### **TARGET ARTICLE**



# A Developmental Model of the Sexual Minority Closet: Structural Sensitization, Psychological Adaptations, and Post-closet Growth

John E. Pachankis<sup>1</sup> · Skyler D. Jackson<sup>2</sup>

Received: 2 November 2021 / Revised: 11 May 2022 / Accepted: 11 July 2022 / Published online: 17 August 2022 © The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2022

#### Abstract

Across the lifespan, most sexual minority individuals experience the closet—a typically prolonged period in which no significant others know their sexual identity. This paper positions the closet as distinct from stigma concealment given its typical duration in years and absolute removal from sources of support for an often-central identity typically during a developmentally sensitive period. The Developmental Model of the Closet proposed here delineates the vicarious learning that takes place before sexual orientation awareness to shape one's eventual experience of the closet; the stressors that take place after one has become aware of their sexual orientation but has not yet disclosed it, which often takes place during adolescence; and potential lifespan-persistent mental health effects of the closet, as moderated by the structural, interpersonal, cultural, and temporal context of disclosure. The paper outlines the ways in which the model both draws upon and is distinct from earlier models of sexual minority identity formation and proposes several testable hypotheses and future research directions, including tests of multilevel interventions.

**Keywords** Sexual orientation · Minority stress · Stigma · Concealment · Disclosure

## Introduction

"The gay closet is not a feature only of the lives of gay people. But for many gay people it is still the fundamental feature of social life; and there can be few people, however courageous and forthright by habit, however fortunate in the support of their immediate communities, in whose lives the closet is not still a shaping presence."

Eve Kosofsky Sedgwick, *Epistemology of the Closet* (1990, p. 68).

Coming out of the closet refers to the psychosocial experience of disclosing, in some form, one's sexual minority status to others. Social scientists have long viewed coming out as a critical milestone within sexual minority identity

☐ John E. Pachankis John.Pachankis@yale.edu development (Cass, 1979; Rosario et al., 2001, 2004; Troiden, 1979). The importance of the personal shift represented by the act of coming out—and its relationship to psychological adjustment—is evidenced by the substantial empirical attention generated on the topic within the social and behavioral sciences (Jackson & Mohr, 2016; Pachankis et al., 2020b; Rosario et al., 2011). Despite the robust literature on *coming* out, empirical scholarship almost exclusively conceptualizes one's outness and concealment as a gradient—the degree to which one discloses or conceals their sexual minority status after coming out to at least some people. For instance, this research assesses concealment among those who are out as the number and types of people to whom one has not disclosed (e.g., Meidlinger & Hope, 2014; Meyer et al., 2002; Mohr & Fassinger, 2000; Villicana et al., 2016), follows people over days or weeks to examine associations between their fluctuating levels of sexual identity concealment and mental health and social functioning (e.g., Beals et al., 2009; Pachankis et al., 2011); experimentally induces concealment by asking participants to hide a sexual minority identity in a given social interaction (Santuzzi & Ruscher, 2002); or as a trait-like tendency (e.g., Schrimshaw et al., 2013). Yet, by definition, people in the closet are not out to anyone; the closet demands absolute concealment rather than daily



Department of Social and Behavioral Sciences, Yale School of Public Health, 60 College Street, Suite 316, New Haven, CT 06510, USA

Department of Social and Behavioral Sciences, Yale School of Public Health, New Haven, CT, USA

fluctuating concealed states; and people cannot be experimentally assigned to the closet, unlike concealment. Perhaps not surprisingly then, much less research attention focuses on the closet compared to concealment. Although the two constructs share some conceptual overlap—for instance, people in the closet conceal—people in the closet conceal entirely and not everyone who conceals is closeted; the two constructs are distinct. Despite accumulating research attention paid to coming out (and also despite the fact that the closet occupies a central place in the public imagination, as indexed by the numerous contemporary television series and movies featuring a closeted character), little research has conceptualized the experience of the closet itself.

To guide future research, this paper presents the Developmental Model of the Closet that centers the experience of the sexual minority closet—the period between self-labeling and initial disclosure, and a relatively distinct feature of sexual minority development across cultures—to suggest how this period might influence mental health and social functioning. Although, as described in the opening quote, the closet has been recognized as an essential feature of sexual minority life in theoretical and social commentary, as well as in clinically derived models of identity development for several decades (Cass, 1996; Coleman, 1982; Morris, 1997; Troiden, 1989), emerging social science research since that time provides a new basis for an empirical understanding of the closet's determinants and outcomes. Thus, the Developmental Model of the Closet is grounded in research from across psychological science and aims to spur even more targeted future research into the closet as a determinant of sexual minority mental health and social functioning. Specifically, the Developmental Model of the Closet focuses on the vicarious learning that takes place before sexual orientation awareness to shape one's eventual experience of the closet and decisions about whether to come out; the stressors that take place after one has become aware of their sexual orientation but has not yet disclosed their sexual orientation to important others, which for many takes place during the developmentally sensitive period of adolescence; and the lifespan persistence of the closet's effects on mental health and social functioning even if one comes out, as determined by features of the disclosure environment. Rather than assuming that the closet takes the same form or has an identical meaning across diverse sexual minority populations, the Developmental Model of the Closet allows for wide variation in the closet's experience across sexual identities and fluidities, developmental timings, and cultures. Importantly, the Developmental Model of the Closet does not assume an imperative to come out of the closet, treat coming out as a necessary ideal, or make assumptions about the value or benefit of what one comes into by coming out (Klein et al., 2015; McLean, 2007). Instead, the model outlines the cultural ideologies that precede, orient, and sensitize one to their emerging identity and the stressful adaptations to the closet that can persist after coming out and provide opportunities for post-closet growth. The paper proposes testable hypotheses to guide future research and concludes by suggesting future needed research directions.

The scientific study of the closet has historically been hampered by several methodological challenges—some of which are recently surmountable, such as inclusion of outness assessments in population-based studies (e.g., Pachankis et al., 2015a; van der Star et al., 2019) and prospective cohort studies of youth that assess sexual orientation identity starting early in development (e.g., Irish et al., 2019; la Roi et al., 2016; Luk et al., 2018). However, some challenges cannot be resolved, including those inherent to studying a phenomenon whereby an individual has yet to identify themselves as the identity being studied perhaps to themselves and perhaps more certainly to researchers (Stein, 1999). Attempts to resolve these latter types of challenges, such as retrospectively linking one's current identities with their earlier experiences, will always be subject to certain bias (e.g., Pachankis et al., 2021). The model proposed in this paper takes advantage of the most recent research into the developmental experience of the closet, prioritizing the most methodologically rigorous research, to encourage the strongest possible future study of the model's tenets. Although the improving conditions in which some sexual minority individuals live today might make the opening quote by Sedgwick about the ubiquity of the closet seem anachronistic in certain contexts, this new empirical scholarship on the closet suggests that the closet and its determinants and outcomes remain contemporarily pervasive, a point that the Developmental Model of the Closet takes up as a primary tenet.

# The Importance of Studying the Closet and Its Developmental Features

Every individual who comes to identify as a sexual minority will experience a period, no matter how short or long, during which only they, and no one else, will know their sexual orientation. Research shows that, even in relatively accepting social climates, sexual minorities typically conceal their sexual orientation across formative years of development, including all of adolescence (Calzo et al., 2011; Katz-Wise et al., 2017; Rosario et al., 2004). In fact, estimates suggest that of sexual minority adults worldwide, a large proportion, if not the majority, have disclosed their sexual orientation to few or no others (Pachankis & Bränström, 2019). Populationbased studies in the US show that even for young sexual minorities today, the average period between self-identification as a sexual minority and first disclosure of that status is about three or four years (Bishop et al., 2020; Calzo et al., 2011). The same is true in a large sample of sexual minorities living across 28 European countries (Layland, Bränström



et al., 2022). Yet scant research has focused on elucidating the developmental experience of the closet and its potentially persistent mental health consequences, regardless of whether one eventually comes out.

This paper positions the closet as a central, yet underexamined, experience of sexual minority development that potentially wields a powerful and lasting impact on mental health and social functioning. The closet is defined here as the period of absolute sexual identity nondisclosure—that is, the period during which one both recognizes their sexual identity and has not disclosed it to anyone significant in their life. In this paper, we delineate three distinct developmental periods that concern the sexual minority closet: (1) the period before one is aware of their sexual minority identity but during which one is nonetheless learning the dominant cultural ideologies about sexual minorities and their social treatment (i.e., "the pre-closet"), (2) the period after one becomes aware of their sexual minority identity but has not disclosed it to any significant people in their life, often triggering a series of psychosocial stressors and adaptations during a sensitive developmental stage (i.e., "the closet"), and (3) for those who eventually disclose their sexual orientation, the period after coming out, during which one continues to contend withand in some cases transform—the self-perceptions and coping strategies developed within earlier stages (i.e., "the postcloset"). This trajectory situates the experience of the sexual minority closet—whether days or decades in duration—as part-and-parcel of sexual minority identity development.

# Distinction from Related Theoretical and Conceptual Models

The Developmental Model of the Closet differs substantially from early stage models of sexual identity formation (Bell & Weinberg, 1978; Boxer et al., 1991; Cass, 1996; Coleman, 1982; Harry, 1993; Morris, 1997; Troiden, 1989), which focus primarily on the formation of a sexual minority identity rather than the stressors and adaptations demanded by the closet (e.g., contingent self-worth, hypervigilance, compartmentalization). Informed by models of general lifespan identity development (Erikson, 1968; Marcia, 1966), these models of sexual minority identity development highlight the unfolding of an emerging personal awareness of oneself as a sexual minority individual into a public identity that integrates one's stigmatized status into a fuller sense of self (Cass, 1979; Morris, 1997; Troiden, 1989). Empirical studies of these stage models find that movement toward an integrated sexual minority identity is associated with positive social functioning and mental health (Rosario et al., 2011). The Developmental Model of the Closet positions the closet as part of the larger general developmental experiences described by these models but, unlike those models,

focuses solely on the closet. Also unlike these more general developmental models, the Developmental Model of the Closet is only a stage model to the extent that it recognizes the closet as a distinct period characterized by an absolute lack of disclosure despite self-identification as a sexual minority. As described in the opening quote by Sedgwick (1990) and numerous social theorists who have written both before and since her cogent analysis (e.g., Foucault, 1980; Herdt, 1992; Humphreys, 1970; Seidman et al., 1999), as long as sexual minority individuals have been recognized as an actual and distinct social group, and a stigmatized social group in Western contexts, they have reckoned with the reality of the closet—the sociological constraint imposed upon those for whom stigma denies full integration into public life and the psychological constraint against immediate open self-expression of one's sexual identity upon initial self-discovery. Inspired by these theoretical writings of the closet as a sociological reality and the general psychological models of sexual minority identity development described above, the Developmental Model of the Closet positions the closet as a continuing key feature of sexual minority life with important implications for mental health and social functioning.

As mentioned above, the Developmental Model of the Closet also differs from the more general research on sexual orientation concealment (e.g., Beals et al., 2009; Meidlinger & Hope, 2014; Meyer et al., 2002; Mohr & Fassinger, 2000; Pachankis et al., 2011; Santuzzi & Ruscher, 2002; Schrimshaw et al., 2013; Villicana et al., 2016). Perhaps because out sexual minorities are easier to recruit into research than those who are not out (Ferlatte et al., 2017; Salway et al., 2019), concealment has enjoyed more empirical research than the closet, and though important, it does not offer a complete picture of the contexts and outcomes of sexual minority individuals' experiences of absolute concealment. Finally, as we elaborate below, the Developmental Model of the Closet also differs from theoretical models and empirical research on stigma concealment more generally (Chaudoir & Fisher, 2010; Pachankis, 2007; Quinn & Earnshaw, 2013; Smart & Wegner, 2000). While sexual minorities in the closet conceal, they do so entirely, from all important others, often for a prolonged period, without the support of friends, family, and others for this identity. In this way, the closet is the ultimate manifestation of concealment for sexual minorities and consequently is argued to pose exacerbated versions of the challenges typically associated with concealment as well as several unique challenges.

Like the disclosure process model (Chaudoir & Fisher, 2010), the Developmental Model of the Closet assumes that the decision to come out is weighed against the perceived costs and benefits of doing so. The Developmental Model of the Closet further specifies that these costs and benefits are shaped by the surrounding heterosexist ideologies about sexual minorities embedded within cultures, families, schools,

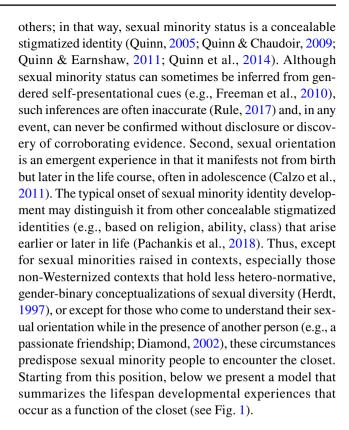


and neighborhoods, while also recognizing the sheer diversity of ideologies surrounding sexual minorities worldwide (e.g., Rahman & Valliani, 2016). Yet, unlike the disclosure process model, the Developmental Model of the Closet does not address the myriad factors, other than surrounding cultural ideologies, that determine whether and after how long an individual might eventually come out. The Developmental Model of the Closet also allows for disclosure and coming out to occur at any point in the life course, and for identity fluidity (Diamond, 2016; Klein et al., 2015).

Finally, like the minority stress theory of sexual minority mental health (Meyer, 2003) and the related psychological mediation framework (Hatzenbuehler, 2009), the Developmental Model of the Closet also identifies stigma-related determinants of poor mental health and social functioning and potential psychosocial mechanisms through which stigma operates to affect these outcomes. However, by giving primacy to the closet, the Developmental Model of the Closet suggests that several of the psychosocial mechanisms outlined by minority stress theory and the psychological mediation framework can be understood through the developmental experience of the closet. For instance, the Developmental Model of the Closet suggests that social isolation emerges not only as a reaction to broadly stigmatizing environments (Hatzenbuehler et al., 2009), but also from a lack of access to similar peers and role models encountered during the closet and the persistence of closet-related adaptations (e.g., feelings of inauthenticity, low perceived belonging, public-private compartmentalization) in post-closet life. Similarly, the Developmental Model of the Closet suggests the possibility that other minority stress mechanisms, such as rejection sensitivity (Pachankis et al., 2008) and contingent self-worth (Pachankis & Hatzenbuehler, 2013), might emerge not just as an adult response to contemporaneous stigmatizing environments (Pachankis et al., 2014), but might also represent an initially adaptive coping strategy learned during the developmentally sensitive period of the closet that can persist across the lifespan even when no longer adaptive.

# The Developmental Model of the Closet

The Developmental Model of the Closet assumes that self-identified sexual minority individuals in most contemporary contexts will find themselves in the closet at some point in life—an assumption based upon two interrelated aspects of sexual orientation. First, in most current contexts, individuals are presumed to be heterosexual unless they present information suggesting otherwise through verbal or more tacit behavioral disclosure (e.g., showing romantic affection toward a same-sex partner; Davila et al., 2021; Villicana et al., 2016). Thus, one's sexual minority status requires an intentional declaration or unintentional discovery to be truly known by



# The Pre-closet: Vicarious Socialization into Cultural Ideologies of Stigma

In most contexts throughout the world, sexual minorities are likely to encounter pervasive and negative public attitudes towards sexual minorities well before they come to identify as sexual minorities themselves (International Lesbian, Gay, Bisexual, Trans, and Intersex Association, 2017). This occurs during what we refer to as the pre-closet, the developmental period during which one neither identifies themselves as having a sexual minority status, nor is out, but is nonetheless being socialized into the heterosexist cultural context surrounding sexual minorities. This period can be understood as being influenced by the highly variable structural stigma context surrounding sexual minorities across cultures worldwide and the ability of structural stigma to shape one's internalized beliefs regarding sexual minorities. Ultimately, the Developmental Model of the Closet suggests that the experiences of this period determine how a sexual minority individual will respond to their emerging awareness of their sexual minority status during the closet period.

## Structural Stigma as Developmental Backdrop

Structural stigma refers to the geographically bound societal conditions, such as laws, policies, and community attitudes, that undermine the welfare and life chances of a stigmatized population (Hatzenbuehler, 2016). Structural



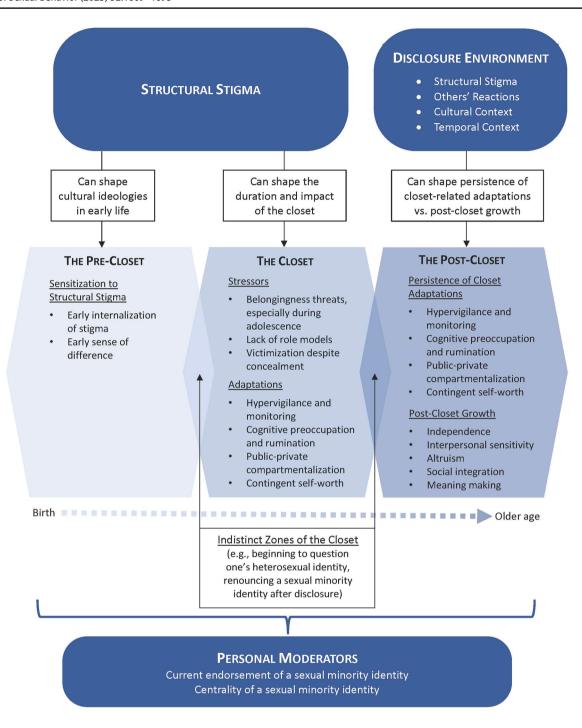


Fig. 1 A development model of the closet

stigma surrounding sexual minorities predicts not only who is closeted, but also potentially exacerbates the stress of the closet. Recent research demonstrates that the odds of being closeted are strongly associated with structural stigma both at the country level (Layland, Bränström et al., 2022; Pachankis & Bränström, 2018; Pachankis et al., 2021) and US state, county, and municipality level (Lattanner et al., 2021). For instance, sexual minorities in Russia are more than twice as

likely to indicate that they have told no other person of their sexual minority status than sexual minorities in the Netherlands (Pachankis & Bränström, 2018).

A recent estimate suggests that, even when allowing for a wide margin of error, the majority of the world's sexual minorities likely have disclosed their sexual minority status to no or very few people in their lives, largely as a function of the strong censure of homosexuality in many countries



around the world (Pachankis & Bränström, 2019). Samesex relationships are criminalized in over 70 countries and punishable by death in eight of these (International Lesbian, Gay, Bisexual, Trans, and Intersex Association, 2017). Even if one's current structural context is supportive, early exposure to high structural stigma in the location where one was born or grew up continues to be associated with concealment of their sexual minority status in their current, more supportive environment for several years after relocating (Pachankis et al., 2021; van der Star et al., 2021a, 2021b).

Structural stigma might operate to perpetuate anti-LGBTQ bias in sexual minorities' immediate, day-to-day contexts to ultimately shape their experience of the precloset. For instance, because structural stigma is closely related to attitudes toward sexual minorities (Ofosu et al., 2019), anti-LGBTQ attitudes of parents and other family members might serve as one vehicle through which structural stigma manifests in sexual minorities' immediate contexts to shape their experience of the pre-closet. In fact, sexual minority youth whose parents responded more negatively to their sexual orientation came out later than those whose parents responded more positively (Clark et al., 2021; D'Augelli, Grossman, & Starks, 2008; Huebner et al., 2019). Similarly, structural stigma in the broader community might shape the school climate toward sexual minority students, which in turn shapes the proximal ideologies surrounding sexual minorities in the pre-closet (Hatzenbuehler et al., 2014). In fact, school bullying is especially common for sexual minority youth who are out in high-structural stigma countries (van der Star et al., 2021a, 2021b). Therefore, sexual minority youth in the pre-closet who live in high-structural stigma contexts are likely vicariously socialized to expect rejection or victimization upon disclosure. Consequently, the first testable hypothesis of the Developmental Model of the Closet is that youth in the pre-closet period (who will later identify as sexual minorities) who live in high-structural stigma contexts are vicariously socialized to expect rejection or victimization upon disclosure and therefore delay coming out (Hypothesis 1; Table 1).<sup>1</sup>

# Early Internalization of Sexual Minority Stigma

Because the structural context surrounding sexual minorities exerts a strong impact on remaining closeted, it can be assumed that it does so through teaching sexual minorities powerful lessons about what it means to be a sexual minority or to exist outside of dominant heterosexist norms. We hypothesize that this process begins even before sexual minorities possess an awareness that they themselves might

<sup>&</sup>lt;sup>1</sup> Table 1 summarizes hypotheses suggested by the model to guide future research.



be a sexual minority. In fact, stereotypes are often learned by age five (e.g., Ambady et al., 2001; Dunham et al., 2008), are resistant to change (e.g., Haines et al., 2016), and become self-directed upon the emergence of one's own stigmatized identity (Cox et al., 2012). In this way, our conceptualization of the pre-closet is similar to research on other stigmatized statuses, in particular mental illness (Link et al., 1989). Similar to a sexual minority status, mental illness emerges later in life—often in adolescence and young adulthood—well after the individual has internalized negative societal ideologies about that status. Research on modified labeling theory as originally applied to mental illness finds that, as a function of pervasive stigmatizing ideologies, individuals internalize negative attitudes toward stigmatized groups and that, when they themselves become aware of their own membership in such a group, this internalization drives concealment of the stigma and social withdrawal (Kroska & Harkness, 2006; Link et al., 1989). Modified labeling theory has been applied to other stigmatized statuses, like obesity (e.g., Hunger & Tomiyama, 2014), with research finding that the harms of early socialization and ultimate labeling and internalization persist into adulthood. Our model proposes that such a process also occurs for sexual minorities. Indeed, structural stigma toward sexual minorities manifests in publicly visible ways, from negative interpersonal treatment of sexual minorities, including victimization and discrimination (Pachankis & Bränström, 2019; van der Star et al., 2021a, 2021b), to negative mainstream media depictions of sexual minorities as illegitimate (Flores et al., 2018). Not surprisingly, therefore, structural stigma is strongly correlated with perceived normative bias against the stigmatized in the general population (Tankard & Paluck, 2017) and internalized bias among sexual minorities themselves (Pachankis et al., 2021). Modified labeling theory suggests that this internalization happens among all or most members of society, who, in the absence of readily available forums for critical examination of cultural messages about the stigmatized, cannot help but absorb these messages. For those members of society for whom a sexual minority status and its associated stigma will ultimately apply, research with other stigmatized populations suggests that this awareness—born of structural stigma—comes at a steep and persistent cost to mental health and social functioning (Hunger & Tomiyama, 2014; Link et al., 1989).

# **Early Sense of Difference**

Despite not yet having adopted a sexual minority identity, young people in the pre-closet period who later identify as sexual minorities might nonetheless be particularly likely to attend to sexual minority stigma in their structural surroundings and to internalize its self-relevance. In particular, those who later identify as sexual minorities often report feeling different from others from a young age (Newman &

### Table 1 Testable hypotheses of the developmental model of the closet

### Testable hypotheses of the pre-closet period

Hypothesis 1. Those youth in the pre-closet period who will later identify as sexual minorities and who live in high-structural stigma contexts are vicariously socialized to expect rejection or victimization upon disclosure and therefore delay coming out

Hypothesis 2. Given the pervasive influence of structural stigma, individuals who will later identify as sexual minorities are likely to internalize its negative messages and ascribe any early sense of difference to the content of these messages during the pre-closet period

Hypothesis 3. The mental health and social functioning of individuals in the pre-closet period (before coming out) is a function of the structural stigma of their surroundings. For sexual minorities who report an early feeling of difference, perhaps especially likely for those who exhibit gender non-conforming behaviors and interests, the adverse influence of structural stigma is particularly strong

Hypothesis 4. Pre-closet experiences of structural stigma, personal differences perceived as negative, and their interaction strongly determine if, when, and how one comes out

#### Testable hypotheses of the closet period

Hypothesis 5. The stress of the closet is exacerbated for sexual minorities who arrive at the closet during adolescence (as opposed to later in life), given the stressful developmental challenges of this developmental period

Hypothesis 6. The psychological costs of secrecy documented in existing research are likely to be exacerbated in the closet given the absolute secrecy (i.e., no disclosure at any time to anyone) that the closet entails

Hypothesis 7. Because the closet keeps sexual minorities hidden from each other, sexual minorities in the closet face barriers to accessing sexual minority role models, who can facilitate decisions of whether to come out and the navigation of closet-related and post-closet challenges

Hypothesis 8. Experiences of victimization and vicarious victimization may be especially harmful to sexual minorities during the closet period due to their self-awareness of their sexual minority status and relative lack of outlets through which they can process negative identity-related experiences and solicit more affirming information

### Testable hypotheses of the post-closet period

Hypothesis 9. The negative adaptations of the closet might continue to pose mental health challenges even upon coming out, especially when one's closet-related challenges were especially severe and especially under negative post-closet environmental conditions (e.g., high structural stigma, pervasive negative reactions from others)

Hypothesis 10. Supportive post-closet conditions (e.g., low structural stigma, positive reactions upon disclosure) allow closet-related adaptations to transform into sources of growth rather than persistent drains on mental health

#### Testable hypotheses of moderators of the model

Hypothesis 11. One's endorsement and centrality of a sexual minority identity during each of the model's periods shapes an individual's experiences of stressors and resiliencies during that period

#### Testable hypotheses of interventions for the model's components

Hypothesis 12. Structural improvements yield stronger mental health through reducing the adaptations required by the closet and its duration Hypothesis 13. Affirming school, family, community, and individual interventions buffer against structural stigma to reduce pre-closet internalization of negative cultural ideologies and closet-related stressors and to support closet-related adaptations and post-closet growth

Muzzonigro, 1993; Savin-Williams & Cohen, 2015; Taylor, 2000). In childhood, this difference often manifests as gender nonconforming behavior or interests; in adolescence and young adulthood, as same-sex romantic or sexual attractions (Cohen, 2002) or passionate friendships (Diamond, 2002). Parents and peers often notice and react to this difference (D'Augelli et al., 2008; Toomey et al., 2013, 2014). In fact, sexual minority youth are more likely to experience peer teasing and bullying in childhood and early adolescence (Mittleman, 2019), even before many or most have self-identified as a sexual minority (Pachankis et al., 2022). In fact, children whose parents believe that their child is a sexual minority are at particularly high risk of psychiatric morbidity especially if the child themselves does not identify as a sexual minority, perhaps a pre-closet indicator (Clark et al., 2020).

Those in the pre-closet might come to understand the structural backdrop surrounding sexual minorities through their own emerging personal difference, which might further heighten internalization of stigma. Because the structural

backdrop is often negative, one's gendered behavior or interests or emerging same-sex attractions or relationships might themselves become readily self-interpreted as negative to the extent these differences are at least remotely understood as relevant to biased cultural discourse about sexual minorities. Accordingly, the mental health harms that the model most strongly associates with the closet in the next section (e.g., belongingness threats, isolation from similar peers, victimization) might begin emerging during the pre-closet, and this may be especial true among sexual minorities who express gender nonconforming traits during this period.

Consequently, the second testable hypothesis of the Developmental Model of the Closet is that individuals who will later identify as sexual minorities are likely to internalize the negative messages of structural stigma and ascribe any early sense of difference to the content of these messages (Hypothesis 2; Table 1). Relatedly, the model hypothesizes that for individuals in the pre-closet period who report an early feeling of difference during this period, perhaps



especially for those who exhibit gender non-conforming behaviors and interests, the adverse influence of structural stigma on mental health and social functioning is particularly strong (Hypothesis 3; Table 1). These pre-closet experiences therefore strongly determine if, when, and how one comes out (Baum & Critcher, 2020; Camacho et al., 2020; Chaudoir & Fisher, 2010) (Hypothesis 4; Table 1).

# The Closet: Heightened Social Stress Requiring Psychological Adaptation

The model proposed here suggests that what many sexual minorities report as a diffuse and elusive feeling of being different from their peers (Newman & Muzzonigro, 1993; Savin-Williams & Cohen, 2015; Taylor, 2000), often during adolescence, becomes a clear and attributable difference based on their emergent sexual minority status—and thus, they arrive within the closet. The closet might be particularly stressful because of its typical onset during a sensitive developmental period for the emergence of depression and anxiety, in relative isolation from similar peers and supportive role models, and because despite its intrapersonal costs, it does not likewise guarantee protection against the interpersonal costs of rejection and victimization. As reviewed above, sexual minorities who live within particularly stigmatizing structural contexts are likely to internalize heterosexist cultural ideologies, which magnify these stressors.

# Belongingness Threats During a Sensitive Developmental Stage

Most sexual minorities become aware of their same-sex attractions and sexual identity at the start of adolescence and do not disclose their minority status to another person for the duration of adolescence, even in supportive social climates (Calzo et al., 2011; Katz-Wise et al., 2017; Layland, Bränström et al., 2022; Rosario et al., 2004). From a developmental psychopathology perspective, this timing is unfortunate (Friedman et al., 2008; Katz-Wise et al., 2017). Specifically, adolescence is a period of development during which understanding the self and identity are especially salient, and the need to conceive of a stable sense of self becomes paramount to developing a sense of control in everyday life (Erikson, 1959; Frijns & Finkenauer, 2009; McAdams, 1993). The need to belong, especially powerful during adolescence, shapes identity formation and motivates the drive to conform to or resist hegemonic narratives (McLean et al., 2017).

Given the central role of belonging during adolescence, this developmental period is characterized by increased peer-directed social activities, particular importance of peer group status, and high susceptibility to the negative mental health consequences of social stress, including targeted rejection (Charmandari et al., 2003; Murphy et al., 2013; Romeo et al.,

2006). Social stress during this time can become particularly self-defining and emotionally salient (Rubin et al., 1998; Singer & Salovey, 1993). For instance, thwarted or contingent belonging can disrupt intrinsic goals and motivation (e.g., Sheldon & Kasser, 2008). Further, social stress during this time can also alter neurobiology to impact later risk for depression and anxiety (e.g., Andersen & Teicher, 2008; Leussis & Andersen, 2008; Murphy et al., 2013). Therefore, during the very developmental stage that most individuals are particularly reliant on belonging for a stable sense of self and highly sensitive to social stress (Charmandari et al., 2003), the average sexual minority adolescent is typically becoming aware of their stigmatized social status. This is often accompanied by expectations of and actual rejection, potential loss of belonging, and the challenge of forming a minority sexual identity against a default narrative of heterosexuality (Savin-Williams & Cohen, 2015). By virtue of the closet, this awareness and stress is happening in isolation without identity-affirming support that can be internalized as reflecting one's true self-sexual minority identity and all. Thus, the Developmental Model of the Closet hypothesizes that the stress of the closet is exacerbated for sexual minorities who arrive at the closet during adolescence (as opposed to later in life) (Hypothesis 5; Table 1).

### The Psychological Toll of Secrecy

Maintaining one's position within the sexual minority closet necessitates guarding a secret and is therefore stressful (Pachankis, 2007; Smart & Wegner, 2000). Theory and research on secret-keeping, including about stigmatizing information, suggests that secrecy yields feelings of inauthenticity (McDonald et al., 2020; Newheiser & Barreto, 2014; Slepian et al., 2017), diminished sense of belonging (Newheiser & Barreto, 2014), hypervigilance and monitoring (Bouman, 2003; Critcher & Ferguson, 2014; Frable et al., 1990; Santuzzi & Ruscher, 2002; Smart & Wegner, 1999), cognitive preoccupation and rumination (Maas et al., 2012; Slepian et al., 2020), strong compartmentalization between public and private selves (Sedlovskaya et al., 2013), and shame (Fishbein & Laird, 1979; Slepian et al., 2020), each with negative implications for mental health and social functioning. Further, whereas confiding in others about personally relevant experiences fosters relationship satisfaction, identity development, meaning-making, trauma resolution, and even wisdom and health (Elsharnouby & Dost-Gözkan, 2020; Mansfield et al., 2010; McAdams, 2001; Pasupathi et al., 2009; Pennebaker, 1989, 1995; Sprecher & Hendrick, 2004), secrecy prohibits these processes. In sum, substantial research on secrecy and disclosure on strongly suggests that the closet can usher in substantial mental health costs by virtue of secrecy alone.



Here again, the harmful effects of secrecy may also be especially detrimental during adolescence, the developmental period during which individuals are most likely to be in the closet. Research suggests that harboring secrets in adolescence has longer-term downstream consequences for mental health (Frijns & Finkenauer, 2009; Frijns et al., 2005, 2013; Laird & Marrero, 2010). Although some benefits of secrecy during adolescence exist (e.g., emotional autonomy), such benefits may be most attributable to keeping secrets from parents during a period in which adolescents begin to increasingly rely on friends for emotional support (Finkenauer et al., 2002). Unlike individuals who have begun coming out, those in the closet do not have such peer confidants. One can easily imagine how the total secrecy that characterizes the closet keeps sexual minorities from processing events related to their sexual minority status (e.g., witnessing an unknowing crush pursue another romantic partner), including traumatic events (e.g., same-sex sexual assault), with adverse mental health consequences.

While most of the above research concerns secrecy in general, or concealable stigmatized identities broadly, one psychological cost of secrecy has been directly examined as a function the sexual minority closet. Specifically, supporting the possibility that the closet poses psychological demands as a function of strategic adaptation, sexual minority male university students in one study were more likely to invest their self-worth in achievement-related domains (e.g., academic and competitive success) than heterosexual college students. Further, the length of time that sexual minority students were in the closet during adolescence significantly predicted the degree to which they invested their self-worth in achievement-related domains (Pachankis & Hatzenbuehler, 2013). As long as one hides an important part of their identities, such as their sexual orientation, acceptance of their full selves can never be guaranteed (Jourard, 1971). Therefore, some sexual minorities in the closet might invest their selfworth in domains that do not rely on others' approval, but instead only on how hard they can work, such as through academic, financial, or other competitive success. Strategically investing one's self-worth in domains in which one is likely to succeed and disengaging one's self-worth from domains in which one is likely to fail might be one way to protect selfworth against social or structural threats (Crocker & Wolfe, 2001; Crocker et al., 2003). Yet, for sexual minorities this comes at a mental health cost, including social isolation, negative affect, and dishonesty, as shown in a 9-day daily diary study (Pachankis & Hatzenbuehler, 2013).

Besides this research on contingent self-worth as a function of the closet, research on secrecy and concealable stigmatized identities has mostly been conducted among individuals who are at least partially out about their identity or to individuals who were experimentally induced to recall or hide personal secrets in a laboratory setting. We propose

that this research nonetheless has relevance to the experience of the sexual minority closet. We specifically hypothesize that the psychological costs of secrecy are likely to be exacerbated in the closet given the absolute secrecy that the closet demands (Hypothesis 6; Table 1). Indeed, secrets kept completely private are understood to weigh heaviest on the secret keeper, causing greater psychological harm than those shared with confidants (Frijns et al., 2013). Future research is needed to examine the impact on mental health and social functioning of the other psychological costs of secrecy, besides contingent self-worth, as specifically related to the sexual minority closet.

# Lack of Access to Similarly Identified Peers and Sexual Minority Role Models

Unlike many other prominent stigmatized identities that one's family, community, and many peers also often possess (e.g., like a racial/ethnic or religious minority status in the US), minority sexual orientations are randomly and diffusely distributed throughout the population. Current estimates suggest that about four percent of US adults identify as lesbian, gay, or bisexual (LGB), with a slight majority of this population identifying as bisexual (Gates, 2011); a slightly larger proportion of younger birth cohorts of US adults identifies as LGB (Gates, 2017) and including emerging sexual minority identity categories (e.g., pansexual) might increase the number of sexual minorities somewhat further (Watson et al., 2020). Therefore, the average sexual minority person in the closet encounters a small prevalence of sexual minority others in their daily lives, such as at school. In an average classroom of 30 students, only one, maybe two, students will be sexual minorities. This numeric infrequency would pose challenges to identifying similar peers even without the reality of the closet, which further keeps similar peers out of visibility from each other (Beals et al., 2009; Frable et al., 1998; Taylor, 2000).

Given that the closet keeps sexual minorities relatively hidden from each other, combined with the random and diffuse distribution of minority sexual orientations in the population, closeted sexual minorities are at risk of lacking visible and accessible sexual minority role models. While population-based research has not compared the prevalence of available role models across sexual orientations, research using non-probability samples finds that a sizeable proportion of sexual minority adolescents reports not having a role model and that most identified role models are inaccessible (e.g., television stars, pop stars). Indeed, less than 20% of a diverse sample of sexual minority youth reported having an accessible role model, such as a parent or teacher (Bird et al., 2011). While this study did not assess the sexual orientation of role models, because the closet keeps sexual minorities out of reach of each other, especially inter-generationally (Bohan

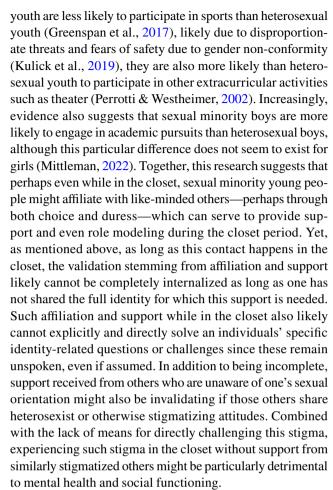


et al., 2002), likely few sexual minority adolescents have access to a sexual minority role model. A lack of accessible role models is associated with mental distress across studies of sexual minority adolescents (Bird et al., 2011; Grossman & D'Augelli, 2004) and may be another way that the closet harms mental health.

Role models might be particularly important for sexual minorities, and especially for sexual minorities in the closet who would benefit from examples of out sexual minority life. Compared to heterosexuals, the average sexual minority individual follows different scripts, encounters different contexts, and faces different opportunities and challenges, some of which are not necessarily related to stigma, but which can nonetheless affect mental health (Cochran, 2001). For instance, sexual minorities are less likely to have children (Gates, 2013), more likely to live alone (Wells et al., 2011), more likely to be non-monogamous (Haupert et al., 2017), and more motivated to move cities to seek opportunities around similar others (Human Rights Campaign, 2010) than are heterosexuals. Sexual minorities may also encounter unique relationship challenges and questions (e.g., comparing oneself to one's partner, dating within friend circles, unique manifestations of domestic violence, whether to date someone who is closeted, sexual position negotiations) and have distinct sexual health needs (Keuroghlian et al., 2017; Meadows, 2018) that might be best and most easily answered by similar others.

Given these distinct life paths facing sexual minorities, sexual minorities would likely benefit from guidance and support for navigating these decisions. However, the closet poses challenges to identifying, connecting with, and therefore learning from out sexual minorities (Suppes et al., 2021). For instance, while in the closet, a sexual minority person cannot easily make themselves known or visible to those who might serve as mentors and guides. This cost of the closet to role modeling is perhaps compounded by barriers to intergenerational contact across sexual minorities, including highly distinct and rapidly changing experiences across successive cohorts of sexual minorities (Hammack et al., 2018; Rosenfeld et al., 2012; Russell & Bohan, 2005) and stereotypes of older sexual minority individuals as predators (Hajek, 2018). The closet can also keep role models themselves hidden. For instance, in high-stigma contexts where concealment is high across age groups, visible, thriving sexual minority role models might be particularly likely to be out of sight of younger cohorts (Pachankis & Bränström, 2019).

At the same time that the Developmental Model of the Closet suggests that the closet serves to keep sexual minority individuals away from each other and from supportive role models, this barrier of the closet might not be absolute. Indeed, emerging evidence suggests that academic and extracurricular involvement is at least partially patterned by sexual orientation. For instance, although sexual minority



In sum, at the same time that sexual minorities face distinct developmental challenges, the closet poses several barriers to seeking support for navigating those challenges. The Developmental Model of the Closet hypothesizes that because the closet at least partially keeps sexual minorities hidden from each other, sexual minorities in the closet face barriers to accessing sexual minority role models, who can facilitate decisions of whether to come out and the navigation of closet-related and post-closet challenges (Hypothesis 7; Table 1).

# **Victimization Despite Concealment**

In addition to becoming aware of their socially devalued status in relative isolation, sexual minority adolescents report substantially more victimization, discrimination, and peer rejection than heterosexual adolescents (Almeida et al., 2009; Bos et al., 2008; Friedman et al., 2011). Importantly, one can be in the closet and still be harmed by homophobic prejudice. First, targeted rejection, especially toward gender nonconforming behavior, can occur even without sexual orientation disclosure (Gordon et al., 2018; Rieger et al., 2008; Roberts et al., 2013; Toomey et al., 2013, 2014). Thus, for many sexual minorities, especially those who are gender



nonconforming, the costs of the closet (e.g., lack of contact with similar others) are not necessarily offset by protection against victimization. Perhaps given these costs when compared to the benefits (Chaudoir & Fisher, 2010), sexual minorities who exhibit gender nonconforming behaviors and interests might come out earlier; in fact, that they conceal less frequently than those who are gender conforming (Thoma et al., 2021). Second, experimental research shows that concealing a sexual minority identity does not necessarily guarantee being treated more favorably by heterosexuals (Goh et al., 2019), and turning down opportunities to disclose personal information can paradoxically invite more negative treatment than revealing this information, even when the information is perceived as negative (John et al., 2016). Finally, even those who are protected from direct homophobic victimization may nonetheless feel the vicarious sting of witnessing homophobia directed elsewhere. Being in the closet does not, for example, protect one from seeing a stereotypical portrayal of sexual minority people in the media, witnessing the homophobic bullying of a peer, learning inaccurate information about the history, contributions, and morality of sexual minorities, or learning about an LGBTO hate crime (Balsam et al., 2013; Bell & Perry, 2015; Willis, 2012). The Developmental Model of the Closet hypothesizes that experiences of victimization and vicarious victimization may be especially harmful to sexual minorities during the closet period due to their self-awareness of their sexual minority status and relative lack of outlets through which they can process negative identity-related experiences and solicit more affirming, accurate information (Hypothesis 8; Table 1).

# **Indistinct Zones of the Closet**

Using our proposed definition of the closet—the period between sexual minority self-labeling and one's first sexual minority disclosure—most sexual minorities, at any given moment of their lives, are likely to be easily definable as either in the closet or outside of it (e.g., within the pre- or post-closet period). However, certain unique experiences of sexual minority identity development and disclosure challenge these seemingly distinct boundaries. For instance, individuals who ultimately identify as sexual minorities may, at one point, question whether they are heterosexual without yet self-identifying with a sexual minority identity label; others might engage in same-sex sexual behavior but temporarily self-identify as heterosexual. Such individuals exemplify the indistinct zone between the pre-closet and closet periods. Similarly, one can imagine scenarios that demonstrate the gray area between the closet and post-closet periods. Consider sexual minorities who only ever disclose their sexual minority status to an anonymous, insignificant, or no longer available other. Additionally, an individual might disclose their sexual minority status only to later renounce the disclosure and identify as heterosexual, effectively returning to the closet. Such experiences blur the distinct and sequential nature of the closet and post-closet. Recognizing these trajectories and others, our model acknowledges the potential for individuals to find themselves within indistinct zones of the closet—whether fleetingly or across long stretches of the lifespan (see Fig. 1).

# The Post-closet: Contextual Moderators of Lifespan-persistent Negative Adaptations to the Closet Versus Post-closet Growth

Although concealment demands might be ongoing and although sexual identities might remain in flux, the Developmental Model of the Closet highlights the distinct moment when one discloses their sexual minority status to one or more important others in their lives—at the point, the closet technically ends. What happens next, according to the Developmental Model of the Closet, depends on the conditions that one comes into when coming out. One possibility is that by coming out, one can potentially be known as their fuller self-stigma and all-thereby reducing the psychological toll of secrecy, increasing the likelihood that they will have meaningful contact with similar others, and ushering in a period of post-closet flourishing. At the same time, the sexual orientation disparities in several mental health problems (e.g., depression, anxiety) persist across the lifespan (Rice et al., 2019) and might at least partly be explained by the persistence of closet-related coping into post-closet life.

On the one hand, the possibility of post-closet growth is supported by over 100 studies, which on average show a small negative association between sexual orientation disclosure and depression, anxiety, and psychological distress (Pachankis et al., 2020b). This meta-analytic finding suggests that sexual orientation disclosure might yield a net positive benefit to mental health and that the benefits of coming out might outweigh the known challenges of navigating a new public stigmatized identity, including victimization and discrimination (Pachankis & Bränström, 2018; Suppes et al., 2021). In fact, research shows that despite the challenges of coming out, several benefits accrue, including increased feelings of belonging, a reduced toll of secrecy, and greater integration into sexual minority communities (e.g., Suppes et al., 2021).

At the same time, the disproportionate risk of mental health problems facing sexual minorities does not completely dissipate over the lifespan (Rice et al., 2019), suggesting that psychological burdens of the closet might remain for some. Thus, the Developmental Model of the Closet proposes that the psychological adaptations learned in closet—achievement-contingent self-worth, hypervigilance, cognitive preoccupation, compartmentalization—might persist under



negative post-closet disclosure conditions, in which these adaptations might remain necessary for protecting mental health and safety.

According to the Developmental Model of the Closet, whether the stressful adaptations of the closet continue into the post-closet period or whether the post-closet period brings about a period of growth away from these adaptations depends on three factors surrounding the sexual minority person's disclosure. These factors include the structural (i.e., structural stigma environment), interpersonal (i.e., others' reactions to the person's disclosure), cultural (i.e., related to other features of identity, such as race, ethnicity, and religion), and temporal (i.e., changing sociocultural conditions) context of disclosure.

### Structural Stigma

As for structural conditions of the post-closet disclosure environment, research shows that sexual minority adults who are out in structurally stigmatizing environments experience lower life satisfaction as a function of greater exposure to discrimination and victimization compared to those who are not out and those who live in structurally supportive environments (Bränström & Pachankis, 2018). Therefore, for those living in structurally stigmatizing environments, those same structural stigma conditions that set into motion the stressors and adaptations of the pre-closet and closet periods might continue to exact their toll on sexual minority mental health and social functioning by constraining post-closet opportunities for growth past the stressful adaptations of the closet. Importantly, structural stigma can occur at multiple socioecological levels, from the distal (e.g., country-level laws and policies) to the more proximal (e.g., school, workplace, or religious organization policies). Structural stigma regardless of its socioecological level is associated with adverse mental health among sexual minority youth and adults (e.g., Meyer et al., 2019; Poteat et al., 2013). Recent research also shows that concealment pressures imposed by structural stigma at one level are conditional on structural stigma at another level, such that concealment pressures are lowest, for example, when structural stigma is low across levels, and that perhaps low levels of structural stigma at a proximal level (e.g., a supportive city) can offset some of the concealment pressures of structural stigma at a distal level (e.g., an unsupportive state) (Lattanner et al., 2021). Although structural stigma can occur at multiple socioecological levels surrounding an individual, overall, this research suggests that the costs to concealment pressures and mental health increase as the number of socioecological levels that can be characterized as stigmatizing increases.



### Others' Reactions

Negative reactions from others upon disclosure and the type of relationship in which this occurs represent another relevant post-closet disclosure condition capable of moderating the post-closet experience. Indeed, research shows that negative reactions from others, including from parents, is associated with mental health and substance use problems (e.g., Rosario et al., 2009, 2014), lending support to the possibility that an unsupportive post-closet environment can lead to the persistence of negative adaptations learned in the closet. The type of relationship in which one discloses is also likely important. For instance, peer reactions might be particularly impactful, especially during adolescence, given the relative importance of peer influence across early development (e.g., Steinberg & Monahan, 2007). Peer exclusion upon disclosure can constrain peer networks and the potential for post-closet growth (e.g., Dishion et al., 1995; Poteat et al., 2009; Prinstein & La Greca, 2004). These findings join the large body of research documenting disproportionate rates of negative parental and peer interpersonal treatment, including discrimination, bullying, and other forms of victimization, towards sexual minorities compared to heterosexuals (Friedman et al., 2011), that at least partially explain sexual minorities' greater risk of adverse mental health and social functioning (Pachankis et al., 2021). However, this research does not typically focus on discrimination and victimization as an outcome of disclosure per se and some mistreatment might be directed toward gender non-conforming individuals who are presumed to be sexual minority regardless of their actual sexual orientation or outness (Katz-Wise & Hyde, 2012; Poteat & Russell, 2013).

### **Cultural Context**

The Developmental Model of the Closet also positions culture as an important feature of the post-closet disclosure environment that shapes post-closet experiences. Culture shapes the nature and meaning of a sexual minority identity itself and therefore others' reactions to disclosure. For instance, disclosure of a sexual minority identity in a collectivistic culture might exact particularly steep costs, at least to the extent that one's community or family are likely to perceive one's sexual minority identity as a form of communal disrespect (Cerezo et al., 2020; Hu & Wang, 2013; Sun et al., 2021; Villicana et al., 2016). This would be expected to heighten the persistence of closet-related adaptations. Against other cultural backdrops, sexual identity concealment might be desired (Schrimshaw et al., 2018) or privileged (Massad, 2002) compared to being out, which could also strengthen the persistence of closet-related adaptations for those who are out. In cultures in which open identification as a sexual minority is particularly costly, one might instead choose to preserve other meaningful cultural identities and communal ties, even if this requires relative disengagement from one's sexual identity (Bowleg et al., 2008). The exclusion of people of color from gay-related organizations and media depictions (e.g., Millet et al., 2006) might constrain options for sexual self-identification (Pathela et al., 2006) in ways that might prolong the adaptations of the closet into post-closet life (Santos & VanDaalen, 2016).

## **Temporal Context**

The Developmental Model of the Closet is derived from research concerning the ways in which current social conditions (e.g., laws, societal attitudes, LGBTQ visibility) shape sexual minorities' internal and environmental experiences. However, not only are social conditions for sexual minorities highly variable across geography and cultural context as discussed previously, but such factors are also not static over time. In fact, within many contexts, the legal rights and public support for sexual minorities are rapidly changing (Earnshaw et al., 2022; Russell & Fish, 2019). Likewise the tenets of the Developmental Model of the Closet are likely moderated by the temporally distinct context in which sexual minorities live. Most obviously, the predictions of the present model are only applicable in future contexts within which sexual minorities remain a distinct and structurally stigmatized social group. Also, specific societal advances may serve as facilitators to coming out or otherwise attenuate certain predictions of the model. For example, changes in LGBTQ media representations and general technological advances are likely to render individuals less dependent upon their immediate surroundings to experience identity-related affirmation. For example, compared to previous generations, current US adolescents are more likely to encounter positive representations of LGBTQ individuals within the news, social, media, and TV (Craig & McInroy, 2014; Russell & Fish, 2019). If such representations become increasingly common and more uniformly positive, they may more effectively compensate for the negative messages of sexual minority stigma suggested to be a defining feature of the pre-closet stage. Relatedly, one tenet of the Developmental Model of the Closet is that the closet is harmful, in part, because it limits individuals' access to identity-affirming information and similar others. However, the global proliferation of Internet access and online resources (Baller et al., 2016) has provided many sexual minority individuals with a previously unavailable means to privately (a) access accurate and affirming information about LGBTQ life, (b) encounter a diverse array of LGBTQ role models online, and (c) connect with virtual LGBTO communities to cope with stigma and foster a positive sexual minority identity (Craig & McInroy, 2014; Jackson, 2017). Such outlets may increasingly empower sexual minority individuals within the closet who historically may have been dependent upon coming out to access information and people demonstrating the existence, history, worth, and diversity of the LGBTQ community. Overall, future researchers of the closet must consider, at the time of study, which of the model's constructs and conceptualizations reflect the current lived experiences of sexual minority populations—qualifying those that are waning and discarding those that no longer apply (Hammack et al., 2022).

### Post-closet Growth

Just as negative post-closet disclosure conditions can encourage the persistence of negative closet-related adaptations into post-closet life, the Developmental Model of the Closet proposes that under positive disclosure conditions, the postcloset period can represent a marked departure from the closet stage and usher in a period of growth even if some of the negative closet-related adaptations persist in some form. In addition to generally supportive structural conditions, positive post-closet disclosure conditions might include family and non-school peer supports, which can yield positive post-closet experiences even in the presence of school-based rejection upon disclosure, given the relative importance and pervasiveness of these relationships (e.g., East & Rook, 1992). Further, integrating one's sexual identity into other marginalized aspects of identity can serve as an identityaffirming buffer against the stress of open identification in post-closet life (Cerezo et al., 2020; Rahman & Valliani, 2016; Sarno et al., 2015) and can perhaps set one on a path of post-closet growth.

Research suggests that post-closet growth might allow the learned adaptations of the closet to actually flourish under supportive post-closet conditions. In fact, the flip side of many of the negative closet adaptations reviewed above are in fact positively adaptive. For instance, the social sensitivity inherent to hypervigilance can serve as a source of interpersonal attunement—a valued trait (e.g., DeWall et al., 2009; Maner et al., 2007)—whereas belongingness threats and social isolation can foster adaptive independence, another positive adaptation. Interestingly, social sensitivity and independence are the very traits that characterize the occupations in which sexual minorities are over-represented in national studies (e.g., psychologists, a profession rated as requiring social sensitivity; mechanics, a profession rated as requiring high independence; Tilcsik et al., 2015), even after accounting for the gender typicality of various occupations. Even beyond the workplace, social sensitivity and independence might represent highly adaptive traits in close relationships, creative pursuits, spirituality, and social activism. Research and theory on "altruism born of suffering" suggests that the pursuit of empathy, social integration, and meaning-making might motivate prosocial outcomes among unduly stressed populations (Staub & Vollhardt, 2008; Vollhardt, 2009).



These motivations are also consistent with the individual (e.g., authenticity) and collective (e.g., improved relationships) aspects of closet-related growth identified in a community sample of gay and lesbian adults (Vaughan & Rodriguez, 2014; Vaughan & Waehler, 2010) and merit further research as possible sources of adaptive post-closet manifestations of the coping strategies learned in the closet (e.g., hypervigilance). Rather than being a burden on mental health, such coping strategies, when allowed to flourish under supportive post-closet conditions, could instead be characterized as resilient assets.

# Persistence of Closet-Related Adaptations Versus Post-closet Growth

We propose that the degree of influence that the post-closet disclosure environment has on how likely stressful closetrelated adaptations might be to persist versus how strongly post-closet growth occurs depends on the nature and degree of exposure to that environment. Here we borrow from learning theory (e.g., Bouton, 1993; Bouton et al., 2001) and the notion of corrective emotional experiences (Miller et al., 1947) to posit that the post-closet period is a time of new learning not possible in the closet and that the strength of this new learning depends on the pervasiveness of exposure to post-closet disclosure environments and their emotional context. For instance, one critical feature of the post-closet disclosure environment is the person or people to whom one discloses. Disclosing to a close friend, parent, teacher, or spouse, for instance, will likely provide a more powerful learning experience than disclosing to an anonymous sex partner, anonymous online contacts, or an online research survey. One reason for the greater power of this former type of disclosure context is that these relationships are more pervasive, allowing numerous opportunities for experiencing oneself as an out person on a repeated basis in the presence of an other. They are also more powerful because they are emotionally important—a close friend, parent, teacher, or spouse represents a relationship often built over a substantial duration of time and how that person reacts has substantial potential to confirm or override adaptations learned in the closet. In learning theory terms, these relationships provide more trials for new learning in more emotionally salient contexts. A positive disclosure response from a meaningful person in one's life can provide a corrective emotional experience, fostering post-closet growth; a negative disclosure response is likely to encourage the persistence of negative closet-related adaptations, including hypervigilance, preoccupation, compartmentalization, and contingent self-worth. Receiving a positive disclosure response from important others is also likely to encourage future disclosure and the accumulation of new learning. Conversely, receiving a negative disclosure response from important others is likely to reduce future disclosures (Chaudoir & Fisher, 2010). The likelihood of persistence in, versus growth away from, negative closet-related adaptations is argued to be a function of the net positive versus negative reactions from others in combination with the importance of those relationships. Even though a first disclosure is a singular, one-time event that ushers in the end of the closet period, lessons learned from this event about one's newly out self can lead to proliferating future disclosures or dampen the likelihood of subsequent disclosures. The total impact of this initial disclosure on post-closet stress versus growth therefore rests on its potential to generate or prevent future disclosures that are characterized by their own emotional valences and impacts.

Overall, the Developmental Model of the Closet suggests two hypotheses regarding the post-closet period. The first hypothesis is that the negative adaptations of the closet continue to pose mental health challenges even upon coming out, especially under negative post-closet environmental conditions (Hypothesis 9; Table 1). The second is that supportive post-closet conditions, including structural, interpersonal, and cultural conditions, allow negative closet-related adaptations to transform into sources of flourishing rather than persistent drains on mental health (Hypothesis 10; Table 1).

# Personal Moderators of the Closet: Sexual Identity Fluidity and Centrality

Rather than proposing that the closet represents a singular experience that similarly characterizes all sexual minorities, the Developmental Model of the Closet recognizes that the experience of the closet is likely moderated by personal factors, including sexual identity fluidity and centrality. These personal moderators apply to all periods of the model and complement the structural, interpersonal, cultural, and temporal moderators of the post-closet experience reviewed above.

Sexual minority identities are diverse, both in terms of their relative fluidity over time (Diamond, 2016) and their centrality to the individual (Dyar et al., 2015). Even among individuals who experience high sexual identity fluidity or low sexual identity centrality over time, for most people who come to identify as sexual minorities, there is at least one period in which they—and only they—know of their sexual minority status. That said, like any conceptual model based on identity awareness and disclosure, the Developmental Model of the Closet proposed here is likely moderated by this diversity of identity experiences. In particular, we propose that the predictions of the model are somewhat attenuated for those who do not currently possess a sexual minority identity (even if they previously did) and for those whose sexual minority identities are not central to their self-concept. For instance, individuals without a sexual minority identity (e.g., someone who, despite engaging in same-gender sexual



behavior, identifies comfortably as heterosexual) are less likely to internalize a negative sense of difference as selfapplicable; these individuals are also less likely to experience belongingness threats or the toll of secrecy based on a sexual minority identity. However, if and when the individual moves toward a sexual minority identity, the closet-related experiences predicted by the model are expected to become relevant at the point of self-identification. Conversely, if the individual moves away from a sexual minority identity, the closet-related experiences are expected to attenuate. Because the model is focused on identity, it does not make predictions about a person's experience of the closet based on their sexual attractions or behaviors. Overall, compared to those who persist in a sexual minority identity across the life course, those who fluidly move into and out of a sexual minority identity are expected to only experience the workings of the closet to the extent that the closet is an experience that can be interpreted through the lens of their current identity (Klein et al., 2015; McLean, 2007).

Further, sexual identity fluidity entails not only movement into and out of a sexual minority identity but also movement across various sexual minority identities (e.g., gay/lesbian to/from bisexual). Although the prevalence of such fluidity varies widely across studies, in general, sexual identities are stable for most sexual minority individuals with no particularly predominant pattern of movement from one particular sexual minority identity to another (Campbell et al., 2021; Diamond, 2003; Ott et al., 2011; Rosario et al., 2006; Savin-Williams et al., 2012). Because all sexual minority identities can be associated with stigma, even if the exact type of stigma varies depending on the identity, the general predictions of the Developmental Model of the Closet are argued to apply regardless of sexual minority identity and movement across sexual minority identities, although this postulation awaits further empirical study.

Similarly, the predictions of the model are expected to be strongest for those whose sexual minority identities are most central to their overall self-concept. That is, to the extent that individuals experience their sexual identity as particularly self-definitional (Dyar et al., 2015), pre-closet socialization is expected to be particularly salient and the impact and persistence of closet-related coping is likely strengthened. This tenet is partially supported by research on individuals who hold a concealable stigmatized identity, which finds those with more central identities report more stigma-related psychosocial experiences, such as internalized stigma (Overstreet et al., 2017) and anticipated stigma (Quinn et al., 2014). This moderation by identity centrality is likely to apply to most or all of the threats and stressors covered by the Developmental Model of the Closet. For example, it is easy to imagine that the effort and burden associated with keeping one's sexual orientation a secret would be more intense and heavier among those whose sexual identity is central to their self-concept.

Overall, the model suggests that the degree to which an individual experiences the model's predictions (e.g., internalized cultural ideologies during the pre-closet, closet-related adaptations, and persistent closet-related adaptations versus post-closet growth) is contingent on their endorsement of a sexual minority identity and the centrality of this identity during each of the model's periods (Hypothesis 11; Table 1).

# Implications of the Model for Future Research

Although the model presented here emerges from substantial research supporting many of its components, some of its exact predictions are speculative. These predictions are presented as testable hypotheses for future research in Table 1. Here we present several research directions capable of testing these hypotheses, organized in terms of the three periods proposed by the model, the model's proposed moderators, and the possibility that interventions can reduce the closet's duration, stressors, and required adaptations.

### **Future Research on the Pre-closet**

Future research is needed to verify the role of structural stigma during the pre-closet period as hypothesized by the model. Existing research shows that, for sexual minority adult men, structural stigma is associated with the internalization of negative cultural ideologies toward sexual minorities (Pachankis et al., 2021), which partly explains the association between structural stigma and depression and suicidality. Yet whether that association takes hold early in development, during the pre-closet stage as proposed in the model, and across all genders remains unknown (Hypotheses 1 and 2; Table 1). Also unknown is how an early sense of difference interacts with structural stigma to predict the mental health and social functioning of sexual minorities in the pre-closet and whether this interaction determines if, when, and how one comes out (Hypotheses 3 and 4; Table 1). The new availability of large datasets spanning structurally diverse contexts that include a fuller spectrum of sexual minority individuals and experiences (e.g., developmental milestones) represents a promising opportunity to test the pre-closet hypotheses proposed by the Developmental Model of the Closet (Table 1).

## **Future Research on the Closet**

The Developmental Model of the Closet hypothesizes the importance of the developmental timing of the closet, such that adolescence is a particularly stressful period during which to develop an emerging awareness of one's socially



devalued sexual minority identity (Hypothesis 5; Table 1). Although existing research supports the fact that adolescence is a sensitive period during which stigma may have pronounced effects on sexual minority mental health (Earnshaw et al., 2022; Russell & Fish, 2019), whether sexual minorities, or those who will later identify as sexual minorities, are particularly impacted by complete identity non-disclosure during adolescence, versus say middle adulthood, awaits future research. An additional important question for future research is whether the increasingly earlier disclosure occurring for more recent cohorts of sexual minorities is associated with mental health protection (through shrinking the duration and impact of the closet) or risk (through increasing the risks and challenges of open identification during a relatively developmentally immature period; Russell & Fish, 2019).

Future research is also needed to confirm that the stress of the early closet, because of its timing during a sensitive developmental stage, produces adaptations that can persist even after coming out. Current research has suggested that achievement-contingent self-worth is one such potential persistent adaptation (Pachankis & Hatzenbuehler, 2013), with potential negative effects on mental health and social functioning. Future extensions will ideally seek to confirm other hypothesized coping adaptations (e.g., hypervigilance, rumination, compartmentalization) that might be both a function of the closet and that, because of their emergence during a developmentally sensitive stage, might persist over the lifespan to undermine mental health (Hypothesis 6; Table 1). Whether and how these stressors might differ for sexual minorities for whom the closet only begins after adolescence (e.g., in early adulthood) also remains to be investigated. This research is methodologically challenging because it calls for prospective longitudinal studies of sexual minorities as well as population-based sampling given the need for accurate knowledge about diverse sexual minorities, including those who are not out. However, such research opportunities have recently begun to emerge (e.g., Hammack et al., 2018; Pachankis et al., 2015a).

The Developmental Model of the Closet proposes that the closet reduces opportunities for the role modeling necessary for disclosure-related decisions and social support helpful for combatting identity-related stressors. In addition to concerns about stigma from majority group members, emerging research suggests that the extent that a sexual minority individual in the closet perceives stressors from within the LGBTQ community might also make one unlikely to come out. For instance, recent research has found that these types of stressors might manifest, at least within the gay male community, as perceptions that they gay male community is overly focused on sex, status, competition, and exclusion of racial/ethnic minorities and older people (Burton et al., 2020; Pachankis et al., 2020a; Soulliard et al., 2022). However, the possibility that perceptions of these stressors drives

concealment has not been empirically studied, nor has the existence of this phenomenon across diverse sexual and gender identities. Future research that ascertains samples of sexual minorities in the closet—a design that is increasingly available (e.g., Pachankis et al., 2015a; van der Star et al., 2019)—can include measures of social support, perceptions of LGBTQ community stress, and other potential determinants of disclosure to begin testing these hypotheses (Hypotheses 7 and 8; Table 1).

# **Future Research on the Post-closet**

A key juncture in the Developmental Model of the Closet is the distinction between lifespan-persistent adaptations of the closet across post-closet life versus the potential for postcloset growth. Future research is needed to determine the factors that put individuals on these distinct tracks. For instance, future research might examine whether low-structural stigma environments, briefer durations within the closet, and positive disclosure reactions encourage greater resilience after the closet. Our model clearly outlines, and existing research largely supports, the central role of structural stigma in predicting the existence of the closet, that the model suggests operates through internalized cultural ideologies. However, whether structural support determines if a sexual minority individual transforms the challenges of the closet into post-closet resources (e.g., independence, social sensitivity, meaning making) awaits future research. Similarly, research has documented the negative impact of others' negative disclosure reactions on outcomes such as substance use and mental health (Rosario et al., 2009, 2014); yet whether and how others' reactions can shape the likelihood of persistent closet-related adaptations versus post-closet growth remains unknown (Hypotheses 9 and 10; Table 1).

# Future Research on Personal Moderators of the Model

The Developmental Model of the Closet proposes that sexual identity fluidity and sexual identity centrality serve as personal moderators of the model and its predictions. However, at present, despite research establishing the general importance of these factors to the sexual minority experience (e.g., Diamond, 2016; Dyar et al., 2015), the best available research supporting their moderating role on the model's components comes from research on concealable stigmatized identities more broadly (e.g., Overstreet et al., 2017; Quinn et al., 2014). Therefore, future research is needed to test the model's predictions that the stressors and adaptations of the closet are strongest for those with a currently endorsed and central sexual minority identity (Hypothesis 11; Table 1). Such research could utilize surveys administered to population-based



samples administered to examine current identity endorsement and centrality as predictors of, for example, early internalization of stigma, belongingness threats, lack of role models, victimization, closet-related adaptations to these stressors, and the persistence of, versus growth from, these experiences upon identity disclosure. This research could proceed immediately by incorporating established measurements of these hypothesized moderators (Mohr & Kendra, 2011) into existing population-based cohort studies to test their role in the model's predictions.

Future research on personal moderators might also pay particular attention to bisexuality as a moderator, given its association with sexual identity centrality and fluidity. Specifically, because bisexual individuals, on average, report that their sexual identity is less central to their overall self-concept than monosexual individuals (e.g., gay men, lesbian women; Dyar et al., 2015; Feinstein et al., 2021) and because bisexual individuals might be particularly likely to experience identity fluidity (Diamond, 2008; Dyar & London, 2018), the predictions of the model might be somewhat attenuated for bisexual, compared to monosexual, individuals. At the same time, bisexual individuals have been shown to experience distinct closet-related stressors and adaptations (Davila et al., 2021; Dyar & London, 2018; Feinstein et al., 2021). For instance, bisexual individuals in monogamous, heterosexual relationships might face particularly strong challenges to identifying, and being identified by, supportive others (Schrimshaw et al., 2013). Because they are assumed to be heterosexual, bisexual individuals in heterosexual relationships might continue to experience certain persistent adaptations learned in the closet, even if they have come out. Overall, to the extent that bisexuality is associated with identity centrality and fluidity, the predictions of the model would be moderated accordingly as reviewed above.

Future research is also needed to understand the experience of individuals who endorse a "questioning" sexual identity label (e.g., Price-Feeney et al., 2021), which might indicate not yet having adopted a formal sexual minority label but being on the cusp of doing so and therefore moving into the closet period. At the same time, little is known about the characteristics and identity development of those who adopt a questioning label other than that youth who do so might be younger, more likely to identify as a person of color, and more likely to be gender nonbinary or transgender compared to other sexual minority youth (Price-Feeney et al., 2021). Future research is specifically needed to identify the point at which a questioning identity might fall along an individuals' identity trajectory, for example whether it necessarily represents a temporary identity that occurs before a more formal identity or whether it might typically represent an endpoint in itself. This research can then help locate the relationship between a questioning identity and the closet periods. For instance,

adopting a questioning label might necessarily indicate that one has moved into the closet period given that endorsing a questioning identity might simultaneously indicate a nonheterosexual identity. Alternately, someone who endorses a questioning identity might not yet identify as non-heterosexual or a sexual minority, which would mean that the psychological stressors and adaptations of the closet do not apply, or at least not fully. As noted by early stage models of sexual orientation identity (Cass, 1996; Coleman, 1982; Morris, 1997; Troiden, 1989), questioning one's identity represents a characteristic experience toward forming a sexual minority identity, yet empirical research has not adequately studied the experience and closet-related implications of a questioning identity.

Future research is needed to confirm how one's sociocultural context might moderate their experience of the periods presented within this framework. Although structural stigma is a key feature of the pre-closet stage, the structural conditions for sexual minorities vary substantially by country (Pachankis & Bränström, 2019; Pachankis et al., 2015b, 2021), which could meaningfully intensify or attenuate the duration of and risks associated with the pre-closet period (e.g., early internalization of stigma). Future research is also needed because many of the predictions presented within the model rest largely on research derived from Western perspectives on sexual identity and Western samples. At the same time, accumulating research across several non-US contexts suggests that sexual minority individuals in these contexts experience the closet and that aspects of culture inform that experience (e.g., Sun et al., 2021). In fact, because the Developmental Model of the Closet conceptualizes the closet as a central, nuanced, and not necessarily brief feature of sexual minority liferather than a fleeting hurdle of adolescent sexual minority development—it may be especially resonant with sexual minorities within global settings that contain large proportions of closeted sexual minorities across the lifespan (e.g., Central Asia, Eastern Europe, Middle East and North Africa; Pachankis & Bränström, 2019).

Finally, research is needed to understand the impact of the temporally evolving sociocultural context affecting sexual minorities on closet-related phenomena. Empirical evidence relies mostly on cross-sectional or short-term (e.g., several years) longitudinal designs to suggest that the sociocultural context impacts the nature, course, and impact of the closet. However, age-period-cohort designs are needed to understand the longer-term impact of such changes on these closet-related outcomes and their interactions with developmental age. Such research could answer, for example, whether sociocultural changes (e.g., improved policy climates for sexual minorities) interact with the developmental age at which those changes occur to impact closet-related outcomes. For instance: Does a



closeted adolescent living in a context of improved structural support experience a greater mental and social benefit than a closeted older adult who experience those same improvements and do the mental and social effects of these improvements persist equally or differently depending on one's age at the time of those improvements? Such research would also need to consider the changing and diversifying nature of sexuality and gender that has characterized each successive generation of sexual minorities (e.g., Hammack et al., 2022).

# Future Research on Interventions to Reduce the Stressors and Required Adaptations of the Closet

According to the Development Model of the Closet, a reduction in structural stigma would be the strongest antidote to the closet's duration and impact. Quasi-experiments in the US provide compelling evidence that reductions in structural stigma prospectively predict improvements in mental health (Raifman et al., 2017). While similar quasi-experimental evidence does not exist for mechanisms underlying this change, such as reductions in the closet, cross-sectional evidence shows an association between structural stigma and both the length of the closet (Layland, Bränström et al., 2022) and sexual orientation concealment motivations more generally (e.g., Lattanner et al., 2021; Pachankis & Bränström, 2018; Pachankis et al., 2021). This existing research suggests that structural improvements might improve mental health through reducing the adaptations required by the closet and its duration (Hypothesis 12; Table 1). Structural stigma can be reduced in several ways, such as extending equal rights, including same-sex relationship recognition. Other strategies include designing effective interventions to improve community attitudes towards sexual minorities (Broockman & Kalla, 2016; Herek & Capitanio, 1996; Tankard & Paluck, 2017). Future research is needed to determine the relative impact of these structural changes on the demands and duration of the closet.

Research is also needed to explore the hypothesis that school, family, community, and individual interventions might reduce the closet's duration, stressors, and required adaptations (Hypothesis 13; Table 1). Although research suggests a robust association between school-based interventions, such as gender-sexualities alliances, and sexual minority youth mental health Poteat et al., 2015), whether school-based supports are associated with reduced internalized heterosexist ideologies, shorter duration of the closet, or reduced closet-related stressor and adaptations, remains unknown. Similarly, interventions that help families support their children can also potentially attenuate the effects of structural stigma on pre-closet internalization of biased cultural ideologies and reduce the stressors characterizing

the closet (Abreu et al., 2020; Parker et al., 2018). Future studies of such family interventions can seek to identify families whose children might be experiencing pre-closet stressors, for example those whose children exhibit gender nonconforming behavior, to provide guidance for communicating support. Such interventions might be particularly important in high-structural stigma environments where vicarious or direct victimization outside of the family might be common. Family interventions can also prepare parents to communicate support upon the child's disclosure of a sexual minority identity, given the importance of parental reactions to ongoing well-being (Clark et al., 2021; Pachankis et al., 2018; Rosario et al., 2009). Interventions such as attachmentbased family therapy show preliminary support for facilitating improvements in parent-child communication and child mental health after coming out (Diamond et al., 2012).

The Developmental Model of the Closet also hypothesizes that empowering sexual minority communities might be a promising route for reducing the duration, stressors, and adaptations of the closet, given that sexual minorities report a lower sense of community belonging than heterosexuals (Pakula & Shoveller, 2013). Building healthy online communities seems to be a particularly urgent priority given the move of sexual minority communities from brick-andmortar to online spaces (Halperin, 2012; Wohlfeiler, 2011). Inter-generational role modeling and mentoring also remains an under-utilized source of community empowerment for sexual minorities, and one that can further reduce the closet by promulgating healthy models for navigating the unique, sometimes challenging, features of out sexual minority life, including disclosure decisions (Bohan et al., 2002). To the extent that sexual minority communities can find creative ways to continue showcasing visible, empowered forms of out life (Herrick et al., 2014), they will present a healthy model of community thriving to subsequent generations of sexual minorities who might be looking to community norms when weighing whether or not to come out and looking to community supports throughout the coming out process.

Finally, psychosocial interventions can theoretically reduce the stressors of the closet, (e.g., belongingness threats, lack of role models, victimization) and adaptations learned in the closet (e.g., hypervigilance, rumination, compartmentalization, contingent self-worth) by teaching coping skills for reducing the impact of these stressors and more positive adaptations. In fact, recent clinical trials have shown that cognitive-behavioral interventions and expressive writing interventions that seek to help sexual minority young adults address these closet-related stressors and adaptations can improve mental health and social functioning (Jackson et al., 2022; Pachankis et al., 2015c; Pachankis et al., 2020d; Pachankis et al., 2022). Preliminary evidence suggests that these interventions might work by improving stress coping (Chaudoir et al., 2021) and emotion regulation (Pachankis



et al., 2020c), decreasing rumination (Pachankis et al., 2020c), and facilitating disclosure (Pachankis & Goldfried, 2010). Other evidence suggests that these interventions might be particularly effective for those who hold more negative internalized views about being a sexual minority (Millar et al., 2016). Interventions that can be delivered at low cost and through highly accessible means, such as online and through chat (e.g., Gilbey et al., 2020; Steinke et al., 2017), can circumvent the numerous barriers that the closet might pose to seeking support, including worries about confidentiality, relying on parents or third-party payers for mental health care related to closet-related stressors, and psychological or physical distance from the LGBTQ community. Research is needed to determine whether such interventions can reduce the duration of the closet and effectively place sexual minorities on a post-closet trajectory of growth.

# **Summary**

The Developmental Model of the Closet positions the closet as distinct from the more general experience of identity concealment and a central and stressful experience in the lives of many sexual minorities. Starting early in life, structural stigma sensitizes all individuals to heterosexist cultural ideologies about sexual minority life that, for those who eventually identify as sexual minorities, might determine the duration and psychological impact of the closet. The model suggests that the closet's psychological impact is particularly deep because of its typical occurrence at a developmentally sensitive period for social stress and identity formation. These impacts, initially adaptive in the face of closet-related stressors, might persist even when no longer adaptive in post-closet life. Whether post-closet life is characterized by stressful adaptations or can instead usher in a period of new learning and growth is hypothesized to be a function of the postcloset disclosure environment, including structural stigma, others' reactions, the cultural context of one's disclosure, and the ever-changing sociocultural climate surrounding sexual minorities. Diversity in identity fluidity and identity centrality are assumed to shape the experience of the closet. The goal of the Developmental Model of the Closet is to center the sexual minority closet as a focus of future psychological research and position it as one of the important sources of stress and growth within society and across the sexual minority lifespan.

Acknowledgements We would like to thank Kirsty Clark, Mark Hatzenbuehler, Danya Keene, Eric Layland, Anthony Maiolatesi, and Katie Wang for helpful feedback on an earlier version of this manuscript. We would also like to thank Benjamin Eisenstadt, Benjamin Fetzner, and Jared Shelby for technical assistance with manuscript preparation.

**Funding** Preparation of the manuscript was funded in part by the David R. Kessler, MD '55 Fund for LGBTQ Mental Health Research at Yale. Skyler D. Jackson was also supported by a career development award from the National Institute of Mental Health (K01MH122316-01A1). The content contained herein is the authors' own and does not necessarily represent the viewpoint of the funders.

### **Declarations**

Conflict of interest The authors have not disclosed any conflict of interest

**Ethical Approval** This paper is not empirical research and did not involve human subjects.

## References

- Abreu, R. L., Riggle, E. D., & Rostosky, S. S. (2020). Expressive writing intervention with Cuban-American and Puerto Rican parents of LGBTQ individuals. *The Counseling Psychologist*, 48(1), 106–134. https://doi.org/10.1177/0011000019853240
- Almeida, J., Johnson, R. M., Corliss, H. L., Molnar, B. E., & Azrael, D. (2009). Emotional distress among LGBT youth: The influence of perceived discrimination based on sexual orientation. *Journal of Youth and Adolescence*, 38(7), 1001–1014. https://doi.org/10.1007/s10964-009-9397-9
- Ambady, N., Shih, M., Kim, A., & Pittinsky, T. L. (2001). Stereotype susceptibility in children: Effects of identity activation on quantitative performance. *Psychological Science*, 12(5), 385–390. https://doi.org/10.1111/1467-9280.00371
- Andersen, S. L., & Teicher, M. H. (2008). Stress, sensitive periods and maturational events in adolescent depression. *Trends in Neurosciences*, 31(4), 183–191. https://doi.org/10.1016/j.tins. 2008.01.004
- Baller, S., Dutta, S., & Lanvin, B. (2016). *Global information technology report 2016*. Ouranos.
- Balsam, K. F., Beadnell, B., & Molina, Y. (2013). The daily heterosexist experiences questionnaire: Measuring minority stress among lesbian, gay, bisexual, and transgender adults. *Measurement and Evaluation in Counseling and Development*, 46(1), 3–25. https://doi.org/10.1177/0748175612449743
- Baum, S. M., & Critcher, C. R. (2020). The costs of not disclosing. *Current Opinion in Psychology, 31*, 72–75. https://doi.org/10.1016/j.copsyc.2019.08.012
- Beals, K. P., Peplau, L. A., & Gable, S. L. (2009). Stigma management and well-being: The role of perceived social support, emotional processing, and suppression. *Personality and Social Psychology Bulletin*, 35(7), 867–879. https://doi.org/10.1177/0146167209334783
- Bell, A. P., & Weinberg, M. S. (1978). Homosexualities: A study of diversity among men and women. Simon and Schuster.
- Bell, J. G., & Perry, B. (2015). Outside looking in: The community impacts of anti-lesbian, gay, and bisexual hate crime. *Journal of Homosexuality*, 62(1), 98–120. https://doi.org/10.1080/00918 369.2014.957133
- Bird, J. D. P., Kuhns, L., & Garofalo, R. (2011). The impact of role models on health outcomes for lesbian, gay, bisexual and transgender youth. *Journal of Adolescent Health*, 50(4), 353–357.
- Bishop, M. D., Fish, J. N., Hammack, P. L., & Russell, S. T. (2020). Sexual identity development milestones in three generations of sexual minority people: A national probability sample. *Developmental*



- Psychology, 56(11), 2177–2193. https://doi.org/10.1037/dev00
- Bohan, J. S., Russell, G. M., & Montgomery, S. (2002). Gay youth and gay adults: Bridging the generation gap. *Journal of Homosexuality*, 44, 15–41. https://doi.org/10.1300/J082v44n01\_02
- Bos, H. M. W., Sandfort, T. G. M., de Bruyn, E. H., & Hakvoort, E. M. (2008). Same-sex attraction, social relationships, psychosocial functioning, and school performance in early adolescence. Developmental Psychology, 44, 59–68. https://doi.org/10.1037/0012-1649.44.1.59
- Bouman, T. K. (2003). Intra- and interpersonal consequences of experimentally induced concealment. *Behaviour Research and Therapy*, 41(8), 959–968. https://doi.org/10.1016/S0005-7967(02)00175-4
- Bouton, M. E. (1993). Context, time, and memory retrieval in the interference paradigms of Pavlovian learning. *Psychological Bulletin*, 114(1), 80–99. https://doi.org/10.1037/0033-2909.114.1.80
- Bouton, M. E., Mineka, S., & Barlow, D. H. (2001). A modern learning theory perspective on the etiology of panic disorder. *Psychological Review*, 108(1), 4–32. https://doi.org/10.1037/0033-295X. 108.1.4
- Boxer, A. M., Cook, J. A., & Herdt, G. (1991). Double jeopardy: Identity transitions and parent-child relations among gay and lesbian youth. In K. Pillemer & K. McCartney (Eds.), *Parent-child Relations Throughout Life* (pp. 59–62). Erlbaum.
- Bowleg, L., Burkholder, G., Teti, M., & Craig, M. L. (2008). The complexities of outness: Psychosocial predictors of coming out to others among Black lesbian and bisexual women. *Journal of LGBT Health Research*, 4(4), 153–166. https://doi.org/10.1080/15574 090903167422
- Bränström, R., Hatzenbuehler, M. L., Tinghög, P., & Pachankis, J. E. (2018). Sexual orientation differences in outpatient psychiatric treatment and antidepressant usage: Evidence from a population-based study of siblings. *European Journal of Epidemiology*, 33(6), 591–599. https://doi.org/10.1007/s10654-018-0411-y
- Broockman, D., & Kalla, J. (2016). Durably reducing transphobia: A field experiment on door-to-door canvassing. *Science*, 352, 220– 224. https://doi.org/10.1126/science.aad9713
- Burton, C. L., Clark, K. A., & Pachankis, J. E. (2020). Risk from within: Intraminority gay community stress and sexual risk-taking among sexual minority men. *Annals of Behavioral Medicine*, 54(9), 703–712.
- 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(6), 1658–1673. https://doi.org/10.1037/a0025508
- Camacho, G., Reinka, M. A., & Quinn, D. M. (2020). Disclosure and concealment of stigmatized identities. *Current Opinion in Psychology*, 31, 28–32. https://doi.org/10.1016/j.copsyc.2019.07.031
- Campbell, A., Perales, F., & Baxter, J. (2021). Changes in sexual identity labels in a contemporary cohort of emerging adult women: Patterns, prevalence and a typology. *The Journal of Sex Research*, 58(5), 612–624. https://doi.org/10.1080/00224499.2020.1814092
- Cass, V. (1979). Homosexual identity formation: A theoretical model. *Journal of Homosexuality*, 4(3), 219–235. https://doi.org/10.1300/J082v04n03\_01
- Cass, V. (1996). Sexual orientation identity formation: A western phenomenon. In R. P. Cabaj & T. S. Sten (Eds.), *Textbook of homosexuality and mental health* (pp. 227–251). American Psychiatric Press.
- Cerezo, A., Cummings, M., Holmes, M., & Williams, C. (2020). Identity as resistance: Identity formation at the intersection of race, gender identity, and sexual orientation. *Psychology of Women Quarterly*, 44(1), 67–83. https://doi.org/10.1177/0361684319875977
- Charmandari, E., Kino, T., Souvatzoglou, E., & Chrousos, G. P. (2003).

  Pediatric stress: Hormonal mediators and human development.

- Hormone Research, 59, 161–179. https://doi.org/10.1159/00006 9325
- Chaudoir, S. R., Behari, K., Williams, S. L., & Pachankis, J. E. (2021). Why do brief online writing interventions improve health? Examining mediators of expressive writing and self-affirmation intervention efficacy among sexual minority emerging adults. *Psychology of Sexual Orientation and Gender Diversity*.
- Chaudoir, S. R., & Fisher, J. D. (2010). The disclosure processes model: Understanding disclosure decision making and post-disclosure outcomes among people living with a concealable stigmatized identity. *Psychological Bulletin*, 136(2), 236–256. https://doi.org/ 10.1037/a0018193
- Clark, K. A., Dougherty, L. R., & Pachankis, J. E. (2021). A study of parents of sexual and gender minority children: Linking parental reactions with child mental health. *Psychology of Sexual Orienta*tion and Gender Diversity. https://doi.org/10.1037/sgd0000456
- Clark, K. A., Mennies, R. J., Olino, T. M., Dougherty, L. R., & Pachankis, J. E. (2020). Parent versus child report of children's sexual orientation: Associations with psychiatric morbidity in the Adolescent Brain Cognitive Development study. *Annals of Epidemiology*, 45, 1–4. https://doi.org/10.1016/j.annepidem. 2020.03.009
- Cochran, S. D. (2001). Emerging issues in research on lesbians' and gay men's mental health: Does sexual orientation really matter? *American Psychologist*, *56*(11), 931–947. https://doi.org/10.1037/0003-066X.56.11.931
- Cohen, K. M. (2002). Relationships among childhood sex-atypical behavior, spatial ability, handedness, and sexual orientation in men. Archives of Sexual Behavior, 31(1), 129–143. https://doi. org/10.1023/A:1014043504661
- Coleman, E. (1982). Developmental stages of the coming out process. *Journal of Homosexuality*, 7(2–3), 31–43. https://doi.org/10. 1300/J082v07n02\_06
- Cox, W. T. L., Abramson, L. Y., Devine, P. G., & Hollon, S. D. (2012). Stereotypes, prejudice, and depression: The integrated perspective. *Perspectives on Psychological Science*, 7(5), 427–449. https://doi.org/10.1177/1745691612455204
- Craig, S. L., & McInroy, L. (2014). You can form a part of yourself online: The influence of new media on identity development and coming out for LGBTQ youth. *Journal of Gay & Lesbian Mental Health*, 18(1), 95–109.
- Critcher, C. R., & Ferguson, M. J. (2014). The cost of keeping it hidden: Decomposing concealment reveals what makes it depleting. *Journal of Experimental Psychology: General*, 143(2), 721–735. https://doi.org/10.1037/a0033468
- Crocker, J., Luhtanen, R. K., Cooper, M. L., & Bouvrette, A. (2003).
  Contingencies of self-worth in college students: Theory and measurement. *Journal of Personality and Social Psychology*, 85(5), 894–908. https://doi.org/10.1037/0022-3514.85.5.894
- Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. Psychological Review, 108(3), 593–623. https://doi.org/10.1037/0033-295X.108.3.593
- D'Augelli, A. R., Grossman, A. H., & Starks, M. T. (2008). Families of gay, lesbian, and bisexual youth: What do parents and siblings know and how do they react? *Journal of GLBT Family Studies*, 4(1), 95–115. https://doi.org/10.1080/15504280802084506
- Davila, J., Feinstein, B. A., Dyar, C., & Jabbour, J. (2021). How, when, and why do bisexual+ individuals attempt to make their identity visible? *Psychology of Sexual Orientation and Gender Diversity*, 8(1), 94–105. https://doi.org/10.1037/sgd0000411
- DeWall, C. N., Maner, J. K., & Rouby, D. A. (2009). Social exclusion and early-stage interpersonal perception: Selective attention to signs of acceptance. *Journal of Personality and Social Psychol*ogy, 96(4), 729–741. https://doi.org/10.1037/a0014634
- Diamond, G. M., Diamond, G. S., Levy, S., Closs, C., Ladipo, T., & Siqueland, L. (2012). Attachment-based family therapy for



- suicidal lesbian, gay, and bisexual adolescents: A treatment development study and open trial with preliminary findings. *Psychotherapy: Theory, Research, & Practice, 49*(1), 62–71. https://doi.org/10.1037/a0026247
- Diamond, L. M. (2002). "Having a girlfriend without knowing it": Intimate friendships among adolescent sexual-minority women. *Journal of Lesbian Studies*, 6(1), 5–16. https://doi.org/10.1300/ J155v06n01\_02
- Diamond, L. M. (2003). Was it a phase? Young women's relinquishment of lesbian/bisexual identities over a 5-year period. *Journal of Personality and Social Psychology*, 84(2), 352–364. https://doi.org/10.1037/0022-3514.84.2.352
- Diamond, L. M. (2008). Female bisexuality from adolescence to adult-hood: Results from a 10-year longitudinal study. *Developmental Psychology*, 44(1), 5–14. https://doi.org/10.1037/0012-1649. 44.1.5
- Diamond, L. M. (2016). Sexual fluidity in male and females. *Current Sexual Health Reports*, 8(4), 249–256. https://doi.org/10.1007/s11930-016-0092-zr
- Dishion, T. J., Capaldi, D., Spracklen, K. M., & Li, F. (1995). Peer ecology of male adolescent drug use. *Development and Psychopathology*, 7(4), 803–824. https://doi.org/10.1017/S0954579400006854
- Dunham, Y., Baron, A. S., & Banaji, M. R. (2008). The development of implicit intergroup cognition. *Trends in Cognitive Sciences*, 12(7), 248–253. https://doi.org/10.1016/j.tics.2008.04.006
- Dyar, C., Feinstein, B. A., & London, B. (2015). Mediators of differences between lesbians and bisexual women in sexual identity and minority stress. *Psychology of Sexual Orientation and Gender Diversity*, 2(1), 43–51. https://doi.org/10.1037/sgd0000090
- Dyar, C., & London, B. (2018). Longitudinal examination of a bisexual-specific minority stress process among bisexual cisgender women. Psychology of Women Quarterly, 42(3), 342–360. https://doi.org/ 10.1177/0361684318768233
- Earnshaw, V. A., Watson, R. J., Eaton, L. A., Brousseau, N. M., Laurenceau, J. P., & Fox, A. B. (2022). Integrating time into stigma and health research. *Nature Reviews Psychology*. https://doi.org/10.1038/s44159-022-00034-2
- East, P. L., & Rook, K. S. (1992). Compensatory patterns of support among children's peer relationships: A test using school friends, nonschool friends, and siblings. *Developmental Psychology*, 28(1), 163–172. https://doi.org/10.1037/0012-1649.28.1.163
- Elsharnouby, E., & Dost-Gözkan, A. (2020). Adolescents' well-being with respect to the patterns of disclosure to and secrecy from parents and the best friend: A person-centered examination. *Journal of Youth and Adolescence*, 49(8), 1687–1701. https://doi.org/10.1007/s10964-020-01246-6
- Erikson, E. H. (1959). *Identity and the life cycle*. WW Norton and Co. Erikson, E. H. (1968). *Identity: Youth and crisis*. W. W. Norton & company.
- Feinstein, B. A., Dyar, C., Milstone, J. S., Jabbour, J., & Davila, J. (2021). Use of different strategies to make one's bisexual+identity visible: Associations with dimensions of identity, minority stress, and health. *Stigma and Health*, 6(2), 184–191. https://doi.org/10.1037/sah0000225
- Ferlatte, O., Hottes, T. S., Trussler, T., & Marchand, R. (2017). Disclosure of sexual orientation by gay and bisexual men in government-administered probability surveys. *LGBT Health*, 4(1), 68–71. https://doi.org/10.1089/lgbt.2016.0037
- Finkenauer, C., Engels, R. C. M. E., & Meeus, W. (2002). Keeping secrets from parents: Advantages and disadvantages of secrecy in adolescence. *Journal of Youth and Adolescence*, 31(2), 123–136. https://doi.org/10.1023/A:1014069926507
- Fishbein, M. J., & Laird, J. D. (1979). Concealment and disclosure: Some effects of information control on the person who controls. *Journal of Experimental Social Psychology*, 15(2), 114–121. https://doi.org/10.1016/0022-1031(79)99023-4

- Flores, A. R., Hatzenbuehler, M. L., & Gates, G. J. (2018). Identifying psychological responses of stigmatized groups to referendums. *Proceedings of the National Academy of Sciences, 115*(15), 3816. https://doi.org/10.1073/pnas.1712897115
- Foucault, M. (1980). Power/knowledge: Selected interviews and other writings, 1972–1977. Vintage.
- Frable, D. E., Blackstone, T., & Scherbaum, C. (1990). Marginal and mindful: Deviants in social interactions. *Journal of Personality and Social Psychology*, *59*(1), 140–149. https://doi.org/10.1037/0022-3514.59.1.140
- Frable, D. E. S., Platt, L., & Hoey, S. (1998). Concealable stigmas and positive self-perceptions: Feeling better around similar others. *Journal of Personality and Social Psychology*, 74(4), 909–922. https://doi.org/10.1037//0022-3514.74.4.909
- Freeman, J. B., Johnson, K. L., Ambady, N., & Rule, N. O. (2010). Sexual orientation perception involves gendered facial cues. *Personality and Social Psychology Bulletin*, 36(10), 1318–1331. https://doi.org/10.1177/0146167210378755
- Friedman, M. S., Marshal, M. P., Guadamuz, T. E., Wei, C., Wong, C. F., Saewyc, E. M., & Stall, R. (2011). A meta-analysis of disparities in childhood sexual abuse, parental physical abuse, and peer victimization among sexual minority and sexual nonminority individuals. *American Journal of Public Health*, 101(8), 1481–1494. https://doi.org/10.2105/AJPH.2009.190009
- Friedman, M. S., Marshal, M. P., Stall, R., Cheong, J., & Wright, E. R. (2008). Gay-related development, early abuse and adult health outcomes among gay males. *AIDS and Behavior*, 12(6), 891–902. https://doi.org/10.1007/s10461-007-9319-3
- Frijns, T., & Finkenauer, C. (2009). Longitudinal associations between keeping a secret and psychosocial adjustment in adolescence. *International Journal of Behavioral Development*, 33(2), 145–154. https://doi.org/10.1177/0165025408098020
- Frijns, T., Finkenauer, C., & Keijsers, L. (2013). Shared secrets versus secrets kept private are linked to better adolescent adjustment. *Journal of Adolescence*, 36(1), 55–64. https://doi.org/10.1016/j.adolescence.2012.09.005
- Frijns, T., Finkenauer, C., Vermulst, A. A., & Engels, R. C. M. E. (2005). Keeping secrets from parents: Longitudinal associations of secrecy in adolescence. *Journal of Youth and Adolescence*, 34(2), 137–148. https://doi.org/10.1007/s10964-005-3212-z
- Gates, G. J. (2011). How many people are lesbian, gay, bisexual and transgender? UCLA: The Williams Institute. https://escholarship. org/uc/item/09h684x2
- Gates, G. J. (2013). LGBT parenting in the United States. UCLA: The Williams Institute. https://escholarship.org/uc/item/9xs6g8xx
- Gates, G. J. (2017). LGBT data collection amid social and demographic shifts of the US LGBT community. American Journal of Public Health, 107(8), 1220–1222. https://doi.org/10.2105/AJPH.2017. 303927
- Gilbey, D., Morgan, H., Lin, A., & Perry, Y. (2020). Effectiveness, acceptability, and feasibility of digital health interventions for LGBTIQ+ young people: Systematic review. *Journal of Medical Internet Research*, 22(12), e20158.
- Goh, J. X., Kort, D. N., Thurston, A. M., Benson, L. R., & Kaiser, C. R. (2019). Does concealing a sexual minority identity prevent exposure to prejudice? *Social Psychological and Personality Science*, 10(8), 1056–1064. https://doi.org/10.1177/1948550619829065
- Gordon, A. R., Conron, K. J., Calzo, J. P., White, M. T., Reisner, S. L., & Austin, S. B. (2018). Gender expression, violence, and bullying victimization: Findings from probability samples of high school students in 4 US school districts. *Journal of School Health*, 88(4), 306–314. https://doi.org/10.1111/josh.12606
- Greenspan, S. B., Griffith, C., & Murtagh, E. F. (2017). LGBTQ youths' school athletic experiences: A 40-year content analysis in nine flagship journals. *Journal of LGBT Issues in Counseling*, 11(3), 190–200.



- Grossman, A., & D'Augelli, A. R. (2004). The socialization of lesbian, gay, and bisexual youth: Celebrity and personally known role models. In E. Kennedy & A. Thornton (Eds.), Leisure, media and visual culture: Representations and contestations (pp. 83–105). LSA Publications.
- Haines, E. L., Deaux, K., & Lofaro, N. (2016). The times they are a-changing ... or are they not? A comparison of gender stereotypes, 1983–2014. Psychology of Women Quarterly, 40(3), 353– 363. https://doi.org/10.1177/0361684316634081
- Hajek, C. (2018). Distinguished... or dissonant: Gay male midlife identity as emergent in intergenerational communication with younger gay men. *Journal of Social and Personal Relationships*, 35(3), 329–347. https://doi.org/10.1177/0265407516689309
- Halperin, D. M. (2012). How to be gay. Belknap Press of Harvard University Press.
- Hammack, P. L., Frost, D. M., Meyer, I. H., & Pletta, D. R. (2018). Gay men's health and identity: Social change and the life course. *Archives of Sexual Behavior*, 47, 59–74. https://doi.org/10.1007/s10508-017-0990-9
- Hammack, P. L., Hughes, S. D., Atwood, J. M., Cohen, E. M., & Clark, R. C. (2022). Gender and sexual identity in adolescence: A mixedmethods study of labeling in diverse community settings. *Journal* of Adolescent Research, 37(2), 167–220. https://doi.org/10.1177/ 07435584211000315
- Harry, J. (1993). Being out: A general model. *Journal of Homosexuality*, 26(1), 25–40. https://doi.org/10.1300/J082v26n01\_03
- Hatzenbuehler, M. L. (2009). How does sexual minority stigma "get under the skin"? A Psychological Mediation Framework. *Psychological Bulletin*, *135*(5), 707–730. https://doi.org/10.1037/a0016441
- Hatzenbuehler, M. L. (2016). Structural stigma and health inequalities: Research evidence and implication for psychological science. *American Psychologist*, 71(8), 742–751. https://doi.org/10.1037/amp0000068
- Hatzenbuehler, M. L., Birkett, M. A., Van Wagenen, A., & Meyer, I. (2014). Protective school climates and reduced risk for suicide ideation in sexual minority youths. *American Journal of Public Health*, 104, 279–286. https://doi.org/10.2105/AJPH.2013. 301508
- Haupert, M. L., Gesselman, A. N., Moors, A. C., Fisher, H. E., & Garcia, J. R. (2017). Prevalence of experiences with consensual non-monogamous relationships: Findings from two national samples of single Americans. *Journal of Sex & Marital Therapy*, 43(5), 424–440. https://doi.org/10.1080/0092623X.2016.1178675
- Herdt, G. H. (Ed.). (1992). Gay culture in America: Essays from the field. Beacon Press.
- Herdt, G. H. (1997). Same sex, different cultures: Perspectives on gay and lesbian lives. Westview Press.
- Herek, G. M., & Capitanio, J. P. (1996). "Some of my best friends": Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin*, 22(4), 412–424. https://doi.org/10.1177/0146167296224007
- Herrick, A. L., Stall, R., Goldhammer, H., Egan, J. E., & Mayer, K. H. (2014). Resilience as a research framework and as a cornerstone of prevention research for gay and bisexual men: Theory and evidence. AIDS and Behavior, 18, 1–9. https://doi.org/10.1007/s10461-012-0384-x
- Hu, X., & Wang, Y. (2013). LGB identity among young Chinese: The influence of traditional culture. *Journal of Homosexuality*, 60(5), 667–684. https://doi.org/10.1080/00918369.2013.773815
- Huebner, D. M., Roche, K. M., & Rith, K. A. (2019). Effects of family demographics and the passage of time on parents' difficulty with their lesbian, gay, or bisexual youth's sexual orientation. *Archives of Sexual Behavior*, 48(5), 1581–1588. https://doi.org/10.1007/s10508-019-1430-9

- Human Rights Campaign (2010). Growing up LGBT in America: HRC Youth Survey Report key findings. http://assets2.hrc.org/files/assets/resources/Growing-Up-LGBT-in-America\_Report.pdf
- Humphreys, L. (1970). Tearoom Trade: A Study of Homesexual Encounters in Public Places.
- Hunger, J. M., & Tomiyama, J. (2014). Weight labeling and obesity: A longitudinal study of girls aged 10 to 19 years. *JAMA Pediatrics*, 168(6), 579–580. https://doi.org/10.1001/jamapediatrics.2014.
- International Lesbian, Gay, Bisexual, Trans and Intersex Association (ILGA) (2017). State sponsored homophobia 2017: A world survey of sexual orientation laws: criminalisation, protection and recognition. https://ilga.org/downloads/2017/ILGA\_State\_Sponsored\_Homophobia\_2017\_WEB.pdf
- Irish, M., Solmi, F., Mars, B., King, M., Lewis, G., Pearson, R. M., Pitman, A., Rowe, S., Srinivasan, R., & Lewis, G. (2019). Depression and self-harm from adolescence to young adulthood in sexual minorities compared with heterosexuals in the UK: A population-based cohort study. *The Lancet Child & Adolescent Health*, 3(2), 91–98
- Jackson, S. D. (2017). "Connection is the antidote": Psychological distress, emotional processing, and virtual community building among LGBTQ students after the Orlando shooting. Psychology of Sexual Orientation and Gender Diversity, 4(2), 160–168. https://doi.org/10.1037/sgd0000229
- Jackson, S. D., & Mohr, J. J. (2016). Conceptualizing the closet: Differentiating stigma concealment and nondisclosure processes. Psychology of Sexual Orientation and Gender Diversity, 3(1), 80–92. https://doi.org/10.1037/sgd0000147
- Jackson, S. D., Wagner, K. R., Yepes, M., Harvey, T. D., Higginbottom, J., & Pachankis, J. E. (2022). A pilot test of a treatment to address intersectional stigma, mental health, and HIV risk among gay and bisexual men of color. *Psychotherapy*, 59(1), 96–112. https://doi. org/10.1037/pst0000417
- John, L. K., Barasz, K., & Norton, M. I. (2016). Hiding personal information reveals the worst. *Proceedings of the National Academy of Sciences of the United States of America*, 113(4), 954–959. https://doi.org/10.1073/pnas.1516868113
- Jourard, S. M. (1971). Self-disclosure. Wiley-Interscience.
- Katz-Wise, S. L., & Hyde, J. S. (2012). Victimization experiences of lesbian, gay, and bisexual individuals: A meta-analysis. *Journal of Sex Research*, 49(2–3), 142–167. https://doi.org/10.1080/00224 499.2011.637247
- Katz-Wise, S. L., Rosario, M., Calzo, J. P., Scherer, E. A., Sarda, V., & Austin, S. B. (2017). Endorsement and timing of sexual orientation developmental milestones among sexual minority young adults in the Growing Up Today Study. *Journal of Sex Research*, 54(2), 172–185. https://doi.org/10.1080/00224499.2016.1170757
- Keuroghlian, A. S., Ard, K. L., & Makadon, H. J. (2017). Advancing health equity for lesbian, gay, bisexual and transgender (LGBT) people through sexual health education and LGBT-affirming health care environments. Sexual Health, 14(1), 119–122. https:// doi.org/10.1071/SH16145
- Klein, K., Holtby, A., Cook, K., & Travers, R. (2015). Complicating the coming out narrative: Becoming oneself in a heterosexist and cissexist world. *Journal of Homosexuality*, 62(3), 297–326. https:// doi.org/10.1080/00918369.2014.970829
- Kroska, A., & Harkness, S. K. (2006). Stigma sentiments and self-meanings: Exploring the modified labeling theory of mental illness. *Social Psychology Quarterly*, 69(4), 325–348. https://doi.org/10.1177/019027250606900403
- Kulick, A., Wernick, L. J., Espinoza, M. A. V., Newman, T. J., & Dessel, A. B. (2019). Three Strikes and You're Out: Culture, Facilities, and Participation among LGBTQ Youth in Sports. Sport, Education and Society, 24(9), 939–953.



- Laird, R. D., & Marrero, M. D. (2010). Information management and behavior problems: Is concealing misbehavior necessarily a sign of trouble? *Journal of Adolescence*, 33(2), 297–308. https://doi. org/10.1016/j.adolescence.2009.05.018
- La Roi, C., Kretschmer, T., Dijkstra, J. K., Veenstra, R., & Oldehinkel, A. J. (2016). Disparities in depressive symptoms between heterosexual and lesbian, gay, and bisexual youth in a Dutch cohort: The TRAILS study. *Journal of Youth and Adolescence*, 45(3), 440–456.
- Lattanner, M. R., Ford, J., Bo, N., Tu, W., Pachankis, J. E., Dodge, B., & Hatzenbuehler, M. L. (2021). A contextual approach to the psychological study of identity concealment: Examining direct, interactive, and indirect effects of structural stigma on concealment motivation across proximal and distal geographic levels. *Psychological Science*, 32(10), 1684–1696.
- Layland, E. K., Murchison, G., Bränström, R., & Pachankis, J. E. (2022). Equality policies and timing and tempo of developmental milestones for lesbian, gay, and bisexual individuals across 28 European countries [Unpublished manuscript]. School of Public Health, Yale University.
- Leussis, M. P., & Andersen, S. L. (2008). Is adolescence a sensitive period for depression? Behavioral and neuroanatomical findings from a social stress model. *Synapse (new York, N. Y.)*, 62, 22–30. https://doi.org/10.1002/syn.20462
- Link, B. G., Cullen, F. T., Struening, E. L., Shrout, P. E., & Dohrenwend, B. P. (1989). A modified labeling theory approach to mental disorders: An empirical assessment. *American Sociological Review*, 54(3), 400–423. https://doi.org/10.2307/2095613
- Luk, J. W., Gilman, S. E., Haynie, D. L., & Simons-Morton, B. G. (2018). Sexual orientation and depressive symptoms in adolescents. *Pediatrics*, 141(5), e20173309.
- Maner, J. K., Gailliot, M. T., Rouby, D. A., & Miller, S. L. (2007). Can't take my eyes off of you: Attentional adhesion to mates and rivals. *Journal of Personality and Social Psychology*, 93, 389–401. https://doi.org/10.1037/0022-3514.93.3.389
- Mansfield, C. D., McLean, K. C., & Lilgendahl, J. P. (2010). Narrating traumas and transgressions: Links between narrative processing, wisdom, and well-being. *Narrative Inquiry*, 20(2), 246–273. https://doi.org/10.1075/ni.20.2.02man
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology*, 3(5), 551–558. https://doi.org/10.1037/h0023281
- Maas, J., Wismeijer, A. A. J., van Assen, M. A. L. M., & Aquarius, A. E. A. M. (2012). Is it bad to have secrets? Cognitive preoccupation as a toxic element of secrecy. *International Journal of Clinical and Health Psychology*, 12(1), 23–37.http://hdl.handle. net/2066/102660
- Massad, J. A. (2002). Re-orienting desire: The gay international and the Arab world. *Public Culture*, 14(2), 361–385.
- McAdams, D. P. (1993). The stories we live by: Personal myths and the making of the self. Morrow.
- McAdams, D. P. (2001). The Psychology of Life Stories. *Review of General Psychology*, 5(2), 100–122. https://doi.org/10.1037/1089-2680.5.2.100
- McDonald, R. I., Salerno, J. M., Greenaway, K. H., & Slepian, M. L. (2020). Motivated secrecy: Politics, relationships, and regrets. *Motivation Science*, 6(1), 61–78. https://doi.org/10.1037/mot00 00139
- McLean, K. (2007). Hiding in the closet? Bisexuals, coming out and the disclosure imperative. *Journal of Sociology*, *43*(2), 151–166. https://doi.org/10.1177/1440783307076893
- McLean, K. C., Shucard, H., & Syed, M. (2017). Applying the master narrative framework to gender identity development in emerging adulthood. *Emerging Adulthood*, 5(2), 93–105. https://doi.org/10.1177/2167696816656254

- Meadows, E. (2018). Sexual health equity in schools: Inclusive sexuality and relationship education for gender and sexual minority students. *American Journal of Sexuality Education*, 13(3), 297–309. https://doi.org/10.1080/15546128.2018.1431988
- Meidlinger, P. C., & Hope, D. A. (2014). Differentiating disclosure and concealment in measurement of outness for sexual minorities: The Nebraska Outness Scale. *Psychology of Sexual Orientation and Gender Diversity*, 1(4), 489–497. https://doi.org/10.1037/sgd0000080
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674–697. https://doi.org/10.1037/0033-2909.129.5.674
- Meyer, I. H., Luo, F., Wilson, B. D., & Stone, D. M. (2019). Sexual orientation enumeration in state antibullying statutes in the United States: Associations with bullying, suicidal ideation, and suicide attempts among youth. *LGBT Health*, 6(1), 9–14.
- Meyer, I. H., Rossano, L., Ellis, J. M., & Bradford, J. (2002). A brief telephone interview to identify lesbian and bisexual women in random digit dialing sampling. *The Journal of Sex Research*, 39(2), 139–144. https://doi.org/10.1080/00224490209552133
- Millar, B. M., Wang, K., & Pachankis, J. E. (2016). The moderating role of internalized homonegativity on the efficacy of LGB-affirmative psychotherapy: Results from a randomized controlled trial with young adult gay and bisexual men. *Journal of Consulting and Clinical Psychology*, 84(7), 565–570. https://doi.org/10.1037/ccp0000113
- Miller, D. R., Alexander, F., & French, T. M. (1947). Psychoanalytic therapy: Principles and application. *The American Journal of Psychology*, 60(3), 453. https://doi.org/10.2307/1416935
- Millett, G. A., Peterson, J. L., Wolitski, R. J., & Stall, R. (2006).
  Greater risk for HIV infection of Black men who have sex with men: A critical literature review. *American Journal of Public Health*, 96(6), 1007–1019. https://doi.org/10.2105/AJPH.2005.066720
- Mittleman, J. (2019). Sexual minority bullying and mental health from early childhood through adolescence. *Journal of Adolescent Health*, 64(2), 172–178. https://doi.org/10.1016/j.jadohealth. 2018.08.020
- Mittleman, J. (2022). Intersecting the academic gender gap: the education of lesbian, gay and bisexual America. *American Sociological Review*, 87(2), 303–335.
- Mohr, J., & Fassinger, R. (2000). Measuring dimensions of lesbian and gay male experience. *Measurement and Evaluation in Counseling and Development*, 33(2), 66–90. https://doi.org/10.1080/07481756.2000.12068999
- Mohr, J. J., & Kendra, M. S. (2011). Revision and extension of a multidimensional measure of sexual minority identity: The lesbian, gay, and bisexual identity scale. *Journal of Counseling Psychology*, 58(2), 234–245. https://doi.org/10.1037/a0022858
- Morris, J. F. (1997). Lesbian coming out as a multidimensional process. *Journal of Homosexuality*, 33(2), 1–22.
- Murphy, M. L. M., Slavich, G. M., Rohleder, N., & Miller, G. E. (2013).
  Targeted rejection triggers differential pro- and anti-inflammatory gene expression in adolescents as a function of social status.
  Clinical Psychological Science, 1, 30–40. https://doi.org/10.1177/2167702612455743
- Newheiser, A., & Barreto, M. (2014). Hidden costs of hiding stigma: Ironic interpersonal consequences of concealing a stigmatized identity in social interactions. *Journal of Experimental Social Psychology*, 52, 58–70. https://doi.org/10.1016/j.jesp.2014.01. 002
- Newman, B. S., & Muzzonigro, P. G. (1993). The effects of traditional family values on the coming out process of gay male adolescents. *Adolescence*, 28(109), 213.



- Ofosu, E. K., Chambers, M. K., Chen, J. M., & Hehman, E. (2019). Same-sex marriage legalization associated with reduced implicit and explicit antigay bias. *Proceedings of the National Academy of Sciences*, 116(18), 8846–8851. https://doi.org/10.1073/pnas. 1806000116
- Ott, M. Q., Corliss, H. L., Wypij, D., et al. (2011). Stability and change in self-reported sexual orientation identity in young people: Application of mobility metrics. *Archives of Sexual Behavior*, 40, 519–532. https://doi.org/10.1007/s10508-010-9691-3
- Overstreet, N. M., Gaskins, J. L., Quinn, D. M., & Williams, M. K. (2017). The moderating role of centrality on the association between internalized intimate partner violence-related stigma and concealment of physical IPV. *Journal of Social Issues*, 73(2), 307–321. https://doi.org/10.1111/josi.12218
- Pachankis, J. E. (2007). The psychological implications of concealing a stigma: A cognitive-affective-behavioral model. *Psychologi-cal Bulletin*, 133(2), 328–345. https://doi.org/10.1037/0033-2909. 133.2.328
- Pachankis, J. E., & Bränström, R. (2018). Hidden from happiness: Structural stigma, sexual orientation concealment, and life satisfaction across 28 countries. *Journal of Consulting and Clinical Psychology*, 86(5), 403–415. https://doi.org/10.1037/ccp0000299
- Pachankis, J. E., & Bränström, R. (2019). How many sexual minorities are hidden? Projectingthe size of the global closet with implications for policy and public health. *PLoS ONE*, 14(6), e0218084. https://doi.org/10.1371/journal.pone.0218084
- Pachankis, J. E., Clark, K. A., Burton, C. L., Hughto, J. M. W., Bränström, R., & Keene, D. E. (2020a). Sex, status, competition, and exclusion: Intraminority stress from within the gay community and gay and bisexual men's mental health. *Journal of Personality and Social Psychology*, 119(3), 713–740. https://doi.org/10.1037/pspp0000282
- Pachankis, J. E., Clark, K. A., Klein, D. N., & Dougherty, L. R. (2022). Early timing and determinants of the sexual orientation disparity in internalizing psychopathology: A prospective cohort study from ages 3 to 15. *Journal of Youth and Adolescence*, 51(3), 458–470.
- Pachankis, J. E., Cochran, S. D., & Mays, V. M. (2015a). The mental health of sexual minority adults in and out of the closet: A population-based study. *Journal of Consulting and Clinical Psychology*, 83(5), 890–901.
- Pachankis, J. E., & Goldfried, M. R. (2010). Expressive writing for gayrelated stress: Psychosocial benefits and mechanisms underlying improvement. *Journal of Consulting and Clinical Psychology*, 78, 98–110. https://doi.org/10.1037/a0017580
- Pachankis, J. E., Goldfried, M. R., & Ramrattan, M. E. (2008). Extension of the rejection sensitivity construct to the interpersonal functioning of gay men. *Journal of Consulting and Clinical Psychology*, 76(2), 306–317. https://doi.org/10.1037/0022-006X.76.2.306
- Pachankis, J. E., & Hatzenbuehler, M. L. (2013). The social development of contingent self-worth in sexual minority young men: An empirical investigation of the "best little boy in the world" hypothesis. *Basic and Applied Social Psychology*, *35*, 176–190. https://doi.org/10.1080/01973533.2013.764304
- Pachankis, J. E., Hatzenbuehler, M. L., Bränström, R., Schmidt, A. J., Berg, R. C., Jonas, K., Pitoňák, M., Baros, S., & Weatherburn, P. (2021). Structural stigma and sexual minority men's depression and suicidality: A multilevel examination of mechanisms and mobility across 48 countries. *Journal of Abnormal Psychology*, 130(7), 713–726.
- Pachankis, J. E., Hatzenbuehler, M. L., Hickson, F., Weatherburn, P., Berg, R. C., Marcus, U., & Schmidt, A. J. (2015b). Hidden from health: Structural stigma, sexual orientation concealment, and HIV across 38 countries in the European MSM Internet Survey.

- AIDS, 29(10), 1239–1246. https://doi.org/10.1097/QAD.00000 00000000724
- Pachankis, J. E., Hatzenbuehler, M. L., Rendina, H. J., Safren, S. A., & Parsons, J. T. (2015c). LGB-affirmative cognitive-behavioral therapy for young adult gay and bisexual men: A randomized controlled trial of a transdiagnostic minority stress approach. *Journal* of Consulting and Clinical Psychology, 83(5), 875–889. https:// doi.org/10.1037/ccp0000037
- Pachankis, J. E., Hatzenbuehler, M. L., & Starks, T. J. (2014). The influence of structural stigma and rejection sensitivity on young sexual minority men's daily tobacco and alcohol use. Social Science and Medicine, 103, 67–75. https://doi.org/10.1016/j.socsc imed.2013.10.005
- Pachankis, J. E., Mahon, C. P., Jackson, S. D., Fetzner, B. K., & Bränström, R. (2020b). Sexual orientation concealment and mental health: A conceptual and meta-analytic review. *Psychological Bulletin*, 146(10), 831–871. https://doi.org/10.1037/bul0000271
- Pachankis, J. E., McConocha, E. M., Clark, K. A., Wang, K., Behari, K., Fetzner, B. K., Brisbin, C. D., Scheer, J. R., & Lehavot, K. (2020c). A transdiagnostic minority stress intervention for gender diverse sexual minority women's depression, anxiety, and unhealthy alcohol use: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 88(7), 613–630. https://doi.org/10.1037/ccp0000508
- Pachankis, J. E., Sullivan, T. J., & Moore, N. F. (2018). A 7-year longitudinal study of sexual minority young men's parental relationships and mental health. *Journal of Family Psychology*, 32(8), 1068–1077. https://doi.org/10.1037/fam0000427
- Pachankis, J. E., Westmaas, J. L., & Dougherty, L. R. (2011). The influence of sexual orientation and masculinity on young men's tobacco smoking. *Journal of Consulting and Clinical Psychology*, 79(2), 142–152. https://doi.org/10.1037/a0022917
- Pachankis, J. E., Williams, S. L., Behari, K., Job, S., McConocha, E. M., & Chaudoir, S. R. (2020d). Brief online interventions for LGBTQ young adult mental and behavioral health: A randomized controlled trial in a high-stigma, low-resource context. *Journal of Consulting and Clinical Psychology*, 88(5), 429–444. https://doi.org/10.1037/ccp0000497
- Pakula, B., & Shoveller, J. A. (2013). Sexual orientation and self-reported mood disorder diagnosis among Canadian adults. BMC Public Health, 13, 209. https://doi.org/10.1186/1471-2458-13-209
- Parker, C. M., Hirsch, J. S., Philbin, M. M., & Parker, R. G. (2018). The urgent need for research and interventions to address family-based stigma and discrimination against lesbian, gay, bisexual, transgender, and queer youth. *Journal of Adolescent Health*, 63(4), 383–393. https://doi.org/10.1016/j.jadohealth.2018.05.018
- Pasupathi, M., McLean, K. C., & Weeks, T. (2009). To tell or not to tell: Disclosure and the narrative self. *Journal of Personality*, 77(1), 89–124. https://doi.org/10.1111/j.1467-6494.2008.00539.x
- Pathela, P., Hajat, A., Schillinger, J., Blank, S., Sell, R., & Mostashari, F. (2006). Discordance between sexual behavior and self-reported sexual identity: A population-based survey of New York City men. *Annals of Internal Medicine*, 145(6), 416–425. https://doi.org/10.7326/0003-4819-145-6-200609190-00005
- Pennebaker, J. W. (1989). Confession, inhibition, and disease. *Advances in Experimental Social Psychology*, 22, 211–244. https://doi.org/10.1016/S0065-2601(08)60309-3
- Pennebaker, J. W. (1995). Emotion, disclosure, and health: An overview. In J. W. Pennebaker (Ed.), *Emotion, disclosure, & health* (pp. 3–10). American Psychological Association. https://doi.org/10. 1037/10182-015
- Perrotti, J., & Westheimer, K. (2002). When the drama club is not enough: Lessons from the safe schools program for gay and lesbian students. Beacon Press.



- Poteat, V. P., Espelage, D. L., & Koenig, B. W. (2009). Willingness to remain friends and attend school with lesbian and gay peers: Relational expressions of prejudice among heterosexual youth. *Journal of Youth and Adolescence*, 38(7), 952–962. https://doi.org/10.1007/s10964-009-9416-x
- Poteat, V. P., & Russell, S. T. (2013). Understanding homophobic behavior and its implications for policy and practice. *Theory into Practice*. https://doi.org/10.1080/00405841.2013.829729
- Poteat, V. P., Sinclair, K. O., DiGiovanni, C. D., Koenig, B. W., & Russell, S. T. (2013). Gay-straight alliances are associated with student health: A multischool comparison of LGBTQ and heterosexual youth. *Journal of Research on Adolescence*, 23(2), 319–330.
- Poteat, V. P., Yoshikawa, H., Calzo, J. P., Gray, M. L., DiGiovanni, C. D., Lipkin, A., Mundy-Shephard, A., Perrotti, J., Scheer, J. R., & Shaw, M. P. (2015). Contextualizing gay-straight alliances: Student, advisor, and structural factors related to positive youth development among members. *Child Development*, 86(1), 176–193. https://doi.org/10.1111/cdev.12289
- Price-Feeney, M., Green, A. E., & Dorison, S. H. (2021). Suicidality among youth who are questioning, unsure of, or exploring their sexual identity. *The Journal of Sex Research*, 58(5), 581–588.
- Prinstein, M. J., & La Greca, A. M. (2004). Childhood peer rejection and aggression as predictors of adolescent girls' externalizing and health risk behaviors: A 6-year longitudinal study. *Journal of Consulting and Clinical Psychology*, 72(1), 103–112. https://doi.org/10.1037/0022-006X.72.1.103
- Quinn, D. M. (2005). Concealable versus conspicuous stigmatized identities. In *Stigma and Group Inequality: Social Psychologi*cal Perspectives (pp. 83–103). Psychology Press. https://doi.org/ 10.4324/9781410617057
- Quinn, D. M., & Chaudoir, S. R. (2009). Living with a concealable stigmatized identity: The impact of anticipated stigma, centrality, salience, and cultural stigma on psychological distress and health. *Journal of Personality and Social Psychology*, 97(4), 634–651. https://doi.org/10.1037/a0015815
- Quinn, D. M., & Earnshaw, V. A. (2011). Understanding concealable stigmatized identities: The role of identity in psychological, physical, and behavioral outcomes. *Social Issues and Policy Review*, 5(1), 160–190. https://doi.org/10.1111/j.1751-2409. 2011.01029.x
- Quinn, D. M., & Earnshaw, V. A. (2013). Concealable stigmatized identities and psychological well-being. Social and Personality Psychology Compass, 7(1), 40–51. https://doi.org/10.1111/spc3. 12005
- Quinn, D. M., Williams, M. K., Quintana, F., Gaskins, J. L., Overstreet, N. M., Pishori, A., Earnshaw, V. A., Perez, G., & Chaudoir, S. R. (2014). Examining effects of anticipated stigma, centrality, salience, internalization, and outness on psychological distress for people with concealable stigmatized identities. *PLoS ONE*, 9(5), e96977. https://doi.org/10.1371/journal.pone.0096977
- Rahman, M., & Valliani, A. (2016). Challenging the opposition of LGBT identities and Muslim cultures: Initial research on the experiences of LGBT Muslims in Canada. *Theology & Sexuality*, 22(1–2), 73–88. https://doi.org/10.1080/13558358.2017.1296689
- Raifman, J., Moscoe, E., Austin, S. B., & McConnell, M. (2017). Difference-in-differences analysis of the association between state same-sex marriage policies and adolescent suicide attempts. *JAMA Pediatrics*, 171(4), 350–356. https://doi.org/10.1001/jamapediatrics.2016.4529
- Rice, C. E., Vasilenko, S. A., Fish, J. N., & Lanza, S. T. (2019). Sexual minority health disparities: An examination of age-related trends across adulthood in a national cross-sectional sample. *Annals of Epidemiology*, 31, 20–25. https://doi.org/10.1016/j.annepidem. 2019.01.001

- Rieger, G., Linsenmeier, J. A. W., Gygax, L., & Bailey, J. M. (2008). Sexual orientation and childhood gender nonconformity: Evidence from home videos. *Developmental Psychology*, 44, 46–58. https://doi.org/10.1037/0012-1649.44.1.46
- Roberts, A. L., Rosario, M., Slopen, N., Calzo, J. P., & Austin, S. B. (2013). Childhood gender nonconformity, bullying victimization, and depressive symptoms across adolescence and early adulthood: An 11-year longitudinal study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 52(2), 143–152. https://doi.org/10.1016/j.jaac.2012.11.006
- Romeo, R. D., Bellani, R., Karatsoreos, I. N., Chhua, N., Vernov, M., Conrad, C. D., & McEwen, B. S. (2006). Stress history and pubertal development interact to shape hypothalamic-pituitary-adrenal axis plasticity. *Endocrinology*, 147(4), 1664–1674. https://doi. org/10.1210/en.2005-1432
- Rosario, M., Corliss, H. L., Everett, B. G., Russell, S. T., Buchting, F. O., & Birkett, M. A. (2014). Mediation by peer violence victimization of sexual orientation disparities in cancer-related tobacco, alcohol, and sexual risk behaviors: Pooled youth risk behavior surveys. *American Journal of Public Health*, 104, 1113–1123. https://doi.org/10.2105/AJPH.2013.301764
- Rosario, M., Hunter, J., Maguen, S., Gwadz, M., & Smith, R. (2001). The coming-out process and its adaptational and health-related associations among gay, lesbian, and bisexual youths: Stipulation and exploration of a model. *American Journal of Community Psychology*, 29(1), 133–160. https://doi.org/10.1023/A:10052 05630978
- Rosario, M., Schrimshaw, E. W., & Hunter, J. (2004). Ethnic/racial differences in the coming-out process of lesbian, gay, and bisexual youths: A comparison of sexual identity development over time. Cultural Diversity and Ethnic Minority Psychology, 10(3), 215–228. https://doi.org/10.1037/1099-9809.10.3.215
- Rosario, M., Schrimshaw, E. W., Hunter, J., & Braun, L. (2006). Sexual identity development among gay, lesbian, and bisexual youths: Consistency and change over time. *Journal of Sex Research*, 43, 46–58. https://doi.org/10.1080/00224490609552298
- Rosario, M., Schrimshaw, E. W., & Hunter, J. (2009). Disclosure of sexual orientation and subsequent substance use and abuse among lesbian, gay, and bisexual youths: Critical role of disclosure reactions. *Psychology of Addictive Behaviors*, 23(1), 175–184. https:// doi.org/10.1037/a0014284
- Rosario, M., Schrimshaw, E. W., & Hunter, J. (2011). Different patterns of sexual identity development over time: Implications for the psychological adjustment of lesbian, gay, and bisexual youths. *Journal of Sex Research*, 48(1), 3–15.
- Rosenfeld, D., Bartlam, B., & Smith, R. D. (2012). Out of the closet and into the trenches: Gay male baby boomers, aging, and HIV/ AIDS. *The Gerontologist*, 52(2), 255–264. https://doi.org/10.1093/geront/gnr138
- Rubin, D. C., Rahhal, T. A., & Poon, L. W. (1998). Things learned in early adulthood are remembered best. *Memory & Cognition*, 26(1), 3–19. https://doi.org/10.3758/BF03211366
- Rule, N. O. (2017). Perceptions of sexual orientation from minimal cues. *Archives of Sexual Behavior*, 46, 129–139. https://doi.org/10.1007/s10508-016-0779-2
- Russell, G. M., & Bohan, J. S. (2005). The gay generation gap: Communicating across the LGBT generational divide. *The Policy Journal of the Institute for Gay and Lesbian Strategic Studies*, 8, 1–8.
- Russell, S. T., & Fish, J. N. (2019). Sexual minority youth, social change, and health: A developmental collision. Research in Human Development, 16(1), 5–20. https://doi.org/10.1080/15427 609.2018.1537772
- Salway, T. J., Morgan, J., Ferlatte, O., Hawkins, B., Lachowsky, N. J., & Gilbert, M. (2019). A systematic review of characteristics of nonprobability community venue samples of sexual minority



- individuals and associated methods for assessing selection bias. *LGBT Health*, *6*(5), 205–215. https://doi.org/10.1089/lgbt.2018. 0241
- Santos, C. E., & VanDaalen, R. A. (2016). The associations of sexual and ethnic-racial identity commitment, conflicts in allegiances, and mental health among lesbian, gay, and bisexual racial and ethnic minority adults. *Journal of Counseling Psychology*, 63(6), 668–676. https://doi.org/10.1037/cou0000170
- Santuzzi, A. M., & Ruscher, J. B. (2002). Stigma salience and paranoid social cognition: Understanding variability in metaperceptions among individuals with recently-acquired stigma. Social Cognition, 20(3), 171–197. https://doi.org/10.1521/soco.20.3.171. 21105
- Sarno, E. L., Mohr, J. J., Jackson, S. D., & Fassinger, R. E. (2015). When identities collide: Conflicts in allegiances among LGB people of color. *Cultural Diversity & Ethnic Minority Psychology*, 21(4), 550–559. https://doi.org/10.1037/cdp0000026
- Savin-Williams, R. C., & Cohen, K. M. (2015). Developmental trajectories and milestones of lesbian, gay, and bisexual young people. International Review of Psychiatry, 27(5), 357–366. https://doi.org/10.3109/09540261.2015.1093465
- Savin-Williams, R. C., Joyner, K., & Rieger, G. (2012). Prevalence and stability of self-reported sexual orientation identity during young adulthood. *Archives of Sexual Behavior*, 41, 103–110. https://doi.org/10.1007/s10508-012-9913-y
- Schrimshaw, E. W., Downing, M. J., & Cohn, D. J. (2018). Reasons for non-disclosure of sexual orientation among behaviorally bisexual men: Non-disclosure as stigma management. Archives of Sexual Behavior, 47(1), 219–233. https://doi.org/10.1007/ s10508-016-0762-y
- Schrimshaw, E. W., Siegel, K., Downing, M. J., & Parsons, J. T. (2013). Disclosure and concealment of sexual orientation and the mental health of non-gay-identified, behaviorally-bisexual men. *Journal* of Consulting and Clinical Psychology, 81, 141–153. https://doi. org/10.1037/a0031272
- Sedgwick, E. (1990). *The epistemology of the closet*. University of California Press.
- Sedlovskaya, A., Purdie-Vaughns, V., Eibach, R. P., LaFrance, M., Romero-Canyas, R., & Camp, N. P. (2013). Internalizing the closet: Concealment heightens the cognitive distinction between public and private selves. *Journal of Personality and Social Psychology*, 104(4), 695–715. https://doi.org/10.1037/a0031179
- Seidman, S., Meeks, C., & Traschen, F. (1999). Beyond the closet? The changing social meaning of homosexuality in the United States. *Sexualities*, 2(1), 9–34.
- Sheldon, K. M., & Kasser, T. (2008). Psychological threat and extrinsic goal striving. *Motivation and Emotion*, 32(1), 37–45. https://doi. org/10.1007/s11031-008-9081-5
- Singer, J. A., & Salovey, P. (1993). The remembered self: Emotion and memory in personality. Free Press.
- Slepian, M. L., Chun, J. S., & Mason, M. F. (2017). The experience of secrecy. *Journal of Personality and Social Psychology*, 113(1), 1–33. https://doi.org/10.1037/pspa0000085
- Slepian, M. L., Greenaway, K. H., & Masicampo, E. J. (2020). Thinking through secrets: Rethinking the role of thought suppression in secrecy. *Personality and Social Psychology Bulletin*, 46(10), 1411–1427. https://doi.org/10.1177/0146167219895017
- Smart, L., & Wegner, D. M. (1999). Covering up what can't be seen: Concealable stigma and mental control. *Journal of Personality and Social Psychology*, 77(3), 474–486. https://doi.org/10.1037/0022-3514.77.3.474
- Smart, L., & Wegner, D. M. (2000). The hidden costs of hidden stigma. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 220–242). Guilford Press.
- Soulliard, Z. A., Layland, E. K., Smith, J. C., Kipke, M. D., & Bray, B. C. (2022). Body image concerns, correlates, and community

- connection among black and latinx sexual minority cisgender men and transgender/gender nonconforming young adults. *LGBT Health*, *9*(2), 122–130. https://doi.org/10.1089/lgbt.2021.0237
- Sprecher, S., & Hendrick, S. S. (2004). Self-disclosure in intimate relationships: Associations with individual and relationship characteristics over time. *Journal of Social and Clinical Psychology*, 23(6), 857–877. https://doi.org/10.1521/jscp.23.6.857.54803
- Staub, E., & Vollhardt, J. (2008). Altruism born of suffering: The roots of caring and helping after victimization and other trauma. American Journal of Orthopsychiatry, 78(3), 267–280. https://doi.org/ 10.1037/a0014223
- Stein, A. (1999). Becoming lesbian: Identity work and the performance of sexuality. *The Columbia Reader on Lesbians and Gay Men in Media, Society, and Politics*, 81–92.
- Steinberg, L., & Monahan, K. C. (2007). Age differences in resistance to peer influence. *Developmental Psychology*, 43(6), 1531–1543. https://doi.org/10.1037/0012-1649.43.6.1531
- Steinke, J., Root-Bowman, M., Estabrook, S., Levine, D. S., & Kantor, L. M. (2017). Meeting the needs of sexual and gender minority youth: Formative research on potential digital health interventions. *Journal of Adolescent Health*, 60(5), 541–548.
- Sun, S., Hoyt, W. T., Tarantino, N., Pachankis, J. E., Whiteley, L., Operario, D., & Brown, L. K. (2021). Cultural context matters: Testing the minority stress model among Chinese sexual minority men. *Journal of Counseling Psychology*. https://doi.org/10. 1037/cou000053
- Suppes, A., van der Toorn, J., & Begeny, C. T. (2021). Unhealthy closets, discriminatory dwellings: The mental health benefits and costs of being open about one's sexual minority status. Social Science and Medicine, 285, 114286. https://doi.org/10.1016/j.socscimed.2021.114286
- Tankard, M. E., & Paluck, E. L. (2017). The effect of a Supreme Court decision regarding gay marriage on social norms and personal attitudes. *Psychological Science*, 28(9), 1334–1344. https://doi. org/10.1177/0956797617709594
- Taylor, H. E. (2000). Meeting the needs of lesbian and gay young adolescents. *The Clearing House.*, 73(4), 221–224.
- Thoma, B. C., Eckstrand, K. L., Montano, G. T., Rezeppa, T. L., & Marshal, M. P. (2021). Gender nonconformity and minority stress among lesbian, gay, and bisexual individuals: A meta-analytic review. *Perspectives on Psychological Science*. https://doi.org/10.1177/1745691620968766
- Tilcsik, A., Anteby, M., & Knight, C. R. (2015). Concealable stigma and occupational segregation: Toward a theory of gay and lesbian occupations. *Administrative Science Quarterly*, 60(3), 446–481. https://doi.org/10.1177/0001839215576401
- Toomey, R. B., Card, N. A., & Casper, D. M. (2014). Peers' perceptions of gender nonconformity: Associations with overt and relational peer victimization and aggression in early adolescence. *The Journal of Early Adolescence*, 34(4), 463–485. https://doi.org/10. 1177/0272431613495446
- Toomey, R. B., Ryan, C., Diaz, R. M., Card, N. A., & Russell, S. T. (2013). Gender-nonconforming lesbian, gay, bisexual, and transgender youth: School victimization and young adult psychosocial adjustment. *Developmental Psychology*, 46(6), 1580–1589. https://doi.org/10.1037/a0020705
- Troiden, D. R. R. (1989). The formation of homosexual identities. *Journal of Homosexuality*, 17(1–2), 43–74. https://doi.org/10.1300/J082v17n01\_02
- Troiden, R. R. (1979). Becoming homosexual: A model of gay identity acquisition. *Psychiatry*, 42(4), 362–373. https://doi.org/10.1080/ 00332747.1979.11024039
- Vollhardt, J. R. (2009). Altruism born of suffering and prosocial behavior following adverse life events: A review and conceptualization. Social Justice Research, 22(1), 53–97. https://doi.org/10.1007/s11211-009-0088-1



- van der Star, A., Bränström, R., & Pachankis, J. E. (2021a). Lifecoursevarying exposure to structural stigma, minority stress reactions, and mental health among sexual minority male migrants. European Journal of Public Health. https://doi.org/10.1093/eurpub/ ckab032
- van der Star, A., Pachankis, J. E., & Bränström, R. (2019). Sexual orientation openness and depression symptoms: A population-based study. *Psychology of Sexual Orientation and Gender Diversity*, 6(3), 369–381. https://doi.org/10.1037/sgd0000335
- van der Star, A., Pachankis, J. E., & Bränström, R. (2021b). Country-level structural stigma, school-based and adulthood victimization, and life satisfaction among sexual minority adults: A life course approach. *Journal of Youth and Adolescence*, 50(1), 189–201. https://doi.org/10.1007/s10964-020-01340-9
- Villicana, A. J., Delucio, K., & Biernat, M. (2016). "Coming out" among gay Latino and gay White men: Implications of verbal disclosure for well-being. *Self and Identity*, 15(4), 468–487. https://doi.org/10.1080/15298868.2016.1156568
- Watson, R. J., Wheldon, C. W., & Puhl, R. M. (2020). Evidence of diverse identities in a large national sample of sexual and gender minority adolescents. *Journal of Research on Adolescence*, 30, 431–442. https://doi.org/10.1111/jora.12488
- Wells, J. E., McGee, M. A., & Beautrais, A. L. (2011). Multiple aspects of sexual orientation: Prevalence and sociodemographic correlates

- in a New Zealand national survey. *Archives of Sexual Behavior*, 40, 155–168. https://doi.org/10.1007/s10508-010-9636-x
- Willis, P. (2012). Witnesses on the periphery: Young lesbian, gay, bisexual and queer employees witnessing homophobic exchanges in Australian workplaces. *Human Relations*, 65(12), 1589–1610. https://doi.org/10.1177/0018726712457795
- Wohlfeiler, D., Hecht, J., Raymond, H. F., Kennedy, T., & McFarland, W. (2011). How can we improve HIV and STD prevention online for MSM? Assessing the preferences of website owners, website users, and HIV/STD directors. http://www.ncsddc.org/wp-content/uploads/2017/08/how\_can\_we\_improve\_hiv\_and\_std\_prevention\_online\_for\_msm\_full\_report\_0.pdf

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.

