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FROM THE ARCHIVES

Bisexual Female Adolescents: A Critical Analysis of Past Research, and Results from a National Survey

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Little is known about bisexual female adolescents from the existing empirical social science research literature. We review past studies, highlighting the barriers in the methods and methodologies that have limited our understanding of female adolescent bisexuality. Using data from the first and second waves of the National Longitudinal Study of Adolescent Health, we present findings that show (1) the prevalence of both-sex romantic attraction and relationships among young women, (2) the tendency for underrepresentation of females reporting both-sex attraction and relationships in the study, and (3) the fluidity of romantic attractions and relationships over the 18-month period between waves of the study. Implications for

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popular and scientific conceptions of female adolescent bisexuality are discussed, as are challenges for future research.

KEYWORDS *bisexuality, adolescence, research methods, sexuality development*

More than ever before, the health and safety of ‘sexual minority’ youth has become part of the public consciousness in the U.S and other Western nations. The murder of Matthew Shepard, the Academy Award winning film *Boys Don’t Cry*, and the controversy in some communities around high school Gay-Straight Alliance clubs for teenagers are just a few of the recent signs of a growing awareness of the unique challenges faced by gay, lesbian, bisexual, and transgender young people. Given this recent and growing public attention to youthful sexual orientation, the empirical understanding of adolescent bisexuality, especially among females, remains limited. In this article we consider what is known about adolescent bisexuality among young women, as well as the challenges that characterize the study of adolescent sexual orientation. We present data from a national study to ask: How common is adolescent bisexuality among females? Due to methodological challenges or because they may be a population that is ‘at risk’ (Hershberger, Pilkington, & D’Augelli, 1997; Russell, Franz, & Driscoll, 2000; Russell, Seif, & Troung, 2001), are bisexual female youth under-represented in population-based studies? Finally, is there evidence to support the assumption by many past researchers that adolescent bisexuality is a transitory identity (see Diamond, 1998; Herdt & Boxer, 1995; Rust, 1993)?

We begin with a review of the past empirical, social sciences research on adolescent bisexuality, outlining explanations for our minimal understanding of these adolescents’ lives based on the politics of this area of research, as well as challenges for methodology and methods. We distinguish between methodology, the “theory and analysis of the research process,” and methods, the “techniques for gathering research materials,” in our review (Maynard, 1995, p. 10). Thus consider both the larger issues that shape the ways that we frame research questions and analyses (methodologies), as well as the technical application of empirical social science for the study of adolescent bisexuality (methods). We identify four primary methodological barriers to the social scientific study of female adolescent bisexuality, including:

1. the tendency to collapse female bisexuality into a “Gay/Bisexual” or “Homosexual” category, even in some population-based studies where sexually self-identified females predominate;
2. a linear model of sexual development that views bisexuality as a transitional phase toward a single-sex sexual orientation;

3. the continued theoretical dominance of the tripartite categorization “gay, lesbian, and bisexual,” despite the rapidly changing social milieu of sexual minority youth; and
4. the marginalization of queer theory.

Concerning the specific methods of research, a primary issue includes challenges in measuring sexual orientation, specifically the tendency for non-comparable assessment of sexual orientation across studies. Also, most past studies have relied on community-based, convenience samples that are numerically skewed toward males and gay- or lesbian-identified youth.

Following this review, we present analyses of the National Longitudinal Study of Adolescent Health (“Add Health”), the most recent and comprehensive study of adolescents in the U.S. The Add Health Study is the first nationally representative study that enables the analysis of adolescent bisexual attractions and relationships.

Before we continue, a note on language is important. We use the term *sexual minority youth* with caution, since it assumes a minoritizing view of stigmatized sexual attractions, behaviors, and identities. Other possible terms are equally or more problematic: “lesbian, gay, and bisexual” or “LGB youth” assumes a tripartite system of stable identities that does not reflect the realities of all non-heterosexual youth. On the other hand, “queer youth” reflects a mostly urban, political movement that may not resonate for the majority of youth who have been attracted to or are sexually active with males and females (Berlant, 1997). Thus, we recognize both the limits of our cultural language for discussing the variability of sexuality as it is experienced by young people, as well as the specific limitations of the language choices we make in the text that follows.

CHALLENGES IN EMPIRICAL LITERATURE ON BISEXUAL FEMALE YOUTH

While there has been considerable personal, anecdotal, and humanities-based writing on bisexual women over the past decade (see George, 1993; Hutchins & Ka’ahumanu, 1991; Pramaggiore, 1996; Tucker, 1995; Weise, 1992), empirical social science literature on the topic has been much more scarce (Chung & Katayama, 1996; Doll, 1997). In our literature search, we found no article that specifically focused upon bisexuality in females age 18 and under. Why does this lacuna exist in the literature? The reasons are varied and often linked.

At the most basic level, a primary reason that we know so little about the lives of young bisexual women is that the social scientific study of youthful sexuality has faced considerable and continued political challenges. The

very questions that have been asked in past studies have been limited not solely because female bisexuality has not been part of the consciousness of researchers, but because political and funding realities have prevented the acquisition of this information (Gardner & Wilcox, 1993). In fact, the analyses that we present below are based on a study that grew out of the failed American Teenage Study (ATS), the history of which exemplifies political intervention in the research process related to adolescent sexuality. This history is described in detail elsewhere (Ericksen, 1999; Gardner & Wilcox, 1993; Hunt, 1999; Udry, 1993). In short, funding for the ATS was blocked because it included questions about non-heterosexual sexual behavior. Thus, our empirical, social science knowledge about adolescent bisexuality has been limited because the study of adolescent sexuality in general, and same-sex sexuality in particular, has been a politically volatile subject.

Beyond the political realities of conducting research on youthful female bisexuality, the limits of our knowledge can be explained in part on the limits of our methodological frameworks for the study of adolescent sexuality. We discuss four specific framing or methodological challenges below, followed by a discussion of challenges in the application of research methods.

Methodological Challenges

Triple marginalization as females, bisexuals and youth. Most empirical research on sexual minorities has been conducted with adults, and most sexual minority research has focused on gay males (Rotheram-Borus & Fernandez, 1995; for exceptions, see Diamond 1998, 2000; Rust, 1993, 1995). Due in part to the crisis of HIV and AIDS in the 1980s and the related attempts to understand its transmission among gay men, proportionately more funding and thus more studies of sexual minority youth have focused on young men (Rosario, Meyer-Bahlburg, Hunter, Exner, Gwadz, & Keller, 1996). As a result, research since the 1990s that has included attention to bisexuality often focuses on male youth with bisexual identities and behaviors, due to the stereotype that they are primary vectors of HIV transmission (Doll, 1997). Thus, the majority of past research has been adult-focused, has focused on males, or has focused on gay and to a lesser extent lesbian identities. Female bisexuality has been triply marginalized in social science research.

Amalgamation of bisexual girls in lesbian/bisexual or homosexual category and linear developmental models of sexuality. Most quantitative research that incorporates the category of bisexual female adolescents is amalgamated in a broader category such as "lesbian/bisexual" or "homosexual." This practice is related both to the need within quantitative research to categorize and simplify information for the development of generalizable models of adolescent sexual life, and to longstanding cultural bias that assumes that bisexuality is not a stable identity. First, it would be difficult to anticipate

every possible sexual identification (such as “queer,” “lesbian identified bisexual,” or other individualized labels [see Jordan, Vaughan, & Woodworth, 1997], as well as those who reject labels altogether) for the purposes of a large-scale study. Not only would it be difficult to collect such data, but it would be difficult to draw general conclusions based on the many ways that individuals may self-identify. Furthermore, many random, population-based studies do not have large enough samples to yield the number of female bisexual teens that would be required to conduct statistical analyses. In these cases, the practice has often been to collapse categories, combining self-identified bisexual with lesbian subjects (e.g., Faulkner & Cranston, 1998). In other studies that include sample sizes large enough to distinguish statistical difference between same-sex and both-sex orientations, analyses of specific outcomes of interest indicate little or no statistically significant difference between female youth that report same sex and both sex orientations. In these cases, researchers have combined these groups to form one sexual minority category (e.g., Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Russell, Franz, & Driscoll, 2001; Russell & Joyner, 1998).

However, some researchers collapse female bisexual youth into a “lesbian/bisexual,” “LGB,” “homosexual,” or simply “lesbian” category in samples where bisexual subjects exceed lesbian subjects (e.g., Waldo, Hesson-McInnis, & D’Augelli, 1998). This practice has been used with recent population-based samples, even though they tend to include more bisexually identified than lesbian-identified subjects (e.g., French, Story, Remafedi, Resnick, & Blum, 1996; Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998). Also, girls who report that they are unsure of their orientation or have primary but not exclusive attractions to males are often simply excluded from sexual minority samples (e.g., Garofalo, Wolf, Wissow, Woods, & Goodman, 1999; Hershberger, Pilkington, & D’Augelli, 1997). These methodological decisions suggest that our lack of specific knowledge of bisexual females is not merely due to limitations in method. There exists a “folk wisdom” of sexual orientation held by both U.S. researchers and the public at large that suggests that the development of sexual orientation is linear, culminating in a uni-sexual orientation (Blumstein & Schwartz, 1993; Firestein, 1996). In this cultural framework, bisexuality is a transitional phase toward the dichotomous choices of homosexual or heterosexual orientation (Diamond, 1998; Herdt & Boxer, 1995; Rust, 1993). Gay and lesbian researchers have been some of the strongest voices in a chorus of activist-scholars who challenge the hidden heterosexist biases of scientific research (Gametts & Kimmel, 1993; Haraway, 1991; Harding, 1988; Hill Collins, 1990; Morin, 1977; Proctor & Groze, 1994). Nevertheless, they often bring their own assumptions regarding the transitory nature of bisexuality to their research (MacDonald, 1981). For an example of research on female sexual development that does not assume that sexual orientation is a stable trait and that examines the fluidity of the attractions and behaviors of young women, see Diamond (1998, 2000).

“Bisexual” or “queer”? Changing youth identifications. The categories of youth identification are changing, and include the use of “queer” as an identity and a tendency to reject labels altogether. These alternatives are generally excluded from studies that continue to rely upon the gay, lesbian, and bisexual categories popularized during the lesbian feminist and gay and sexual liberation movements (for exceptions, see Diamond, 1998; Jordan, Vaughan, & Woodworth, 1997; Minton, 1997; Rhoads, 1997). Some researchers acknowledge that youth identifications and political cultures are rapidly changing, and include queer and bisexual identifications not simply as “pre-gay” or “pre-lesbian” identities (Diamond, 1998; Herdt & Boxer, 1995; Lock & Steiner, 1999; Rhoads, 1997). Because of the fluid social milieu of sexual minority youth, researchers need to take care not to impose the sexual categories of their cohorts upon contemporary young people. We must conduct new studies that question the current applicability of data from the 1970s and 1980s (Diamond, 1998; Herdt & Boxer, 1995; Lock & Steiner, 1999; Savin-Williams, 1994).

Sexual orientation: minoritizing view or queer theory? Our review of past empirical social science research on sexual minority youth reveals an emphasis on identifying youth as lesbian or gay. Youth that report that they are bisexual, queer, or unsure of their orientation (e.g., Remafedi, 1998), or predominantly yet not exclusively oriented toward the other sex (e.g., Hershberger, Pilkington, & D’Augelli, 1997; Remafedi, 1998; Waldo, Hesson-McInnis, & D’Augelli, 1998) are often marginalized or excluded from study. This practice may reflect a minoritizing view of sexual orientation (Firestein, 1996). This view advocates for the rights of a distinguishable, perhaps biologically immutable minority (the homosexual—that is, gay or lesbian) using an “ethnic model” of civil rights (Halley, 1994). Queer theory, on the other hand, emphasizes a non-essentialized view of sexual identities and orientations. From a queer theory perspective, the concerns of those with same-sex attractions are universal, and the sex/gender system is seen as problematic in ways that are relevant for all people across the sexual spectrum (Butler, 1993; Minton, 1997; Sedgwick, 1990). A small number of researchers have advocated for or otherwise debated the use of queer theory in psychology and developmental studies (Hostetler & Herdt, 1998; Minton, 1997; Parlee, 1996); however, a non-essentialized view of youthful sexuality and sexual orientation is the exception in empirical social science rather than the norm.

Research Challenges: Methods

We identify three challenges pertaining to the methods of research that have prevented a more complete understanding of adolescent female bisexuality: (1) unidimensional or non-comparable assessments of sexual orientation,

(2) non-comparable measures across studies, and (3) the challenges associated with the reliance upon small, non-representative samples.

One of the first challenges facing empirical researchers is the assessment of sexual orientation. Fritz Klein, psychiatrist and researcher in bisexual studies (Klein, Sepekoff, & Wolf, 1985), developed the Klein Sexual Orientation Grid in order to capture the complexity and multiple dimensions of sexual orientation, including emotional preference, social preference, lifestyle, attractions, fantasies and behavior. Yet the majority of studies rely upon one dimension to assess sexual orientation: self-identification (Chung & Katayama, 1996). The problems with assigning a sexual orientation to research subjects in this manner are highlighted in the study of youth. It is during adolescence that sexual maturation takes place, and during this period that sexual identification and behavior begin to develop. This period is characterized by fluidity with regard to sexuality; this fluidity is negated by binary constructs of sexual orientation. Further, a secondary problem with the reliance on sexual self-identity to measure adolescent bisexuality is that youth have only minimal control over heterosexist environments such as home and school. Thus, they often are constrained within these environments to view themselves from heterosexist perspectives.

There is no commonly agreed upon and uniformly followed method of assessing sexual orientation. Thus, empirical studies of bisexual adolescent females are either non-comparable (since assessment has been conducted diversely by different researchers) or problematic, since sexual orientation has usually been measured along one axis, sexual self-identification (Blumstein & Schwartz, 1977; Chung & Katayama, 1996; for a notable exception to uni-dimensional measures of sexual orientation among adults see Laumann, Laumann, Gagnon, Michael, & Michaels, 1994).

Finally, aside from the aforementioned political barriers to conducting large-scale and population-based studies of adolescent sexuality, there is no easy way to locate youth with stigmatized sexual identities, feelings, or behaviors. Thus, most of the studies on sexual minority youth have been conducted using small, community-based samples from gay and lesbian youth groups in college settings or urban areas (e.g., Hershberger, Pilkington, & D'Augelli, 1997; Savin-Williams, 1994). These groups tend to over-represent males who may experience more physical mobility and comfort in claiming public space regarding their sexual orientation (e.g., Proctor & Groze, 1994), and under-represent bisexual youth who may feel marginalized within these groups (Herdt & Boxer, 1995). In fact, while community-based samples generally include a predominance of gay- and lesbian-identified youth subjects (e.g., Herdt & Boxer, 1995; Pilkington & D'Augelli, 1995), large-scale, random samples of youth tend to have more subjects that report bisexual identities and attractions than exclusively same-sex identities or attractions (e.g., French, Story, Remafedi, Resnick, & Blum, 1996; Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Remafedi, 1998; Russell, Franz, & Driscoll, 2000;

Russell & Joyner, 1998). Thus, non-representative, community-based studies likely exclude many youth that do not claim a sexual minority identity; youth with histories of sexual attractions or behaviors with both sexes may be under-represented in these studies. It has been suggested that bisexual females who actively participate in an organized social group for sexual minority teens are unrepresentative of bisexual female youth as a whole (Rust, 1995). Also, because many past studies have been based on small samples of youth, most have been unable to disaggregate lesbian from bisexual female subjects (Lock & Steiner, 1999).

In light of these methodological and methods-based challenges that have characterized the study of female adolescent bisexuality, we turn to the Add Health Study to examine the bisexual romantic attractions and relationships of a national sample of young women.

METHOD

Data Source

The National Longitudinal Study of Adolescent Health (the "Add Health" Study) is the most recent, comprehensive study of adolescents in the U.S. (Bearman, Jones, & Udry, 1997). More than 20,000 seventh- to twelfth-grade students and one parent (usually a mother) participated in the first wave of this study; over 70% of these students were re-interviewed 18 months later in the second wave of the study. The study included over-samples of several racial and ethnic groups; we include these over-samples in our analyses in order to maximize the sample size given the low prevalence of sexual minority youth in the general population. We limit our analyses to adolescents that were between ages 12 and 19 in Wave I.

Portions of the interview, including information on same-sex romantic attraction, were collected through the use of Audio-CASI (audio computer-aided self-interview). Respondents listened to questions through earphones, and their responses were recorded on a laptop computer. Past studies report a high level of self-disclosure bias in interviewer-administered surveys on sensitive behavior; interviewing methods that afford greater privacy have been found to result in higher reporting rates. Specifically, the Audio-CASI method has been demonstrated to reduce the potential for interviewer or parental influence on the responses of adolescents (Supple, Aquilino, & Wright, 1999; Turner, Ku, Rogers, Lindberg, Pleck, & Sonenstein, 1998).

Measures: Romantic Attraction and Relationships

The survey includes two dimensions related to sexual orientation: romantic attractions and romantic relationship(s). Two questions on the Wave I

in-home survey measure a young person's romantic attractions: "Have you ever had a romantic attraction to a female?" and "Have you ever had a romantic attraction to a male?" In the Wave 2 survey, participants were asked if they had had a romantic attraction to a male or female since the last survey date. These measures enable attention to romantic attraction to the same or to both sexes. We distinguish between exclusively heterosexual, exclusively same-sex, and both-sex romantic attractions for the teenagers in the study. We use the terms "heterosexual," "bisexual," and "same-sex" attraction for ease of presentation. We do not, however, assume that heterosexual or bisexual identities are claimed by these youth in our study. We also include a measure of romantic relationship or relationships; the sex of romantic partners is determined through the following questions: "In the last 18 months, have you had a romantic relationship with anyone?" and "What is their sex?" Information was obtained on three most recent romantic relationships.

The Add Health Study does not include measures of sexual identity (self-identification as lesbian or bisexual). Thus, we cannot directly compare our results with previous studies of adolescents who identify themselves as lesbian or bisexual. Despite this drawback, we believe that our measures of romantic attraction and relationship(s) tap dimensions of sexual orientation in ways that past measures of sexual identity do not. A limitation of past studies of lesbian, gay and bisexual teenagers is that they exclude adolescents who have not yet identified themselves as lesbian, gay or bisexual (Savin-Williams & Rodriguez, 1993). Because the Add Health Study includes information about same-sex romantic attractions whether or not the respondents identify themselves as bisexual or lesbian, our measure of same-sex romantic attraction likely includes both self-identified and pre-identified bisexual/lesbian/queer youth, as well as some youth that may never identify as bisexual, lesbian, or queer. We believe that our measure includes more youth than would have responded affirmatively to bisexual or lesbian labels.

Analysis Plan

Our analyses are guided by the research questions posed in the introduction. First we examine the prevalence of adolescent bisexuality among females for both Waves I and II of the Add Health Study. For these and all other analyses, we compare adolescent females that report bisexual attractions and relationships to their peers whose attractions or relationship(s) are oriented to exclusively the other or the same sex. For purposes of comparison, we include data on adolescent males. Because research methods and methodologies may knowingly or unknowingly exclude bisexual female youth, or because they may be a group "at risk" and thus likely to be under-represented in school-based studies (Hershberger, Pilkington, & D'Augelli, 1997; Russell, Franz, & Driscoll, 2000; Russell, Seif, & Troung, in press), we examine the

degree to which females reporting bisexual attractions or relationships are under-represented in our study. We do this by examining attrition between the first and second waves of the study. Are women with both-sex attractions or relationships less likely to be included in the Add Health Study at Wave 11? We use logistic regression predicting study attrition in a comparison of attrition rates across groups identified by their romantic attractions or behaviors. Finally, we make use of the two waves of the study to examine the stability of bisexual romantic attractions or relationships across 18 months of the adolescent years. These analyses enable an examination of the degree to which female bisexuality is stable or fluid during adolescence. To protect the security of the Study data because cell sizes become quite small for some groups, we report rounded group percentages.

RESULTS

Population Statistics for Adolescent Romantic Attraction and Relationships

At Wave I, 3.88% of the young women of the Add Health Study reported romantic attractions to both males and females; they represent 2.5 times more young women than those who reported attraction to the same sex only (1.45% of the female sample; Table 1). Note that among males, seven times more young men reported both-sex than exclusively same-sex attraction.

TABLE 1 Romantic Attractions and Relationships by Sex, Waves I and II of the Add Health Study. Proportion of Respondents Within Sex; Number of Respondents

	Wave I		Wave II	
	Females	Males	Females	Males
Romantic Attraction	10,226	9,959	7,410	7,034
Neither sex	10.92%	12.90%	17.33%	23.16%
	1,117	1,286	1,284	1,629
Other sex	83.75%	79.9%	77.84%	72.19%
Same sex	8,564	7,960	5,768	5,078
	1.45%	0.89%	1.15%	1.55%
	148	89	85	109
Both sexes	3.88%	6.26%	3.68%	3.10%
	397	624	273	218
Romantic Relationship	10,285	10,049	7,432	7,071
Neither sex	33.93%	35.64%	30.71%	35.60%
	3,490	3,581	2,282	2,517
Other sex	63.85%	62.99%	67.30%	62.93%
Same sex	6,567	6,330	5,002	4,450
	1.20%	0.72%	1.20%	0.85%
	123	72	89	60
Both sexes	1.02%	0.66%	0.79%	0.62%
	105	66	59	44

Eighteen months later, roughly the same proportions of women reported same- and both-sex romantic attractions. Recall that Wave II asks for romantic attractions or relationship(s) since Wave I only, while Wave I asked about lifetime attractions. This explains the slight decrease in the proportions reporting same- and both-sex romantic attractions between Waves I and II; there simply has been less time for female youth to have romantic attractions.

In comparison to romantic attraction, many more youth report never having had a romantic relationship at Wave I, or not having had one in the past 18 months at Wave II. However, the proportions reporting same- and both-sex relationships are markedly more similar than was true of romantic attraction: 1.20% of females reported same-sex relationship(s), while 1.02% reported relationships with both males and females. Despite the fact that females reported higher rates of bisexual attractions compared to same sex attractions in Wave II, more females engaged in relationship(s) with females only than with both sexes during the 18 months between the study waves. While the proportion of females engaging in same-sex only relationship(s) remained stable from Wave I to II, the proportion of romantic relationships with both males and females fell.

Study Attrition Rates

Of participants in the first wave of the study, the lowest attrition rates were for youth reporting no romantic attractions or relationships; younger study participants predominate in this category (Table 2). Overall, males tended to have higher attrition rates than females, yet bisexual female youth, whether categorized according to romantic attraction or relationship(s), score higher than all but the same-sex oriented males. The highest proportions of females that did not participate in Wave II were those reporting both-sex attractions or relationships: 20.8% and 23.6% dropped out of the study. These results

TABLE 2 Attrition in the Add Health Study at Waves II by Romantic Attraction and Romantic Relationship Status in Wave I, by Sex. Group Differences Calculated with Logistic Regression

Full Sample	Neither Sex	Other Sex	Same Sex	Both Sexes	Group Differences
Females	17.32%				
Romantic attraction	16.96%	17.05%	18.03%	20.78%	Other < Both; $p < .10$
Romantic relationship	16.42%	17.63%	19.19%	23.60%	Neither < Both; $p < .10$
Males	20.34%				
Romantic attraction	19.66%	20.35%	25.64%	9.77%	
Romantic relationship	18.79%	21.17%	26.56%	16.98%	Neither < Other; $p < .01$

are only marginally significant, but suggest that bisexual females are likely to be under-represented in social science studies. Survey researchers should be aware of the tendency for females with bisexual orientations to discontinue participation in longitudinal surveys; methods for maintaining their participation in survey research should be studied. Finally, our evidence suggests that the rates of female bisexual attractions and relationships in both waves of the Add Health Study may be underestimates of their representation in the general population.

Consistency in Romantic Attractions and Relationships Between Waves I and II

To what extent do bisexual attractions remain stable or change after an 18-month period for female adolescents? Data from the Add Health Study show substantial fluctuation in reported attractions between waves (Table 3). Given their heterosexist culture, it is perhaps not surprising that more than half of the sexual minority women in the study reported other-sex attractions or relationships 18 months after the first wave. Nevertheless, approximately one quarter of the females who reported bisexual attractions in Wave I reported similarly in Wave II. Of the remaining bisexually attracted females at Wave I, approximately 60% reported other-sex only attraction at Wave II, while approximately 5% reported same-sex only attraction. A majority of females who report bisexual attractions in Wave II reported other-sex only attractions in the first survey (right column, approximately 65%). Our findings do not support the stereotype that adolescent female bisexuality is

TABLE 3 Consistency in Reports of Romantic Attractions and Relationships Between Waves I and II Among Females of the Add Health Study. Rounded Proportions Among Those Responding to Wave II Within Wave I Category Groupings, and Proportions at Wave I Among Those Reporting Both-Sex Attraction or Relationships at Wave II

WAVE I	WAVE II				Proportions at Wave I: both sexes at Wave II
	Neither Sex	Other Sex	Same Sex	Both Sexes	
<i>Females</i>					
Romantic Attraction					
Neither sex	40%	55%	0%	0%	5%
Other sex	15%	80%	0%	5%	65%
Same sex	20%	55%	10%	15%	5%
Both sexes	10%	60%	5%	25%	25%
Romantic Relationship					
Neither sex	60%	40%	0%	0%	10%
Other sex	15%	85%	0%	0%	70%
Same sex	15%	65%	15%	0%	5%
Both sexes	10%	75%	5%	10%	15%

a transition to lesbianism; only approximately 5% of female bisexuals from Wave I report same-sex only attractions in Wave II. Further, the fluctuation in romantic attractions is also true for females who report same-sex only attractions at Wave I. Only approximately 10% of females who reported exclusively same-sex attractions only in Wave I make the same report in Wave II; in fact approximately 15% report both-sex attractions 18 months later. Thus, contrary to popular belief, we find that same-sex attraction is less stable than both-sex attraction among the young women in this study.

Turning to romantic relationships, our results are generally similar. For romantic relationships we find that fewer females that reported bisexual relationships at Wave I reported bisexual relationships 18 months later (approximately 10%), while proportionately more reported other-sex relationship(s) (approximately 75%). As was true for attraction, a majority of females who report bisexual relationships in Wave II reported other-sex only attractions in the first survey (right column, approximately 70%). Thus, we do not find evidence that romantic relationships with both sexes is a precursor to lesbianism.

CONCLUSIONS

Our work has highlighted the challenges in conducting research on adolescent female bisexuality, challenges having to do both with cultural and scientific attitudes toward bisexuality, as well as the complications one faces when conducting research in this complex and controversial field. Our analyses of the Add Health Study affirm our conclusions based on past research that future studies should, when possible, avoid the standard practice of collapsing “lesbian” and “bisexual” categories for empirical analyses. Clearly there exists important variability that we are only beginning to document and understand. The field must also avoid the assumptions that the process of sexual identity development is linear with a single-sex sexual orientation end-state. Our results affirm the work of others (Diamond, 1998, 2000; Rosario, Meyer-Bahlburg, & Hunter, 1996) in suggesting that there may be greater fluidity than stability in the pathways through which adolescents define and express their sexualities.

Several past studies have been based on samples that include more youth that reported bisexual identities (French, Story, Remafedi, Resnick, & Blum, 1996; Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Remafedi, 1998) or attractions and relationships (Russell, Franz, & Driscoll, 2000; Russell & Joyner, 1998); our analyses indicate that the distinctions between sexual identity, orientation, and behavior (Baum-Williams, 1989) are crucial. We find that many more young women report both-sex attractions than exclusively same-sex attractions. However, same-sex relationship(s) are more common than relationship histories with both males and females; this is true both

for the lifetime indicator of relationships (Wave I) and for a time-bound measure referring to the past 18 months (Wave II). This multidimensionality of sexuality is an important area for further study.

We made use of the panel design of the Add Health Study to examine attrition rates, analyses that served as a test of the degree to which sexual minority youth may be under-represented in large-scale studies of adolescents. We find evidence that sexual minority youth are under-represented in the second Wave of the Add Health Study, and thus presumably in the first wave as well. Further, both-sex attracted females and females reporting both male and female relationship partners were among those with the highest attrition rates. Social scientists should be aware of this challenge when conducting and analyzing data on young women.

Finally, we found significant fluidity in romantic attractions and relationships between Waves I and II of the Add Health Study. Rather than being an indication of poor measures or “bad data,” we see this as important information about the nature of adolescent sexuality. We only capture an 18-month snapshot of the lives of these youth, but our analyses do not support the common perception that bisexuality is a transitional phase leading to lesbianism (or being gay). Further, we find that for romantic attraction, bisexual attraction is more stable over the 18 months than is exclusive same-sex attraction. When such variability in past studies has been reported, it usually has been framed as adolescent immaturity. For example, when discussing the finding that 60% of the youth that identified as bisexual in their study had identified as gay or lesbian in the past, Rosaria, Meyer-Bahlburg, and Hunter write that they “... do not know what explains changes in sexual identity or whether the youth’s sexual identity is still in flux” (1996, p. 125). We suggest an alternate conceptualization of youthful sexuality, including identity, behavior, and attraction, that acknowledges development and fluidity. We suspect that this is not only true for adolescents but for adults as well.

There are of course limitations to our study. We are unable to directly compare our results to past studies that have included self-identified lesbian and bisexual females. Nevertheless, we believe that our measure of romantic attractions is a close proxy to sexual orientation or attraction, and that the measure of romantic relationships is one indicator of sexual behavior. Further, these measures most likely include youth that would be missed by asking questions about lesbian or bisexual identities. A criticism of past studies is that they exclude adolescents who have not yet identified themselves as gay, lesbian, or bisexual (Savin-Williams & Rodriguez, 1993); our analyses likely include many of the youth that were missed in past studies.

Research on gay and to a lesser extent lesbian youth has been underway for many years. Ironically, while little attention has been given to bisexuality during adolescence, much of the past research on sexual minority youth has been based on the experiences of youth that identified themselves as bisexual, or whose behavior was bisexual. We are only now beginning to develop

the methods, methodologies, research questions, and theories for the study of youthful female bisexuality. If sexuality development is indeed characterized for many by fluidity, what is needed are flexible methodologies and methods that can help us better examine and understand the complexities of youthful sexualities.

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