

Sexual Identity Development and Its Impact on Sexual Well-being: Differences Between
Sexual Minority and Non-Sexual Minority Former Foster Youth

Richard A. Brandon-Friedman^{1,2}

Barb Pierce¹

Elizabeth Wahler¹

Jeffry Thigpen¹

J. Dennis Fortenberry²

¹Indiana University School of Social Work

²Indiana University School of Medicine

Corresponding Author:

Richard Brandon-Friedman

902 W New York St, ES 4138

Indianapolis, IN 46202

This is the author's manuscript of the article published in final edited form as:

Brandon-Friedman, R. A., Pierce, B., Wahler, E. A., Thigpen, J. W., & Fortenberry, J. D. (2020). Sexual identity development and its impact on sexual well-being: Differences between sexual minority and non-sexual minority former foster youth. *Children and Youth Services Review*, 117, 105294. <https://doi.org/10.1016/j.childyouth.2020.105294>

Abstract

Little is known about differences in the levels of sexual well-being, sexual identity development, or sexual health outcomes between sexual minority and non-sexual minority youth in the foster care system. Using a sample of youth formerly in the foster care system, this study compared the sexual well-being, sexual identity development, and sexual health outcomes of sexual minority and non-sexual minority youth and found that sexual minority youth have lower levels of sexual well-being, have less developed sexual identities, and experience more sexual victimization and unintended pregnancies of themselves or of a partner than their non-sexual minority peers. These results indicate that the sexuality-related needs of sexual minority youth in the foster care system are not being met. Attention to the sexual development of sexual minority youth and means through which to enhance their sexual identity development and increase their sexual well-being are needed.

Key Words: Sexual development; LGBTQ+ youth; sexual health outcomes; foster youth, child welfare

Sexual Identity Development and Sexual Well-being: Differences Between Sexual Minority and Non-Sexual Minority Former Foster Youth

Youth in the foster care system disproportionately identify as sexual minorities and many experience social stigma and harassment due to their sexual orientation, not only in every day social interactions, but also from peers, professionals, and foster parents within the foster care system (FCS; McCormick et al., 2016). These experiences are associated with incomplete sexual identity development, reduced psychosocial functioning, negative sexual experiences, and negative sexual and global health outcomes (Clements & Rosenwald, 2008; Higa et al., 2014; Rosario et al., 2011). Further, these experiences contribute to homelessness among sexual minority youth (SMY), as many run from the FCS to escape this harassment (McCormick et al., 2016). Unfortunately, this often results in additional victimization, psychosocial and sexual health issues, and engagement in sexual risk behaviors (Choi et al., 2015; Keuroghlian et al., 2014). There is little research regarding the relationship between sexual identity development and the sexual well-being of youth in foster care and none was located about the differences that may exist between SMY and heterosexual youth (HY). To address this gap, this study compares and contrasts the experience of SMY and HY in the FCS.

1. Literature Review

1.1 Sexual minority youths' experiences in the foster care system

Within the foster care system, SMY continue to experience discrimination. Research has shown that over 40% of foster parents are unwilling to have a SMY placed in their home, often due to believing that identifying as a sexual minority is morally wrong or harboring misconceptions such as believing that SMY are more likely to sexually abuse other children (Bucchio, 2012; Clements & Rosenwald, 2008). The resulting lack of placement options means

that many SMY in the child welfare system (CWS) are placed in more restrictive environments than necessary, often in group homes or residential institutions (Mallon, 2011; Sullivan et al., 2001). They are also more likely to experience multiple disruptions in foster care placements and less stable housing upon exiting the CWS (Poirier et al., 2018).

While experiences vary considerably, many SMY report being harassed and discriminated against by foster parents, peers, and child welfare workers while in the FCS, though these experiences are not universal (Dank et al., 2015; Gallegos et al., 2011; McCormick et al., 2016). Interviews with youth and youth workers have indicated that when SMY in the CWS are mistreated, many foster parents, families of origin, child welfare professionals, and juvenile justice professionals blame the youth, suggesting their sexual orientation was to blame; others report that foster parents' religious beliefs may also negatively impact their interactions with SMY (Banghart, 2014; Lorthridge et al., 2018; McCormick et al., 2016; Woronoff et al., 2006). Further, SMY report are less likely to have a trusted adult to turn to for support (Poirier et al., 2018). In fact many youth who are homeless report that they ran away from the FCS due to negative experiences within it (Cray et al., 2013; Dank et al., 2015). These experiences are also common, and perhaps more negative, among gender-diverse/transgender youth in the CWS (Mountz et al., 2018), but a discussion of the experiences of gender-diverse/transgender youth in the CWS is beyond the scope of this manuscript.

At the same time, research suggests that even those professionals and foster parents in the CWS who are supportive of SMY have limited knowledge of how to best help those youth (Clements & Rosenwald, 2008; Woronoff et al., 2006). Further, many agencies have policies or practices that do not match established best-practices for work with SMY leaving those who are supportive without clear directives or occasionally forcing them to challenge the agency on

behalf of the youth (McCormick et al., 2016; Rosenwald, 2009). As a result, SMY in the FCS often find themselves actively discriminated against, without protection, and/or without advocates knowledgeable about what they need, any of which can negatively affect both their overall and sexual well-being.

1.2 Sexual well-being and negative sexual outcomes

Sexual well-being is a broad concept that goes beyond the absence of sexual dysfunction, disease, or violence by incorporating positive physical, intrapsychic and interpersonal sexual components such as sexual pleasure, sexual self-esteem, and sexual communication ability (Author, 2020). Individuals' early recognition of their sexual identities, youthful expression of sexual desires, and enactment of aspects of their sexual identities may be beneficial to their physical health, mental health, social integration, healthy development psychosocial functioning, later sexual satisfaction, and overall sexual well-being, both among HY and SMY (Harden, 2014; Heywood et al., 2015; Higa et al., 2014; Zimmer-Gembeck et al., 2016). Further, the importance of general sexual well-being to reducing risk behaviors and improving overall health outcomes has been demonstrated empirically, showing it to be predictive of abstinence, increased sexual frequency, condom usage, pregnancy prevention, reduced alcohol and marijuana usage, improved mental health, better social integration, reduced risky and anti-social behaviors, and absence of STIs (Hensel & Fortenberry, 2013; Hensel et al., 2016).

1.3 Sexual well-being and sexual risk for youth in the FCS

The bulk of research done on the sexual well-being of youth in the FCS focuses on negative aspects. Youth in the foster system receive less sexual and reproductive health education, receive less sexual health-responsive healthcare, experience significantly higher rates of unintended pregnancies and sexually transmitted infections, and engage in more risky sexual

behaviors such as early sexual initiation, larger numbers of sexual partners, less use of birth control and protective measures, and higher rates of participation in transactional sexual activities than peers not in the FCS (Author, 2016). Further, many of these youth have experienced traumatic losses and sexual abuse, both of which are risk factors for negative sexual health outcomes and difficulties in forming coherent identities (Ahrens et al., 2012; Vaillancourt-Morel et al., 2016). While research on positive sexual health outcomes, such as the ability to pursue sexual desires and realize sexual pleasure and sexual satisfaction, for youth is scant, it is reasonable to believe that the youth achieve lower levels of positive sexual health outcomes, as the same factors are generally at play (Arbeit et al., 2015; Harden, 2014).

1.4 Sexual well-being and sexual risk outcomes for SMY

Much of the literature on the sexual well-being of SMY, both within and external to the FCS, also focuses on negative aspects. Health outcome and risk data indicate that SMY have much worse sexual health outcomes than HY, with SMY scoring higher on five of six sexual risk behaviors in one study (Kann et al., 2016). Among adults, research indicates that sexual minorities have lower levels of some aspects of sexual satisfaction than heterosexuals (Flynn et al., 2017). One explanation for these differences is that sexual minorities experience a host of different psychosocial outcomes due to personal and social judgments about their sexual orientation identities, have different methods of obtaining information about aspects of their sexual identities, meet sexual partners in different manners, engage in different patterns of sexual interactions, take different forms of sexual risks, and experience higher levels of sexual victimization than heterosexuals (Arrington-Sanders et al., 2015; Dragowski et al., 2013; Everett et al., 2014; Harper et al., 2009; Jones & Raghavan, 2012; Katz-Wise & Hyde, 2012).

1.5 Sexual identity development

The term “sexual identity” is often conflated with minoritized sexual orientation and sexual orientation identity development and focuses on self-recognition, understanding, and disclosure of a minoritized sexual orientation. Recognition that HY also experience a sexual identity development process led Worthington et al. (2008) to evaluate heterosexual identity development and create the Measure of Sexual Identity Exploration and Commitment (MoSIEC), which was designed to be applicable to individuals with any sexual orientation identity. Moving beyond the idea of phases, the MoSIEC focuses on dimensions of sexual identity, implying that an individual might occupy different levels on each dimension within their overall sexual identity. The four distinct but interrelated dimensions that emerged from their empirical work are *Commitment, Synthesis/Integration, Exploration, Sexual Orientation Identity Uncertainty*.

Research using the MoSIEC has largely focused on the relationship between identity dimensions and sexual health outcomes. Sexual Identity Exploration has been shown to be positively correlated with sexual self-efficacy, sexual consciousness (reflection on sexual identity), sexual motivation, sexual assertiveness, less usage of intoxicating substances before engaging in sexual activities, a more organized sexual schema, and better overall sexual well-being (Muisse et al., 2010; Parent et al., 2015; Reid, 2013; Worthington et al., 2008). In terms of Commitment, findings suggest that increased levels are predictive of greater sexual well-being and positive sexual experiences amongst both HY and SMY (Bond & Figueroa-Caballero, 2016; Muise et al., 2010; Worthington et al., 2008). Synthesis/Integration is considered the most advanced level of sexual identity achievement, as it indicates that individuals have actively explored their identities to the point that they have developed an informed understanding of themselves. Worthington et al.’s (2008) initial research found a positive connection between

Synthesis/Integration and sexual self-consciousness and sexual assertiveness, but Muise et al. (2010) found no relationship between high scores on Synthesis/Integration and sexual health.

1.6 The impact of sexual orientation identity on sexual identity development

Understanding youths' sexual orientation identities is essential to understanding the rest of their sexual identities. A more complete sexual orientation identity integration has been linked with better psychosocial outcomes and improved sexual health (Rosario et al., 2011). Further, as noted previously, youths' sexual orientation identity affects how others' view and interact with them, making it an important part of their lives. Despite this importance, it must also be recognized that models exploring sexual orientation identity development have been critiqued for their lack of recognition of fluidity and other aspects of intersectional identities (Diamond, 2016; Rosario et al., 2011). Even so, sexual orientation maintains such a prominent place within the lives of youth that is often not only affects their internal sense of self, but many of their other social identities and actions (Reback & Larkins, 2010; Russell et al., 2009).

Research using the MoSIEC supports the importance of differentiating between individuals based on their self-defined sexual orientation. Differences have been identified between HY and SMY, with individuals who have questioned their sexual orientation generally scoring higher on Sexual Orientation Uncertainty and Exploration and lower on Synthesis/Integration, though these findings have not been universal (Morgan & Morgan Thompson, 2011; Morgan et al., 2010). Worthington et al. (2008) found that individuals with high levels of Sexual Orientation Identity Uncertainty experienced more sexual self-monitoring, but less sexual conservatism, sexual self-consciousness, and sexual assertiveness.

Within the FCS, the difficulties SMY have developing a positive sense of sexual minority orientation identity have been attributed to the negative messaging the youth receive from peers,

family members, and professionals; the heteronormative context of foster and residential care; and the experiences many had with entering the FCS due to familial conflict based on the youths' sexual orientation (Craig-Oldsen et al., 2006; Gallegos et al., 2011; Lorthridge et al., 2018; Mallon, 2010). In one of the only studies to date examining the sexual health of SMY in the foster care system, Salerno et al. (2020) found that while sexual minority girls had sufficient sexual health knowledge, they primarily received negative messaging about sexuality from others, which can adversely affect their sense of themselves as sexual beings. Given that individuals' incomplete or maladaptive understanding of their sexual orientation identities has been linked with sexual risk behaviors and reductions in positive sexual interactions, these youths' reduced abilities to form solid understandings of this aspect of their sexual identity is concerning.

2. Research hypotheses

The research noted above does not fully explore differences between the experiences of SMY and HY within in the FCS, nor is there direct attention to differences in the sexual well-being of between HY and SMY. This lack of knowledge prevents practitioners from tailoring sexual well-being-related interventions for SMY. This study was intended to address this gap. The research hypotheses were that SMY would have lower levels of positive sexual well-being outcomes and higher levels of negative sexual health outcomes than HY, that SMY would score higher on levels of Sexual Identity Exploration and Sexual Orientation Identity Uncertainty than HY, and that all aspects of sexual identity development would impact sexual well-being for both SMY than HY.

3. Method

3.1 Recruitment and participants

Data used in this analysis are part of a larger study on sexual identity development among youth in the FCS (Author, 2019). Youth were recruited via direct email through agencies and organizations serving youth formerly in the FCS, schools of social work, Facebook groups of youth formerly in the FCS or current foster parents, advertising in a magazine targeted to youth formerly in the FCS, and through snowball sampling. Youth were provided a \$20 e-gift card as compensation for their time, with email addresses for the e-gift card collected independent of the survey answers.

A total of 227 participants completed a confidential web-based survey exploring how aspects of sexual socialization and childhood experiences affect their sexual identity development and its impact on their sexual well-being. Data from eight participants were removed due to being multivariate outliers, leaving a sample size of 219. Participant demographics are presented in Table 1. Youth were asked to identify their sexual orientation with the ability to enter another option if their identity was not presented; any youth who identified with a sexual orientation identity other than heterosexual was classified as a sexual minority. The two youth who identified as both heterosexual and a sexual minority were classified as sexual minorities for analysis, leaving a total of 52 youth classified as sexual minorities and 167 classified as not a sexual minority.

Table 1: Demographics of Study Participants^a

	<i>n</i>	%		<i>n</i>	%
Race^b			Sexual Orientation Identity^b		
African American / Black	68	31.1	Asexual	2	0.9
American Indian / Native Alaskan	7	3.2	Bisexual	26	11.9
Asian	11	5.0	Gay	15	6.8
Biracial / Mixed	31	14.2	Heterosexual/Straight	169	77.2
Native Hawaiian or Pacific Islander	3	1.4	Lesbian	8	3.7
White	116	53.0	Pansexual	3	1.4
Unlisted Identity	9	4.1	Queer	1	0.5
Prefer to Not Say	0	0.0	Unlisted Identity	0	0.0
			Prefer to Not Say	0	0.0
Ethnicity					
Not Hispanic / Latino	173	79.0	Relationship Status^b		
Hispanic / Latino	39	17.8	Divorced	2	0.9
Prefer to Not Say	7	3.2	Married/Partnered	37	16.9
			Polyamorous Relationship	9	4.1
Sex Assigned at Birth			Separated	1	0.5
Female	130	59.4	Single/Never Married	170	77.6
Male	89	40.6	Widowed	0	0.0
			Prefer to Not Say	3	1.4
Gender^b					
Gender Diverse	0	0.0	Living Situation at Exit from Foster Care		
Female	129	58.9	Adopted	34	15.5
Male	89	40.6	Aged Out	108	49.3
Non-Binary/Genderqueer	1	0.5	Returned to Family of Origin	19	8.7
Trans man/Trans masculine	1	0.5	Group Home	15	6.8
Trans woman/Trans feminine	0	0.0	Juvenile Justice System	2	0.9
Unlisted Identity	0	0.0	Other Placement Situation	36	16.4
Prefer to Not Say	0	0.0	Prefer to Not Say	5	2.3

^a*n* = 219; ^bTotals may be greater than 219 as participants could select more than one option in several categories

3.2 Measures and analysis

3.2.1 Sexual identity development

The four subscales of the MoSIEC (Worthington et al., 2008) were used to evaluate sexual identity development. The MoSIEC evaluates individuals' sexual identity statuses in four independent domains, Commitment (6 items), Exploration (8 items), Synthesis (5 items), and Sexual Orientation Identity Uncertainty (3 items).

3.2.2 Sexual well-being

Sexual well-being was measured using a modified version of a multidimensional model of sexual well-being (Hensel & Fortenberry, 2013). The scale was initially used with adolescent women so several items were modified so they were gender neutral and others were removed that were sex-specific. Due to the age of participants, the subscale of Fertility Control was eliminated, as this scale was designed to measure adolescents' commitment to avoiding teen pregnancy. Another item was removed from the Sexual Anxiety subscale due to a data entry error. The final scale consisted of 32 items consisting of statements related to eight domains of sexual well-being. Relationship Quality, Sexual Communication, Sexual Autonomy, Condom Use Efficacy, Sexual Esteem, Sexual Anxiety, and Genital Pain were assessed using a four-point Likert-type scale from Strongly Disagree to Strongly Agree. Sexual Satisfaction consisted of seven-point semantic differential scales designed to measure how participants viewed their sexual relationship with their current or most recent partner. Overall levels of sexual well-being were calculated by summing the total *z*-scale scores for the 32 items.

3.2.3 Sexual health outcomes

Four sexual health outcomes were considered, each of which was dichotomized as a yes or no answer. The four prompts were 1) having experienced unintended pregnancy themselves or

of a partner, 2) having been diagnosed with an STI/STD, 3) having experienced sexual victimization (self-defined), and 4) having engaged in transactional sex, or engaging in sexual activity in exchange for money, housing, or other material goods (including drugs/alcohol).

3.3 Analysis

Differences between SMY and HY were calculated using independent measures *t*-test for continuous variables and χ^2 for dichotomous variables. The impact of sexual identity development on sexual well-being was calculated using hierarchical multiple regression with controls of length of time in foster care (in years), race/ethnicity (reference group: White), gender identity (reference group: Female), and relationship status (reference group: Single).

4. Results

4.1 Time in foster care

SMY reported longer periods of time in the foster care system ($\bar{x} = 7.67$ years versus 3.98, overall range 1 to 20 years, $t = -3.55$, $p < .01$) as well as earlier entry ($\bar{x} = 10.44$ years old versus 12.18, overall range 0 to 17, $t = 2.68$, $p < .01$) and later exit (18.12 years old versus 17.11, overall range 12 to 23, $t = -2.54$, $p < .05$) than HY.

Table 2: Mean Differences Between Heterosexual and Sexual Minority Youth

	Heterosexual ^d		Sexual Minority ^b		Heterosexual ^d		Sexual Minority ^b	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
Time in Foster Care								
Age Entering Care	12.18	3.68	10.44**	4.20	20.47	3.47	20.06	4.34
Age Exiting Care	17.11	1.96	18.12*	2.65	10.27	1.70	9.67	2.50
Time in Foster Care System	4.93	3.98	7.67**	5.11	10.35	1.81	9.15**	2.36
MosIEC Subscale ^c					13.34	2.70	12.67	2.89
Commitment ($\alpha = .85$)	30.80	5.29	27.37**	6.94	9.90	1.69	9.56	1.89
Exploration ($\alpha = .91$)	33.24	10.66	37.52**	8.88	12.71	2.64	10.75***	2.53
Synthesis ($\alpha = .87$)	25.52	4.15	24.17	5.02	14.82	2.22	12.77***	2.66
Sexual Orientation Uncertainty ($\alpha = .72$)	4.96	2.48	6.83**	4.01	29.86	4.96	28.67	7.54
Overall Sexual Health ^d ($\alpha = .92$)					2.85	16.29	-6.27**	19.97

^an = 167; ^bn = 52; ^c α levels indicate values for the overall sample (n = 219); ^dz-scores; *p < .05; **p < .01; ***p < .001

MMSW Subscale^c
 Relationship Quality ($\alpha = .89$)
 Sexual Communication ($\alpha = .84$)
 Sexual Autonomy ($\alpha = .66$)
 Condom Use Efficacy ($\alpha = .88$)
 Sexual Esteem ($\alpha = .53$)
 Sexual Anxiety ($\alpha = .67$)
 Genital Pain ($\alpha = .89$)
 Sexual Satisfaction ($\alpha = .94$)

4.2 Level of sexual well-being and sexual risk behaviors

Reliability on the sexual well-being subscales varied significantly, though Cronbach's α for overall sexual well-being was high ($\alpha = .92$; Table 2). Consistent with other literature documenting discrepancies in sexual well-being between SMY and their peers, SMY had lower levels of overall sexual well-being (z -score $\bar{x} = 2.85$ versus -6.27 , $t = 3.00$, $p < .01$; Table 2). The three areas of significant differences were sexual autonomy ($\bar{x} = 9.15$ versus 10.35 , possible range 3 to 12, $t = 3.37$, $p < .01$), sexual anxiety ($\bar{x} = 10.75$ versus 12.71 , possible range 4 to 16, $t = 4.72$, $p < .001$), and genital pain ($\bar{x} = 12.77$ versus 14.82 , possible range 4 to 16, $t = 5.04$, $p < .001$). In terms of sexual risk behaviors, SMY reported engaging in sexual activity in exchange for money, housing, or other material goods (including drugs/alcohol) at a higher rate ($\chi^2 = 14.68$, $p < .01$; Table 4) and experiencing sexual victimization ($\chi^2 = 16.56$, $p < .01$). There were no statistically significant differences in experiencing an unintended pregnancy/unintentionally getting someone else pregnant nor in STI/STD incidence.

4.3 Sexual identity development

As the MoSIEC has four independent subscales, four analyses were run, one for each subscale. All four MoSIEC subscales demonstrated appropriate reliability ($\alpha = .72$ to $.91$; Table 3). In terms of sexual identity commitment, SMY had significantly lower scores ($\bar{x} = 27.37$ versus 30.80 , possible range 6 to 36, $t = 3.28$, $p < .01$). These youth also had higher levels of sexual identity exploration ($\bar{x} = 37.52$ versus 33.24 , possible range 8 to 48, $t = -2.89$, $p < .01$), and higher levels of sexual identity uncertainty ($\bar{x} = 6.83$ versus 4.96 , possible range 3 to 18, $t = -3.18$, $p < .01$). There were no significant differences in sexual identity synthesis ($\bar{x} = 24.18$ versus 25.52 , possible range 5 to 30, $t = 1.78$, $p > .05$).

Table 3: Results of Hierarchical Multiple Regression for MoSIEC Subscales on Sexual Well-being

	Commitment Heterosexual ^h		Commitment Sexual Minority ^b		Exploration Heterosexual ^h		Exploration Sexual Minority ^b	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Length of Time in Foster System ^c								
Race/Ethnicity ^d								
Gender Identity ^e								
Relationship Status ^f								
MoSIEC Subscale								
<i>F</i>								
<i>R</i> ²								
ΔR^2								
Notes: ^a <i>n</i> = 219; ^b <i>n</i> in years; ^c Reference Group: White; ^d Reference Group: Female; ^e Reference Group: Single; ^f <i>p</i> <.05; ^{**} <i>p</i> <.01; ^{***} <i>p</i> <.001								
	Synthesis Heterosexual ^h		Synthesis Sexual Minority ^b		Sex Orient Uncert Heterosexual ^h		Sex Orient Uncert Sexual Minority ^b	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Length of Time in Foster System ^c								
Race/Ethnicity ^d								
Gender Identity ^e								
Relationship Status ^f								
MoSIEC Subscale								
<i>F</i>								
<i>R</i> ²								
ΔR^2								
Notes: ^a <i>n</i> = 219; ^b <i>n</i> in years; ^c Reference Group: White; ^d Reference Group: Female; ^e Reference Group: Single; ^f <i>p</i> <.05; ^{**} <i>p</i> <.01; ^{***} <i>p</i> <.001								

Table 4: Chi-square Comparisons Between Heterosexual and Sexual Minority Youth

	Heterosexual ^a	Sexual Minority ^b	χ^2
	% Yes	% Yes	
Sexual Outcomes			
Experienced unintended pregnancy	43.71	15.38	0.07
Diagnosed with an STI/STD	9.58	21.15	4.92
Experienced sexual victimization	23.95	53.85	16.56***
Engaged in transactional sex	6.59	25.00	14.68**

^an = 167; ^bn = 52; * $p < .05$; ** $p < .01$; *** $p < .001$

4.4 Impact of sexual identity development on sexual well-being

4.4.1. Sexual Identity Commitment

Significant differences were found regarding the impact of aspects of individuals' lives on their sexual identity commitment (Table 2). As the first model remained the same in all analyses, the results are only present once. For HY, the first model was significant, $F(4, 162) = 4.304, p < .01; R^2 = 9.6\%$, as was the second model $F(5, 161) = 15.945, p < .001; R^2 = 33.1\%; \Delta R^2 = 23.5\%$. Within the first model, gender identity was a significant predictor ($\beta = .241, p < .01$). Within the second model, gender identity stayed significant at ($\beta = .161, p < .05$). These results indicate that identifying as female has a negative impact on sexual well-being. Scoring high on level of Sexual Identity Commitment was the strongest predictor of sexual well-being among HY ($\beta = .514, p < .001$).

For SMY, the first model was not significant, $F(4, 47) = 1.634, p > .05; R^2 = 12.2\%$, but relationship status was a significant predictor ($\beta = .331, p < .05$), with being single having a negative impact on sexual well-being. The second model was also not significant though the R^2 change was ($F(5, 46) = 2.219, p > .05; R^2 = 19.4\%; \Delta R^2 = 7.2\%$). The impact of relationship status reduced to being not significant ($\beta = .219, p > .05$). These results indicate that while a

significant predictor of sexual well-being among HY, gender was not a significant predictor for SMY. On the other hand, relationships status is an important predictor for SMY but not for HY. The MoSIEC subscale was a significant predictor ($\beta = .325, p < .05$).

4.4.2 Sexual Identity Exploration

As with Sexual Identity Commitment, there were significant group differences for Sexual Identity Exploration. For HY, the second model was significant predictor of sexual well-being ($F(5, 161) = 5.147, p < .001; R^2 = .138; \Delta R^2 = 4.2\%$). The impact of gender identity continued to be significant ($\beta = .245, p < .01$). Contrary to expectations, Sexual Identity Exploration was a positive predictor of sexual well-being ($\beta = .217, p < .01$).

For SMY, the second model was also significant ($F(5, 46) = 2.570, p < .05; R^2 = 21.8\%; \Delta R^2 = 9.6\%$) even though relationship status was no longer a significant predictor ($\beta = .172, p > .05$). As with HY, Sexual Identity Exploration was a positive predictor of sexual well-being ($\beta = .379, p < .05$). Sexual Identity Exploration was the strongest predictor of sexual well-being for SMY.

4.4.3 Sexual Identity Synthesis

For HY, Sexual Identity Synthesis followed the same pattern as the previous two subscales. The second model remained predictive of sexual well-being ($F(5, 161) = 10.391, p < .001; R^2 = 24.4\%; \Delta R^2 = 14.8\%$). Gender identity remained a significant predictor ($\beta = .169, p < .05$). Sexual Identity Synthesis was the second strongest predictor of sexual well-being ($\beta = .393, p < .001$).

The second model was not predictive of sexual well-being at a statistically significant level for SMY ($F(5, 46) = 2.080, p > .05; R^2 = 18.4\%; \Delta R^2 = 6.2\%$). As with Sexual Identity

Exploration, in the second model relationship status was no longer predictive of sexual well-being ($\beta = .154, p > .05$).

4.4.4 Sexual Orientation Identity Uncertainty

The second model was predictive of sexual well-being for HY ($F(5, 161) = 7.789, p < .001; R^2 = 19.5%; \Delta R^2 = 9.9%$). Gender identity remained a significant predictor ($\beta = .175, p < .05$) in a pattern similar to Sexual Identity Synthesis. As was expected, Sexual Orientation Identity Uncertainty was a strong negative predictor of sexual well-being ($\beta = -.324, p < .001$).

Contrary to expectations, the second model was not predictive of sexual well-being for SMY ($F(5, 46) = 1.856, p > .05; R^2 = 16.8%; \Delta R^2 = 4.6%$). As with other models, gender identity was not a significant predictor ($\beta = .020, p > .05$) for SMY, marking a difference between SMY and HY. For the first time, relationship status remained a significant predictor ($\beta = .319, p < .05$). That Sexual Orientation Identity Uncertainty was not a significant predictor of sexual well-being for SMY yet it was experienced at a higher level for SMY than HY suggests that there are other factors at play that may be affecting how SMY come to terms with their sexual orientation identity and how that subsequently impacts their sexual well-being.

5. Discussion

Sexual minority youth are overrepresented in the CWS and often experience harassment and discrimination from professionals and others, both within the CWS and outside it (McCormick et al., 2016). What had not previously been explored is differences in sexual identity development, overall sexual well-being, and sexual health outcomes between SMY and HY in the FCS. This research began to fill this gap through demonstrating differences in HY and SMYs' experiences such as SMY spending longer in the FCS, having less developed sexual identities, having more negative sexual health outcomes, and experiencing lower levels of sexual

well-being. This new knowledge is important as it demonstrates domains of significant need for SMY and provides insight into where interventions may be most impactful.

Despite the passage of over twenty years since early research indicated SMY spend more time in the CWS, SMY still reported spending more time in care than HY. They also entered care earlier and left later, indicating that SMY experience different familial stressors leading to entry into the FCS than HY. Familial conflict due to sexual orientation is the number one reason for SMY homelessness (Choi et al., 2015) and likely contributes to entry into the FCS as well. Familial rejection based on unchanging aspects of youths' lives can take a long time to repair, if it is repairable at all, possibly leading to the longer time in care. SMY are also harder to place in foster and pre-adoptive homes due to discrimination, likely leading to delays in the permanency process. This type of bias and discrimination can be harmful to the youth at the time and later as it contributes to difficulties with psychosocial functioning (D'amico et al., 2015). Interventions such as Recognize, Intervene, Support, Empower (RISE) as implemented by the Los Angeles LGBT Center have been shown to increase connections between SMY and adult social supports (Lorthridge et al., 2018).

The elevated levels of sexual health concerns and negative sexual health consequences among youth in the CWS are well noted (Author, 2016), but this is the first known study to specifically explore differences between SMY and HY in the FCS. As in the general population (Katz-Wise & Hyde, 2012), the SMY in this study had higher incidence of sexual victimization than the HY. It is particularly alarming that even though many youth in the FCS have experienced sexual victimization, the trend of higher incidence of sexual victimization for SMY still holds. Previous research has connected early experiences of abuse and neglect with sexual victimization, and it is recognized that SMY experience more abuse within their families and in

society in general than HY. It is also noteworthy that SMY also had higher levels of involvement in transactional sex, which may or may not be related to their experiences of sexual victimization. This indicates a particular vulnerability to sexual victimization for SMY; further research is needed on these topics to determine risk factors and ways to mitigate risks and build resilience.

Compared to previous research using the MoSIEC (e.g., Borders et al., 2014; Reid, 2013), both SMY and HY in this study scored considerably lower on Sexual Identity Commitment and higher on both Sexual Identity Exploration and Sexual Orientation Uncertainty than similarly-aged SMY and HY. This suggests youth in the FCS are taking longer to develop their sexual identities and/or experiencing less overall sexual identity development, both of which are negative occurrences. Given how political youth sexuality is within the CWS, this could be due to a lack of support for sexual identity exploration or the youths' acceptance of the negative sexual messaging they receive that leads to a forced repression of this aspect of their lives. Further, some youth in the FCS report a need to focus on other areas of their lives (Author, 2017), reducing their attention to their sexual development. Clearly more work needs to be done to educate CWS professionals and foster parents on better facilitating sexual identity development among youth in the CWS. Training initiatives for professionals in the CWS such as those sponsored by the getR.E.A.L (Recognize, Engage, Affirm and Love) Network have shown promising results (Washburn et al., 2018) and should continue to be expanded.

As predicted, SMY experienced higher levels of both Sexual Identity Exploration and Sexual Orientation Uncertainty and lower levels of Sexual Identity Commitment than HY. While these findings are not unique to the CWS, they do illustrate an opportunity. Youth involved with the CWS have many adults in their lives, both professionals and foster parents with training on

youth development. If these adults were trained to support SMY with their sexual identity development, the youth may experience improved overall sexual and overall well-being. Further, this emphasizes the need for foster parents and professionals within the CWS supporting SMYs' engagement with other SMY. Policies that explicitly encourage such interactions or explicitly forbid preventing SMY from attending age-appropriate events or social activities with other SMY based on foster parent or professional objections would help increase this type of engagement.

This could be especially impactful for SMY given they reported lower levels of sexual well-being than the HY. This too is consistent with most of the literature on the sexual well-being of SMY and represents an opportunity for improved health services. A unique contribution of this study was the breaking down of sexual well-being into discrete domains. SMY reported significantly more sexual anxiety and lower levels of sexual autonomy. Both of these may be related to past sexual victimization and are risk factors for future victimization. Fortunately, ways to discuss and address both of these topic areas are often covered in sexual education curricula, so if CWS professionals and foster parents were to address the sexual education needs of SMY using curricula explicitly designed for them, the youths' sexual well-being may improve.

6. Limitations

Several limitations for this study should be noted. The majority of participants were recruited through internet-based means thereby missing those who do not have an online presence. Further, most of the recruitment went through agencies/service providers that work with foster care alumni and social media groups that cater to the same groups of youth. Youth who participate in such programs have made their experiences within the FCS a part of their

public identity, which is only a small portion of youth formerly in the FCS. While SMY were oversampled, the small number who participated in the study prevented some forms of statistical analysis and reduced statistical power for the analyses performed. Further, this was a cross-sectional analysis whereas sexual identity development is generally considered a fluid process. While using a cross-sectional analysis limits the ability to examine change over time, it provides a sense of where the youth were at the time of analysis.

It must also be noted that this research only examined differences in youth based on their sexual orientation identity. Youth that identify as gender-diverse/transgender are also heavily overrepresented in the CWS and their experiences are understudied. Further research exploring their lives within the CWS, the ways in which they are treated and interact with others within the CWS, and their sexual and overall well-being are needed. Finally, recruitment materials emphasized this study asked personal questions regarding sexual identity development and sexual history, limiting the sample to those comfortable enough with their sexual history to answer questions about it.

7. Summary

This study sought to explore differences in the sexual identity development and sexual well-being between SMY and HY formerly in the FCS. Compared to the HY who participated in this study, the SMY spent more time in the FCS, had less developed sexual identities, and had lower levels of sexual well-being. The CWS system is designed to protect youth and assist with their positive growth and development when families of origin are unable or unwilling to do so, but SMY continue to be underserved. This study suggests a need for more comprehensive trainings for both professionals in the CWS and foster parents so they are better able to address the significant sexuality-related needs of SMY in the CWS.

References

- Ahrens, K. R., Katon, W., McCarty, C., Richardson, L. P., & Courtney, M. E. (2012). Association between childhood sexual abuse and transactional sex in youth aging out of foster care [Article]. *Child Abuse & Neglect*, *36*(1), 75-80.
<https://doi.org/10.1016/j.chiabu.2011.07.009>
- Arbeit, M. R., Baldi, E. A., Rubin, R. O., Harris, E. M., & Lerner, J. V. (2015). Promoting adolescent sexual health in youth programming: Implications of a positive youth development perspective. In E. P. Bowers, G. J. Geldhof, S. K. Johnson, L. J. Hilliard, R. M. Hershberg, J. V. Lerner, & R. M. Lerner (Eds.), *Promoting positive youth development: Lessons from the 4-H study*. (pp. 229-248). Springer International Publishing. https://doi.org/10.1007/978-3-319-17166-1_12
- Arrington-Sanders, R., Harper, G. W., Morgan, A., Ogunbajo, A., Trent, M., & Fortenberry, J. D. (2015). The role of sexually explicit material in the sexual development of same-sex-attracted Black adolescent males. *Archives of Sexual Behavior*, *44*(3), 597-608.
<https://doi.org/10.1007/s10508-014-0416-x>
- Author. (2016).
- Author. (2017).
- Author. (2019).
- Author. (2020).

- Banghart, M. (2014). Exploring the transition to adulthood by youth who have aged out of foster care and identify as lesbian, gay, bisexual, or transgender. *Dissertation Abstracts International: Section A: Humanities and Social Sciences*, 74(12-A)(E).
<http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2014-99111-026&site=ehost-live>
- Bond, B. J., & Figueroa-Caballero, A. (2016). Exploring the relationship between computer-mediated communication, sexual identity commitment, and well-being among lesbian, gay, and bisexual adolescents. *Communication Research Reports*, 33(4), 288-294.
<https://doi.org/10.1080/08824096.2016.1224159>
- Borders, A., Guillén, L. A., & Meyer, I. H. (2014). Rumination, sexual orientation uncertainty, and psychological distress in sexual minority university students. *The Counseling Psychologist*, 42(4), 497-523. <https://doi.org/10.1177/0011000014527002>
- Bucchio, J. D. (2012). *Characteristics of foster parents willing to care for sexual minority youth*
http://trace.tennessee.edu/cgi/viewcontent.cgi?article=2687&context=utk_graddiss
- Choi, S. K., Wilson, B. D. M., Shelton, J., & Gates, G. J. (2015). *Serving our youth 2015: The needs and experience of lesbian, gay, bisexual, transgender, and questioning youth experiencing homelessness*. The Williams Institute, UCLA School of Law and True Colors Fund.
- Clements, J. A., & Rosenwald, M. (2008). Foster parents' perspectives on LGB youth in the child welfare system. *Journal of Gay & Lesbian Social Services*, 19(1), 57-69.
https://doi.org/10.1300/J041v19n01_04

- Craig-Oldsen, H., Craig, J. A., & Morton, T. (2006). Issues of shared parenting of LGBTQ children and youth in foster care: Preparing foster parents for new roles. *Child Welfare, 85*(2), 267-280.
- Cray, A., Miller, K., & Durso, L. E. (2013). *Seeking shelter: The experiences and unmet needs of LGBT homeless youth*.
- D'amico, E., Julien, D., Tremblay, N., & Chartrand, E. (2015). Gay, lesbian, and bisexual youths coming out to their parents: Parental reactions and youths' outcomes. *Journal of GLBT Family Studies, 11*(5), 411-437.
- Dank, M., Yu, L., Yahner, J., Pelletier, E., Mora, M., & Conner, B. (2015). *Locked in: Interactions with the criminal justice and child welfare systems for LGBTQ youth, YMSM, and YSW who engage in survival sex*. Urban Institute.
- Diamond, L. M. (2016). Sexual fluidity in male and females. *Current Sexual Health Reports, 8*(4), 249-256. <https://doi.org/10.1007/s11930-016-0092-z>
- Dragowski, E. A., Halkitis, P. N., Moeller, R. W., & Siconolfi, D. E. (2013). Social and sexual contexts explain sexual risk taking in young gay, bisexual, and other young men who have sex with men, ages 13–29 years. *Journal of HIV/AIDS & Social Services, 12*(2), 236-255. <https://doi.org/10.1080/15381501.2013.793058>
- Everett, B. G., Schnarrs, P. W., Rosario, M., Garofalo, R., & Mustanski, B. S. (2014). Sexual orientation disparities in sexually transmitted infection risk behaviors and risk determinants among sexually active adolescent males: Results from a school-based sample [Article]. *American Journal of Public Health, 104*(6), 1107-1112. <https://doi.org/10.2105/AJPH.2013.301759>

- Flynn, K. E., Lin, L., & Weinfurt, K. P. (2017). Sexual function and satisfaction among heterosexual and sexual minority U.S. adults: A cross-sectional survey. *PLoS One*, *12*(4), e0174981. <https://doi.org/10.1371/journal.pone.0174981>
- Gallegos, A., Roller White, C., Ryan, C., O'Brien, K., Pecora, P. J., & Thomas, P. (2011). Exploring the experiences of lesbian, gay, bisexual, and questioning adolescents in foster care. *Journal of Family Social Work*, *14*(3), 226-236. <https://doi.org/10.1080/10522158.2011.571547>
- Harden, K. P. (2014). A sex-positive framework for research on adolescent sexuality. *Perspectives on Psychological Science*, *9*(5), 455-469. <https://doi.org/10.1177/1745691614535934>
- Harper, G. W., Bruce, D., Serrano, P., & Jamil, O. B. (2009). The role of the Internet in the sexual identity development of gay and bisexual male adolescents. In P. Hammack & B. J. Cohler (Eds.), *The story of sexual identity: Narrative perspectives on the gay and lesbian life course* (pp. 297-326). Oxford University Press.
- Hensel, D. J., & Fortenberry, J. D. (2013). A multidimensional model of sexual health and sexual and prevention behavior among adolescent women. *Journal of Adolescent Health*, *52*(2), 219-227. <https://doi.org/10.1016/j.jadohealth.2012.05.017>
- Hensel, D. J., Nance, J., & Fortenberry, J. D. (2016). The association between sexual health and physical, mental, and social health in adolescent women. *Journal of Adolescent Health*, *59*(4), 416-421. <https://doi.org/10.1016/j.jadohealth.2016.06.003>

- Heywood, W., Patrick, K., Smith, A. M., & Pitts, M. K. (2015). Associations between early first sexual intercourse and later sexual and reproductive outcomes: A systematic review of population-based data. *Archives of Sexual Behavior, 44*(3), 531-569.
<https://doi.org/10.1007/s10508-014-0374-3>
- Higa, D., Hoppe, M. J., Lindhorst, T., Mincer, S., Beadnell, B., Morrison, D. M., Wells, E. A., Todd, A., & Mountz, S. (2014). Negative and positive factors associated with the well-being of lesbian, gay, bisexual, transgender, queer, and questioning (LGBTQ) youth. *Youth & Society, 46*(5), 663-687. <https://doi.org/10.1177/0044118X12449630>
- Jones, C. A., & Raghavan, C. (2012). Sexual orientation, social support networks, and dating violence in an ethnically diverse group of college students. *Journal of Gay & Lesbian Social Services, 24*(1), 1-22. <https://doi.org/10.1080/10538720.2011.611107>
- Kann, L., Olsen, E. O. M., McManus, T., Harris, W. A., Shanklin, S., Flint, K. H., Queen, B., Lowry, R., Whittle, L., Thornton, J., Lim, C., Yamakawa, Y., Brener, N., & Zaza, S. (2016). Sexual identity, sex of sexual contact, and health-related behaviors among students in grades 9-12 - United States and selected sites 2015. *Morbidity and Mortality Weekly Report, 65*(9).
- Katz-Wise, S. L., & Hyde, J. S. (2012). Victimization experiences of lesbian, gay and bisexual individuals: A meta-analysis. *Journal of Sex Research, 49*(2-3), 142-167.
<https://doi.org/10.1080/00224499.2011.637247>
- Keuroghlian, A. S., Shtasel, D., & Bassuk, E. L. (2014). Out on the street: A public health and policy agenda for lesbian, gay, bisexual, and transgender youth who are homeless. *American Journal of Orthopsychiatry, 84*(1), 66-72. <https://doi.org/10.1037/h0098852>

- Lorthridge, J., Evans, M., Heaton, L., Stevens, A., & Phillips, L. (2018). Strengthening family connections and support for youth in foster care who identify as LGBTQ: Findings from the PII-RISE evaluation. *Child Welfare, 96*(1), 53-78.
<http://search.ebscohost.com/login.aspx?direct=true&db=mnh&AN=EPTOC130544597&site=ehost-live>
- Mallon, G. P. (2010). *LGBTQ youth issues: Practical guide for youth workers serving lesbian, gay, bisexual, transgender and questioning youth*. Child Welfare League of America.
- Mallon, G. P. (2011). Permanency for LGBTQ youth. *Protecting Children, 26*(1), 49-57.
- McCormick, A., Schmidt, K., & Terrazas, S. (2016). LGBTQ youth in the child welfare system: An overview of research, practice, and policy. *Journal of Public Child Welfare, 11*(1), 27-39. <https://doi.org/10.1080/15548732.2016.1221368>
- Morgan, E. M., & Morgan Thompson, E. (2011). Processes of sexual orientation questioning among heterosexual women. *Journal of Sex Research, 48*(1), 16-28.
<https://doi.org/10.1080/00224490903370594>
- Morgan, E. M., Steiner, M. G., & Morgan Thompson, E. (2010). Processes of sexual orientation questioning among heterosexual men. *Men and Masculinities, 12*(4), 425-443.
<https://doi.org/10.1177/1097184X08322630>
- Mountz, S., Capous-Desyllas, M., & Pourciau, E. (2018). 'Because we're fighting to be ourselves:' Voices from former foster youth who are transgender and gender expansive. *Child Welfare, 96*(1), 103-125.

- Muise, A., Preyde, M., Maitland, S. B., & Milhausen, R. R. (2010). Sexual identity and sexual well-being in female heterosexual university students. *Archives of Sexual Behavior*, 39(4), 915-925. <https://doi.org/10.1007/s10508-009-9492-8>
- Parent, M. C., Talley, A. E., Schwartz, E. N., & Hancock, D. W. (2015). I want your sex: The role of sexual exploration in fostering positive sexual self-concepts for heterosexual and sexual minority women. *Psychology of Sexual Orientation and Gender Diversity*, 2(2), 199-204. <https://doi.org/10.1037/sgd0000097>
- Poirier, J. M., Wilkie, S., Sepulveda, K., & Uruchima, T. (2018). Jim Casey Youth Opportunities Initiative: Experiences and outcomes of youth who are LGBTQ. *Child Welfare*, 96(1), 1-26.
<http://search.ebscohost.com/login.aspx?direct=true&db=mnh&AN=EPTOC130544595&site=ehost-live>
- Reback, C. J., & Larkins, S. (2010). Maintaining a heterosexual identity: Sexual meanings among a sample of heterosexually identified men who have sex with men. *Archives of Sexual Behavior*, 39(3), 766-773. <https://doi.org/10.1007/s10508-008-9437-7>
- Reid, J. J. (2013). *Relations between sexual identity exploration and risky sexual behavior in emerging adulthood* <http://scholarscompass.vcu.edu/etd/3015/>
- Rosario, M., Schrimshaw, E. W., & Hunter, J. (2011). Different patterns of sexual identity development over time: Implications for the psychological adjustment of lesbian, gay, and bisexual youth. *Journal of Sex Research*, 48(1), 3-15.
<https://doi.org/10.1080/00224490903331067>

- Rosenwald, M. (2009). A glimpse within: An exploratory study of child welfare agencies' practices with LGBTQ youth. *Journal of Gay & Lesbian Social Services, 21*, 343-356.
<https://doi.org/10.1080/10538720802498124>
- Russell, S. T., Clarke, T. J., & Clary, J. (2009). Are teens "post-gay"?: Contemporary adolescents' sexual identity labels. *Journal of Youth & Adolescence, 38*, 884-890.
<https://doi.org/10.1007/s10964-008-9388-2>
- Salerno, J. P., Kachingwe, O. N., Fish, J. N., Parekh, E., Geddings-Hayes, M., Boekeloo, B. O., & Aparicio, E. M. (2020). "Even if you think you can trust them, don't trust them": An exploratory analysis of the lived experiences of sexual health among sexual minority girls in foster care. *Children and Youth Services Review, 116*, 105161.
<https://doi.org/10.1016/j.chilyouth.2020.105161>
- Sullivan, C. A., Sommer, S., & Moff, J. (2001). *Youth in the margins: A report on the unmet needs of lesbian, gay, bisexual and transgender adolescents in foster care*. Lambda Legal Defense & Education Fund.
- Vaillancourt-Morel, M. P., Godbout, N., Sabourin, S., Briere, J., Lussier, Y., & Runtz, M. (2016). Adult sexual outcomes of child sexual abuse vary according to relationship status. *Journal of Marital and Family Therapy, 42*(2), 341-356.
<https://doi.org/10.1111/jmft.12154>
- Washburn, M., Good, M., Lucadamo, S., Weber, K., Bettencourt, B., & Dettlaff, A. J. (2018). Yes we can Allegheny: Implementing SOGIE inclusive system improvements in child welfare. *Child Welfare, 96*(2), 99-124.
<http://search.ebscohost.com/login.aspx?direct=true&db=mnh&AN=EPTOC130544609&site=ehost-live>

Woronoff, R., Estrada, R., & Sommer, S. (2006). *OUT of the margins: A report on the regional listening forums highlighting the experiences of lesbian, gay, bisexual, transgender and questioning youth in care*. Child Welfare League of America.

Worthington, R. L., Navarro, R. L., Savoy, H. B., & Hampton, D. (2008). Development, reliability, and validity of the Measure of Sexual Identity Exploration and Commitment (MoSIEC). *Developmental Psychology*, *44*(1), 22-33. <https://doi.org/10.1037/0012-1649.44.1.22>

Zimmer-Gembeck, M. J., O'Sullivan, L. F., Mastro, S., & Hewitt-Stubbs, G. (2016). Adolescent sexuality: Current directions in research, health, and risk reduction. In M. K. Holt & A. E. Grills (Eds.), *Critical issues in school-based mental health: Evidence-based research, practice, and interventions* (pp. 93-104). Routledge.