen-Goldsen, 2016). In comparison, most research about LGBT people's life events has investigated those related directly to their sexual and gender identity at the expense of other important life events related to work and social roles. In the present study, we bridged this gap by utilizing an equity-framed perspective, the Health Equity Promotion Model (HEPM; Fredriksen-Goldsen & Kim, 2017; Fredriksen-Goldsen, Simoni, et al., 2014), to identify and contextualize the key events in LGBT older adults' lives, including events experienced by older adults generally as well as those specifically related to LGBT identities. The HEPM provides an integrative framework for analyzing the extent to which individuals and communities have the opportunity to attain their full health potential, which we conceptualize as a basic and common human right (see Figure 1). Opportunities for attaining one's full potential are shaped in part by dimensions of social position and stratification (e.g., sexual orientation, gender and gender identity and expression, race/ethnicity, socioeconomic status).

The HEPM incorporates the life-course perspective as a key component to understanding how sexual and gender minority statuses might result in variations in life events and transitions as well as the consequences of such changes in the progression through life from birth to death. For example, in this conceptual model, the dimensions of such social stratification intersect with historical and environmental contexts, as well as with key psychological, behavioral, and

social processes, to shape health and well-being across the life course, in part by influencing the occurrence, timing, and impact of key events in LGBT people's lives. By examining the various life events experienced by LGBT older adults, we can gain insight into the constraints and opportunities earlier in life that may contribute to future health and well-being, as well as how individuals exert agency to influence or construct their own life course through choices and actions given their opportunities.

### Historical and Environmental Contexts

Across the life course (Hitlin & Elder, 2006), marginalization may result in the accumulation of disadvantage (Dannefer, 2003) by constraining opportunity, resulting in distinctly divergent life trajectories according to social positions such as sexual or gender identity, race/ethnicity, and age (Ferraro & Shippee, 2009). The HEPM framework considers the interplay between the historical and environmental context and the timing of key events in the lives of LGBT older adults. In our studies, we have identified three generations of sexual and gender minorities who have seldom been the subjects of research: the Invisible Generation, who grew up during the Great Depression and the second World War when LGBT identities were not publicly discussed or disclosed; the Silenced Generation, who came of age in the late 1940s and the 1950s when sexual and gender minority statuses were criminalized and feared; and the Pride Generation, who in the 1960s and early 1970s spearheaded what would become the modern gay rights movement (Fredriksen-Goldsen, 2016). Across all of these generations, there were Rebel Warriors who resisted the social mores and constraints of the times, building their communities and promoting social change. LGBT individuals from each of these generations have witnessed dramatic social and policy changes over their life spans, yet different generations experienced these events at different stages of life, and may have been affected quite differently by them as a result. Moreover, life histories of LGBT older adult individuals may be differentiated by variations in adaptation to historical and ongoing adversity and stigma, which may profoundly affect the types, sequences, and timing of the events that have occurred in LGBT people's lives (Neugarten, Moore, & Lowe, 1965). In the present study, we bridged this gap by examining LGBT older adults' life events across key life domains identified in earlier research with this population, including sexual and gender identity development, work, and kin relations (Fredriksen-Goldsen, Emler, et al., 2013; Fredriksen-Goldsen et al., 2015; Muraco & Fredriksen-Goldsen, 2016).

### Key Life Events: Identity Development, Work, and Kin Relationships

Identity development and management, psychological processes as identified in the HEPM, influence individuals' sense of well-being as well as the ways in which they interact with their environments. Recent research has examined the

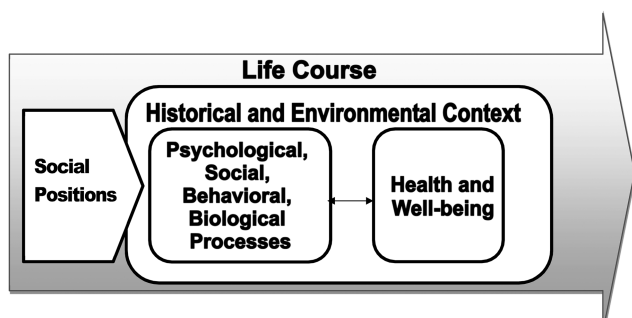


Figure 1. Health Equity Promotion Model.

experience and impact of key events related to LGBT identities, most commonly including transitions such as coming out (Muraco & Fredriksen-Goldsen, 2016). Although experiences in youth have been emphasized, some researchers have explored coming out retrospectively among older adults, including memories of self-identifying as a sexual minority and coming out to others or disclosing their identity (Calzo, Antonucci, Mays, & Cochran, 2011). From a life-course equity perspective, in older age we extend our consideration of identity to behavioral processes such as the ongoing management of identity outness (one's level of visibility as an LGBT person), which has been linked to psychological well-being (Legate, Ryan, & Weinstein, 2012), as well as participation in religious activities and community activism. For instance, although spirituality is integral to many individuals' sense of identity and community, the impact of regular engagement in religious or spiritual activities may vary depending on historical and environmental contexts. Among older adults in the general population, spirituality is associated with better well-being (Lawler-Row & Elliott, 2009); at the same time, LGBT individuals may have faced negative interactions in religious institutions as a result of their sexual or gender identities, creating conflict between religious and/or spiritual involvement and their sense of self as an LGBT person (Beagan & Hattie, 2015). Similarly, for some, engagement in antidiscrimination activism may reinforce a positive sense of identity and purpose, whereas others may not engage in activism experiences for reasons such as of lack of inclination, lack of opportunity, or fear of victimization.

Most research on LGBT individuals and their work-related life events has focused on LGBT-related workplace stressors such as discrimination. Among LGBT older adults, one in five has not been hired for a job and almost one in six has been fired because of their sexual or gender identity (Fredriksen-Goldsen et al., 2011). Such experiences culminate by older age in disparities in financial and social resources, which are closely linked to health and well-being. However, other work-related events such as retirement, relocation, and periods of unemployment also trigger key transitions that independently affect well-being (Luhmann et al., 2012). For instance, retirement may appear to relieve stress initially, but negatively affect well-being after the initial adjustment, particularly if one's partner is still working (Kim & Moen, 2002) or if a person depended on work to structure their time or social interactions (Luhmann et al., 2012).

Within the major life domain of social relationships and processes, family is one of the most fundamental units and is the basis for many of life's most significant events for older adults in the general population (Luhmann et al., 2012). However, the concept of "kin" is more applicable to the patterns of social relations within LGBT lives (Fredriksen-Goldsen, 2016), encompassing both biological/legal family or "family of origin" and nonbiologically related families of choice (Brennan-Ing, Seidel, Larson, & Karpia, 2014; Follins, Walker, & Lewis, 2014; Muraco &

Fredriksen-Goldsen, 2016). Important kin-related events in the lives of LGBT individuals include events shared with the general population, such as marriage, parenting, and bereavement. However, the meaning of these events and the process of preparing for and adapting to these events may be distinctive for LGBT individuals due to historical and social exclusion (e.g., until recently LGBT people were excluded from civil marriage) and losses, often non-normative, related to the HIV/AIDS pandemic.

In this article, we investigated how patterns of events and transitions in the domains of identity development, work, and kin relationships, which are related to environmental contexts and psychological, behavioral, and social processes, contextualized across the broader life course. Using latent profile analysis (LPA), we also examined how different configurations of life events are collectively related to health and well-being among LGBT older adults. Although life events are often studied individually, in reality they conjointly influence people's lives; thus, examining the patterns in which they commonly co-occur offers the advantages of both parsimonious description and ecological validity (Huh, Huang, Liao, Pentz, & Chou, 2013). Three primary research questions guided this article:

1. What key life events and transitions in the domains of identity development, work, and kin relationships are experienced by LGBT older adults?
2. What common patterns of life events and transitions emerge for LGBT older adults?
3. How are the patterns of life events and transitions associated with mental and physical health and quality of life (QOL) of LGBT older adults?

## Methods

Participants were 2,450 LGBT adults aged 50 and older who participated in Aging with Pride: National Health, Aging, and Sexuality/Gender Study (NHAS), a longitudinal project examining lifetime and current experiences, health, and well-being in LGBT older adults. Those who self-identified as LGBT, and/or engaged in same-sex sexual behavior or were in a romantic relationship with someone of the same sex or gender were included in the study. In this article, we report on a cross-sectional analysis of the 2014 wave of data. Recruitment was conducted via community agencies and social network chain referral. Participants had the option of completing the survey in English or Spanish, paper or online, and received \$20 for their participation. For a full description of methods used, see Fredriksen-Goldsen and Kim (2017). All measures are summarized in Table 1.

## Data Analysis

We analyzed quantitative survey data on life events related to identity development, work, and kin relationships using Mplus version 7.4 and Stata version 14.1. To

**Table 1.** Description of Measures

Variables	Items/description
Identity development	
Age of awareness	Age (years) when first considered self to be lesbian, gay, bisexual, or transgender
Age of disclosure	Age (years) at which first told someone they were lesbian, gay, bisexual, or transgender
Outness	Outness with respect to being LGBT (1 = <i>Never told anyone</i> , 10 = <i>Told everyone</i> )
Activism	"I actively participate to challenge discrimination." (0 = <i>disagree</i> , 1 = <i>agree</i> )
Religious/spiritual activity	Frequency of attending religious or spiritual activities in past month (0 = <i>never or rarely</i> , 1 = <i>more than rarely</i> )
Work	
Employment status	"Are you currently employed full- or part-time?" (0 = <i>no</i> , 1 = <i>yes</i> )
Involuntary job loss	Involuntarily lost a job in the past 5 years (0 = <i>no</i> , 1 = <i>yes</i> )
Retirement status	If unemployed, participants were asked to indicate if they are retired (0 = <i>no</i> , 1 = <i>yes</i> )
Military service	"Have you served in the military?" (0 = <i>no</i> , 1 = <i>yes</i> )
Job-related discrimination	Number of times not hired, not given a promotion, fired "because you are, or were thought to be, LGBT." Responses were dichotomized (0 = <i>never</i> , 1 = <i>once or more</i> )
Kin relationships	
Relationship status	Currently married/partnered, never married/partnered, or divorced/separated/widowed
Marriage	"Have you ever married someone of the same [opposite] sex?" (0 = <i>no</i> , 1 = <i>yes</i> )
Parenthood	"Do you have any living children, including adopted or step-children?" (0 = <i>no</i> , 1 = <i>yes</i> )
Death of partner/child	"Have you experienced the death of a partner or spouse [child]?" (0 = <i>no</i> , 1 = <i>yes</i> )
Health and well-being	
Depressive symptomatology	10-item Center for Epidemiologic Studies Depression Scale (CES-D 10). Summed scores were dichotomized ( $\leq 10$ vs $> 10$ ) to indicate the absence or presence of clinically significant depressive symptomatology (Andresen, Malmgren, Carter, & Patrick, 1994)
Perceived stress	4-item Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). Summary scores were averaged across the 4 items and ranged from 0 to 4, with higher scores representing greater levels of perceived stress ( $\alpha = .81$ )
Poor general health	"In general would you say your health is..." Answers were dichotomized to indicate poor or fair general health (= 1) versus good, very good, excellent general health (= 0)
Chronic health conditions	Ever told by a medical professional that they had any of 11 conditions; trouble seeing (even with glasses or contact lenses) or hearing (even with hearing aids). Based on self-reported height and weight, we computed BMI ( $\geq 30$ indicates obesity). A count variable (0–14) was created to indicate total number of conditions
Physical impairment	8 items (Fredriksen-Goldsen & Kim, 2017) to indicate difficulty performing physical activities without using special equipment (e.g., "walking a quarter of a mile—about 3 city blocks," "sitting for about 2 hours" (0 = <i>no difficulty</i> , 4 = <i>extremely difficulty or cannot do</i> ). Summary scores were averaged across the 8 items and ranged from 0 to 8, with higher scores representing greater levels of physical difficulties ( $\alpha = .90$ )
Cognitive impairment	6-item cognitive function subscale of World Health Organization Disability Assessment Schedule (WHO-DAS) II. Participants indicated how much difficulty they had in the past 30 days with cognitive tasks such as "Concentrating on doing something for ten minutes" and "Remembering to do important things" (0 = <i>None</i> ; 4 = <i>Extreme difficulty or cannot do</i> ). Summary scores ranged from 0 to 100 ( $\alpha = .89$ )
Disability	2 items from the Behavioral Risk Factor Surveillance System (Fredriksen-Goldsen, Kim, & Barkan, 2012): "Are you limited in any activities because of your physical, mental, or emotional problems?" "Do you now have any health problem that requires you to use special equipment such as a cane, a wheelchair, a special bed, or a special telephone?" Affirming either item indicates disability (0 = <i>no disability</i> , 1 = <i>some disability</i> )
QOL	4 subscales of the World Health Organization Quality of Life—BREF (Bonomi, Patrick, Bushnell, & Martin, 2000): physical, psychological, social, and environmental QOL. Summary scores for each subscale ranged from 0 to 100 (World Health Organization, 2004), with higher scores indicating better QOL
Background characteristics	Age (years), sexual identity ( <i>gay or lesbian; bisexual; straight; other</i> ), gender ( <i>woman, man, other</i> ), transgender identity ( <i>transgender, not transgender</i> ), race/ethnicity ( <i>Hispanic, non-Hispanic White, non-Hispanic African American or Black, other</i> ), income ( $\leq 200\%$ FPL, $> 200\%$ FPL), education ( $\leq$ <i>high school or less</i> , $>$ <i>high school</i> ), and place of birth ( <i>U.S. born, foreign-born</i> )

Note: BMI = body mass index; FPL = federal poverty level; LGBT = lesbian, gay, bisexual, and transgender; QOL = quality of life.



address the first research question regarding variations in the means and frequencies of life event variables, we examined their distributions across demographic groups such as age, sexual identity and gender, and race/ethnicity. Next, to address the second research question, we conducted LPA (Bartholomew, 1987; Lanza, Flaherty, & Collins, 2003), a person-centered analytic approach (Magnusson, 2003) based on the assumption that an unobserved (latent) grouping variable can be inferred based on individuals' patterns of responding to a series of indicators. Using the life event variables as continuous and categorical indicators, LPA identified clusters of participants with similar patterns of life-course events. Two-, three-, four-, and five-cluster solutions were computed and compared across a variety of fit statistics (Akaike information criterion [AIC], Bayesian information criterion [BIC], entropy, and Lo–Mendell–Rubin adjusted likelihood ratio test). The best LPA solution was selected based on model fit and interpretability, and the resulting clusters were labeled based on their substantive interpretation (Lanza, Patrick, & Maggs, 2010). To describe the characteristics of the individuals in each life-course cluster, we conducted *F* tests or chi-square tests, as appropriate, to examine differences in demographic characteristics between clusters. Finally, to address the third research question by combining person-centered and variable-centered approaches (Laursen & Hoff, 2006), we conducted a joint test of all contrasts, using the CONTRAST command in Stata, to evaluate the associations between life-course cluster membership (treated as the predictor) and physical and mental health outcomes (treated as dependent variables), adjusting for demographic characteristics. Post hoc pairwise comparisons between clusters on each outcome were computed using the Sidak method to control familywise error rate.

In order to reduce sampling bias and increase the generalizability of the findings, we applied survey weights to statistical analyses. Survey weights were computed utilizing three external probability samples' data as benchmarks following two-step postsurvey adjustment, as has been applied to other types of nonprobability samples (Lee, 2006; Lee & Valliant, 2009). In the first step, the Aging with Pride: NHAS sample was combined with the National Health Interview Survey (NHIS) sample ascertaining sexual orientation by sexual identity, and we computed the probability of being selected from the NHIS versus the Aging with Pride: NHAS sample by using a logistic regression model with age, sex, sexual orientation, Hispanic ethnicity, race, education, region, and house ownership as covariates. In the second step, we further calibrated the weights for those in same-sex partnerships, another indicator of sexual orientation. The population totals by age, race/ethnicity, gender, education, marital status, and region were estimated from the NHIS, the American Community Survey, and the Health and Retirement Study. See Fredriksen-Goldsen and Kim (2017) for detailed information regarding the postsurvey adjustment procedures.

## Results

### Key Life Events and Transitions

Means and percentages endorsing life-course variables, for the total sample and by demographic groups, are displayed in Table 2. LGBT older adults became aware of their sexual identities, on average, at the age of 20.84, with women becoming aware at age 23.44 on average and men at 18.00. They first disclosed to another at an average age of 27.52. Overall, LGBT older adults reported a high level of current LGBT outness with an average of 8.20 on a 10-point rating scale; groups with relatively lower levels of outness included those aged 80 and older ( $M = 6.83$ ) and bisexual men ( $M = 6.37$ ). Three quarters (76.24%) of LGBT older adults reported engaging in antidiscrimination activism, with particularly high rates among bisexual women (82.73%), transgender people (80.15%), and individuals with higher education (80.06%). One third (34.71%) reported regularly attending religious or spiritual activities.

More than one quarter (28.19%) of LGBT older adults were retired, and as would be expected those in older cohorts were more likely to be retired; 22.60% of those aged 65 and older remained currently employed. Although the proportion of those who had been in the military was 13.62% overall, it was highest (56.87%) among the oldest group (those aged 80 and older). Approximately one quarter of LGBT older adults reported having experienced job-related discrimination in the form of being not hired (26.88%) or not promoted (26.47%), and 17.77% had been fired because of their LGBT identity. Transgender older adults reported particularly high rates of job-related discrimination; for example, more than half (51.40%) of transgender women reported that they had not been hired for a job because of their perceived identity.

Just more than half of LGBT older adults (51.03%) were currently partnered or married, whereas 9.27% had never been partnered or married and 39.70% were divorced, separated, or widowed. Lesbians had particularly high rates of current partnership (60.32%); low rates of partnership were observed among African American/Black (29.40%) and lower-income individuals (28.57%). More than one third (35.36%) of LGBT older adults reported having been in an opposite-sex marriage in their lives and 27.18% having been in a same-sex marriage. Just more than one third of LGBT older adults (36.88%) had children with high rates among lesbians (43.36%); bisexual women (51.78%) and men (52.66%); and transgender women (56.55%) and men (68.93%). More than a quarter had experienced the death of a partner, with rates near one third among gay and bisexual men; a small proportion (4.65%) had experienced the death of a child or stepchild, with elevated rates among those who identified as African American/Black or other race/ethnicity, and women who identify their sexual identity as other.

**Table 2. LGBT Older Adults' Endorsement of Life Event Items by Demographic Characteristics**

Demographic characteristics	Identity development items				Work items				Kin relationship items								Death of child				
	Age aware	Age disclosure	Age	Age	Religious/spiritual	Employed	Involuntary job loss	Retired	Military service	Not hired	Not promoted	Fired	Partnered/married	Never married/partnered	Divorced/separated/widowed	Same-sex marriage		Opposite-sex marriage	Children	Partner	
Total	20.84	27.52	8.20	76.24	34.71	48.46	19.47	28.19	13.62	26.88	26.47	17.77	51.03	9.27	39.70	27.18	35.36	36.88	23.74	4.65	
Age																					
50-64	20.25	26.76	8.33	75.79	35.72	59.62	23.48	11.41	7.13	30.68	29.74	20.72	52.43	10.11	37.26	29.14	30.85	37.26	22.90	4.89	
65-79	22.56	29.4	8.03	77.86	32.20	24.47	10.78	64.29	25.22	18.17	19.75	10.92	47.86	6.81	43.34	22.28	47.29	35.91	30.27	3.41	
80+	19.39	29.28	6.83	73.02	33.33	7.24	3.42	89.86	56.87	16.63	11.23	10.47	46.83	11.34	41.83	24.96	35.29	32.40	49.19	9.32	
Women	23.44	29.38	8.49	75.70	36.39	51.87	19.47	27.73	8.39	23.06	22.55	14.84	55.43	5.42	39.15	33.40	46.25	47.77	16.27	6.39	
Lesbian	22.95	27.28	8.80	73.47	32.99	53.05	16.99	25.84	6.53	21.62	21.02	14.28	60.32	2.06	37.62	36.80	37.30	43.36	15.76	5.85	
Bisexual	25.26	33.51	7.97	82.73	41.72	57.67	27.07	27.69	7.07	18.72	20.07	16.07	50.18	3.82	46.00	34.01	69.88	51.78	17.58	3.80	
Other	24.18	35.83	7.56	77.59	48.29	39.69	23.15	38.13	20.6	36.62	34.16	16.34	35.98	24.93	39.09	12.91	61.59	64.21	17.65	12.71	
Men	18.00	25.01	7.91	74.87	32.99	45.06	18.13	30.17	17.75	29.37	29.69	20.58	46.80	12.60	40.60	21.21	25.58	26.13	33.85	2.55	
Gay	17.75	24.15	8.26	75.60	29.95	45.70	16.72	31.05	18.52	28.98	28.91	18.67	46.31	12.65	41.04	23.62	19.91	19.09	33.99	2.01	
Bisexual	19.67	28.17	6.37	72.70	45.63	40.48	24.98	24.26	11.37	33.72	34.02	30.40	49.38	13.68	37.94	10.79	47.56	52.66	35.88	5.30	
Other	17.01	30.57	6.90	65.85	39.30	41.96	20.81	40.63	29.72	24.83	32.11	13.29	49.85	9.88	40.26	19.87	40.53	48.09	20.49	2.31	
Transgender	22.97	36.63	8.39	80.15	41.39	47.66	27.75	21.19	20.28	42.46	36.53	21.22	48.13	15.90	35.97	25.04	48.51	57.41	20.10	6.18	
Women	21.86	37.26	8.76	77.00	42.66	36.18	29.43	32.44	26.97	51.40	43.18	24.05	34.91	26.40	38.69	15.98	55.62	56.55	18.70	5.00	
Men	18.07	31.39	7.74	69.54	50.54	57.97	18.32	9.38	14.13	42.47	41.92	23.63	58.50	6.56	34.94	26.91	46.85	68.93	19.46	3.10	
Other	30.08	40.04	8.39	91.15	34.04	54.81	32.11	15.26	16.76	31.49	24.75	16.07	57.10	9.51	33.39	35.11	40.68	50.84	22.14	9.65	
Race/ethnicity																					
White	21.61	28.55	8.23	77.01	31.38	52.11	17.68	30.94	14.81	25.34	24.79	16.42	53.75	7.23	39.02	29.85	37.76	36.76	23.47	3.84	
Hispanic	17.50	23.44	8.23	76.45	41.49	38.07	20.82	22.86	9.74	21.30	21.91	16.47	51.15	15.13	33.72	20.43	21.09	24.76	30.41	2.47	
Black	18.88	22.78	7.72	65.15	53.84	31.12	26.63	12.19	9.32	33.90	33.65	24.53	29.40	21.26	49.34	8.83	25.46	39.20	34.62	11.18	
Other	16.05	25.29	8.44	84.29	44.02	41.86	35.65	18.80	9.87	51.67	51.12	30.70	44.48	9.75	45.78	32.86	42.26	58.40	36.27	10.21	
Income																					
≤200% FPL	18.85	26.03	7.84	74.97	38.73	21.87	27.11	24.44	13.21	35.01	33.34	26.33	28.57	19.67	51.76	12.85	30.76	31.42	36.51	6.84	
>200% FPL	21.70	28.12	8.34	76.28	33.22	59.34	16.35	29.81	13.98	23.54	23.44	14.48	60.02	4.65	35.32	33.31	37.56	39.32	21.29	3.31	
Education																					
>HS	21.64	28.28	8.26	80.06	37.20	55.15	20.21	27.19	12.99	26.11	26.16	16.66	55.88	5.95	38.17	31.21	38.76	39.88	22.84	4.31	
≤HS	18.58	25.23	8.02	64.32	27.33	29.20	17.39	30.92	15.34	29.20	27.45	20.95	37.18	18.87	43.95	15.77	25.64	28.18	33.80	5.63	
Place of birth																					
U.S. born	20.99	27.78	8.23	76.44	35.03	49.08	19.51	28.31	14.17	27.47	26.76	17.87	50.85	9.34	39.82	27.65	35.42	38.27	25.33	4.48	
Foreign born	19.35	24.12	7.82	73.48	30.54	40.63	16.32	26.17	6.30	16.52	20.51	13.52	51.95	8.91	39.14	22.17	35.82	19.31	28.20	7.00	

Note: FPL = federal poverty level; HS = high school; LGBT = lesbian, gay, bisexual, and transgender. Means are given for continuous items (age aware, age disclosure, and outness). All others are percentages. All estimates were computed using survey weights.

## Latent Profile Analysis

### Model Selection

LPA solutions with two, three, four, and five clusters were tested and compared for model fit and interpretability (Table 3). AIC and BIC were progressively lower with each increase of one cluster, indicating better model fit for solutions with higher numbers of clusters. The five-cluster solution was rejected because the Lo–Mendell–Rubin adjusted likelihood ratio test indicated no significant

**Table 3.** Fit Statistics for Latent Profile Analysis Model Selection

Number of clusters	AIC	BIC	Entropy	LMR LRT <i>p</i>
2	85,908.725	86,152.486	0.878	.002
3	84,357.519	84,717.357	0.887	.007
4	83,275.756	83,751.672	0.866	.059
5	82,512.730	83,104.722	0.892	.230

Note: AIC = Akaike information criterion (lower values indicate better fit); BIC = Bayesian information criterion (lower values indicate better fit); LMR LRT *p* = *p* value for Lo–Mendell–Rubin likelihood ratio test (significance indicates better fit compared with a solution with one fewer cluster).

improvement in model fit over the four-cluster solution. Model fit statistics indicated that a three- or four-cluster solution would fit the data best, but disagreed regarding which was superior; AIC and BIC favored the four-cluster solution, whereas entropy was slightly better for the three-cluster solution, and the *p* value for the likelihood ratio test comparing the solutions was on the cusp of significance. Both solutions were examined for interpretability to determine whether the inclusion of a fourth cluster added meaningfully to the classification scheme. The four-cluster solution was, in fact, highly interpretable and yielded well-differentiated clusters with clearly differing patterns of life events. Thus, the four-cluster solution (Table 4) was retained for further analysis.

### Description of Life-Course Clusters

The four clusters identified were Retired Survivors (32.0%), Midlife Bloomers (15.1%), Beleaguered At-Risk (20.8%), and Visibly Resourced (32.1%). Cluster 1, the “Retired Survivors,” was characterized by a high rate of retirement (68.2%) and one of the most prevalent groups. None of the individuals in this cluster were currently employed. This cluster reported relatively low rates of lifetime job-related discrimination and a high rate of military service

**Table 4.** Means and Proportions of LGBT Older Adults Endorsing LPA Indicators in a Four-Cluster Solution

Cluster indicators	Total	Cluster 1	Cluster 2	Cluster 3	Cluster 4
		Retired Survivors	Midlife Bloomers	Beleaguered At-Risk	Visibly Resourced
<b>Identity development</b>					
Age aware, <i>M</i> ( <i>SE</i> )	20.84 (0.25)	16.72 (0.45)	42.48 (1.49)	15.22 (0.63)	17.94 (0.57)
Age disclosure, <i>M</i> ( <i>SE</i> )	27.52 (0.27)	24.31 (0.92)	45.72 (0.98)	22.17 (0.83)	25.01 (0.82)
Outness, <i>M</i> ( <i>SE</i> )	8.20 (0.05)	7.80 (0.20)	7.60 (0.31)	8.48 (0.19)	8.67 (0.11)
Activism, %	76.2	69.9	81.6	79.8	77.2
Religious/spiritual activities, %	34.7	33.0	40.1	32.7	35.0
<b>Work</b>					
Employed, %	48.5	0	60.3	46.6	89.1
Involuntary job loss, %	19.5	7.9	13.0	42.0	19.3
Retired, %	28.2	68.2	26.6	14.7	0
Military service, %	13.6	20.9	15.9	9.6	8.3
Not hired, %	26.9	6.8	12.0	95.1	10.3
Not promoted, %	26.5	8.8	16.5	92.2	7.0
Fired, %	17.8	6.8	7.3	57.9	8.2
<b>Kin relationships</b>					
Partnered/married, %	51.0	40.1	55.0	37.8	67.7
Never married/partnered, %	9.3	13.3	5.6	13.4	4.6
Divorced/separated/widowed, %	39.7	46.6	39.4	48.8	27.7
Same-sex marriage, %	27.2	20.5	24.8	25.3	35.7
Opposite-sex marriage, %	35.4	29.8	80.3	18.7	29.9
Children, %	36.9	27.4	74.5	28.2	33.5
Death of partner, %	25.7	36.6	12.9	36.2	15.1
Death of children, %	4.6	4.7	8.5	3.0	3.8
Weighted %		32.0	15.1	20.8	32.1

Note: LGBT = lesbian, gay, bisexual, and transgender; LPA = latent profile analysis. Numbers represent cluster means (for continuous indicators) or proportion endorsing (for binary indicators). All estimates were computed using survey weights.

(20.9%). Individuals in this cluster became aware of their LGBT identity in adolescence and disclosed in early adulthood. They had a relatively low rate of current partnership (40.1%) and relatively high likelihood of having experienced the death of a partner (36.6%).

Cluster 2, the “Midlife Bloomers,” reported becoming aware of and first disclosing their LGBT identity in their mid-40s, with most (80.3%) having been in an opposite-sex marriage earlier in their lives. Approximately half of individuals in this cluster were currently partnered or married, and about three quarters had children; they had a relatively low likelihood of having experienced the death of a partner (12.9%). They showed a moderate degree of current LGBT outness, but a high proportion (81.6%) engaged in antidiscrimination activism. This group had the highest level of involvement in religious or spiritual activities. Approximately half were currently employed.

Individuals in Cluster 3, “Beleaguered At-Risk,” became aware of their LGBT identity in adolescence, disclosed in early adulthood, and had very high rates of lifetime job-related discrimination, with 95.1% and 92.2% reporting that they had been not hired or not promoted, respectively, and over half reporting that they had been fired because they were perceived as LGBT. Individuals in this cluster also had high rates of recent involuntary job loss (42.0%). They also had low rates of current partnership (37.8%),

and relatively high likelihood of having experienced the death of a partner (36.2%).

Cluster 4, “Visibly Resourced,” are those who became aware of their LGBT identity in late adolescence and first disclosed in their mid-20s; they reported a high degree of current LGBT outness. This cluster was characterized by resources including high rates of current employment (89.1%) and current partnership (67.7%). Rates of job-related discrimination were relatively low for individuals in this cluster. Individuals in this cluster had relatively high rates of same-sex marriage (35.7%) and about one third had children; a low proportion (15.1%) had experienced the death of a partner.

### Demographic Characteristics of Life-Course Clusters

Comparisons of demographic characteristics by life-course cluster are shown in Table 5. The Beleaguered At-Risk and the Visibly Resourced had the youngest average ages and Retired Survivors the oldest. Midlife Bloomers were most likely to be women (62.59%) and transgender (29.86%) and had the lowest proportion of gay men (14.43%). The Visibly Resourced had the highest proportion of lesbians (37.16%), although this did not differ significantly from the proportion of Midlife Bloomers who were lesbians. Beleaguered At-Risk were the most likely to be non-White (32.26%), although this group did not differ significantly from the proportion of non-White Retired Survivors

**Table 5.** Descriptive Characteristics of LGBT Older Adults by Life-Course Clusters

Demographic characteristics	Total	Cluster 1	Cluster 2	Cluster 3	Cluster 4
		Retired Survivors	Midlife Bloomers	Beleaguered At-Risk	Visibly Resourced
Age, <i>M</i> ( <i>SE</i> )	61.41 (0.24)	65.38 (0.46) [2,3,4]	62.56 (0.75) [1, 3, 4]	58.68 (0.44) [1, 2]	58.69 (0.30) [1, 2]
Age group, %					
50–64	70.20	48.81 [2,3,4]	62.55 [1, 3, 4]	83.34 [1, 2]	86.61 [1, 2]
65–79	26.39	43.39 [3, 4]	34.29 [3, 4]	15.59 [1, 2]	12.73 [1, 2]
80+	3.41	7.80 [3, 4]	3.16 [4]	1.07 [1]	0.67 [1, 2]
Gender, %					
Woman	43.39	34.62 [2, 4]	62.59 [1, 3]	35.84 [2]	47.90 [1]
Sexual identity, %					
Lesbian	30.25	24.18 [4]	35.85	24.92 [4]	37.16 [1, 3]
Gay	40.02	49.07	14.43 [1, 3, 4]	45.60	39.47
Bisexual	17.17	14.94	26.19	16.28	15.69
Gender identity, %					
Transgender	16.79	12.1 [2]	29.86 [1, 4]	21.40	12.30 [2]
Race/ethnicity, %					
White	77.59	73.56 [2]	87.98 [1, 3]	67.74 [2, 4]	83.09 [3]
Hispanic	8.99	11.64	3.36	8.00	9.63
Black	9.13	11.75 [4]	5.38	14.31 [4]	4.94 [1, 3]
Other	4.29	3.05 [3]	3.29	9.96 [1, 4]	2.33 [3]
Household income ≤ 200% FPL, %	28.67	39.95 [2, 4]	21.33 [1, 3]	39.69 [2, 4]	13.92 [1, 3]
Education ≤ HS, %	25.77	36.48 [2, 4]	17.35 [1]	30.79 [4]	15.87 [1, 3]
U.S. born, %	93.00	90.35	95.80	95.23	92.88

Note: FPL = federal poverty level; HS = high school; LGBT = lesbian, gay, bisexual, and transgender. Bracketed numbers indicate clusters with significantly different means or proportions. All estimates were computed using survey weights.



(26.44%). Midlife Bloomers and the Visibly Resourced were most likely to have household income more than 200% of the federal poverty level (FPL). Visibly Resourced individuals were most likely to have more than a high school education (84.13%), although this did not differ significantly from the proportion of Midlife Bloomers (82.65%).

### Health and QOL

Means and proportions of health outcomes and QOL by life-course cluster, adjusted for demographic differences between clusters (age, income, education, gender, transgender identity, and race/ethnicity), are shown in Table 6. On both indicators of mental health, the Visibly Resourced were advantaged relative to all three other clusters: They had lower rates of depressive symptomatology and lower levels of perceived stress (although for Midlife Bloomers, these comparisons were only significant after adjusting for demographic characteristics). There were no other significant differences between clusters on either indicator of mental health.

Physical health indicators also showed advantages for the Visibly Resourced, who had lower risk of poor general health, fewer chronic conditions, less physical and cognitive impairment, and lower risk of disability compared with each of the other clusters. (The difference in risk for poor general health between Midlife Bloomers and Visibly Resourced was only significant after adjusting for demographic characteristics.)

There were no other significant differences between clusters on indicators of physical health.

The Visibly Resourced showed better physical QOL compared with all other clusters and better psychological QOL compared only with Beleaguered At-Risk. Social and environmental QOL were poorer for Beleaguered At-Risk compared with all three other clusters, but no other differences between clusters emerged.

### Discussion

Framed within the HEPM, a life-course equity perspective, this study examined how key life events and transitions cluster over the life course to influence health and well-being in later life. The study findings highlight that although LGBT older adults experience many life events and transitions identified in general gerontology literature, they also evidence distinct events as well as differences in timing of events, kin relationships, and the employment of individual and collective agency in the face of personal as well as historical and environmental adversity. Although marriage, widowhood, and retirement are important life experiences for most older adults, we found key points of departure from heteronormative life patterns and decision making among LGBT older adults in many areas, such as sexual and gender identity development, identity-related discrimination, and same-sex marriage, which have been influenced by historical and cultural contexts.

**Table 6.** LGBT Older Adults' Health and Quality of Life by Life-Course Clusters

Outcomes	Total <i>M (SE) or %</i>	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Joint <i>F</i> <sup>a</sup>
		Retired Survivors <i>M (SE) or %</i>	Midlife Bloomers <i>M (SE) or %</i>	Beleaguered At-Risk <i>M (SE) or %</i>	Visibly Resourced <i>M (SE) or %</i>	
<b>Mental health</b>						
Depressive symptomatology (CES-D > 10)	32.05	34.53 [4]	32.16 [4]	46.79 [4]	20.15 [1,2,3]	7.23
Perceived stress	2.38 (0.03)	2.42 (0.05) [4]	2.37 (0.08) [4]	2.69 (0.07) [4]	2.15 (0.04) [1,2,3]	9.45
<b>Physical health</b>						
Poor general health	26.08	34.78 [4]	23.12 [4]	36.26 [4]	12.32 [1,2,3]	10.05
Chronic health conditions	3.10 (0.07)	3.48 (0.12) [4]	3.20 (0.18) [4]	3.45 (0.16) [4]	2.45 (0.11) [1,2,3]	8.74
Physical impairment	0.81 (0.03)	1.05 (0.06) [4]	0.83 (0.08) [4]	1.02 (0.07) [4]	0.42 (0.03) [1,2,3]	27.10
Cognitive impairment	18.53 (0.68)	21.05 (1.32) [4]	17.67 (1.63) [4]	25.22 (1.55) [4]	12.15 (0.88) [1,2,3]	13.99
Disability	53.12	59.09 [4]	62.61 [4]	61.10 [4]	37.52 [1,2,3]	9.16
<b>QOL</b>						
Physical	67.93 (0.71)	63.49 (1.18) [4]	68.86 (1.70) [4]	60.70 (1.70) [4]	76.39 (1.07) [1,2,3]	21.18
Psychological	66.25 (0.64)	65.64 (1.08)	67.03 (1.73)	60.41 (1.69) [4]	70.19 (0.88) [3]	6.21
Social	58.40 (0.82)	58.23 (1.40) [3]	58.33 (2.12) [3]	47.94 (1.92) [1,2,4]	65.20 (1.21) [3]	11.66
Environmental	72.84 (0.58)	72.57 (1.00) [3]	75.02 (1.47) [3]	65.32 (1.34) [1,2,4]	76.81 (0.93) [3]	8.07

Note: CES-D = Center for Epidemiologic Studies Depression; LGBT = lesbian, gay, bisexual, and transgender; QOL = quality of life. Means and percentages shown in table are weighted but unadjusted for covariates. Bracketed numbers indicate clusters with significantly different means after adjusting for age, income, education, gender, transgender identity, and race/ethnicity.

<sup>a</sup>All *F* statistics are significantly greater than zero at *p* < .001.

Today's LGBT older adults engaged in psychological processes of identity development, including awareness and disclosure, within the historical context of stigma and criminalization. Although we found an average age of first awareness of about 21, similar to a previous study (D'Augelli & Grossman, 2001), the average age of first identity disclosure we observed was about 28, suggesting that many waited substantial periods of time before coming out or openly disclosing their identities. Our findings are consistent with previous studies showing that the timing and ordered sequence of coming out events differs across various populations, by gender, sexual identity, and cohort. For example, women tend to experience these events 1–2 years later than men (Savin-Williams & Diamond, 2000) and may be more likely to be more fluid between identities over their life course (Diamond, 2008), and transgender older adults (Fabbre, 2015), bisexual individuals, and older cohorts also tend to report a later timing of identity disclosure (Calzo et al., 2011; Rust, 2000). These events are part of a larger psychological process of identity development that intersects with the broader environmental and social contexts. For instance, many older lesbians first self-identify as a sexual minority later in life, having been in an opposite-sex marriage earlier in life, which may also increase their likelihood of having children. In terms of behavioral processes, coming out later in life is also associated with later involvement in LGBT communities and activism, which serve as important experiences for developing a sense of purpose and belonging (Beeler, Rawls, Herdt, & Cohler, 1999; Hammack & Cohler, 2011).

About a quarter of LGBT older adults had experienced adverse environmental contexts in the form of job-related discrimination in their lifetimes due to the perception of their sexual or gender identity, and a fifth of them reported recent involuntary job loss. LGBT employees report harassment, discrimination, and social marginalization in their places of employment (Eliason, Dibble, & Robertson, 2011), requiring that they continuously negotiate disclosure of their sexual or gender identity at work (Bowleg, Brooks, & Ritz, 2008; Gedro, Cervero, & Johnson-Bailey, 2004). It is important to note that despite the adversity in workplace experiences, a quarter of those aged 65 and older were working, a higher rate of employment than has been observed in the general population of adults 65 and older (18%; AARP, 2014). Our findings suggest that although many LGBT older adults retire, some may be compelled to work into older age, perhaps due to lack of accumulation of financial resources over the life course; moreover, consistent with the hypothesis that intersecting social positions can compound an individual's disadvantage, this circumstance may be more common among LGBT older adults of color.

Life events in the social domain among LGBT older adults also differ in terms of relationship status and parenthood. About 50% of LGBT older adults are married or partnered, whereas 60% are in the general population

(AARP, 2014). Some same-sex couples describe the transition from dating to long-term commitment as being ambiguous due to the historical lack of availability of legal recognition (Reczek, Elliott, & Umberson, 2009), and some may feel a sense of ambivalence toward marriage, given their historical exclusion from the institution. Still, more than a quarter of LGBT older adults have been in a same-sex marriage with higher rates among lesbian and bisexual women, and many, particularly bisexual women, have been in an opposite-sex marriage and had children. The loss of loved ones has often been experienced as "off time" (i.e., at a non-normative stage of life; Hendricks, 2012) relative to the general population given both the historical and social contexts and the history of the AIDS pandemic. Such losses may come with a sense of disenfranchisement for LGBT individuals because their roles as partners or parents are often not recognized or acknowledged (Cacciatore & Raffo, 2011; Jenkins, Edmundson, Averett, & Yoon, 2014).

Using LPA, we identified four life-course clusters of LGBT older adults with distinct event patterns related to identity development, work, and kin relationships. We interpret these patterns and their meaning, using HEPM as a conceptual guide with key tenets of the life course: historical times, interdependency of lives, timing of lives, and human agency.

### Retired Survivors

Although similar in some ways to older adults in general, due to their older age and the historical context in which they lived and worked, it is likely that these individuals experienced historical periods of drastic social exclusion and marginalization at formative times of life, which likely shaped their experience of transitions and ways of adapting to life events. Retired Survivors came out in early adulthood on average, yet for many, this disclosure was likely selective and context dependent. From an equity perspective, selective identity concealment may have been protective against discrimination and prejudice—indeed, this cluster reported the lowest rates of workplace discrimination—yet concealment can also limit opportunities to socialize and affirm one's identity. The majority of Retired Survivors are not currently married or partnered, only one quarter had children, and more than one third had experienced the death of a partner. Perhaps relatedly, a high proportion were living in poverty; for some, this may be because partners earlier in life died before same-sex marriage was an option, limiting survivors' access to the institutional benefits tied to marriage.

Despite these challenges, Retired Survivors were not the most vulnerable cluster. They were similar to all, but the most advantaged cluster on indicators of mental and physical health, and showed significantly better social and environmental QOL compared with Beleaguered At-Risk individuals. This pattern is likely related to important differences in work-related experiences as well as the difference

in timing of their lives. Moreover, as the oldest group, the Retired Survivors may reflect a particularly resilient subset of their generation; other individuals with similar patterns of experiences but additional risk factors may have been less likely to survive into older age. Although many Retired Survivors had experienced the death of a partner and were not currently partnered, these life experiences are relatively normative in later life or within the context of the earlier AIDS pandemic. Therefore, although these events likely shape the health and QOL of Retired Survivors, their impact may differ compared with younger cohorts, whose experiences of bereavement may further exclude them from cultural norms and life sequences.

### Midlife Bloomers

This cluster was distinguished by having become aware of, and first disclosed, their LGBT identity in their 40s—much later in life than the other clusters. Midlife Bloomers were closer in average age than any other group to the Retired Survivors, but demographically different, having the highest proportion of women and transgender participants as well as high levels of socioeconomic resources. Calzo and colleagues (2011) identified a similar “late developing” group among lesbian, gay, and bisexual adults who self-identified on average in their 40s, and many of whom had children earlier in life. Given the interaction of historical context and timing of individual lives, many of these individuals did not recognize their same-sex attractions until later in life or were unable to disclose their identities without risking negative consequences, such as job loss. Midlife Bloomers had the highest rates of opposite-sex marriage, likely the context for their high rates of parenthood (Berkowitz & Marsiglio, 2007); previous research has found that women and transgender older adults are more likely to have children than older gay men (Fredriksen-Goldsen, Cook-Daniels, et al., 2014; Fredriksen-Goldsen, Kim, Barkan, Muraco, & Hoy-Ellis, 2013) and that transgender older adults (Fabbre, 2015) and women (Clunis, Fredriksen-Goldsen, Freeman, & Nystrom, 2005) are more likely to come out and/or transition later in life. Surprisingly, however, they had high rates of activism, likely as an expression of agency and engagement with social movements, such as the women’s and civil rights as well as the gay and transgender rights movements. They also had relatively high rates of religious or spiritual involvement, which may be connected to lower LGBT outness, as some LGBT individuals report managing conflict between their LGBT identity and spirituality by concealing their sexual or gender identity (Levy, 2012).

Despite being younger on average, Midlife Bloomers were similar to Retired Survivors in physical and mental health and QOL, with no significant differences in these outcomes emerging between the two clusters. As we would typically expect a younger and more resourced group to be in better physical health, this finding suggests that Midlife Bloomers may carry some unique risk factors that prevent

them from reaching their fullest health potential, including a high proportion of transgender people (historically a particularly high-risk group) and a lower level of identity outness compared with other clusters. Among LGBT older adults, identity concealment is associated with poorer mental health outcomes (Fredriksen-Goldsen, Cook-Daniels, et al., 2014; Fredriksen-Goldsen, Emler, et al., 2013), whereas positive identity appraisal is protective for mental and physical health (Fredriksen-Goldsen, Shiu, Bryan, Goldsen, & Kim, 2016). At the same time, these risks may be offset by protective factors such as more spiritual engagement and financial resources; coming out later in life may have offered some protections from early-life experiences of discrimination and prejudice, allowing Midlife Bloomers to accumulate resources and advantages that also benefit their current health.

### Beleaguered At-Risk

We observed two younger clusters with starkly divergent life trajectories and health outcomes. The first, the Beleaguered At-Risk, report having faced substantial adversity in their environments, characterized by extremely high rates of job-related discrimination, recent involuntary job loss, unemployment, and poverty; moreover, their relatively young age suggests that these stressful life experiences may have begun accumulating early in life. Beleaguered At-Risk individuals were aware of and first disclosed their identity at younger ages, on average, than any other cluster, which previous research has linked to elevated subsequent exposure to adverse experiences (D’Augelli & Grossman, 2001). Furthermore, these individuals reported relatively high levels of outness and involvement in activism, factors that are generally found to be protective but may also increase vulnerability to victimization and discrimination (Fredriksen-Goldsen, Kim, & Barkan, 2012). Indeed, nearly all of them had experienced job-related discrimination due to their perceived identity, which may be linked to being out in a hostile historical context and which may have limited opportunities to exercise agency in career choice. Beleaguered At-Risk individuals also lacked the protection of supportive kin relationships: Less than 40% were married or partnered; almost half had been divorced, widowed, or separated, the highest proportion relative to other groups; and more than one third had experienced the death of a partner, despite this group’s relatively younger age, perhaps indicating that these deaths were experienced early or unexpectedly. Intersecting disadvantaged social positions may also increase these individuals’ risk of adverse life experiences. The Beleaguered At-Risk included high proportions of racial and ethnic minorities, lower levels of education, and high levels of poverty relative to other clusters.

The Beleaguered At-Risk cluster’s characteristics were highly supportive of the hypothesis that accumulation of disadvantage across the life course affects health and QOL.

Despite being younger than the Retired Survivors (the oldest group) by nearly 7 years on average, they did not fare better on any measure of physical or mental health or QOL, and in fact fared worse than all three other groups on social and environmental QOL, consistent with their reports of the adversities they have faced. Due to their experiences, this group is likely especially vulnerable to developing physical and mental health problems as they continue to age; for instance, job-related strain and stressful work events are associated with higher risk of mental health disorders, including depression and general anxiety, even when controlling for background characteristics and nonwork stressors (Clark et al., 2012; Wang & Schmitz, 2011).

### Visibly Resourced

The second of the two younger clusters we observed, Visibly Resourced, was distinguished in part from the Beleaguered At-Risk cluster by intersecting advantaged social positions, such as relatively higher incomes and educational attainment, as well as low rates of adverse experiences, such as job-related discrimination. This pattern indicates a lifetime's accumulation of advantages over other clusters of LGBT older adults. From a historical perspective, many of these individuals came of age within the Pride Generation and have likely benefited from more positive social and cultural attitudes toward sexual and gender minorities, perhaps combined with living in states or cities with a relatively high degree of acceptance of LGBT people, that allowed them to be out at work without risking discrimination. They seem to express agency individually by openly disclosing their identities and participating in same-sex marriage at high rates. This, as well as their relatively young age, provides them with access to important social resources: almost 70%, the highest rate of all the clusters, are currently partnered or married; they were the most likely cluster to have married a same-sex partner; and they had the highest level of outness. Kin-related life transitions, such as being married, are associated with having better overall health (Fuller, 2010) and lower risk of mortality (Lee & Payne, 2010) compared with being single in the general population, and similarly having a partner is associated with better health for LGBT older adults (Goldsen et al., 2017; Williams & Fredriksen-Goldsen, 2014). Many Visibly Resourced individuals are thus multiply advantaged by experiencing both high levels of protective kin relationships and relatively low levels of adversity.

The confluence of advantages has likely shaped Visibly Resourced individuals' opportunities for health promotion and culminated in good health and well-being in older age. Unlike the Beleaguered At-Risk, whose relatively young age did not coincide with better health than older groups, the Visibly Resourced fared significantly better than all other clusters across measures of mental and physical health and QOL. Due to their availability of social support, high QOL,

and few adverse experiences, this cluster is likely to continue to age with good health and those who are married will be able to draw benefits tied to civil same-sex marriages and spousal survival benefits. It is notable that this was one of the most prevalent clusters, highlighting that many LGBT older adults are aging well and enjoying good health.

### Conclusion

This research represents an important step forward in contextualizing life events and subsequent transitions across the life course of LGBT adults, their association with demographic groups and health and well-being, and how event patterns in identity development, work, and kin relationship domains influence different configurations of risks and resources. The analysis of such events illustrates where differences in accumulated advantage and disadvantage may occur to influence the trajectory of health and well-being in later life. In the context of the existing literature on heteronormative life trajectories, the unique clustering of life events and subsequent transitions of LGBT older adults provides insights both into the diversity of the older adult population, as well as into common and distinct trajectories of risk and resilience that may culminate in later life (Fredriksen-Goldsen, Kim, Bryan, Shiu, & Emlert, 2017). For instance, the Midlife Bloomers present a different life-course trajectory that has not yet been adequately investigated in research on LGBT older adults and that itself likely contains heterogeneous subgroups.

This study also highlights the diversity of needs and strengths among LGBT older adults, with implications for practice and policy. For instance, Beleaguered At-Risk individuals may most urgently need assistance with securing financial resources and basic needs; efforts are also needed to increase early detection and prevention of health risks for these individuals before they reach older age. For Midlife Bloomers and Retired Survivors, on the other hand, the priority may be addressing physical health risk factors by ensuring access to appropriate health care services, healthy environmental conditions, and financial stability in retirement. The Visibly Resourced, by contrast, likely have fewer immediate health and human service needs and are perhaps best positioned to provide economic support to help bridge access to services for those with more limited resources.

In addition to its merits, this study had several limitations to consider in the interpretation of findings. First, findings are based on cross-sectional data, which limit our ability to assess changes over time in the impact of events on health and QOL. Second, although survey weights were used to reduce bias and enhance generalizability, some bias remains and estimates cannot be considered representative of the population; moreover, some hard-to-reach populations are likely underrepresented, such as those who live in rural areas or are completely socially isolated. Third, although using cluster analysis allows us to examine



common patterns in life events, it may obscure some less frequent differences within clusters that are more difficult to capture. Finally, there are likely additional life events that affect the overall trajectory and life patterns of LGBT older adults that were not included in this analysis, such as broader social relationships (i.e., with friends, neighbors, families of origin, families of choice), which may have important implications for how clusters are formed and how life patterns influence an individual's health and QOL over the life course.

In future research on the life events of LGBT older adults, the HEPM may be used to promote research that is founded on the collective responsibility to increase health equity across the life course and particularly in later life. By acknowledging patterns of cumulative advantage and disadvantage, we can better understand how health outcomes are influenced by experiences accrued through earlier segments of the life course. It will also be important to gather more detailed information on the timing of life events, either through longitudinal data gathered over the life course or through retrospective recall, in order to better understand the sequencing of the life events we have considered. For instance, in order to understand the role that opposite-sex marriage plays in the lives of LGBT older adults, we must understand how the timing of these marriages intersects with or precedes one's self-awareness of same-sex attractions and self-identification as a sexual or gender minority.

Many of the complexities inherent in studying key transitions over the life course can only be addressed with longitudinal data, which is an important next step in understanding the lives of LGBT older adults, and the differences in their life events, resources, and health outcomes, as evidenced by studies of life events within the general population (Luhmann et al., 2012; Renzaho et al., 2014). Although this study has illuminated associations between life events and health and well-being, questions remain regarding the causal nature of these relationships. For instance, longitudinal analyses of older adults in the general population have found that individuals who are partnered report better physical health outcomes, but also a reciprocal relationship between social position and health (Garbarski, 2010). In addition, the impacts of life events and their subsequent transitions may vary as time passes. For instance, Spiro and colleagues (2016) found that short- and long-term impacts of military involvement varied in terms of their impact on health and well-being, illustrating the importance of assessing effects of life events at various time points.

Longitudinal data are also needed to examine how the health and well-being of LGBT older adults in each life-course pattern changes over time. Are life-course patterns firmly established by prior events or do some LGBT older adults' life-course patterns and associated risks change based on the accrual of new life events with age? This question has important implications for the modifiability of life-course trajectories with age and therefore, how to provide

LGBT older adults with maximally beneficial experiences for health and well-being in later life. Questions about the stability of life-course patterns are also particularly relevant in light of recent policy changes, such as the national legalization of same-sex marriage, that provide LGBT older adults with opportunities for experiences and benefits that were unavailable to them earlier in life. In order to achieve these goals, age, cohort, and period effects need to be better distinguished in future longitudinal research.

This study provides the foundation for building a better understanding of the life experiences of LGBT older adults, including those that are common to older adults generally as well as those that are unique to sexual and gender minorities. Situated within the historical and cultural contexts of their lives, the findings shed light on the tremendous diversity within the LGBT older adult population, the broad array of experiences they have had throughout their life courses, and the adversity and resilience that have shaped them. Understanding how life events culminate in health and well-being in older age is crucial to effectively promoting optimal health among all older adults, including but not limited to minority at-risk populations. Moving forward, research is needed to further investigate trajectories in health and well-being in order to identify those most at-risk and promote equity in optimal health and well-being in later life.

## Funding

Research reported in this publication was supported by the National Institute on Aging of the National Institutes of Health under Award Number R01AG026526 (K. I. Fredriksen-Goldsen, PI). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

## References

- AARP. (2014). Getting to know Americans age 50+. Retrieved from <http://blog.aarp.org/2014/05/14/top-10-demographics-interests-facts-about-americans-age-50/>
- Alwin, D. F. (2012). Integrating varieties of life course concepts. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, *67*, 206–220. doi:10.1093/geronb/gbr146
- Andresen, E. M., Malmgren, J. A., Carter, W. B., & Patrick, D. L. (1994). Screening for depression in well older adults: Evaluation of a short form of the CES-D. *American Journal of Preventive Medicine*, *10*, 77–84.
- Bartholomew, D. J. (1987). *Latent variable models and factor analysis*. London, UK: Charles Griffin.
- Beagan, B. L., & Hattie, B. (2015). Religion, spirituality, and LGBTQ identity integration. *Journal of LGBT Issues in Counseling*, *9*, 92–117. doi:10.1080/15538605.2015.1029204
- Beeler, J. A., Rawls, T. W., Herdt, G., & Cohler, B. J. (1999). The needs of older lesbians and gay men in Chicago. *Journal of Gay & Lesbian Social Services*, *9*, 31–49. doi:10.1300/J041v09n01\_02
- Berkowitz, D., & Marsiglio, W. (2007). Gay men: Negotiating creative, father, and family identities. *Journal of Marriage and Family*, *69*, 366–381. doi:10.1111/j.1741-3737.2007.00371.x



- Bonomi, A. E., Patrick, D. L., Bushnell, D. M., & Martin, M. (2000). Validation of the United States' version of the World Health Organization Quality of Life (WHOQOL) instrument. *Journal of Clinical Epidemiology*, *53*, 1–12. doi:10.1016/S0895-4356(99)00123-7
- Bowleg, L., Brooks, K., & Ritz, S. F. (2008). "Bringing home more than a paycheck": An exploratory analysis of Black lesbians' experiences of stress and coping in the workplace. *Journal of Lesbian Studies*, *12*, 69–84. doi:10.1300/10894160802174342
- Brennan-Ing, M., Seidel, L., Larson, B., & Karpiak, S. E. (2014). Social care networks and older LGBT adults: Challenges for the future. *Journal of Homosexuality*, *61*, 21–52. doi:10.1080/00918369.2013.835235
- Cacciatore, J., & Raffo, Z. (2011). An exploration of lesbian maternal bereavement. *Social Work*, *56*, 169–177. doi:10.1093/sw/56.2.169
- Calzo, J. P., Antonucci, T. C., Mays, V. M., & Cochran, S. D. (2011). Retrospective recall of sexual orientation identity development among gay, lesbian, and bisexual adults. *Developmental Psychology*, *47*, 1658–1673. doi:10.1037/a0025508
- Clark, C., Pike, C., McManus, S., Harris, J., Bebbington, P., Brugha, T.,...Stansfeld, S. (2012). The contribution of work and non-work stressors to common mental disorders in the 2007 Adult Psychiatric Morbidity Survey. *Psychological Medicine*, *42*, 829–842. doi:10.1017/S0033291711001759
- Clunis, D. M., Fredriksen-Goldsen, K. I., Freeman, P. A., & Nystrom, N. (2005). *The lives of lesbian elders, looking back, looking forward*. New York, NY: Haworth Press.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385–396.
- Dannefer, D. (2003). Cumulative advantage/disadvantage and the life course: Cross-fertilizing age and social science theory. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, *58*, 327–337. doi:10.1093/geronb/58.6.S327
- D'Augelli, A. R., & Grossman, A. H. (2001). Disclosure of sexual orientation, victimization, and mental health among lesbian, gay, and bisexual older adults. *Journal of Interpersonal Violence*, *16*, 1008–1027. doi:10.1177/088626001016010003
- Diamond, L. M. (2008). Female bisexuality from adolescence to adulthood: Results from a 10-year longitudinal study. *Developmental Psychology*, *44*, 5–14. doi:10.1037/0012-1649.44.1.5
- Eliason, M. J., Dibble, S. L., & Robertson, P. A. (2011). Lesbian, gay, bisexual, and transgender (LGBT) physicians' experiences in the workplace. *Journal of Homosexuality*, *58*, 1355–1371. doi:10.1080/00918369.2011.614902
- Fabbre, V. D. (2015). Gender transitions in later life: A queer perspective on successful aging. *The Gerontologist*, *55*, 144–153. doi:10.1093/geront/gnu079
- Ferraro, K. F., & Shippee, T. P. (2009). Aging and cumulative inequality: How does inequality get under the skin? *The Gerontologist*, *49*, 333–343. doi:10.1093/geront/gnp034
- Follins, L. D., Walker, J. N. J., & Lewis, M. K. (2014). Resilience in black lesbian, gay, bisexual, and transgender individuals: A critical review of the literature. *Journal of Gay & Lesbian Mental Health*, *18*, 190–212. doi:10.1080/19359705.2013.828343
- Fredriksen-Goldsen, K. I. (2016). The future of LGBT+ aging: A blueprint for action in services, policies and research. *Generations*, *40*, 6–13.
- Fredriksen-Goldsen, K. I., Cook-Daniels, L., Kim, H. J., Erosheva, E. A., Emler, C. A., Hoy-Ellis, C. P.,...Muraco, A. (2014). Physical and mental health of transgender older adults: An at-risk and underserved population. *The Gerontologist*, *54*, 488–500. doi:10.1093/geront/gnt021
- Fredriksen-Goldsen, K. I., Emler, C. A., Kim, H. J., Muraco, A., Erosheva, E. A., Goldsen, J., & Hoy-Ellis, C. P. (2013). The physical and mental health of lesbian, gay male, and bisexual (LGB) older adults: The role of key health indicators and risk and protective factors. *The Gerontologist*, *53*, 664–675. doi:10.1093/geront/gns123
- Fredriksen-Goldsen, K. I., & Kim, H.-J. (2017). The science of conducting research with LGBT older adults—An introduction to Aging with Pride: National Health, Aging, and Sexuality/Gender Study. *The Gerontologist*, *57*, S1–S14. doi:10.1093/geront/gnw212.
- Fredriksen-Goldsen, K. I., Kim, H. J., & Barkan, S. E. (2012). Disability among lesbian, gay, and bisexual adults: Disparities in prevalence and risk. *American Journal of Public Health*, *102*, e16–e21. doi:10.2105/AJPH.2011.300379
- Fredriksen-Goldsen, K. I., Kim, H. J., Barkan, S. E., Muraco, A., & Hoy-Ellis, C. P. (2013). Health disparities among lesbian, gay, and bisexual older adults: Results from a population-based study. *American Journal of Public Health*, *103*, 1802–1809. doi:10.2105/AJPH.2012.301110
- Fredriksen-Goldsen, K. I., Kim, H.-J., Bryan, A. E. B., Shiu, C., & Emler, C. A. (2017). The cascading effects of marginalization and pathways of resilience in attaining good health among LGBT older adults. *The Gerontologist*, *57*, S72–S83. doi:10.1093/geront/gnw170.
- Fredriksen-Goldsen, K. I., Kim, H.-J., Emler, C. A., Muraco, A., Erosheva, E. A., Hoy-Ellis, C. P.,...Petry, H. (2011). *The Aging and Health Report: Disparities and resilience among lesbian, gay, bisexual, and transgender older adults*. Seattle, WA: Institute for Multigenerational Health.
- Fredriksen-Goldsen, K. I., Kim, H. J., Shiu, C., Goldsen, J., & Emler, 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
- Fredriksen-Goldsen, K. I., Shiu, C., Bryan, A. E. B., Goldsen, J., & Kim, H.-J. (2016). Health equity and aging of bisexual older adults: Pathways of risk and resilience. *The Journal of Gerontology, Series B: Psychological Sciences and Social Sciences*. Advance online publication. doi:10.1093/geronb/gbw120
- Fredriksen-Goldsen, K. I., Simoni, J. M., Kim, H. J., Lehavot, K., Walters, K. L., Yang, J.,...Muraco, A. (2014). The Health Equity Promotion Model: Reconceptualization of lesbian, gay, bisexual, and transgender (LGBT) health disparities. *The American Journal of Orthopsychiatry*, *84*, 653–663. doi:10.1037/ort0000030
- Fuller, T. D. (2010). Relationship status, health, and health behavior: An examination of cohabiters and commuters. *Sociological Perspectives*, *53*, 221–245. doi:10.1525/sop.2010.53.2.221
- Garbarski, D. (2010). Perceived social position and health: Is there a reciprocal relationship? *Social Science & Medicine*, *70*, 692–699. doi:10.1016/j.socscimed.2009.11.007
- Gedro, J. A., Cervero, R. M., & Johnson-Bailey, J. (2004). How lesbians learn to negotiate the heterosexism of corporate America. *Human Resource Development International*, *7*, 181–195. doi:10.1080/1367886042000243790

- Goldsen, J., Bryan, A. E. B., Muraco, A., Kim, H.-J., Jen, S., & Fredriksen-Goldsen, K. I. (2017). Who says I do: The changing context of marriage and health and quality of life for LGBT older adults. *The Gerontologist*, *57*, S50–S62. doi:10.1093/geront/gnw174.
- Hammack, P. L., & Cohler, B. J. (2011). Narrative, identity, and the politics of exclusion: Social change and the gay and lesbian life course. *Sexuality Research and Social Policy*, *8*, 162–182. doi:10.1007/s13178-011-0060-3
- Hendricks, J. (2012). Considering life course concepts. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, *67*, 226–231. doi:10.1093/geronb/gbr147
- Hitlin, S., & Elder, G. H. (2006). Agency: An empirical model of an abstract concept. *Advances in Life Course Research*, *11*, 33–67. doi:10.1016/S1040-2608(06)11002-3
- Huh, J., Huang, Z., Liao, Y., Pentz, M., & Chou, C.-P. (2013). Transitional life events and trajectories of cigarette and alcohol use during emerging adulthood: Latent class analysis and growth mixture modeling. *Journal of Studies on Alcohol and Drugs*, *74*, 727–735. doi:10.15288/jsad.2013.74.727
- Jenkins, C. L., Edmundson, A., Averett, P., & Yoon, I. (2014). Older lesbians and bereavement: Experiencing the loss of a partner. *Journal of Gerontological Social Work*, *57*, 273–287. doi:10.180/01634372.2013.850583
- Kim, J. E., & Moen, P. (2002). Retirement transitions, gender, and psychological well-being a life-course, ecological model. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, *57*, 212–222.
- Lanza, S. T., Flaherty, B. P., & Collins, L. M. (2003). Latent class and latent transition analysis. In J. A. Schinka & W. E. Velicer (Eds.), *Handbook of psychology: Research methods in psychology* (pp. 663–685). New York, NY: Wiley.
- Lanza, S. T., Patrick, M. E., & Maggs, J. L. (2010). Latent transition analysis: Benefits of a latent variable approach to modeling transitions in substance use. *Journal of Drug Issues*, *40*, 93–120. doi:10.1177/002204261004000106
- Laursen, B., & Hoff, E. (2006). Person-centered and variable-centered approaches to longitudinal data. *Merrill-Palmer Quarterly*, *52*, 377–389.
- Lawler-Row, K. A., & Elliott, J. (2009). The role of religious activity and spirituality in the health and well-being of older adults. *Journal of Health Psychology*, *14*, 43–52. doi:10.1177/1359105308097944
- Lee, S. (2006). Propensity score adjustment as a weighting scheme for volunteer panel web surveys. *Journal of Official Statistics*, *22*, 329–349.
- Lee, G. R., & Payne, K. K. (2010). Changing marriage patterns since 1970: What's going on, and why? *Journal of Comparative Family Studies*, *41*, 537–555.
- Lee, S., & Valliant, R. (2009). Estimation for volunteer panel web surveys using propensity score adjustment and calibration adjustment. *Sociological Methods & Research*, *37*, 319–343. doi:10.1177/0049124108329643
- Legate, N., Ryan, R. M., & Weinstein, N. (2012). Is coming out always a “good thing”? Exploring the relations of autonomy support, outness, and wellness for lesbian, gay, and bisexual individuals. *Social Psychological and Personality Science*, *3*, 145–152. doi:10.1177/1948550611411929
- Levy, D. L. (2012). The importance of personal and contextual factors in resolving conflict between sexual identity and Christian upbringing. *Journal of Social Service Research*, *38*, 56–73. doi:10.1080/01488376.2011.586308
- Luhmann, M., Hofmann, W., Eid, M., & Lucas, R. E. (2012). Subjective well-being and adaptation to life events: A meta-analysis. *Journal of Personality and Social Psychology*, *102*, 592–615. doi:10.1037/a0025948
- Magnusson, D. (2003). The person approach: Concepts, measurement models, and research strategy. In S. C. Peck & R. W. Roeser (Eds.), *New directions for child and adolescent development. Person-centered approaches to studying development in context* (No. 101, pp. 3–23). San Francisco, CA: Jossey-Bass.
- Muraco, A., & Fredriksen-Goldsen, K. I. (2016). Turning points in the lives of lesbian and gay adults age 50 and over. *Advances in Life Course Research*, *30*, 124–132. doi:10.1016/j.alcr.2016.06.002
- Neugarten, B. L., Moore, J. W., & Lowe, J. C. (1965). Age norms, age constraints, and adult socialization. *American Journal of Sociology*, *70*, 710–717.
- Reczek, C., Elliott, S., & Umberson, D. (2009). Commitment without marriage: Union formation among long-term same-sex couples. *Journal of Family Issues*, *30*, 738–756. doi:10.1177/0192513X09331574
- Renzaho, A. M., Houng, B., Oldroyd, J., Nicholson, J. M., D'Esposito, F., & Oldenburg, B. (2014). Stressful life events and the onset of chronic diseases among Australian adults: Findings from a longitudinal survey. *European Journal of Public Health*, *24*, 57–62. doi:10.1093/eurpub/ckt007
- Rust, P. C. R. (2000). *Bisexuality in the United States: A social science reader*. New York, NY: Columbia University Press.
- Savin-Williams, R. C., & Diamond, L. M. (2000). Sexual identity trajectories among sexual-minority youths: Gender comparisons. *Archives of Sexual Behavior*, *29*, 607–627. doi:10.1023/A:1002058505138
- Spiro, A., 3rd, Settersten, R. A., & Aldwin, C. M. (2016). Long-term outcomes of military service in aging and the life course: A positive re-envisioning. *The Gerontologist*, *56*, 5–13. doi:10.1093/geront/gnv093
- Taylor, M. G. (2010). Capturing transitions and trajectories: The role of socioeconomic status in later life disability. *Journal of Gerontology, Series B: Psychological Sciences and Social Sciences*, *65*, 733–743. doi:10.1093/geronb/gbq018
- Wang, J., & Schmitz, N. (2011). Does job strain interact with psychosocial factors outside of the workplace in relation to the risk of major depression? The Canadian National Population Health Survey. *Social Psychiatry and Psychiatric Epidemiology*, *46*, 577–584. doi:10.1007/s00127-010-0224-0
- Williams, M. E., & Fredriksen-Goldsen, K. I. (2014). Same-sex partnerships and the health of older adults. *Journal of Community Psychology*, *42*, 558–570. doi:10.1002/jcop.21637
- World Health Organization. (2004). *The World Health Organization Quality of Life (WHOQOL)—BREF*. Retrieved June 8, 2012, from [http://www.who.int/substance\\_abuse/research\\_tools/en/english\\_whoqol.pdf](http://www.who.int/substance_abuse/research_tools/en/english_whoqol.pdf)