

On guard: Public versus private affection-sharing experiences in same-sex, gender-diverse, and mixed-sex relationships

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Abstract

This study compared public versus private affection-sharing experiences of individuals in mixed-sex ($N = 1018$), same-sex ($N = 561$), and gender-diverse ($N = 96$) relationships. Private affection-sharing was similar across groups, except those in mixed-sex relationships reported somewhat less comfort doing so. Despite having a stronger desire to engage in public affection-sharing, those in same-sex and gender-diverse relationships shared public affection less frequently, were less comfortable doing so, refrained from doing so more often, and experienced much higher levels of vigilance related to public affection-sharing, compared to those in mixed-sex relationships. Heightened PDA-related vigilance may have health consequences, as higher levels were associated with worse psychological and physical well-being in all groups. However, individuals in same-sex relationships showed weaker associations between vigilance and well-being than those in mixed-sex relationships, suggesting possible resilience. Still, engaging in vigilance may take its toll, potentially serving as a mechanism through which minority stress works its effects. When we controlled for PDA-related vigilance, psychological and physical well-being levels in same-sex relationships increased relative to mixed-sex peers.

Keywords

Public displays of affection, vigilance, PDA-related vigilance, same-sex relationships, gender-diverse relationships, Minority stress model, LGBTQ Health, relationship affection

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Imagine being in public with your partner when you receive devastating personal news. Naturally, you are likely to want to share consoling affection. However, what if, before you even reached out to your partner, you both paused and scanned your environment to determine whether it would be safe to do so? Such a scenario will not resonate for many individuals in socially accepted relationships, but it is all too common for individuals in socially stigmatized relationships, such as same-sex relationships.

Indeed, despite advances in LGBTQ civil rights, what should be simple, benign, personal gestures of affection between partners often become closely guarded and monitored due to safety concerns. Even as same-sex couples have gained visibility and legal recognition, there has simultaneously been an increase in anti-LGBTQ hate crimes, many of which are violent (e.g., [Armstrong, 2019](#); [Moreau, 2021](#)). In Canada, over 50% of such crimes involve physical violence and are the most likely form of hate crime to be violent ([Leber, 2017](#)). However, despite anecdotal evidence that societal stigma complicates affection-sharing experiences for individuals in marginalized relationships, little empirical research has sought to assess how affection experiences differ in same-sex (e.g., two men, two women, matching gender identities) versus mixed-sex (e.g., man and woman) relationships.

Affection

Non-sexual affectionate touch is a crucial ingredient in human thriving. Humans deprived of touch fail to develop into healthy adults with loving, secure attachments ([Floyd, 2018](#)). Unfortunately, affection research within adult romantic relationships has predominantly focused on associations with sexual satisfaction (e.g., [Debrot et al., 2017](#)) or has not distinguished between public and private forms of affection (e.g., [Debrot et al., 2013](#); for exceptions, see [Hocker et al., 2021](#); [Kent & El-Alayli, 2011](#)). Indeed, when one's affection-sharing is simply unnoticed in public, the thought of context may seem irrelevant. However, as numerous violent attacks on same-sex couples in the moments after sharing affection can attest (e.g., [McManus, 2021](#)), context is very relevant to individuals in stigmatized relationships. Thus, the current study assesses how affection-sharing experiences in mixed-sex, same-sex, and gender-diverse relationships vary as a function of context (public vs. private) and audience (strangers, friends, or family). Before exploring these differences, we will review the broader literature on affection-sharing and its benefits.

Touch has documented benefits, and its disruption has negative consequences ([Jakubiak & Feeney, 2017](#)). Affection Exchange Theory combines sociocultural and bio-evolutionary perspectives to argue that affection is a fundamental human need that varies at the trait level for individuals and is associated with positive relational, mental, and physical health outcomes ([Floyd, 2018](#)). While much of the research on the benefits of touch has emerged from studies exploring infant-caregiver touch ([Feldman, 2011](#)) or massage therapy ([Field et al., 2006](#)), such research has unearthed a plethora of positive outcomes, including attenuated stress response systems ([Feldman et al., 2010](#)), the facilitation of self-regulation development ([Feldman, 2009](#)), and reductions in depression

(O'Higgins et al., 2008), cortisol (Lawler & Cameron, 2006), heart rate (Garner et al., 2008), and overall risk for illness (Jump et al., 2006).

Within mixed-sex romantic relationships, those who report more affectionate touch with their partner show better relationship functioning, including increased relationship satisfaction (Floyd et al., 2009), better conflict resolution (Gulledge et al., 2003), and reduced likelihood of divorce (Huston et al., 2001). Partners who share affectionate touch also experience psychological and physical health benefits: better life satisfaction (Debrot et al., 2017), increased positive mood (Debrot et al., 2013), reduced mental stress (Floyd et al., 2009), and a more efficient physiological stress response (Ditzen et al., 2008; Floyd, 2006).

Additional evidence for the benefits of touch comes from studying affection deprivation, in which people do not receive the minimum amount of affection needed to satisfy their individual preferences (Floyd, 2014). Unfortunately, this experience is not uncommon: 34% of individuals in one national US sample reported that their romantic partners did not touch them as frequently as they would like (Kinsey Institute, 2016). Furthermore, touch deprivation within a romantic relationship is associated with increased mental distress, including depression, stress, loneliness, poorer sleep quality, and reduced relationship satisfaction and closeness (Hesse & Mikkelsen, 2016). Thus, affection-sharing within relationships appears to be an important predictor of many aspects of well-being.

Affection in same-sex relationships

However, most research in this area has focused on presumably heterosexual, mixed-sex relationships, and the context of affection-sharing is either restricted to the private sphere or else is left unspecified. The relevance of context as a variable may hinge upon the marginality of a relationship. Context is potentially less relevant or salient for relationships generally met with societal approval. However, context is critical for individuals in potentially marginalized relationships (e.g., same-sex, interracial). From the little research that does exist, we know that individuals in many types of marginalized relationships avoid public displays of affection (Hocker et al., 2021; Kent & El-Alayli, 2011; Vaquera & Kao, 2005). When marginalized couples *do* share affection in public, they report being cognizant of the potential to encounter disapproval or even violence (De Oliveira et al., 2013).

Potential adverse reactions to same-sex affection-sharing are not figments of imagination; research documents the reality of negative responses (e.g., O'Handley et al., 2017). For example, Doan et al. (2014) found that even when attitudes toward formal LGBTQ civil rights (e.g., marriage and hospital visitation) were relatively positive, heterosexual respondents were still reluctant to extend "informal privileges," such as acceptance of public affection, to same-sex couples.

LGBTQ individuals are not oblivious to these negative sentiments, and perceptions of adverse reactions can affect their affection-sharing behavior. A study of 67 women in same-sex relationships found that believing one's relationship to be perceived negatively by others was associated with a reduced likelihood of sharing affection in public (Kent &

El-Alayli, 2011). If individuals in same-sex relationships are hesitant about sharing public affection, they are also likely to be deprived of the benefits of affectionate touch. Furthermore, they may grapple with heightened vigilance associated with monitoring on-lookers' responses, thereby increasing their minority stress.

Public affection-sharing as a catalyst for minority stress

The minority stress model suggests that members of minority groups experience stressors directly related to monitoring their identities, especially in public (Brooks, 1981; Meyer, 2003). They know that their minority identity might trigger experiences of rejection, discrimination, or even violence (e.g., 60% of LGBT people in Canada have been bullied due to their sexual or gender identity; Jasmin Roy Foundation, 2017). Even if minority group members experience no negative consequences of their minority identity in a given moment, they still must expend energy monitoring their surroundings and being vigilant for potential problems (e.g., 50% of young gay and bisexual men anticipate stigma from strangers in public; Trussler & Ham, 2016). In other words, simply being aware that one's identity might elicit negative reactions from others can contribute to heightened stress.

For individuals in same-sex relationships, regulating how they physically interact with a partner in public can become an integral part of "managing" their identity, serving as an ongoing mechanism through which they either reveal or conceal their sexual identity and the nature of their relationship. Sharing certain forms of affection can immediately "out" a couple and their sexual identities, thus necessitating that LGBTQ individuals carefully assess when, where, and in front of whom they share affection. One recent study (Hocker et al., 2021) hints at this internal balancing act. Increased subjective minority stress was indeed associated with lower levels of public affection-sharing, particularly for those lower in relationship commitment (suggesting perhaps that the perceived risks did not sufficiently outweigh the relational benefits; Hocker et al., 2021).

The conflict between wanting to share affection with one's partner while simultaneously managing one's minority identity creates an additional stressor that those in non-marginalized relationships do not face. Consequently, an innocuous and usually beneficial act of affection-sharing may become laden with an additional layer of meaning, becoming the mechanism through which minority identities are disclosed and potentially the catalyst that brings about unwelcome or even violent responses. Given that even the anticipation of discrimination can trigger minority stress (Rostosky & Riggle, 2017), simple awareness of the possibility of adverse responses to one's affection-sharing may be associated with worse individual and relational well-being.

Current paper

The current study sought to explore how experiences of affection-sharing may vary as a function of context (public vs. private) and relationship type.¹ We explored whether there were any differences in affection-sharing constructs between relationship types in private (Research Question [RQ]1). Given past research showing many more similarities than differences in how same-sex and mixed-sex relationships function (Diamond & Blair, 2018),

we did not anticipate many group differences in the private context. However, given research on negative reactions to same-sex public displays of affection² (PDAs) and general awareness of stigma directed at same-sex relationships, we expected to see lower levels of comfort with (Hypothesis [H]1), and frequency of (H2), public affection-sharing for those in same-sex versus mixed-sex relationships. We expected individuals in same-sex relationships to report a greater desire for affection-sharing in public than those in mixed-sex relationships (H3). For those in same-sex relationships, context is more salient, potentially increasing their awareness of having less “access” to PDAs and thereby increasing desire. We expected those in same-sex relationships to report higher levels of PDA-related vigilance than those in mixed-sex relationships (H4).

Further, we expected that increased PDA-related vigilance would predict worse relational, mental, and physical well-being for all participants but that these associations would be stronger for those in same-sex relationships (H5). Concerning specific public audiences, we expected all participants to demonstrate variability between audience types (strangers vs. friends vs. family), but for those in same-sex relationships to report greater variability between contexts than those in mixed-sex relationships (H6). Finally, we expected those in same-sex relationships to report a greater frequency of refraining from affection-sharing in public than those in mixed-sex relationships (H7).

Method

Recruitment and procedure

The study, approved by the REBs at Acadia and St Francis Xavier Universities, collected data between February and December 2019. We recruited participants via social media advertisements, an undergraduate research participation pool, and invitations sent to an existing database of >6000 individuals (approximately half LGBTQ+) from previous studies. Participants had to be at least 18 years old (or 16 if from the undergraduate participant pool) and currently in a romantic relationship of any type or duration. Recruitment materials included a link to a website describing the study; interested participants clicked through to read the consent form and proceeded to the online survey, which took approximately 1 hour to complete. We compensated participants with prize draw entries or bonus course credit for students. Measures relevant to the current paper are described below and in the [Supplementary Materials](#).

Participants

We removed participants if they completed the study more than once ($n = 12$), admitted in a question at the end of the study that they had not taken the study seriously ($n = 4$), or gave nonsensical answers ($n = 2$; e.g., reported age as 29 years, but reported 80 years of education and a 75-year relationship length). Participants were encouraged to invite their partners to participate in the study; however, as the current analysis is not dyadic, one individual was removed from each of 99 dyads to preserve observations' independence. We retained participants with complete data over those with less complete data and men over women

because of the lower number of men overall. Otherwise, removal was random. Table 1 shows the demographic information for the 1675 participants who completed the core measures of the current study. The modal participant was a White, well-educated straight woman from North America in a serious relationship; however, there was considerable diversity on all demographic measures. The median age was 25 (range 16–72).

To divide participants into groups, we examined their responses to questions about how they described their relationship and how others (e.g., strangers on the street) would perceive their relationships. If both responses were *same-sex* (or *mixed-sex*), the relationship was categorized accordingly. If the responses disagreed, were left blank, or if *not listed* was selected for either question, we examined other information within the dataset to further clarify. As a result, we classified some couples as same-sex or mixed-sex, but to capture others not readily categorized (e.g., a non-binary person in a relationship with a trans man), we created a new group labeled “gender-diverse” (see [Supplemental Materials](#) for more detail on these procedures).

Compared to the other groups, those in gender-diverse relationships tended to be younger, in shorter-term relationships, less likely to be living with their partner, and less educated. Those in mixed-sex relationships were more likely to be White, Canadian, and living in rural communities (see Table 1). To control for these group differences, the following demographic variables were entered as covariates in all analyses: age in years; relationship length in years; years of education; cohabitation status (0 = not living with partner; 1 = living with partner); ethnicity (0 = non-White, 1 = White); country (0 = not Canadian, 1 = Canadian); and community type (coded 1 to 4 from remote to urban).

Gender and sexual identities also varied between the groups. However, we did not enter these variables as covariates, as doing so would have controlled away some of the defining characteristics of the groups. Note, however, that those in mixed-sex relationships were predominantly women, whereas there was a more even split between men and women among those in same-sex relationships. This difference remains a possible confounding factor when comparing those two groups.

Measures

As we could not find measures directly relevant to our specific needs, we created multi-item measures of each of the following constructs: public and private affection frequency, desire, and comfort; frequency of refraining from sharing affection in public; comfort with dyadic affection in varying contexts (alone, public, in front of friends, and in front of family); and PDA-related vigilance, defined as vigilance associated specifically with sharing physical affection in public. Means were calculated for each scale, with higher scores indicating more of the construct (e.g., greater comfort or frequency).

We assessed relationship well-being using the Personal Relationships Quality Components Inventory (Fletcher et al., 2000), psychological well-being with the Depression Anxiety and Stress scale (Henry & Crawford, 2005), and physical well-being with the Cohen-Hoberman Inventory of Physical Symptoms (Cohen & Hoberman, 1983). Table 2 shows descriptive information and possible ranges for each measure. As shown in Table 2, internal consistency for all measures was good to excellent. OSF (<https://osf.io/rxwe4/>) and

Table 1. Sample demographics, overall and by relationship type.

Variables	Overall	Mixed-sex	Same-sex	Gender-diverse	Comparison
	<i>N</i> = 1675	<i>n</i> = 1018	<i>n</i> = 561	<i>n</i> = 96	
Age	28.2 (10.1)	28.1 _a (10.2)	29.3 _a (10.6)	23.1 _b (4.2)	6.69, <i>p</i> = .001
Relationship length (years)	4.8 (6.3)	5.3 _a (6.8)	4.1 _b (5.6)	2.5 _c (3.1)	15.34, <i>p</i> < .001
Years of education	16.3 (3.3)	16.4 _a (3.5)	16.5 _a (3.5)	15.2 _b (3.3)	6.69, <i>p</i> = .001
Highest level of education completed					17.6, <i>p</i> = .06
<High school	3	2	3	5	
High school	29	31	26	35	
2-year degree	18	18	17	22	
Undergraduate degree	33	33	33	29	
Graduate degree	15	15	18	8	
Doctoral degree	3	2	3	0	
Relationship stage					28.8, <i>p</i> < .001
Casually dating	5	5	5	4	
Seriously dating	55	56	52	62	
Engaged	12	10	16	18	
Married or equivalent	25	27	25	10	
Not listed	3	3	3	6	
Living with partner					6.0, <i>p</i> = .05
Yes	56	57	55	45	
No	44	43	45	55	
Gender identity					617.9, <i>p</i> < .001
Man	26	16	48	2	
Woman	63	80	38	31	
Trans man	4	1	5	23	
Trans woman	1	0	1	1	
Non-binary/genderqueer	6	3	6	40	
Not listed	1	0	1	3	
Sexual identity					1393.5, <i>p</i> < .001
Lesbian	8	0	24	2	
Gay	16	0	47	1	
Bisexual	22	25	13	40	
Queer	7	2	11	29	
Straight	41	67	1	3	
Asexual	1	1	1	6	
Other	5	4	4	19	

(continued)

Table 1. (continued)

Variables	Overall	Mixed-sex	Same-sex	Gender-diverse	Comparison
Ethnicity					31.7, $p < .001$
Asian	3	3	3	2	
Black/African American/ African Canadian	2	1	2	0	
White	88	90	84	84	
Hispanic/Latino	2	1	3	1	
Indigenous	2	1	2	6	
Other	4	3	5	6	
Country					84.6, $p < .001$
Canada	53	61	39	44	
United States	24	16	37	28	
United Kingdom	18	18	17	22	
Other	6	5	7	6	
Community type					23.7, $p = .001$
Remote	2	2	1	0	
Rural	20	23	14	14	
Suburban	39	38	40	40	
Urban	40	37	44	47	

Note. For continuous variables, numbers shown represent Mean (Standard Deviation), and the comparison statistic is a one-way ANOVA with Tukey's post hoc test. Means that do not share a common subscript differ at $p < .05$. For categorical variables, numbers shown represent percentages within the column category, and the comparison statistic is a chi-square test. Numbers do not always add to 100% due to rounding.

the [Supplemental Materials](#) for this article provide additional detail on all study measures, including exact item wordings for the newly developed measures.

Results

Analysis strategy

Because many measures were highly skewed, analyses used bootstrapping with 1000 bootstrapped samples and 95% bias-corrected and accelerated confidence intervals. Bootstrapping does not assume normal distributions and is somewhat more powerful than traditional hypothesis-testing approaches (Hayes, 2018).

For the descriptive group comparisons, one-way ANCOVAs were employed, with bootstrapping of the group mean differences after controlling for the demographic covariates. For predicting the three well-being measures, bootstrapped multiple regressions were employed. Predictor variables were the demographic covariates, centered vigilance regarding public affection-sharing, relationship type (dummy coded, with same-sex relationships as the comparison group), and relationship type by vigilance

Table 2. Descriptive statistics, Ns, and Cronbach's alphas for all study variables.

Variable	N	Alpha	Possible range	Mean	SD
<i>Private Context</i>					
Frequency	1675	.91	1–7	6.37	1.01
Desire	1675	.87	1–7	6.26	0.88
Comfort	1675	.92	1–7	6.67	0.69
Comfort in context: Home	1381	.81	1–7	6.52	0.65
Frequency of refraining	1400	.79	1–7	1.60	0.99
<i>Public Context</i>					
Frequency	1675	.95	1–7	4.48	1.71
Desire	1674	.81	1–7	5.59	1.22
Comfort	1675	.83	1–7	5.19	1.56
Comfort in context: Public	1381	.91	1–7	5.52	1.32
Comfort in context: Friends	1381	.91	1–7	5.82	1.08
Comfort in context: Family	1381	.95	1–7	5.19	1.49
Frequency of refraining	1402	.91	1–7	3.43	1.69
<i>Vigilance</i>					
Vigilance regarding public affection-sharing	1673	.96	1–5	2.07	1.15
<i>Well-being</i>					
Relationship well-being	1675	.93	1–7	3.15	0.61
Psychological well-being	1675	.94	1–4	6.14	0.78
Physical health	1606	.93	0–4	3.00	0.64

interactions. Because the well-being variables were measured on different scales, they were converted to standardized scores prior to analysis to allow for a more direct comparison of effect sizes across analyses. The pattern of results was identical when using unstandardized measures.

Group comparisons

Table 3 shows the group comparisons. For ease of reference, Cohen's *d*s for the effect sizes for mean differences between groups are bolded when the groups differ at the 95% bootstrapped confidence level.

Addressing RQ1, there were few group differences in the private context, and those that appeared were small in magnitude. Those in mixed-sex relationships were slightly less comfortable with affection-sharing in private than the other groups, but all groups reported being highly affectionate in private, with means near the top of the scale (or the bottom of the scale for frequency of refraining).

Compared to the private context, all groups showed somewhat lower levels of affection-sharing in public. As expected, those in mixed-sex and same-sex relationships reported very different public experiences, showing significant differences on all measures. Despite desiring more public affection-sharing (H3), those in same-sex

Table 3. One-way ANOVAs with bootstrapped pairwise comparisons, all study variables by relationship type.

Variable	Groups			Group comparisons		
	Mixed-sex M (SD)	Same-sex M (SD)	GD M (SD)	MS to SS d [CI]	MS to GD d [CI]	SS to GD d [CI]
<i>Private Context</i>						
Frequency	6.33 _a (1.05)	6.42 _a (.89)	6.44 _a (.94)	-.09 [-.20, .03]	-.11 [-.31, .12]	-.02 [-.21, .21]
Desire	6.21 _a (.92)	6.30 _a (.84)	6.32 _a (.77)	-.10 [-.19, .02]	-.02 [-.28, .10]	-.02 [-.19, .18]
Comfort	6.64 _a (.76)	6.74 _b (.54)	6.77 _{ab} (.47)	-.15 [-.17, -.02]	-.21 [-.26, .01]	-.06 [-.15, .10]
Comfort in context: Home	6.47 _a (.71)	6.60 _b (.50)	6.68 _b (.41)	-.21 [-.21, -.05]	-.36 [-.34, -.08]	-.17 [-.19, .03]
Frequency of refraining	1.61 _a (1.00)	1.57 _a (.89)	1.50 _a (1.07)	.04 [-.09, .16]	.11 [-.24, .40]	.07 [-.28, .38]
<i>Public Context</i>						
Frequency	4.83 _a (1.57)	3.86 _b (1.75)	4.36 _c (1.75)	.58 [.79, 1.17]	.28 [.05, .96]	-.29 [-.93, -.04]
Desire	5.46 _a (1.30)	5.70 _b (1.06)	5.81 _b (1.05)	-.20 [-.40, -.09]	-.30 [-.61, -.06]	-.10 [-.34, .16]
Comfort	5.51 _a (1.41)	4.61 _b (1.66)	5.14 _c (1.42)	.58 [.72, 1.07]	.26 [.02, .75]	-.34 [-.89, -.13]
Comfort in context: Public	5.76 _a (1.15)	5.08 _b (1.47)	5.59 _a (1.29)	.52 [.49, .87]	.14 [-.19, .51]	-.37 [-.85, -.15]
Comfort in context: Friends	5.76 _a (1.12)	5.91 _b (1.00)	6.06 _b (.89)	-.14 [-.28, -.02]	-.27 [-.57, -.03]	-.14 [-.41, .14]
Comfort in context: Family	5.38 _a (1.35)	4.93 _b (1.64)	4.97 _{ab} (1.61)	.30 [.23, .63]	.28 [-.01, .87]	-.02 [-.45, .42]
Frequency of refraining	2.99 _a (1.49)	4.24 _b (1.73)	3.61 _c (1.74)	-.77 [-1.44, -.1.03]	-.38 [-1.12, -.07]	.36 [.12, 1.15]

(continued)

Table 3. (continued)

	Groups			Group comparisons		
<i>Vigilance</i>						
Vigilance regarding public affection-sharing	1.49 _a (.64)	3.04 _b (1.16)	2.55 _c (1.22)	-1.65 [-1.68, -1.43]	-1.09 [-1.35, -.77]	.41 [.20, .79]
<i>Well-being</i>						
Relationship well-being	6.15 _a (.79)	6.20 _a (.66)	6.15 _a (.83)	-.07 [-.14, .04]	.00 [-.19, .21]	.07 [-.13, .25]
Psychological well-being	3.20 _a (.60)	3.12 _b (.61)	2.89 _c (.62)	.13 [.00, .15]	.49 [.16, .45]	.36 [.08, .38]
Physical well-being	3.00 _a (.64)	3.03 _a (.66)	2.75 _b (.66)	-.05 [-.10, .05]	.38 [.09, .41]	.42 [.11, .44]

Note. MS=mixed-sex; SS=same-sex; GD=gender-diverse. CI=confidence interval; these numbers represent 95% bootstrapped confidence intervals for the differences between the respective group means. *ds* represent Cohen's *d* measures of effect sizes, that is, difference between first and second group's means in standard deviation units. Means that do not share a common subscript are significantly different at $p < .05$; effect sizes in bold are significant at $p < .05$.

relationships reported engaging in it less frequently (H2) and being less comfortable with affection-sharing in public (H1) and in front of their family members (H6) compared to those in mixed-sex relationships. Consistent with H6, individuals in same-sex relationships showed greater variability in comfort between contexts (i.e., all contexts significantly different from each other). When comparing comfort levels between relationship types, those in same-sex relationships were slightly more comfortable engaging in affection-sharing in front of friends than were those in mixed-sex relationships. Consistent with H7, those in same-sex relationships reported considerably more refraining from public affection-sharing than those in mixed-sex relationships. Individuals in gender-diverse relationships most often showed intermediate means between the other two groups. Consistent with H4, those in mixed-sex relationships showed the least vigilance. Those in gender-diverse relationships showed more vigilance and those in same-sex relationships the most.

All three groups showed high and equal relationship well-being. Those in mixed-sex relationships showed the best psychological well-being, but only slightly better than the same-sex-relationship group and moderately better than the gender-diverse group. The gender-diverse group reported somewhat lower physical health than the other two groups, which did not differ.

Regressions predicting well-being measures

As shown in Table 4, increased vigilance regarding public affection-sharing was associated with worse psychological and physical well-being, but not with worse relationship well-being, partially supporting H5. For the relationship type main effects, gender-diverse versus same-sex relationships patterns remained the same as in the basic group

Table 4. Bootstrapped multiple regressions, with PDA-related vigilance and relationship type predicting well-being outcomes.

Predictors	Relationship well-being			Psychological well-being			Physical well-being		
	B	se	95% CI	b	se	95% CI	b	se	95% CI
Age	-.00	.00	[-.01, .01]	.02	.00	[.01, .02]	.01	.00	[.00, .02]
Relationship length	-.02	.01	[-.03, -.01]	-.01	.01	[-.02, .01]	-.00	.01	[-.01, .01]
Years of education	-.01	.01	[-.03, .01]	.04	.01	[.02, .06]	.06	.01	[.05, .08]
Cohabitation status	.00	.06	[-.11, .11]	-.04	.06	[-.16, .10]	-.15	.06	[-.26, -.03]
Ethnicity	.09	.09	[-.09, .28]	-.15	.09	[-.32, .01]	-.03	.10	[-.21, .14]
Country	-.02	.06	[-.13, .09]	-.16	.05	[-.26, -.06]	-.27	.05	[-.37, -.17]
Community type	-.06	.03	[-.12, .01]	-.07	.03	[-.13, -.01]	.00	.03	[-.07, .07]
Vigilance regarding public affection-sharing	-.05	.03	[-.11, .02]	-.28	.04	[-.35, -.22]	-.23	.04	[-.31, -.16]
Mixed-sex dummy code	-.42	.09	[-.60, -.21]	-.45	.09	[-.62, -.30]	-.61	.08	[-.77, -.45]
Gender-diverse dummy code	-.10	.13	[-.38, .15]	-.52	.12	[-.75, -.29]	-.55	.13	[-.80, -.31]
Vigilance by mixed-sex	-.25	.07	[-.39, -.11]	-.18	.07	[-.32, -.02]	-.23	.07	[-.38, -.08]
Vigilance by gender-diverse	.15	.05	[.08, .25]	.05	.07	[-.06, .19]	.10	.06	[-.03, .24]
R ²	.04			.17			.18		
F for R ²	F (12, 1235) = 21.85, p < .001			F (12, 1235) = 21.85, p < .001			F (12, 1235) = 21.85, p < .001		

Note. CI = confidence interval; these numbers represent 95% bootstrapped confidence intervals for the bs. Betas are from non-bootstrapped regressions. Effects in bold are significant at $p < .05$.

comparisons (Table 3). Intriguingly, however, after controlling for vigilance, individuals in mixed-sex relationships now scored significantly lower on all three well-being measures than individuals in same-sex relationships (see Table 4; compare to basic group differences in Table 3).

There were significant interactions between vigilance and relationship type for all well-being variables, shown in Figures 1 and 2.³ We used Preacher et al.'s (2006) online macro to test simple slopes. As shown in Figure 1, similar patterns emerged for all three well-being measures when comparing those in same-sex and mixed-sex relationships. Consistent with H5, the associations between vigilance regarding public affection-sharing and

well-being were always negative. However, contrary to H5, for those in same-sex relationships, the association was somewhat weaker, being non-significant for relationship well-being ($b = -.05$, $se = .03$, $p = .11$), and significant but small in magnitude for psychological well-being ($b = -.28$, $se = .03$, $p < .001$) and physical well-being ($b = -.23$, $se = .03$, $p < .001$). Unexpectedly, the associations between vigilance regarding public affection-sharing and well-being were somewhat more strongly negative for those in mixed-sex relationships (relationship well-being: $b = -.30$, $se = .05$, $p < .001$; psychological well-being: $b = -.46$, $se = .05$, $p < .001$; physical well-being: $b = -.46$, $se = .05$, $p < .001$).

Figure 2 shows the interaction between vigilance and relationship type (same-sex vs. gender-diverse) when predicting relationship well-being. Again, the association for same-sex relationships was slightly negative but non-significant ($b = -.05$, $se = .03$, $p = .11$); however, the association for those in gender-diverse relationships was slightly positive ($b = .13$, $se = .05$, $p = .02$).

Discussion

Our romantic partners are perhaps our most important source of physical affection in our adult lives, and yet, for individuals in same-sex and gender-diverse relationships, the mere thought of sharing affection within the view of others can at times lead to safety concerns. Whether turning to each other to provide support, a loving touch, or even just an affirming reminder that they are there with each other in a crowded space, those in marginalized relationships must delicately balance their desire for contact with an awareness of their surroundings. Indeed, our examination of affection-sharing experiences in private and public contexts found numerous differences in public affection-sharing experiences across relationship types.

In private, individuals in all relationship types reported sharing affection frequently and comfortably. The only difference was that those in same-sex and gender-diverse relationships reported greater comfort with private affection-sharing than participants in mixed-sex relationships. These findings suggest that few innate differences exist between groups. Not until couples step into public spaces do notable group differences emerge.

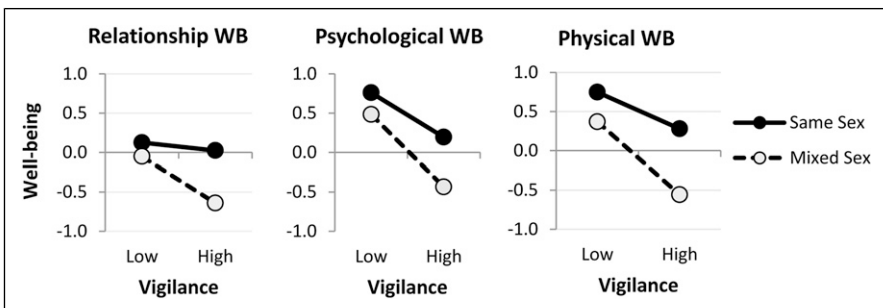


Figure 1. Vigilance regarding public affection-sharing predicting relationship, psychological, and physical well-being, in same-sex versus mixed-sex relationships.

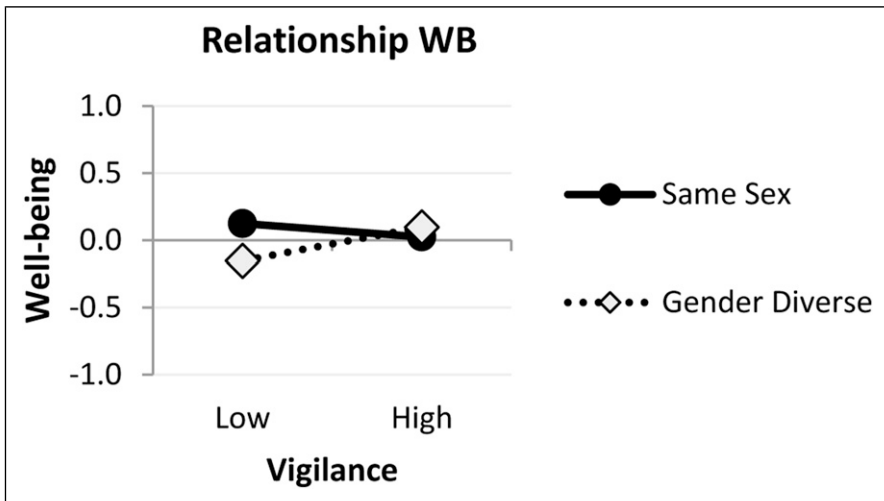


Figure 2. Vigilance regarding public affection-sharing predicting relationship well-being in same-sex versus gender-diverse relationships.

All relationship types reported lower frequency of, and comfort with, public versus private affection-sharing, but the details varied considerably across relationship types. Contrary to notions of LGBTQ individuals “flaunting” their sexuality through public affection-sharing (Morrison & Morrison, 2003), those in same-sex relationships reported the least frequent public affection-sharing. Individuals in gender-diverse relationships shared affection in public slightly more, but still significantly less than those in mixed-sex relationships. Those in same-sex relationships reported experiencing the highest levels of PDA-related vigilance and the most frequent experiences of refraining from sharing affection with their partner in public, despite a desire to do so. Participants in gender-diverse relationships fell in between the other two relationship types, significantly different from each. Despite reduced PDA frequency and comfort, individuals in same-sex and gender-diverse relationships had no reduction in their desire for public affection. Indeed, they reported slightly stronger desire than those in mixed-sex relationships, potentially underscoring the salience of wanting something that you know remains slightly out of reach.

Taken together, our results paint a picture of LGBTQ individuals very much wanting to share public affection with their partner yet hesitating to do so, likely due to concern regarding others’ reactions (Hocker et al., 2021). For those in same-sex or gender-diverse relationships, public affection-sharing involves a decision to make their stigmatized relationship type known to those around them and, therefore, a decision to bear the potential negative consequences of that stigma. It is an inequitable burden borne by some groups but not others. These fundamentally different affection-sharing experiences clearly illustrate how navigating the intricacies of public affection-sharing could serve as a source of minority stress.

More specifically, these findings support work that has extended the minority stress model to include couple-level stressors (LeBlanc et al., 2015; LeBlanc & Frost, 2020). LeBlanc et al. (2015) noted that some experiences of stigma and minority stress are inherently tied to specific relationship forms, thus creating an experience that is more than the sum of its parts. For example, two sexual or gender minority individuals navigating the public sphere might be entirely unremarkable, or they might attract some negative attention if they present in a gender non-conforming manner (Matheson et al., 2021). However, the minute those two individuals decide to hold hands, their identities and relationship type become readable, allowing the *relationship* to become the target of stigma and a potential catalyst for discrimination. If couple members understandably decide not to take the risk, they may miss out on the many positive effects of affection-sharing (Debrot et al., 2017; Floyd, 2018),

Exploring how couples manage such complex dynamics presents an important future direction for research on LGBTQ relationships. For example, discrepancies between partners in perceiving couple-level stressors, such as the potential threat posed by sharing affection in a public space, might be a pathway through which societal stigma poses relationship challenges for those in stigmatized relationships (Neff & Karney, 2017). In addition, within-couple differences could lead to misunderstandings or misattributions; deciding how to manage these issues could be a source of dyadic conflict or stress.

Thus, same-sex and gender-diverse relationships face unique challenges due to experiencing stigma that does not apply to mixed-sex couples. Still, for all couples, public displays of affection represent an intersection where private individual couple dynamics meet face-to-face with societal-level factors. While such factors are more visible for those in marginalized relationships, all relationships must navigate both forces to some extent. All couples must negotiate, explicitly or implicitly, how they will display their affection to the world and to what extent their affection-sharing practices might vary according to the context and the audience.

Context and audience differences

All groups tended to be the least comfortable sharing affection in front of family and the most comfortable when alone with their partners. However, those in mixed-sex relationships were equally comfortable sharing affection in the presence of friends and strangers, whereas those in same-sex relationships were considerably more comfortable in front of friends. Those in mixed-sex relationships appear to navigate a world of friendly strangers they anticipate will accept and respect their affection-sharing practices; those in same-sex relationships are substantially less comfortable in public spaces and feel better in front of selected, well-known individuals whose responses they can predict.

An interesting and novel finding was that members of all relationship types were the least comfortable sharing affection in front of their families. Our earliest, formative experiences of physical affection-sharing are often with family members (Floyd, 2018), yet sharing similar, non-sexual expressions of affection with romantic partners in that same setting is uncomfortable. Perhaps the key is that physical affection-sharing with romantic partners, even if very innocent, may still indicate that a sexual relationship is

occurring or has the potential to occur. Given that parents often play a gatekeeping role concerning the maturing of their teenagers into sexually active adults (Bulcroft et al., 1998), this transition period may create a lasting sense of discomfort with affection-sharing in front of parents or other older family members. Future research should explore this finding in more detail to assess whether and how comfort with romantic affection-sharing in front of family varies by attachment or parenting styles.

All groups were relatively uncomfortable sharing affection in front of family, but those in same-sex relationships were the least comfortable of all. This pattern likely relates to those in same-sex relationships perceiving less support for their relationships, particularly from family members (Blair et al., 2018; Holmberg & Blair, 2016; Lehmillier, 2012). Affection-sharing may serve as a salient reminder of the existence and nature of a relationship of which not all family members fully approve.

Consequently, our work has potential theoretical implications for understanding the social network effect (e.g., Felmlee, 2001; Felmlee & Sinclair, 2018). For example, although we know that greater perceived support for a relationship is associated with positive relational and health outcomes (Blair & Holmberg, 2008; Blair et al., 2018), we do not yet know the specific behavioral mechanisms that might mediate these associations. If affection-sharing in front of social network members does indeed vary as a function of perceived support or approval for the relationship, it might be one way network disapproval feeds through to create relational and health challenges.

Consequences of PDA-related vigilance

We anticipated that PDA-related vigilance would be negatively associated with all types of well-being and that relationship type would moderate this negative association: stronger for individuals in same-sex versus mixed-sex relationships. However, our findings were more complex. For relationship well-being, the association with PDA-related vigilance was non-significant for individuals in same-sex relationships, negative for mixed-sex relationships, and positive for gender-diverse relationships.

In hindsight, the non-significant association between PDA-related vigilance and relationship well-being makes sense for those in same-sex relationships. After all, they have a readily available external attribution as to why any vigilance is present. Given the stigma and potential for violence accompanying same-sex PDAs (e.g., Paterson et al., 2019), some vigilance is likely appropriate and expected. Such attributions may be a source of resilience, buffering the relationship from the negative associations of PDA-related vigilance seen in mixed-sex relationships.

Individuals in mixed-sex relationships seem less likely to have justifiable, external reasons why they are vigilant regarding PDAs. Instead, explanations for their vigilance may be more individual- or relationship-specific, perhaps related to an avoidant attachment style (e.g., Jakubiak et al., 2021) or the presence of a secret or extra-dyadic relationship. In addition, some men may experience PDAs as a threat to their masculinity and therefore may experience increased vigilance regarding how their affection-sharing may affect others' perceptions of them (Floyd, 2018). All of these reasons could explain

heightened vigilance regarding PDAs; all are likely to be predictive of worse relationship well-being.

But why might we see *positive* associations between PDA-related vigilance and well-being for those in gender-diverse relationships? One possibility is that monitoring others' reactions to their affection-sharing may be experienced as unifying, by generating a sense of "us against the world" or "not letting 'them' stop our love." Those in gender-diverse relationships may even see vigilance as an expression of care or concern for their partner's safety (Matheson et al., 2021). Those in gender-diverse relationships were also considerably younger than the other two groups, and although we included age as a covariate, such a statistical tweak can never entirely "correct" for different lived experiences. Younger LGBTQ individuals who have grown up with more equal civil rights and more plentiful LGBTQ media representation may be less likely to associate PDAs with potential violence and more likely to associate them with an opportunity to affirm their identities and broaden others' horizons. These explanations remain speculative; further work, ideally qualitative, to understand the experiences and meanings of PDAs in the different groups is needed.

As hypothesized, we consistently saw negative associations between PDA-related vigilance and mental and physical well-being. Moreover, given that those in same-sex relationships experienced the highest levels of PDA-related vigilance (followed by the gender-diverse group), we can see that the need to monitor one's affection-sharing habits provides a potential path through which couple-level minority stress (LeBlanc et al., 2015) might contribute to well-documented LGBTQ health disparities (Diamond et al., 2021).

Indeed, the potential toll of PDA-related vigilance on LGBTQ well-being is perhaps most clearly illustrated through the findings regarding psychological well-being. In the basic mean comparisons, individuals in mixed-sex relationships reported slightly higher psychological well-being than those in same-sex relationships; however, after controlling for PDA-related vigilance, the pattern reversed. Now individuals in mixed-sex relationships scored significantly *lower* on psychological well-being (as well as on physical and relational well-being) than individuals in same-sex relationships. In other words, when we statistically removed the harmful effects of societal stigma from the equation, any well-being disadvantages for those in same-sex relationships vanished. Put most simply, if it were possible to remove the daily stigma that LGBTQ individuals and their relationships face (Meyer et al., 2011), their well-documented deficits in psychological and physical well-being might also be mitigated or even disappear.

Implications

It is challenging to prescribe clear recommendations at this still-early stage of exploring affection-sharing and vigilance. One apparent solution would be to advise those in same-sex and gender-diverse relationships to engage in more public affection-sharing to benefit their relationship and increase the normalization of such exchanges. In other words, as communicated in a profoundly moving public-service video produced by ANZ Bank (2017), "when you feel like letting go, #HoldTight." However, as appealing as that

message is, we do not yet have enough research to know whether it is good advice. As noted earlier, anti-LGBTQ hate crimes are the most likely to be violent (Leber, 2017). It is no small thing to simply “hold tight,” and it would be premature to begin trying to talk couples *out* of their likely-rational PDA-related vigilance.

Still, armed with information gained in this study, professionals may wish to broach the topic of affection-sharing with LGBTQ clients. For example, if one member of the couple is warier of public affection-sharing than the other, open discussion of the issue may help them avoid misinterpretations of such hesitancy as a personal rejection, thereby possibly reducing relationship tension.

Ultimately though, if we wish to see genuine changes in PDA-related vigilance, it is likely best to focus on reducing societal stigma, not simply bolstering a couple’s ability to *cope* with stigma. One promising avenue to reduce affection-related stigma is through media content. The more media and celebrities can integrate natural and comfortable everyday affection-sharing into portrayals of same-sex or gender-diverse relationships, the more common and accepted such behaviors may become, without posing undue risks for real-life couples (O’Handley et al., 2017).

Limitations

Future research should examine the newly identified construct of PDA-related vigilance more closely, especially concerning measurement invariance across relationship types. The very notion of PDA-related vigilance may not translate seamlessly across relationship types. For example, vigilance may signal individual or dyad-level concerns for those in mixed-sex relationships. Still, such concerns can also apply to same-sex and gender-diverse relationships; thus, we need to identify the aspects of PDA-related vigilance common to all versus aspects unique to those in marginalized relationships. As this was the first study to explore PDA-related vigilance quantitatively, the measure was constructed for this study, as were many other measures used (e.g., frequency, comfort, and desire with affection). Although the measures were internally consistent and showed meaningful group differences, further validation is warranted.

In the current analyses, we explored the perspective of only one member of the relationship at one point in time. Dyadic experience-sampling methodologies may be best suited to studying real-time couple-level minority stressors. For example, how are momentary experiences of PDA-related vigilance associated with immediate physiological responses, as well as with longer-term indicators of well-being? How do discrepancies between couple members in desire, comfort or vigilance contribute to well-being on a day-to-day or momentary basis? For example, if only one partner experiences vigilance at any moment, does the discrepancy predict additional tensions within the relationship?

The gender expression of both partners also merits further investigation. Our gender-diverse group was very heterogeneous, indicating that they did not perceive themselves to fall within same- or mixed-sex relationships and/or that they did not feel the average stranger would perceive them as such. The gender presentations of these participants may be much more fluid, creating ambiguity for outside viewers. Future research should

further explore how outsiders perceive gender-diverse relationships and how these perceptions may relate to affection-sharing practices. For example, those with more feminine-presenting partners report greater PDA-related vigilance (Matheson et al., 2021), potentially indicating an awareness of the general societal threats directed at feminine people (Hoskin, 2020).

Finally, we have not considered other likely-relevant variables, such as attachment styles, relationship closeness, (dis)ability, past negative experiences with PDAs, differences between rural or urban settings (although this was a covariate), community climate (e.g., Oswald et al., 2010), or experiences in LGBTQ-specific public spaces (e.g., gay villages). Our sample has limitations. Only 5.1% of the sample consisted of university students participating for course credit, but the percentage of other students in the sample is unknown. In addition, our mixed-sex versus same-sex groups differed in their gender composition. Much work is still to be done, but this study provides a promising start.

Conclusion

The current study demonstrates how a sample that includes individuals in diverse relationships helps generate new lines of inquiry relevant to *all* types of romantic relationships (Blair et al., 2015). The inclusion of LGBTQ+ participants foregrounds important questions of context and audience in the study of affection-sharing. Though these issues may be more salient for those in marginalized relationships, we still see differences by context for those in mixed-sex relationships. Affection is essential for all, and there is a growing concern about affection deprivation in an increasingly asocial, technologically mediated society (Policy Horizons Canada, 2018). Individuals who feel that their affection can only be shared freely behind closed doors may have their experiences of affection deprivation exacerbated relative to those who can benefit from the support, security, and love communicated through affectionate touch at any moment, in any place, whenever it is most needed.

As a Dublin Queer Icon Panty Bliss (2015) so eloquently explained, LGBTQ individuals still feel that they do not have the luxury of engaging in “careless, thoughtless, tiny acts of affection” within their relationships. Instead, each experience of public affection remains “calculated, deliberate, and monitored.” More research is needed to understand the broad consequences of these experiences of affection-sharing and identify potential sources of resilience that may buffer adverse health outcomes. Ultimately, researchers, educators, policymakers, and community members must continue working to identify methods of ameliorating societal prejudices that contribute to the felt need for PDA-related vigilance among LGBTQ individuals in the first place.

“It’s a sign of love, it’s a sign of respect, and a gentle squeeze of the hand is one of my favorite things when you are walking in public because it says so much more than what words could.”

Interviewee - #HoldTight Staff Video—ANZ Australia, 2017

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Author's note

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Open research statement

As part of IARR's encouragement of open research practices, the authors have provided the following information: This research was pre-registered. The aspects of the research that were pre-registered were procedures and hypotheses. The registration was submitted to: OSF: <https://osf.io/m8zef/>. The data used in the research are not available. The materials used in the research are available. The materials can be obtained within the Supplementary Materials file or by emailing: kblair@trentu.ca.

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Supplemental material

Supplemental material for this article is available online.

Notes

1. Our initial hypotheses were generated for same- and mixed-sex relationships; see <https://osf.io/rxwe4/>. However, our final sample had many participants who were not readily classified into either group. Thus, our final analyses include a third relationship type, gender-diverse relationships. To stay true to our original study conception, we report our original hypotheses using two groups. However, the gender-diverse group was included in all analyses on an exploratory basis.

2. Note we use the broader term “affection-sharing” when we wish to encompass both the public and private context, but at times use the more-familiar acronym of “PDA” when referring specifically to *public* displays of affection between partners.
3. Because the vigilance variable was quite skewed, the traditional practice of graphing at 1 SD above and below the mean (i.e., ± 1.15 , from a mean of 2.07) would have resulted in a slightly out-of-range value for low vigilance (i.e., a value of .92, when the lowest possible score on the measure is 1). Scores 1 point above and below the sample mean were therefore used to represent low and high vigilance. These values correspond to approximately 1 and 3 on a 5-point scale, which represent realistic low and moderate-to-high vigilance scores for the sample.

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