NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Coming out versus staying safe:

How societies' attitudes and laws independently impact sexual minority disclosure behaviors

Benjamin A. Katz*

SUNY – Stony Brook University

Address correspondence to:

Benjamin A. Katz, PhD.

Department of Psychology

Stony Brook University

Stony Brook, NY 11794

Email: Benjamin.katz.1@stonybrook.edu

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Abstract

Judicious disclosure of sexual minority status (e.g., homosexual and bi/pansexual sexualities), or “coming out of the closet,” holds psychological and material implications. Globally, most sexual minorities (e.g., homosexual and bi/pansexual sexualities) choose not to disclose their minority status. Two studies quantify how structural stigma, or larger societal context, enters this decision-making process. Study 1 found in a representative population-wide sample (n countries = 28; N = 114,098) that both tolerant societal attitudes and supportive governmental policies both positively and independently predict disclosure behavior. Six alternative explanations of the results were tested and rejected, indicating that these relationships were specific to sexual minorities. Study 2 replicated these findings in a community sample of only sexual minorities (n countries = 23; N = 81,744) and found that structural stigma may impact disclosure via perceptions of structural stigma. These findings suggest that sexual minorities assess their societal contexts and manage their public identities accordingly.

KEYWORDS: Sexual minority; Homophobia; Disclosure; Indirect effects

Coming out versus staying safe:

How societies' attitudes and laws independently impact sexual minority disclosure behaviors

Sexual minority identity (i.e., homosexuality, bisexuality, pansexuality, etc.) is a concealable form of stigma (Meyer & Wilson, 2009). As such, sexual minorities are faced with consequential choices concerning whether and when to “come out of the closet” and disclose their stigma. Disclosure is generally associated with positive psychological outcomes such as reduced rates of depression, anxiety, and disordered eating (Mallory et al., 2021; Pachankis et al., 2020) and increased access to affirmative political, communal, and health settings (Meyer, 2003). As such, disclosure is often considered a consequential step in sexual identity development (Bishop et al., 2020; Dunlap, 2016; Rosario et al., 2008). Disclosure, however, also entails interpersonal risk. It may result in stressful negative reactions from friends or family (Jackson et al., 2020; Rothman et al., 2012; Schrimshaw et al., 2018) or increased risk of discrimination and homophobic violence (Legate et al., 2012; Pachankis & Bränström, 2018; van der Star et al., 2019). Owing to these negative consequences, most sexual minorities globally choose not to disclose and remain “in the closet” (Pachankis & Branstrom, 2019). Disclosure is often framed as a step towards a fully realized sexual identity. In riskier environments, however, non-disclosure serves as a key self-preservation tactic as well (Schrimshaw et al., 2018).

Most research that examines this balance between self-revelation and self-preservation focuses on individual-level predictors of disclosure (e.g., higher education, lower internalized sexual stigma; Dunlap, 2016; Jackson et al., 2020) or sexual minorities' immediate interpersonal environments (e.g., peers, family; Rothman et al., 2012; Schrimshaw et al., 2018). These studies, however, neglect the role of stigma on more expansive, societal levels, referred to as *structural stigma* (Bronfenbrenner, 1992; Hatzenbuehler, 2016; Link & Phelan, 2001). Societal attitudes towards sexual minorities shape norms related to tolerance (Swank et al., 2012) while government policy directly impacts the level of material and physical risk sexual

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

minorities face (Meyer, 2003). These practical implications are indeed considered prior to sexual minorities' decisions to disclose (Itzhaky & Kissil, 2015; Schrimshaw et al., 2018).

Quantitative research into the size and nature of the relationship between society-level, structural stigma and sexual minority disclosure behavior, however, remains limited.

Some studies have indicated that countries with greater levels of structural stigma have lower rates of disclosure (e.g., Pachankis & Bränström, 2018). However, they also combine metrics of social attitudes and governmental policy into a single, country-level variable. While these factors often positively correlate with each other (Kuntz et al., 2015), they nevertheless impact the lives of sexual minorities through characteristically different mechanisms (Hatzenbuehler, 2016). Additionally, little research has assessed within a single model how sexual minorities perceive levels of structural stigma and how these perceptions then impact their disclosure behaviors. Usually, these links have only been partially established across separate studies (e.g., anti-discriminatory laws and perceived discrimination among the general population; Eisner et al., 2021). Recently, Lattaner et al., (2021) found that among 502 American sexual minority men, structural stigma indeed predicts concealment motivation via perceptions of it. Importantly, they found this to be the case on city, county, and state levels. However, this study also left areas of inquiry open for further investigation. They only found this relationship to exist among gay men, but not bisexual men, though this may have been due to issues of sample size. Their sample also included only men, leaving open the question of this model's applicability to other genders. Finally, because different types of environmental metrics were merged into a single score (i.e., public opinion and governmental policy), it remains unclear to what extent they each independently contribute to perceptions of stigma and disclosure among sexual minorities.

Finally, most studies in this area do not examine whether the effects of structural stigma could be explained by variables nonspecific to sexual minorities, or whether arguments of

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

causality may be reversed. For example, a country's religiosity may impact both sexual minority individuals' willingness to disclose their identities as well as the country's general attitude towards them (Itzhaky & Kissil, 2015). Alternatively, sexual minorities who are open about their identities prefer to live in areas they perceive to be less structurally stigmatic towards them (Lee et al., 2018). These alternate hypotheses must be assessed in order to bolster causal inference in studies related to large-scale, societal effects (Hatzenbuehler, 2016).

The current studies examine how societal tolerance and governmental support impacts sexual minorities' decision to disclose their minority identity. Taken together, these studies use complementary methods of sampling and operationalization to show how each form of structural stigma independently impacts sexual minority individuals' disclosure behaviors. Additionally, they provide evidence that these factors are specific to sexual minorities, that they may occur via their perceptions of these factors, and their degree of similarity across gender and kind of sexual minority (i.e., gay vs bisexual).

Study 1

The first study examined the independent effects of governmental support and societal tolerance on sexual minority disclosure across 28 European countries using the European Social Survey (ESS; European Social Survey Rounds 5–9, 2010–2018). Here, disclosure was operationalized behaviorally, as respondents' willingness to spontaneously disclose their sexual minority status in a population-representative survey. The study then tested six alternate explanations to test the specificity of these relationships.

Method

Data and analysis syntax are available at <https://osf.io/us2hm/>.

Participants. Twenty-eight countries were surveyed in the ESS between 2014 and 2018 that were also included in the measure of governmental support (see Measures below) during

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

the same year. These countries represented 114,098 respondents (mean n per country = 1738.24, SD = 464.33). This group was distributed widely with regards to age, income, and education status (see S1 for descriptive statistics of sample and S2 for country-level demographic data).

Measures.

Governmental support for sexual minorities. Governmental support was calculated by summing together a set of laws and policies favorable to sexual minorities assembled in the Rainbow Europe Map and Index (International Lesbian, Gay, Bisexual, Trans, and Intersex Association, 2014-2018). The Rainbow Index is assembled annually, with a set of generally consistent criteria for the years included in the current study. Across each of these time-points, 22 laws and policies specific to sexual minorities were included in the years of the ESS studies (i.e., 2014, 2016, 2018). Thus, each country was ranked on a scale of 0-22, reflecting the number of pro-sexual minority laws and policies that year.

Societal tolerance for homosexuals. In the ESS, respondents rated the item, “Gays and lesbians should be free to live life as they wish,” on a scale of 1 (= “agree strongly”) to 5 (= “disagree strongly”). This item is widely used as a brief measure of homophobia (e.g., Kuntz et al., 2015; Pachankis & Bränström, 2018). For ease of interpretation, the measure was reverse-coded on a scale of 1 (= greater intolerance for sexual minorities) to 5 (= greater tolerance).

Alternative explanation variables. Alternative hypotheses were examined using additional covariates from the ESS. Respondents rated their religiosity in response to the item, “How religious are you?,” on a scale of 1 (= “not at all”) to 11 (= “very religious”). They also rated their political alignment by placing themselves on a left/right scale (1 = left; 11 = right). Additionally, respondents’ country (e.g., United Kingdom) and region within the country (e.g., London, North Ireland, etc.) were coded with unique identifiers.

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Disclosure of sexual minority status. Over the course of the ESS interview, respondents were asked whether they belong to a discriminated group. If they answered in the affirmative, they were then prompted to identify the group. The groups spontaneously identified by the respondent (e.g., sexuality, race, ethnicity, etc.) were then recorded. Importantly, because sexuality is a discriminated class that is also invisible (Meyer & Wilson, 2009), reporting such a basis of discrimination uniquely entails the behavioral choice to disclose sexual minority status. Thus, spontaneous self-identification as a sexual minority was coded as a form of behavioral disclosure. A full summary of the ESS's sampling and data collection procedures may be found at

https://www.europeansocialsurvey.org/methodology/ess_methodology/data_collection.html.

Analytic strategy and hypotheses. Country-level rates of societal tolerance, sexual identity disclosure, religiosity, and political alignment were calculated using the recommended post-stratification weight ("pspwght") supplied by the ESS. Next, a stepwise multilevel model was performed to assess the impact of structural stigma on disclosure. Predictors were standardized to allow for comparison of effect sizes across models. First, a baseline model (Model 1) was entered where only country and ESS collection round were included as random intercepts. Next, societal tolerance was entered as a Level-2 fixed predictor (Model 2), followed by governmental support (Model 3). Greater levels of societal tolerance and governmental support were hypothesized to independently predict disclosure rates, with country and ESS round included as grouping variables. Alternative models repeated Model 3, with changes applied to either the predictor variables, criterion variables, grouping variables, or participant inclusion criteria in ways consistent with the proposed alternative explanations.

Results

Countries overall tended to show moderate levels of societal tolerance ($M = 3.90$, $SD = 0.60$) and on average implemented only half the laws and policies that were rated for

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

governmental support ($M = 13.03$, $SD = 4.31$), though they varied widely. On average, countries showed very low rates of disclosure ($M = 0.53\%$, $SD = .43$). All country's scores on the main variables can be found in S1 and bivariate correlations may be found in S3.

Structural stigma's impact on disclosure. Societal predictors of disclosure were assessed in three steps (see Table 1; Main analysis). First, a baseline random intercept-only model was entered using country and ESS collection round as random intercepts (Model 1), and disclosure rate as the dependent variable. Next, societal tolerance (Model 2) and then governmental support (Model 3) were entered as fixed predictors. Consistent with hypotheses, both societal tolerance and governmental support positively predicted disclosure rates. Thus, countries with greater levels of tolerance for sexual minorities, and with more supportive laws and policies, showed greater rates of disclosure of sexual minority status (see Figures 1a and 1b).

Evaluation of alternative models. After establishing the relationships between societal tolerance, governmental support, and disclosure, alternative explanations were examined (see Table 1; Alternative models).

Specificity of structural stigma predictor variables. Societal tolerance and governmental support may be proxies for more general social opinions, such as political conservatism and religiosity (Itzhaky & Kissil, 2015; Silva, 2019). To evaluate this argument, a series of models were analyzed wherein either each country's conservatism or religiosity was examined as a Level-2, fixed predictor of sexual identity disclosure. Conservatism did not predict disclosure (Model 4) and was not examined further. Religiosity, on the other hand, negatively predicted disclosure (Model 5a). However, upon the inclusion of structural stigma, religiosity was no longer significantly predictive (Model 5b) while interpersonal tolerance and governmental support still were. It was therefore concluded that the societal tolerance and governmental support were more optimal predictors of disclosure than general conservatism or religiosity.

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Specificity of sexual minority criterion variable. Lower structural stigma against sexual minorities may indicate a society's general commitment to diversity. To evaluate whether it specifically impacts sexual minorities' willingness to disclose their stigmatized status, societal attitude and governmental support were entered to predict self-identification as a visible minority: race (Model 6a) and ethnicity (Model 6b). Neither societal tolerance nor governmental support for sexual minorities predicted disclosure of racial or ethnic minority status. Thus, it was concluded that both forms of structural stigma predict willingness to disclose sexual minority status and are not proxies for general diversity.

Alternative explanations based on sample selection. Each country's more populous urban areas may have biased their societal tolerance scores (Swank et al., 2012; cf. Cooke & Rapino, 2007). To account for this possibility, analysis used a weighted average of regional societal tolerance instead of country-level tolerance. ESS round, country, and region were entered as random intercepts. Country-level governmental support was still used as a predictor (Model 7). In this case as well, societal tolerance and governmental support still positively predicted disclosure rates to a similar extent as in the country-level model (i.e., Model 3).

Alternatively, the current findings may indicate that sexual minorities willing to disclose are more likely to immigrate to friendlier countries (Lee et al., 2018). Thus, the difference in disclosure rates would reflect a real difference in prevalence of sexual minorities who disclose their identities, and not structural stigma's effects upon individuals' willingness to disclose. To examine this possibility, the relationships between societal attitudes, governmental support, and disclosure were re-assessed after excluding immigrants (Model 8). Even in this case, societal tolerance and governmental support still positively predicted disclosure rates with similar effect sizes as those in the entire participant pool. Thus, it was concluded that geographic factors did not explain the main findings.

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Finally, in light of possible gender differences of discrimination faced between sexual minority men and women (e.g., Mallory et al., 2021), the observed relationships were re-assessed separately among men (Model 9a) and women (Model 9b). In both cases, societal and governmental support positively related to disclosure to a similar degree. Indeed, after an examination of six alternative models, only the direct relationships between societal tolerance, governmental support, and disclosure were indicated from the data.

Discussion

Greater levels of societal tolerance and governmental support both independently predicted greater rates of disclosure behavior. These relationships could not be explained by alternative hypotheses related to general socio-political stances (i.e., conservatism or religiosity), other minority statuses (i.e., racial or ethnic minorities), geographic factors (i.e., urbanicity or immigration), or gender. Some characteristics of Study 1 limit the interpretation of results. First, disclosure was operationally defined within a specific context and with a dichotomous outcome. However, sexual identity disclosure is more dimensional in nature, reflecting multiple, varied, context-dependent identity management strategies (Pachankis et al., 2020). Second, disclosure rates in Study 1 were low compared to the rates of sexual minorities found in the general population (van der Star et al., 2019). This may partially be because sexual minorities are uniquely reticent to disclose their sexual orientations on large, impersonal interviews such as the ESS (Ferlatte et al., 2017; Meyer & Wilson, 2009). Finally, Study 1 offered no insight into cognitive processes that may have served to link structural stigma with respondents' choices to disclose their identities. For these reasons, Study 2 aimed to replicate and extend the main findings from Study 1.

Study 2

Study 2 replicated the main findings from Study 1 in an independent, large sample of sexual minorities from 23 European countries using the European Union Lesbian, Gay, Bisexual

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

and Transgender Survey (EU-LGBT; European Union Agency for Fundamental Rights (FRA), 2019). Here, societal tolerance and governmental support predicted respondents' rating along a dimensional measure of disclosure more representative of their daily lives. Furthermore, indirect effects analyses were performed to examine the extent to which structural stigma impacts disclosure via sexual minority individuals' perceptions of their environment. Consistent with Lattaner et al., (2021), we expected these indirect relationships to occur among gay men and further explored whether they would occur with lesbian women, bisexual women and bisexual men.

Method

Analysis syntax may be found at <https://osf.io/us2hm/>. Individual data could not be shared due to confidentiality agreements in the EU-LGBT.

Participants. The full EU-LGBT database contains 93,079 respondents from 27 countries (European Union Agency for Fundamental Rights (FRA), 2019). Participants were removed from analysis either on the basis of reporting gender minority status (e.g., transgender; $n = 6,771$) or if their country was not included in the ESS ($n = 4,564$). Altogether, 81,744 participants were included in analysis, from 23 countries. As the case in other surveys targeted towards sexual and gender minorities (e.g., Kuyper et al., 2016), the current sample showed greater representation of younger, more educated males than the general population of sexual minorities (see S1 for descriptive statistics of sample and S4 for country-level demographic data). Further information regarding the EU-LGBT data collection methods may be found at: <https://fra.europa.eu/en/publication/2013/eu-lgbt-survey-european-union-lesbian-gay-bisexual-and-transgender-survey-results>.

Materials.

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Governmental support for sexual minorities. Governmental support was measured using the Rainbow Index for 2012 (International Lesbian, Gay, Bisexual, Trans, and Intersex Association, 2012). Importantly, the Index's rating system changed between 2012 and 2014. As such, final scores were calculated differently from Study 1, with a possible range of -2 to 20, with higher numbers indicating more laws favorable to sexual minorities.

Societal tolerance for homosexuals. The same procedures as those detailed in Study 1 were used for the ESS Round 6 (2012) to calculate each country's weighted mean of tolerance for homosexuals. Two countries, Greece and Croatia, were not included in Round 6 and instead ESS Round 5 (2010) data was used.

Sexual minority status disclosure. Respondents were asked to rate their degrees of openness about their sexual orientation (1 = none to 4 = complete) in six areas of their social environment (i.e., family, friends, neighbors, co-workers/schoolmates, supervisor, and medical provider). These items were averaged together to generate an ad-hoc measure reflecting their general level of disclosure on a scale of 1 (= not at all) to 4 (= completely). Items marked as "not relevant" to the respondent were coded as missing data and not included in the average. The resultant scale was notably similar to those used in other studies that include a dimensional measure of disclosure (e.g., Mohr & Fassinger, 2000; Persson et al., 2015). An exploratory factor analysis indicated a one-factor solution (see S6 for Scree plot), and the scale showed excellent reliability (Cronbach's alpha = .90).

Perception of structural stigma. Two items assessed respondent's perception of each form of structural stigma. Perception of governmental support was assessed using participants' ratings of the prevalence of, "positive measures to promote respect for the human rights of lesbian, gay or bisexual people (for instance equality plans, public campaigns, specialised services, etc.)". Perception of societal aversion was assessed using participants' ratings of the prevalence of, "expressions of hatred and aversion towards lesbian, gay, bisexual

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

and/or transgender in public”. For both these items, responses were marked on a scale of 1 (= very rare) to 4 (= very widespread). Responses of “don’t know” were entered as missing data.

Analysis strategy and hypotheses. First, the replicability of Study 1’s main effects (i.e., Model 3) was assessed using an independent sample from the EU-LGBT and a different, dimensional metric of disclosure. To do so, a linear regression was performed using disclosure as the criterion variable, standardized scores of interpersonal tolerance and structural support as predictor variables, and using the EU-LGBT’s suggested weights to increase representativeness of the sample. A successful replication was expected, with societal tolerance and governmental support hypothesized to positively predict disclosure.

Next, a multilevel, indirect effects analysis was undertaken to assess the extent to which structural stigma’s effects on disclosure may indirectly occur via respondents’ perceptions of their societal context was considered (Bauer et al., 2006; Preacher et al., 2010). In this model, the relationships between the individual-level mediator (i.e., perception of structural stigma) and criterion variable (i.e., disclosure levels) were directly estimated to yield within-country relationships (i.e., Level 1 random slopes). The size of the indirect effect was estimated at the country level (i.e., Level 2) via the predictor variable (i.e., structural stigma), and the country-level intercepts of the indirect and criterion variables. The consistency of the data with an indirect effects model was then assessed based on the extent to which (a) relationships in the country-level indirect effect path were significant, and (b) the amount of the total relationship the indirect path accounts for, when including direct effects as well. (see Bauer et al., 2006, 2-1-1 model for fuller discussion of analysis strategy).

Finally, to examine the effects of gender and sexuality, all analyses were separately repeated for gay men, lesbian women, bisexual men, and bisexual women, respectively. The results of each model were summarized and compared to each other in terms of effect sizes and statistical significance.

Results

As in Study 1, countries showed moderate levels of societal tolerance ($M = 3.94$, $SD = 0.38$) and governmental support ($M = 10.65$, $SD = 3.48$). Respondents in the current study also reported generally moderate rates of disclosure ($M = 2.32$, $SD = 0.90$), perceived aversion towards homosexuals ($M = 2.52$, $SD = 0.84$), and awareness of local positive measures ($M = 2.33$, $SD = 0.86$). All country's scores on the main variables can be found in S4 and bivariate correlations may be found in S5.

Replication of interpersonal model. To assess the replicability of Study 1's main findings, a linear regression was performed, with disclosure entered as the criterion variable, with the ESS societal tolerance and Rainbow Index governmental support scores as predictor variables, and EU-LGBT weights included as a weighting measure. Consistent with Study 1, both societal tolerance and governmental support independently predicted disclosure (Table 1; Model 10). Thus, it was concluded that Study 1's main findings successfully replicated with a different participant pool and a more ecologically valid measure for disclosure.

Indirect effect via perception of structural stigma. To assess the possibility that structural stigma influences disclosure via individuals' perception of their societies, two multilevel indirect effects models were analyzed. The societal tolerance model suggested partial mediation, with societal tolerance predicting disclosure both directly and via their negative relationships with perceived aversion (see Table 2, Full sample; Figure 2a). As a result, the indirect effect in this case accounted for 50% of the total effect. The governmental support model, on the other hand, suggested full mediation, with governmental support positively predicting a perception of widespread pro-sexual minority policies and programs, and pro-sexual minority policy perception predicting levels of identity disclosure (see Table 2, Full sample; Figure 2b). Unlike societal tolerance, governmental support did not directly predict disclosure. Altogether, the indirect effect accounted for more than the entirety of the total effect.

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Thus, taken together, the multilevel indirect effects analyses were consistent with the hypothesis that structural and interpersonal context would impact disclosure rates via individuals' perceptions of their environments.

Differences based on sexuality group. In order to examine whether the observed relationships apply to all sexualities, analyses were repeated for gay men, lesbian women, bisexual men, and bisexual women. Main effects of societal tolerance ($\beta s = .11 - .30, ps < .001$) and governmental support ($\beta s = .05 - .15, p < .001$) still independently predicted disclosure across sexuality subgroups (S7). Notably, the indirect effects models were smallest among bisexual men, but generally within the same range as the other subgroups (see S8a-h). Taken together, this indicate that perception of structural stigma's impact on disclosure is less present among bisexual men than among lesbian women, gay men, or bisexual women.

Discussion

The current study replicated the main findings from Study 1 using an independent, community sample of sexual minorities, and with a more dimensional and externally valid measure of disclosure. Furthermore, structural stigma was found to influence disclosure via respondents' perceptions of their environment. Nearly half of societal tolerance's relationship with disclosure – and all of governmental support's – was accounted for by respondents' perceptions of societal and governmental attitudes towards them. These effects were generally observed across genders and sexualities. Partially consistent with Lattaner et al., (2021), structural stigma's indirect effect upon disclosure was smaller among bisexual men, though still within the range of the effects observed among other sexualities.

General Discussion

The current studies quantify the extent to which two forms of structural stigma impact sexual minorities' willingness to disclose their orientation. In both studies, societal attitudes and governmental policies more favorable to sexual minorities predicted more disclosure. Six

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

alternative hypotheses were tested in Study 1, and rejected, indicating that these effects were specific to sexual minorities and could not be explained by geographic confounds. Furthermore, in Study 2, an exploratory indirect effects analysis found that these effects occurred via sexual minorities' perceptions of their societal and legal contexts. Taken together, these findings indicate that sexual minorities perceive the supportiveness of their societal environments and adjust their disclosure habits accordingly.

These relationships between societal tolerance, governmental support, and disclosure produced effects that were notably robust across datasets, time points, sampling methods, operationalizations of disclosure, and sexuality subgroup. Each study drew data from two (Study 1) or three (Study 2) separate datasets, minimizing the risk of shared measurement effects. Similarly, despite Study 1 taking place at a later time, with a population-representative sample, and Study 2 taking place earlier, with a community sample of sexual minorities, no temporal or design biases were observed as has been the case in other sexual minority research (Bishop et al., 2020; Kuyper et al., 2016). Additionally, these effects were robust to different measurements of disclosure, including Study 1's dichotomous, behavioral criterion and Study 2's dimensional, self-report measure.

These disclosure patterns are likely adaptive, as positive reactions to sexual minority status disclosure increase well-being while negative reactions decrease it (Legate et al., 2012; Ryan et al., 2015). Similarly, disclosure predicts greater levels of discrimination in areas with greater structural stigma (Pachankis & Bränström, 2018). Thus, the current findings are consistent with the conceptualization of identity management as a critical tool sexual minorities use to navigate their environments (e.g., Schrimshaw et al., 2018).

Furthermore, the current investigation may explain ironic effects that appear in other metrics of sexual minority experience. Differences in disclosure rates may lead to differences in levels of reported homophobic hate crimes and sexual minority political protest as both

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

reporting and protest require a greater willingness disclose sexual minority identity (Dunlap, 2016). Thus, it is possible that more tolerant societies would ironically show *greater* levels of reported hate crimes and public protest due to a lower cost incurred when identifying as a sexual minority and greater faith in the efficacy of such actions to accomplish their goals (Pachankis & Bränström, 2018; Persson et al., 2015). Future research may investigate whether this ironic effect holds true on more local levels, or in other settings such as workplaces or schools.

The current research also serves as a call for greater precision in future research on the relationship between sexuality-related structural stigma and well-being. Lattaner et al. (2021), for example, found associations between structural stigma and identity concealment among gay men but not bisexual men. The current findings indicate that this distinction may be more true for gay vs bisexual men than for lesbian vs bisexual women, though only to a limited degree in either case. Furthermore, for bisexual men, the kind of structural stigma may make a difference. While many studies construe structural stigma to be a combination of interpersonal tolerance and governmental support (e.g., Pachankis & Bränström, 2018), the current study found that the indirect effect of interpersonal tolerance on disclosure via perception was not significant for bisexual men, while the indirect effect of governmental support was. Future research on structural stigma may benefit from considering situations wherein whether different forms of structural stigma have different pathways to behavior.

Some limitations of the current studies highlight future directions for research on sexual minority disclosure. First, only cross-sectional data was available for each participant. As such, strict causal explanations should await longitudinal or experimental paradigms, especially with regards to the exploratory indirect effects analyses performed in Study 2 (Maxwell & Cole, 2007). Additionally, future research may investigate whether the observed effects of structural stigma are impacted by the circumstances surrounding sexual minority disclosure (e.g., pre-planned vs. coaxed; Manning, 2015), and whether these effects differ with regards to sexual

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

minorities marginalized in other ways as well, such as being racial/ethnic minority sexual minorities (Jackson et al., 2020). Similarly, the current research focused on attitudes and laws related to sexual minorities. Gender nonconforming individuals' methods of interpreting structural stigma remains a fruitful area of inquiry.

Finally, the current investigation focuses on the impact of structural stigma upon interpersonally-oriented disclosure behaviors. A fully realized theory of sexual minority well-being should also include intrapersonal forms of stigma, such as internalized homophobia, sexuality awareness, and rejection sensitivity (Bronfenbrenner, 1992; Legate et al., 2012; Pachankis, 2007). By including all levels of stigma in the same model, it will be possible to examine what individual factors allow for resilience to unsupportive legal policies, or to identify mechanisms through which stigmatic attitudes are internalized. All people, including sexual minorities, exist within concentric strata of influence (Bronfenbrenner, 1992). The current investigation models how distant, societal factors may effect interpersonal behavioral change. Future studies may examine how they impact internal cognitions and beliefs as well.

References

- Bauer, D. J., Preacher, K. J., & Gil, K. M. (2006). Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: New procedures and recommendations. *Psychological Methods*, 11(2), 142–163. <https://doi.org/10.1037/1082-989X.11.2.142>
- 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/dev0001105>
- Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (Ed.), *Six Theories of Child Development: Revised Formulations and Current Issues* (pp. 187–249). Jessica Kingsley Publishers.
- Cooke, T. J., & Rapino, M. (2007). The migration of partnered gays and lesbians between 1995 and 2000. *The Professional Geographer*, 59(3), 285–297. <https://doi.org/10.1111/j.1467-9272.2007.00613.x>
- Dunlap, A. (2016). Changes in coming out milestones across five age cohorts. *Journal of Gay & Lesbian Social Services*, 28(1), 20–38. <https://doi.org/10.1080/10538720.2016.1124351>
- Eisner, L., Turner-Zwinkels, F., & Spini, D. (2021). The impact of laws on norms perceptions. *Personality and Social Psychology Bulletin*, 47(7), 1071–1083. <https://doi.org/10.1177/0146167220959176>
- European Social Survey Round 5–9 (2010–2018). NSD – Norwegian Centre for Research Data, Norway – Data Archive and distributor of ESS data for ESS. ERIC. doi: [10.21338/NSD-ESS-CUMULATIVE](https://doi.org/10.21338/NSD-ESS-CUMULATIVE). (<http://www.europeansocialsurvey.org>).
- European Union Agency for Fundamental Rights (FRA). (2019). *European Union Lesbian, Gay,*

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Bisexual and Transgender Survey, 2012: Special Licence Access. [data collection]. UK

Data Service. SN: 7956, <http://doi.org/10.5255/UKDA-SN-7956-1>

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>

Hatzenbuehler, M. L. (2016). Structural stigma: Research evidence and implications for psychological science. *American Psychologist*, 71(8), 742–751. <https://doi.org/10.1037/amp0000068>

Itzhaky, H., & Kissil, K. (2015). “It’s a horrible sin. If they find out, I will not be able to stay”: Orthodox Jewish Gay men’s experiences living in secrecy. *Journal of Homosexuality*, 62(5), 621–643. <https://doi.org/10.1080/00918369.2014.988532>

Jackson, S. D., Mohr, J. J., Sarno, E. L., Kindahl, A. M., & Jones, I. L. (2020). Intersectional experiences, stigma-related stress, and psychological health among Black LGBTQ individuals. *Journal of Consulting and Clinical Psychology*, 88(5), 416–428. <https://doi.org/10.1037/ccp0000489>

Kuntz, A., Davidov, E., Schwartz, S. H., & Schmidt, P. (2015). Human values, legal regulation, and approval of homosexuality in Europe: A cross-country comparison. *European Journal of Social Psychology*, 45(1), 120–134. <https://doi.org/10.1002/ejsp.2068>

Kuyper, L., Fernee, H., & Keuzenkamp, S. (2016). A comparative analysis of a community and general sample of lesbian, gay, and bisexual individuals. *Archives of Sexual Behavior*, 45(3), 683–693. <https://doi.org/10.1007/s10508-014-0457-1>

Lee, J. G. L., Wimark, T., Ortiz, K. S., & Sewell, K. B. (2018). Health-related regional and neighborhood correlates of sexual minority concentration: A systematic review. *PLOS ONE*,

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

13(6), e0198751. <https://doi.org/10.1371/journal.pone.0198751>

Legate, N., Ryan, R. M., & Weinstein, N. (2012). Is coming out always a “good thing”? exploring the relations of autonomy support, outness, and wellness for lesbian, gay, and bisexual individuals. *Social Psychological and Personality Science*, 3(2), 145–152.

<https://doi.org/10.1177/1948550611411929>

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27(1), 363–385. <https://doi.org/10.1146/annurev.soc.27.1.363>

Mallory, A. B., Pollitt, A. M., Bishop, M. D., & Russell, S. T. (2021). Changes in disclosure stress and depression symptoms in a sample of lesbian, gay, and bisexual youth. *Developmental Psychology*, 57(4), 570–583. <https://doi.org/10.1037/dev0001168>

Manning, J. (2015). Communicating sexual identities: A typology of coming out. *Sexuality & Culture*, 19(1), 122–138. <https://doi.org/10.1007/s12119-014-9251-4>

Maxwell, S. E., & Cole, D. A. (2007). Bias in cross-sectional analyses of longitudinal mediation. *Psychological Methods*, 12(1), 23–44. <https://doi.org/10.1037/1082-989X.12.1.23>

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., & Wilson, P. A. (2009). Sampling lesbian, gay, and bisexual populations. *Journal of Counseling Psychology*, 56(1), 23–31. <https://doi.org/10.1037/a0014587>

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>

Pachankis, J. E. (2007). The psychological implications of concealing a stigma: A cognitive-

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

affective-behavioral model. *Psychological Bulletin*, 133(2), 328–345.

<https://doi.org/10.1037/0033-2909.133.2.328>

Pachankis, J. E., & Branstrom, R. (2019). How many sexual minorities are hidden? Projecting the size of the global closet with implications for policy and public health. *PLoS ONE*, 14(6), 1–12. <https://doi.org/10.1371/journal.pone.0218084>

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., Mahon, C. P., Jackson, S. D., Fetzner, B. K., & Bränström, R. (2020). Sexual orientation concealment and mental health: A conceptual and meta-analytic review. *Psychological Bulletin*, 146(10), 831–871. <https://doi.org/10.1037/bul0000271>

Persson, T. J., Pfaus, J. G., & Ryder, A. G. (2015). Explaining mental health disparities for non-monosexual women: Abuse history and risky sex, or the burdens of non-disclosure? *Social Science & Medicine*, 128, 366–373. <https://doi.org/10.1016/j.socscimed.2014.08.038>

Preacher, K. J. (2015). Advances in mediation analysis: A survey and synthesis of new developments. *Annual Review of Psychology*, 66(1), 825–852. <https://doi.org/10.1146/annurev-psych-010814-015258>

Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, 15(3), 209–233. <https://doi.org/10.1037/a0020141>

Riggle, E. D. B., Rostosky, S. S., McCants, L. E., & Pascale-Hague, D. (2011). The positive aspects of a transgender self-identification. *Psychology and Sexuality*, 2(2), 147–158. <https://doi.org/10.1080/19419899.2010.534490>

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

- Rosario, M., Schrimshaw, E. W., & Hunter, J. (2008). Predicting different patterns of sexual identity development over time among lesbian, gay, and bisexual youths: A cluster analytic approach. *American Journal of Community Psychology*, 42(3–4), 266–282.
<https://doi.org/10.1007/s10464-008-9207-7>
- Rothman, E. F., Sullivan, M., Keyes, S., & Boehmer, U. (2012). Parents' supportive reactions to sexual orientation disclosure associated with better health: Results from a population-based survey of LGB adults in Massachusetts. *Journal of Homosexuality*, 59(2), 186–200.
<https://doi.org/10.1080/00918369.2012.648878>
- Ryan, W. S., Legate, N., & Weinstein, N. (2015). Coming out as lesbian, gay, or bisexual: The lasting impact of initial disclosure experiences. *Self and Identity*, 14(5), 549–569.
<https://doi.org/10.1080/15298868.2015.1029516>
- 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>
- Silva, T. J. (2019). Straight identity and same-sex desire: Conservatism, homophobia, and straight culture. *Social Forces*, 97(3), 1067–1094. <https://doi.org/10.1093/sf/soy064>
- Swank, E., Frost, D. M., & Fahs, B. (2012). Rural location and exposure to minority stress among sexual minorities in the United States. *Psychology and Sexuality*, 3(3), 226–243.
<https://doi.org/10.1080/19419899.2012.700026>
- 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>

Table 1. Summary of findings from Studies 1 and 2

	<u>Study 1: Main analysis</u>			<u>Study 1: Alternative models</u>									<u>Study 2</u>
Variables	Model 1	Model 2	Model 3	Model 4	Model 5a	Model 5b	Model 6a	Model 6b	Model 7	Model 8	Model 9a	Model 9b	Model 10
Intercept	.47***	.51*	.52*	.47	.50**	.52*	.98***	.94***	-.49*	.53*	.56*	.49*	2.31***
Societal tolerance		.30*** [.22; .38]	.18** [.08; .28]			.18*** [.08; .28]	.21 [-.14; .57]	-.19 [-.50; .13]	.18*** [.08; .28]	.20*** [.09; .30]	.19** [.06; .31]	.19* [.04; .34]	.26*** [.20; .32]
Governmental support			.17** [.07; .27]			.14** [.04; .25]	.22 [-.08; .52]	.17 [-.12; .45]	.16** [.06; .26]	.15** [.04; .26]	.13* [.00; .25]	.18* [.03; .33]	.11*** [.05; .17]
Religiosity					-.16** [-.32; -.07]	-.06 [-.13; .02]							
Conservatism				-.06 [-.19; .06]									

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Note. Brackets show 95% confidence intervals for effect sizes. ESS round and country were entered as grouping variables for Study 1 models. Model 8 included region as a grouping variable as well. Dependent variable was sexuality disclosure for all models except for Model 6a, which predicted race disclosure, and Model 6b, which predicted ethnicity disclosure. Model 9 was performed on only native-born participants. Model 9a was performed on only men and Model 9b on only women. All predictors in the model are standardized. Sexual minority, race, and ethnicity disclosure rates are not. * - $p < .05$, ** - $p < .01$ *** - $p < .001$.

Table 2. Indirect and total effects of structural stigma on disclosure via perception, divided by sexuality and gender

Path	Full sample	Gay men	Lesbian women	Bisexual men	Bisexual women
Interpersonal Tolerance					
Indirect effect	.13** [.04; .21]	.13** [.04; .22]	.13** [.05; .21]	.05 [†] 95% CI [-.01; .12]	.10** [.03; .17]
Total effect	.26*** [.20; .32]	.30*** [.23; .36]	.26*** [.17; .34]	.11*** [.07; .15]	.16** 95% CI [.11; .20]
% Indirect	50%	43%	50%	45%	62%
Government Support					
Indirect effect	.29** [.08; .51]	.33** [.09; .56]	.24* [.04; .44]	.13** [.03; .22]	.17** [.03; .30]
Total effect	.21* [.00; .43]	.23* [.00; .47]	.24* [.02; .46]	.10* [.00; .20]	.14* [.00; .28]
% Indirect	138%	143%	100%	130%	121%

Note. Brackets show 95% confidence intervals for effect sizes. [†] - $p < .01$, * - $p < .05$, ** - $p < .01$ *** - $p < .001$.

Figures 1a-b. Relationships between structural stigma and sexual minority disclosure rates (Study 1)

Figure 1a. Relationship between societal tolerance and disclosure rate

Figure 1b. Relationship between governmental support and disclosure rate

Note. Disclosure percentage and societal tolerance are weighted averages. Figures represent relationships of each environmental factor after controlling for the effects of the other (i.e., governmental support after controlling for societal tolerance and vice versa).

Figures 2a-b. Relationships between structural stigma and disclosure via perception of structural stigma (Study 2)

Figure 2a. Indirect effects model with societal tolerance

Figure 2b. Indirect effects model with governmental support

Supplementary Materials

S 1. Descriptive statistics for Studies 1 and 2

	Study 1		Study 2	
	N	%	N	%
Gender				
Male	59,851	46.71%	61,343	75.04%
Female	68,239	53.26%	20,401	24.96%
Other/no answer	31	0.02%	-	0.00%
Age range				
18-29	19,281	15.05%	39,062	47.79%
30-39	19,565	15.27%	20,734	25.36%
40-49	21,354	16.67%	14,092	17.24%
50-59	22,844	17.83%	5,765	7.05%
60+	44,601	34.81%	2,091	2.56%
Other/no answer	476	0.37%	-	0.00%

Education

	Study 1		Study 2	
	N	%	N	%
Below elementary (<8 yrs)	7,620	5.95%	139	0.17%
Elementary (8-11 yrs)	32,643	25.48%	1,471	1.80%
High school (12-15 yrs)	53,919	42.08%	33,192	40.60%
University (16+ yrs)	32,516	25.38%	45,077	55.14%
Other/no answer	1,423	1.11%	1,865	2.28%
Income				
1st quartile (highest)	27,796	21.70%	22,730	27.81%
2nd quartile	28,652	22.36%	20,802	25.45%
3rd quartile	26,665	20.81%	17,904	21.90%
4th quartile (lowest)	21,106	16.47%	20,308	24.84%
Other/no answer	23,902	18.66%	-	0.00%
Total	128,121	100.00%	81,744	100.00%

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Supplementary Material 2. Demographic data and main variables included in Study 1, by country and ESS round

Country	ESS Round	N	N Women (%)	Mean Age (SD)	Societal Tolerance	Percent Sexuality Disclosure	Governmental Support	Region
Austria	7	1762	920 (52.21%)	49.83 (17.65)	4.05	0.79	11.5	Western
	8	1994	1100 (55.17%)	49.96 (17.17)	4.01	0.22	15.5	
	9	2454	1327 (54.07%)	52.21 (17.55)	4.10	0.46	15.5	
Belgium	7	1686	844 (50.06%)	48.45 (18.13)	4.29	0.33	19	Western
	8	1701	852 (50.09%)	48.15 (18.21)	4.36	0.85	20	
	9	1701	864 (50.79%)	49.14 (18.49)	4.35	0.95	19	
Bulgaria	9	2133	1183 (55.46%)	55.73 (17.07)	3.05	0.00	7	Eastern
Croatia	9	1792	1069 (59.65%)	51.51 (17.73)	3.33	0.29	12	Southern
Cyprus	9	773	411 (53.17%)	54.84 (18.32)	3.39	0.46	9	Southern
Denmark	7	1434	692 (48.26%)	49.59 (17.99)	4.52	0.13	17	Northern
Estonia	7	2004	1196 (59.68%)	51.12 (18.56)	3.07	0.23	7	Northern
	8	1963	1070 (54.51%)	50.6 (18.39)	3.44	0.17	8	
	9	1848	1042 (56.39%)	51.78 (18.62)	3.40	0.38	10	
Finland	7	2021	1024 (50.67%)	52.42 (18.26)	4.04	0.49	13	Northern
	8	1868	934 (50%)	51.17 (18.28)	4.16	0.89	15	
	9	1695	868 (51.21%)	52.13 (18.29)	4.21	1.00	19	
France	7	1858	974 (52.42%)	50.95 (18.02)	4.21	0.57	15	Western
	8	2016	1096 (54.37%)	53.35 (18.22)	4.44	0.50	15	
	9	1967	1076 (54.7%)	53.16 (18.4)	4.46	0.92	16	
Germany	7	2936	1442 (49.11%)	51.1 (17.49)	4.20	0.51	12.5	Western
	8	2726	1275 (46.77%)	50.05 (17.54)	4.21	0.61	12.5	
	9	2277	1113 (48.88%)	50.84 (18.29)	4.23	0.46	14.5	
Hungary	7	1663	959 (57.67%)	50.58 (17.86)	3.27	0.10	11	Eastern

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Country	ESS Round	N	N Women (%)	Mean Age (SD)	Societal Tolerance	Percent Sexuality Disclosure	Governmental Support	Region
Iceland	8	1580	916 (57.97%)	51.53 (18.24)	2.83	0.23	12	Northern
	9	1629	938 (57.58%)	51.65 (18.02)	2.90	0.09	12	
	8	857	428 (49.94%)	49.56 (17.6)	4.65	0.77	12	
Ireland	7	2343	1265 (53.99%)	50.06 (17.75)	4.34	0.49	12	Northern
	8	2729	1388 (50.86%)	50.51 (17.66)	4.22	0.37	15	
Italy	9	2195	1152 (52.48%)	52.58 (17.42)	4.38	1.18	15	Southern
	8	2524	1295 (51.31%)	50.14 (18.3)	3.67	0.22	6	
	9	2685	1419 (52.85%)	52.06 (18.93)	3.77	0.17	6	
Latvia	9	912	617 (67.65%)	56.11 (17.53)	3.43	0.63	7	Northern
Lithuania	7	2144	1330 (62.03%)	51.38 (17.37)	2.36	0.05	8	Northern
	8	2040	1221 (59.85%)	51.29 (17.44)	2.61	0.00	7	
Montenegro	9	1817	1252 (68.9%)	56.73 (17.32)	2.76	0.16	8	Southern
	9	1181	584 (49.45%)	48.94 (17)	2.90	0.04	9	
	7	1866	1032 (55.31%)	51.73 (17.54)	4.55	0.82	19	
Netherlands	8	1644	906 (55.11%)	52.01 (18.15)	4.58	1.07	19	Western
	9	1598	802 (50.19%)	50.2 (17.84)	4.53	1.38	18	
	7	1364	649 (47.58%)	48.32 (17.71)	4.33	0.84	16	
Norway	8	1479	679 (45.91%)	48.34 (18.1)	4.40	0.92	15	Northern
	9	1353	599 (44.27%)	48.34 (17.46)	4.55	1.03	17	
	7	1569	851 (54.24%)	48.2 (18.3)	3.28	0.18	7	
Poland	8	1632	855 (52.39%)	48.36 (17.56)	3.51	0.05	6	Eastern
	9	1444	763 (52.84%)	48.84 (18.18)	3.34	0.20	7	
	7	1227	671 (54.69%)	54.04 (18.48)	3.93	0.18	12	
Portugal	8	1249	729 (58.37%)	52.65 (17.85)	4.10	0.96	14	Southern

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Country	ESS Round	N	N Women (%)	Mean Age (SD)	Societal Tolerance	Percent Sexuality Disclosure	Governmental Support	Region
	9	1034	601 (58.12%)	53.1 (17.74)	4.06	0.25	18	
Serbia	9	2012	1044 (51.89%)	54.19 (17.55)	2.83	0.10	9	Southern
Slovakia	9	1075	575 (53.49%)	55.34 (16.77)	3.10	0.00	9	Eastern
Slovenia	7	1188	642 (54.04%)	50.59 (17.98)	3.55	0.28	12	Southern
	8	1256	681 (54.22%)	50.4 (17.79)	3.57	0.08	11	
	9	1276	689 (54%)	50.45 (18.12)	3.67	0.38	13	
Spain	7	1879	910 (48.43%)	49.28 (18.16)	4.42	0.98	18.5	Southern
	8	1918	967 (50.42%)	50.29 (17.77)	4.41	0.69	16	
	9	1613	801 (49.66%)	49.63 (17.98)	4.35	1.58	16	
Sweden	7	1735	873 (50.32%)	50.72 (19.23)	4.50	0.28	16	Northern
	8	1515	761 (50.23%)	52.41 (18.47)	4.55	0.66	16	
	9	1511	746 (49.37%)	53.2 (18.71)	4.55	1.69	16	
Switzerland	7	1476	736 (49.86%)	48.53 (18.17)	4.14	0.13	7	Western
	8	1465	713 (48.67%)	49.13 (18.02)	4.25	0.27	8	
	9	1485	738 (49.7%)	48.71 (18.16)	4.24	0.41	9	
United Kingdom	7	2227	1225 (55.01%)	52.8 (17.94)	4.18	1.23	19.5	Northern
	8	1925	1068 (55.48%)	52.02 (18.32)	4.27	0.77	20	
	9	2175	1187 (54.57%)	52.89 (18.01)	4.33	1.55	20	

Supplementary Material 3. Means, standard deviations, and correlations of main Study 1 variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Sexuality disclosure	0.53	0.43							
2. Societal tolerance	3.90	0.60	.67**						
3. Governmental support	13.03	4.31	.68**	.72***					
4. N	1755.35	460.93	.02	.04	.04				
5. Religiosity	5.58	0.87	-.43**	-.38**	-.47***	-.07			
6. Conservatism	6.07	0.39	-.17	-.18	-.27*	-.19	.04		
7. Racial disclosure	1.03	1.14	.37**	.27*	.52***	.14	-.33**	-.02	
8. Ethnicity disclosure	0.90	0.77	.00	-.19	.11	.06	-.41**	.11	.56***

Note. * - $p < .05$, ** - $p < .01$ *** - $p < .001$.

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Supplementary Material 4a. Demographic data and main variables included in Study 2, by country

Country	N	N Women (%)	Societal Tolerance	Disclosure	Governmental Support
Belgium	2736	556 (20.32%)	4.20	2.61	10.5
Bulgaria	927	365 (39.37%)	3.51	1.76	9
Croatia	1089	392 (36.00%)	3.00	1.78	9
Cyprus	240	59 (24.58%)	3.46	1.71	7
Czech Republic	2299	728 (31.67%)	3.58	2.14	6
Denmark	1567	529 (33.76%)	4.42	2.96	7
Estonia	350	160 (45.71%)	3.13	1.91	8
Finland	2958	1576 (53.28%)	4.00	2.41	11
France	7940	1628 (20.50%)	4.13	2.30	6
Germany	18942	3035 (16.02%)	4.10	2.54	14
Greece	2496	618 (24.76%)	3.31	1.82	8
Hungary	2133	442 (20.72%)	3.14	1.88	11
Ireland	1486	564 (37.95%)	4.22	2.60	10
Italy	12605	2941 (23.33%)	3.85	1.91	6.5
Lithuania	781	277 (35.47%)	2.24	1.57	9
Netherlands	2924	828 (28.32%)	4.47	3.05	12
Poland	2531	639 (25.25%)	3.28	1.76	7
Portugal	2038	724 (35.53%)	3.78	1.87	14
Slovakia	885	240 (27.12%)	2.90	1.80	9
Slovenia	607	224 (36.90%)	3.30	1.99	11
Spain	6174	1251 (20.26%)	4.18	2.39	15.5
Sweden	2090	768 (36.75%)	4.33	2.78	13
United Kingdom	5946	1857 (31.23%)	4.11	2.69	14

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Supplementary Material 4b. Age in Study 2, by country

	18-29	30-39	40-49	50-59	60+
Belgium	1091	747	549	265	84
Bulgaria	610	245	56	16	0
Croatia	729	265	81	13	1
Cyprus	117	79	35	7	2
Czech Republic	1526	512	165	63	33
Denmark	645	361	310	156	95
Estonia	203	105	30	9	3
Finland	1763	699	320	124	52
France	3676	1845	1527	673	219
Germany	7081	5157	4359	1741	604
Greece	1273	770	346	90	17
Hungary	1314	551	182	59	27
Ireland	720	416	231	96	23
Italy	6508	3079	2134	708	176
Lithuania	577	130	60	12	2
Netherlands	829	645	719	468	263
Poland	1708	599	179	34	11
Portugal	1194	503	233	89	19
Slovakia	601	217	51	15	1
Slovenia	349	194	51	9	4
Spain	2876	1715	1127	369	87
Sweden	1090	466	287	151	96

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

United Kingdom	2582	1434	1060	598	272
----------------	------	------	------	-----	-----

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Supplementary Material 5. Means, standard deviations, and correlations of main Study 2

variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. Sexuality disclosure	2.32	0.90				
2. Societal tolerance	3.94	0.38	.34**			
3. Governmental support	10.65	3.48	.22**	.36**		
4. Perceived aversion	2.52	0.84	-.23**	-.34**	-.21**	
5. Perceived positive measures	2.33	0.86	.26**	.38**	.37**	-.35**

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Supplemental Material 7. Study 2 main effects divided by sexuality and gender

Subgroup	Intercept	Interpersonal Tolerance	Governmental Support
Men (total)	2.32 ^{***}	.28 ^{***}	.10 ^{***}
Gay men	2.41 ^{***}	.30 ^{***}	.11 ^{***}
Bisexual men	1.65 ^{***}	.11 ^{***}	.05 ^{***}
Women (total)	2.27 ^{***}	.21 ^{***}	.13 ^{***}
Lesbian women	2.43 ^{***}	.24 ^{***}	.15 ^{***}
Bisexual women	1.93 ^{***}	.15 ^{***}	.08 ^{***}

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Supplemental Materials 8a-h. Indirect effects models divided based on sexuality

Supplemental Material 8a. Indirect effects model with societal tolerance among gay men

Supplemental Material 8b. Indirect effects model with governmental support among gay men

Supplemental Material 8c. Indirect effects model with societal tolerance among bisexual men

Supplemental Material 8d. Indirect effects model with governmental support among bisexual men

NOTE: THIS MANUSCRIPT IS CURRENTLY UNDER PEER REVIEW AND HAS NOT YET BEEN ACCEPTED FOR PUBLICATION. PLEASE SEE <https://osf.io/us2hm/> FOR UPDATES IN THE PEER REVIEW PROCESS.

Supplemental Material 8e. Indirect effects model with societal tolerance among lesbian women

Supplemental Material 8f. Indirect effects model with governmental support among lesbian women

Supplemental Material 8g. Indirect effects model with societal tolerance among bisexual women

Supplemental Material 8h. Indirect effects model with governmental support among bisexual women