

# When Lesbians Aren't Gay: Factors Affecting Depression Among Lesbians

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**ABSTRACT.** Research on women and depression has neglected to explore how the factors that put women at risk for depression apply to lesbians. The present study examined four of the risk factors consistently cited in the women and depression literature (relationship status, relationship satisfaction, social support from friends, and social support from family), and two unique factors (outness and relationship status satisfaction), to determine their ability to predict depression among lesbians. Data were collected from 167 lesbians between the ages of 20 and 60. Perceived social support from friends, relationship status satisfaction, and perceived social support from family, were found to be significant predictors, accounting for 17.8% of the variance in depression, as measured by the Center for Epidemiologic Study Depression Scale (CES-D). A second multiple regression equation focused on the 110 lesbians who were in committed relationships, using the variables relationship satisfaction, perceived social support from friends, perceived social support from family, and outness, to determine if relationship satisfaction added to the amount of variance which could be predicted in depression. Social support from friends was the only significant predictor in this equation, accounting for 5.8% of the vari-

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Depression is one of the most prevalent mental health problems in the United States, affecting 2%-19% of the country's population (e.g., Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993; Romanoski, Folstein, Nestadt, Chahal, Merchant, Brown, Gruenberg, & McHugh, 1992). Epidemiological studies aimed at discovering who gets depressed, and why, have identified being female as one of the strongest risk factors for this disorder. A review of the literature reveals that approximately twice as many women as men suffer from depression (e.g., Nolen-Hoeksema, 1990), and that this gender difference has been identified in the United States among Caucasian American, African American and Hispanic American women (see McGrath, Keita, Strickland & Russo, 1990, for a review).

One group that has been virtually overlooked in the research on women and depression is lesbians. Of the four prior studies that included lesbians, only one, by Cochran and Mays (1994), used a standardized depression measure. Cochran and Mays used the Center for Epidemiologic Study Depression Scale (CES-D) to assess depression among 603 African American lesbians and 829 African American gay men. Both lesbians and gay men reported similar levels of depression as those found in studies of African Americans in general. In the National Lesbian Health Care Survey (NLHCS), a national health care study targeting lesbians (Bradford, Ryan, & Rothblum, 1994), over 1,900 participants were presented with a list of 23 health problems and asked to endorse those they experienced. One item presented was simply "long depression or sadness." Similarly, in a study of alcohol abuse among lesbians, Diamond and Wilsnack (1978) interviewed ten lesbian alcoholics, and among other things, asked if they drank in response to depression, and if depression increased while they were drinking. Finally, Bell and Weinberg (1978) asked respondents to self-define and evaluate depression. None of these last three studies defined depression for the respondents, and their results raise the question of how the widely accepted definition of depression

compares with the depression measured by standardized scales used by Cochran and Mays' lesbians.

The present study also used the Center for Epidemiological Studies Depression Scale (CES-D) which is the most widely used scale in epidemiological research (Dean, 1985). As such, it is only the second study of lesbians and depression using a standardized scale.

### *PREDICTORS OF DEPRESSION AMONG WOMEN AND THEIR APPROPRIATENESS FOR LESBIANS*

Researchers have tried to identify risk factors to account for the large gender difference in the prevalence of depression. As with any large body of literature there are contradictory findings, but several correlates and predictors have been identified with more regularity. The most consistently reported factors associated with depression among women are marital status, marital satisfaction, childrearing, employment status, and social support. One way to begin understanding the risk factors for depression among lesbians is to explore how the risk factors associated with depression among women in general relate to the lives of lesbians, and then to investigate factors which might be unique to lesbians. This was the purpose of the present study.

*Marital status.* Early research on the association between marital status and mental illness found that single individuals were more likely than married individuals to experience mental illness. However, when rates of mental illness were compared between married women and men the prevalence of mental illness was found to be higher among the women (Gove, 1972). This was understood initially as a suggestion that being married somehow increases women's risk for all mental illnesses. Research on depression conducted over the last decade has shown that marriage does not, in fact, put women at risk for depression (see McGrath et al., 1990, for a review). It has even been suggested that being married may protect women from depression. Most studies which have compared rates of depression in never married, married, divorced/separated, and widowed women have found that married women are less likely to be depressed than women with other marital statuses. Women who have never been married usually have the second lowest rates of depression. Divorced and separated women have usually been found to have the highest rates of depression in these comparisons, and widowed women fall someplace in the

middle of the spectrum (e.g., Ensel, 1986; Radloff, 1975; Robinson-Brown & Gary, 1985; Weissman, 1987). There have been some exceptions to these findings, but most studies, even those with diverse age, ethnic, and racial groups, do show this relationship between marital status and depression.

Since most lesbians are not married (Bradford et al., 1994), one could conclude that almost all lesbians are single, and therefore at lower risk for depression. This interpretation of the data ignores the range of lesbian relationships, and their possible impact on depression among lesbians. A more logical way of conceptualizing marital status for lesbians is to convert this construct to *relationship status*.

Relationship status is not a new concept. In 1980, Mary Mendola completed a study of lesbian couples with 405 participants. She found that, based on participant definition, 70% of those surveyed considered themselves to be in a lesbian marriage (even though lesbian marriage is not now, nor has ever been, legal in the U.S.). Thirteen percent of the participants said they were living with someone, 10% reported being divorced or separated from a woman, 7% said they were single, and none were widowed. Using this framework, being in a significant relationship with a woman would be similar to being married to a man, and might therefore predict lower rates of depression. Being single needs no conversion, and would be expected to predict less depression for lesbians. Mendola's study suggests that widowhood might not be a frequent self-reported relationship status for lesbians. Ending or having ended a significant relationship would be similar to separation and divorce, and would be expected to predict increased depression.

In support of this model for conceptualizing the link between lesbian relationships and depression, Bell and Weinberg (1978) surveyed 229 white lesbians and 64 African American lesbians, and found that those who were in "marital" relationships with women, or were "single" and dating casually, reported experiencing less depression than did lesbians with other relationship status. This research was not based on a validated depression scale, but like much of the depression research it depended on participants self-defining and evaluating depression.

The present study predicted that relationship status would follow a similar pattern for lesbians as it did for women in general. Therefore, it was hypothesized that being in a primary committed relationship or

being single and dating would predict decreased risk for depression, while being single and not dating, widowed, or ending or having recently ended a relationship would predict increased risk for depression. Because lesbians are not legally married, they do not easily fit into two categories, so this more ambiguous category of "single but dating" was added for lesbians who were more casually involved with another woman.

*Marital satisfaction.* While being married has been correlated with lower rates of depression among women, being unhappily married has been shown to increase women's risk for depression. Many studies have found strong negative correlations between marital satisfaction and depression, and some have found that depression among women can be predicted by marital dissatisfaction (see Nolen-Hoeksema, 1990, for a review). For example, Weissman's (1987) epidemiological study of more than 18,000 individuals indicated that women who were unhappily married were twenty-five times more likely to be depressed than the happily married women or men.

How "marital satisfaction" translates into the lives of lesbians is an interesting and unresearched question. Once again, it would not be appropriate to ask lesbians about marital satisfaction since such a small percentage are legally married to men at any given time. (Approximately 2% of the nearly 2,000 lesbians surveyed for the NHLCS reported being married to men at the time of the survey; Bradford et al., 1994). It is possible that marital satisfaction could be transposed into relationship satisfaction, and that this could be examined as a possible predictor of depression in lesbians.

Although there is no research on the link between relationship satisfaction and depression among lesbians, there is one study which shows that relationship satisfaction is correlated with positive affectivity in a lesbian sample. Kurdek (1994) examined correlates of relationship satisfaction in gay, lesbian, and heterosexual cohabitating couples. He found that negative affectivity was significantly correlated with relationship satisfaction in his sample of 39 lesbian couples.

Since marital satisfaction is strongly correlated with depression among women, and lesbians experience more negative affectivity when they are dissatisfied with their relationships, this study predicts a negative association between relationship satisfaction and depression.

*Children.* Having children, especially several young children, has been associated with an increased risk for depression among women

(McGrath et al., 1990; Nolen-Hoeksema, 1990). In previous decades studying the relationship between depression and childrearing among lesbians did not make sense for a variety of reasons. Lesbians often lost their children in custody battles if they disclosed their sexual orientation. Therefore, lesbian mothers with custody were unlikely to participate in research and risk disclosure. Conversely, lesbians who were open about their orientation were unlikely to be parenting. Fewer lesbians had children as well because there were fewer options for never married lesbians to choose motherhood.

Estimating the number of children being raised by lesbians is difficult since census information completely ignores gay and lesbian status. In 1985 25% of the lesbian couples answering Mendola's survey reported that one of the partners had children. Fifty-eight percent of these women reported that they had full custody of these children. Considering that this is 58% of the original 25%, the percentage of women in the Mendola Report who were actually raising children full time was only 14.5%. Bradford et al. (1994) asked the lesbians participating in the National Lesbian Health Care Survey about mothering status. Sixteen percent of participants reported bearing children, and another 5% said they had another woman's children living with them (21% were participating in childrearing).

Research exploring mothering as a correlate of depression among women has identified having the majority of childcare responsibility as a factor which may explain this relationship. Since lesbian couples are more likely than heterosexual couples to share childcare responsibilities equally (Bisonovich-Pennington, 1987; Lynch & Reilly, 1986), one might assume that raising children is less stressful for lesbians than for heterosexual women and would therefore not increase lesbians' risk for depression. This may be true, or it may be that lesbians face some unique stressors when raising children (e.g., custody battles, see Falk, 1989).

At this point no study has examined the possibility that childrearing might predict depression among lesbians, but related research suggests that this might be true. The present research was designed to explore this relationship but only 11.4% of participants reported parenting. The low frequency of childrearing among respondents eliminated it as a viable factor in a model trying to predict depression among lesbians.

*Social support.* Social support has been shown to be a strong predictor of depression for both women and men across ages, races, and

in community as well as psychiatric samples (e.g., Lin, Dean, & Ensel, 1986; Palinkas, Wingard, & Barrett-Connor, 1990; Taylor, Henderson & Jackson, 1991).

There is no reason to believe that lack of social support, or social isolation, would be any easier for lesbians to tolerate than it would be for women in general. Furthermore, lesbians who decide to hide their sexual orientation, in one or more contexts, may isolate themselves for fear of being discovered, which in turn may be associated with increased risk for depression. Research conducted by Kurdek (1988) and Kurdek and Schmitt (1986; 1987) reveals that gays and lesbians perceive less social support from their families than do their heterosexual counterparts, and are therefore more likely to turn to friends for social support than to their families. Fifty percent of the 100 lesbians in Kurdek's study (1988) cited friends as providers of support, while only 14% mentioned their families. Although Kurdek (1988) did not specifically study the relationship between depression and social support he did find that social support was positively related to psychological adjustment for lesbians.

The research and theoretical literature on lesbians and social support suggests that social support may predict depression for lesbians, especially social support from friends. Social support from friends and from family were studied as distinct predictors because the literature on lesbians suggests that lesbians are more dependent on friends than on family for social support. It was expected that decreased social support in both domains (friends and family) would predict higher risk for depression, but that support from friends would be a more potent predictor of depression among lesbians. In both cases however, the variables were expected to be negatively correlated with depression.

*Outness.* Being "out" refers to a lesbian's choice to acknowledge her lesbian identity. In the National Lesbian Health Care Survey (Bradford et al., 1994), 27% of the 1,925 lesbians were out to all their family members and 28% were out to all of their heterosexual friends. Choosing not to come out to family and friends can result in isolation, increased stress, anxiety about being found out, etc.

Not only do lesbians choose to whom they will come out, they also choose which environments are safe to come out in. As mentioned earlier, the work environment can be perceived as an especially dangerous place to come out. Only 17% of the lesbians interviewed for the National Lesbian Health Care Survey (Bradford et al., 1994) were

out to all their co-workers (44% were out to at least 50% of their co-workers). Imagining the constant vigilance necessary to hide one's identity and the preference to withdraw from people rather than risk coming out helps to envision the possible link between being closeted and increased depression. The limited research on coming out and depression suggests that coming out can be both a positive and negative experience. In 1987 Schmitt and Kurdek surveyed 51 gay men and found that those who were more open about their sexual orientation were also less anxious and less depressed. Unfortunately a similar study has not been conducted with lesbians.

Since there is very little empirical information on coming out and depression, the possible mental health benefits of being out and the disadvantages of being closeted need to be explored. It was therefore hypothesized that an inverse relationship would exist between coming out and depression, so that lesbians who were more open about their sexual orientation would be less likely to become depressed. In addition, post hoc analysis was done to see if increased disclosure at work would be associated with decreased depression, as is suggested by the literature on lesbians and employment. This was not a part of the model hypothesized to predict depression, but rather was separately analyzed for possible correlation with depression.

*Relationship status satisfaction.* Relationship status satisfaction refers to individuals' contentment with their current relationship status. It has not been explored in past research on depression, women and depression, or lesbians and depression. Although there is no literature on relationship status satisfaction, it seemed just as likely that single women's satisfaction with being single, or divorced women's satisfaction with being divorced, would predict depression as would relationship satisfaction for women in relationships. Our hypothesis was that possibly more important than a lesbian's relationship status is how she feels about that status.

In sum, eight possible risk factors for depression have been presented, and four of these factors (relationship status, relationship satisfaction, social support from friends, and social support from family) were examined in the present research as risk factors for depression among lesbians because they are consistently cited as risk factors for women and seem relevant to lesbians. The fifth factor examined in this research was outness (disclosure of sexual orientation). Outness was added to this model because of support from theoretical writing on the

effect disclosure has on the mental health of lesbians and because of related research. The sixth factor, relationship status satisfaction, is a new construct and has been added into this research as a test of its significance for predicting depression.

## METHOD

### *Participants*

Two recruiting methods were used to obtain participants for the present study. The "snowball technique," which has often been used in lesbian and gay research (e.g., Schmitt & Kurdek, 1987; Thompson, McCandless, & Strickland, 1971), was employed because it provides a way of sampling a hidden population. This method of recruitment involved asking lesbians known or identified by the researcher to recruit friends, acquaintances, colleagues, etc., to participate in the study. Each lesbian who completed a survey was then asked if she would like extra copies to distribute. About half the respondents, 57%, indicated that they received the survey "from a friend." The other method used for accessing research participants involved sending surveys to stores, businesses, organizations, health centers, etc., that have lesbian clientele and were willing to make the surveys available to members, clients, or patrons. Respondents indicated that they got the survey from a store or business (12%), health center (2%), computer bulletin notice (1%), directly from the researcher (12%) or "other" (16%; this included lover/girlfriend, student group, teacher, periodical, lesbian organization, lesbian party, therapist, spiritual group, and lesbian resource center).

Four hundred thirty surveys were distributed for this study. One hundred and sixty-seven lesbians returned completed, usable surveys, from 25 states. States with the greatest response rate (over 5%) were California, Massachusetts, New York, North Carolina, Pennsylvania, Rhode Island, and Vermont. In addition, 10 surveys were returned from women who labeled themselves as bisexual, and these surveys were not included in the present research. The final response rate was 41% ( $N = 167$ ). Lesbians participating in this study were not very diverse. The typical participant was in her early-thirties (mean age = 33, with a range of 20-60), white (92%), employed at least part time (87%), very well educated (75% had at least a bachelors degree), and

earned under \$30,000 (77%). About half the participants (46.6%) lived in urban areas; the rest were divided between rural (27.6%) and suburban (25.8%) locales. Sixty-three percent of respondents were living with a female partner. Regarding relationship status, most (64.1%) of respondents described themselves as in a primary relationship with a woman; 22.2% were "single, not dating," and 8.4% were single and dating a woman or women. There are no census data specifically on lesbians, but the current sample was roughly comparable to the NLHCS on age, education, income, employment status, ethnicity/race, relationship status, and percent of lesbians having children.

### Measures

The Lesbian Mental Health Survey began with the statement: "This lesbian mental health survey was designed by lesbians with the hope of better understanding the lives and concerns of lesbians. While lesbians, bisexual women, and heterosexual women have some similar life experiences, there are certainly others that are unique to lesbians. The purpose of this national survey is to better understand lesbian experiences so that our needs can be addressed by mental health professionals."

*Demographic information.* The survey began with seven demographic questions asking respondents about their age, race, type of community they resided in, educational status, individual yearly income, employment status, and present religious affiliation. The eighth question inquired where the survey was obtained. All of these items were phrased as multiple choice questions except for age, which was an open ended question. Question nine was the 7-point Kinsey scale (Kinsey, Pomeroy & Martin, 1948; Kinsey, Martin, Pomeroy & Gebhard, 1953) measuring sexual orientation, in which 1 indicated that the respondent was exclusively lesbian and 7 indicated that the respondent was exclusively heterosexual.

*Epidemiological risk factors.* The second section of the survey contained questions about the risk factors hypothesized to predict depression among lesbians. The first question in this section asked about *relationship status* (worded as "please check the option that best describes your present situation"). Six options were provided (as well as a space for any option not covered). Two of these options, "widowed" and "other," were later eliminated because they were not endorsed by any of the respondents. The remaining four options were: (1) primary

relationship (which included lesbians who said they were in "marriage-like" or "committed/primary" relationships), (2) dating, (3) single and not dating, and (4) ending or recently ended a relationship. *Relationship status satisfaction* was phrased as: "How satisfied are you with your present relationship status? (For example, are you very satisfied with being single and not dating or are you dissatisfied with this status, and wish you were not single)." Participants were asked to endorse a five-point Likert scale item (1 = totally dissatisfied; 5 = totally satisfied). *Relationship satisfaction* consisted of the question: "If you are presently in a committed/primary relationship with a woman, how satisfied are you with that relationship?" followed by a five-point Likert scale item (1 = totally dissatisfied; 5 = totally satisfied). Questions about childrearing followed but were not included in this study due to a low response rate. *Disclosure of sexual orientation* (outness) consisted of the measure used in the NLHCS. This was comprised of five items about disclosure to: (1) family, (2) lesbian/gay friends, (3) heterosexual friends, (4) co-workers/employers/employees, and (5) neighbors/community members. Each item asked about the percentage of that group (e.g., family) to whom the respondent is out. The scales were 0 (0%), 1 (25%), 2 (50%), 3 (75%), and 4 (100%). The scales were then summed for a total outness score. *Social support from friends and family*, respectively, was measured using Procidano and Heller's (1983) Perceived Social Support From Friends and Family scales. These scales measure the effect social support has on an individual, based on her personal assessment of her support network. There are 20 items on the Friends and the Family subscales, respectively. Items are given one point if they indicate that the respondent feels supported, for a range of 0-20 points, with higher scores indicating a higher level of perceived social support. The scales have been shown to have good internal consistency (.90), good test-retest reliability (.83) and good predictive validity (Procidano & Heller, 1983).

*Depression.* The final section of the survey contained The Center for Epidemiological Studies Depression Scale (CES-D) which was used as the outcome variable in this study. The CES-D was designed to measure point prevalence of depression, and is comprised of twenty symptoms. Respondents rate how often they experienced each symptom during the past week. Responses were rated on a four point scale (0 = rarely or none of the time; 3 = most or all of the time), for a range

from 0-60, with higher scores indicating higher levels of depression. The CES-D has very good discriminant validity (.50-.70) and good internal consistency among patient populations and community samples (.84-.90). The CES-D does not have good reliability over extended periods of time because it was designed to measure point prevalence. Test-retest reliability has been reported to fall between .41 (at one year retest) and .70, with the higher correlations occurring when the time span was shorter (Ensel, 1986). It has been suggested that a score of 16 or more indicates "caseness" (i.e., clinical levels), and Radloff (1977) found that 70% of the depressed psychiatric patients in her study scored at or above 16, while only 21% of her community sample had scores in this range.

## RESULTS

### *Data Transformations*

Two changes were made to the data before analyses. The square root transformation of depression scores was necessary because the scoring procedure used resulted in a dependent variable which was not distributed on a normal curve. As one would expect in a community sample, the highest range of depression scores was not represented while the lowest range was highly represented. This resulted in a positively skewed curve with a mean of 14.49, and a range of 0-43 (out of a possible range of 0-60). Conducting a multiple regression on the untransformed data would have violated the assumption that the dependent variable in a regression equation is distributed on a normal curve, thereby giving an inaccurate picture of the predictive value of the variables in the model.

The second change entailed creating dummy variables to represent relationship status, because of the assumption that variables entered into a regression are continuous, or at least dichotomous. Relationship status cannot be viewed as a continuous variable, so four dichotomous variables were used to represent relationship status: (1) a committed relationship (combining the categories marriage-like relationship and primary/committed relationship), (2) single and dating a woman or women, (3) single and not dating, and (4) recently ended or ending a primary relationship.

### *Relationship Between Demographic Information and Depression*

Prior to regression analyses all demographic variables were examined to determine if they were related to depression. A Pearson product-moment correlation revealed that no significant association existed between depression and age, income level, sexual orientation (rating of 1-3 on sexual orientation scale), or whether participants were employed or not, or lived with their partners or not. Analyses of variance were conducted for discontinuous demographic variables to see if there were differences in depression between groups. These analyses indicated that there were no significant associations between depression and ethnicity, type of community in which a participant lived (rural, suburban, or urban), or religion.

The only demographic variable which was significantly related to depression was level of education. A Pearson product-moment correlation indicated that a negative relationship existed between educational level and depression,  $r(167) = -.19, p = .015$ , so that more education was related to lower depression scores.

### *Relationship Between Epidemiologic Factors and Depression*

All of the predictor variables were analyzed to determine if they were significantly correlated with depression. Pearson product-moment correlation analyses revealed that several of the predictor variables were significantly related to depression. Table 1 presents the relationship between the predictor variables and depression.

*Relationship status.* As Table 1 indicates, there were two categories of relationship status that were significantly correlated with depression. Being in a primary relationship was significantly correlated with decreased depression while being single and not dating was significantly correlated with increased depression. When all categories of relationship status were entered into a regression, so that the effect of overall relationship status on depression could be evaluated, there was no significant correlation between relationship status and depression.

*Relationship satisfaction.* Relationship satisfaction was only measured among lesbians in primary relationships ( $n = 110$ ). No significant association was found between relationship satisfaction and depression.

*Perceived social support from friends and family.* Perceived social

TABLE 1. Correlations Between Predictor Variables and Depression

Predictor variable	n	r <sup>2</sup>
Relationship status <sup>a</sup>		
Committed (Yes/No)	167	-.202**
Dating (Yes/No)	167	.005
Single (Yes/No)	167	.159*
Ending/Ended (Yes/No)	167	.132
Relationship satisfaction	110	-.147
Social support from friends	167	-.301****
Social support from family	167	-.244**
Outness	167	-.028
Relationship Status Satisfaction	164	-.275***

<sup>a</sup>Relationship status was divided into four dummy variables which are listed separately in this table. Respondents who endorsed a particular category (i.e., single) were given a "1" in the scoring; if they did not endorse that category they were given a "0." Each category was rated in this way. Therefore, a significant negative correlation indicates that being in that category is associated with decreased depression. Likewise, a positive correlation indicates that being in that category is associated with increased depression.

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ ; \*\*\*\*  $p < .0001$

support from friends and from family was significantly related to depression. As support from friends and family increased, depression scores decreased. A stronger correlation existed between perceived social support from friends and depression than did between perceived social support from family and depression.

*Outness.* Disclosure of sexual orientation was not significantly correlated with depression. A post hoc analysis was also run to explore possible relationships between depression and each domain for which disclosure was measured. Comparisons among the domains revealed that participants were most out to their lesbian and gay friends ( $M = 3.89$ ) and their heterosexual friends ( $M = 3.27$ ). A majority of the participants were quite open about their sexual orientation with their family as well ( $M = 3.00$ ). Participants were least likely to disclose their sexual orientation at work ( $M = 2.61$ ) and to their neighbors ( $M =$

1.96). Pearson product-moment correlations revealed that none of the domains were significantly correlated with depression; disclosure to co-workers, employer, or employees is the only domain which even approached statistical significance.

*Relationship status satisfaction.* A significant association was found between relationship status satisfaction and depression. Participants who were more satisfied with their relationship status were less depressed than participants who were less satisfied with their relationship status.

### Intercorrelations Among Epidemiologic Variables

Correlations among the predictor variables were examined since the stepwise multiple regression equation removes variables that are very highly correlated. Table 2 presents the intercorrelation matrix for the predictor variables. The pair of predictor variables which exhibited the strongest correlation was relationship status satisfaction and relationship satisfaction,  $r(108) = .79, p < .0001$ . Since these variables were never entered into the same regression equation the association between these variables is superfluous.

It was expected that each of the dummy variables would be significantly correlated because they are in fact measuring one construct, relationship status (see Table 2). Since these variables were examined in the regression equation as one variable (by being forced into the equation simultaneously) the associations between these variables were expected and somewhat meaningless.

Other significant correlations existed between predictor variables. These correlations may have influenced which predictor variables remained in the final regression equation and will be discussed later on.

### Regression Analyses

Two stepwise multiple regression analyses were conducted to identify predictors of depression among lesbians. The first regression analysis was conducted using all participants ( $N = 167$ ). The second analysis only included those participants in committed relationships with women. These participants responded that they were either in a "marriage-like" or "committed/primary" relationship with a woman ( $n = 110$ ).

The first regression analysis included five variables: relationship

TABLE 2. Intercorrelations of predictor variables

Variable	1	2	3	4	5	6	7	8
1. committed relationship	-	-	-	-	-	-	-	-
2. dating	.40*	-	-	-	-	-	-	-
3. single	-.71*	-.16*	-	-	-	-	-	-
4. ending/ended a relationship	-.32*	-.07	-.13	-	-	-	-	-
5. relationship satisfaction <sup>a</sup>	-	-	-	-	-	-	-	-
6. social support from friends	.04	-.03	-.08	.11	-.01	-	-	-
7. social support from family	.15*	-.01	-.18*	.03	.17	.33*	-	-
8. outness	.15	.05	-.16*	-.08	-.06	.21*	.15	-
9. relationship status satisfaction	.62*	-.23*	-.43*	-.23*	.79*	.01	.04	.09

<sup>a</sup>Only participants in committed relationships rated relationship satisfaction so correlation analyses were not applicable with the relationship status variables.

\*  $p < .05$

status, social support from friends, social support from family, outness, and relationship status satisfaction. This regression identified social support from friends, relationship status satisfaction, and social support from family as significant ( $p < .05$ ) predictors of depression for lesbians, accounting for 17.8% of the variance in depression scores. Table 3 presents a summary of the first stepwise multiple regression.

The second stepwise multiple regression equation analyzed the ability of relationship satisfaction, social support from friends, social support from family and outness to predict depression among lesbians in committed relationships ( $n = 110$ ). Only one variable, social support from friends, was a significant ( $p < .05$ ) predictor of depression for these women, accounting for 5.77% of the variance in depression

scores. Table 4 also presents a summary of the second stepwise multiple regression procedure.

## DISCUSSION

In spite of the abundance of research on women and depression, only one prior study has investigated depression among lesbians using a standardized scale. This present study evaluated whether some of the more consistently cited predictors of depression among women were able to predict depression among lesbians, and also whether two unique variables contributed to depression.

Six variables were analyzed to determine their ability to predict depression among lesbians: relationship status, relationship satisfaction, perceived social support from friends, perceived social support from family, disclosure of sexual orientation (outness), and relation-

TABLE 3. Summary of Stepwise Procedure #1

Step	Variable	Partial $r^2$	Model $r^2$	F	prob > F
1	Perceived social support from friends	.0841	.0841	14.88	.0002
2	Relationship status satisfaction	.0741	.1582	14.17	.0002
3	Perceived social support from family	.0201	.1783	3.91	.0498

*Note.* Relationship status, social support from family, social support from friends, outness, and relationship status satisfaction were entered into this equation. No other variables met the .05 significance level required for inclusion in the regression equation.

TABLE 4. Summary of Stepwise Procedure #2

Step	Variable	Partial $r^2$	Model $r^2$	F	prob > F
1	Perceived social support from friends	.0577	.0577	6.615	.0115

*Note.* Relationship satisfaction, social support from family, social support from friends, outness, and relationship status satisfaction, were entered into this equation. No other variables met the .05 significance level required for inclusion in this regression equation based on the 110 participants in committed relationships.

ship status satisfaction. When all variables, with the exception of relationship satisfaction, were entered into a stepwise regression equation, perceived social support from friends was revealed as the most potent predictor of depression among lesbians. Relationship status satisfaction was also a significant predictor of depression among lesbians, as was perceived social support from family.

Four variables: relationship satisfaction, perceived social support from friends, perceived social support from family, and disclosure of sexual orientation, were entered into a second stepwise multiple regression equation with the purpose of assessing whether relationship satisfaction added to our ability to predict depression among lesbians in relationships. Relationship satisfaction was not a significant predictor of depression. Among this subgroup of participants (lesbians in committed relationships) only perceived social support from friends significantly predicted depression.

### *Generalizability and Limitations of the Findings*

The majority of lesbians participating in this research were white, in their thirties, very highly educated, employed full or part time, and earned under \$30,000 a year. This demographic profile is similar to the profile found in many other studies of lesbians (Bradford et al., 1994; Kurdek, 1994; Lynch & Reilly, 1986), yet it obviously does not represent all lesbians, and therefore the generalizability of these findings is limited to lesbians with demographic characteristics similar to the research participants. Furthermore, the snowball sampling procedure tends to generate a more homogeneous profile (because friends of friends are often similar in age, education, etc.) than a random or community sample. Thus, the statistics need to be interpreted with caution, as both the assumptions of representativeness and randomness have been violated.

The CES-D depression scale is the most widely used scale in epidemiologic and community research. This scale is continuous, and so CES-D scores of all participants were included in this study. Not all participants (in fact, very few) in a non-psychiatric sample such as this one, scored high on depression. Thus, the results would be very different if the study had focused on a clinically depressed sample.

### *Epidemiologic Predictors of Depression*

*Relationship status.* Two of the relationship status categories, being in a committed relationship, and being single and not dating, were significantly correlated with depression. The significant negative correlation between depression and being in a committed relationship parallels the women and depression literature and was therefore expected. Like women in general, lesbians in committed relationships may have decreased levels of depression for a variety of reasons. Three alternative explanations exist for the directionality of this association: (1) being in a committed relationship prevents depression, (2) increased depression prevents being in a committed relationship, (3) a third factor influences both variables.

Research on women and depression usually cites being single as correlated with low levels of depression, second only to being married (e.g., Radloff, 1975; Robinson-Brown & Gary, 1985). Being single was divided into two separate categories ("single" and "single and dating") in this research because lesbians cannot really be defined as being married or not in the legal sense. It was expected that this distinction would in fact influence the relationship between single status and depression with lesbians in relationships exhibiting decreased depression and lesbians not in relationships exhibiting increased depression. Being single and not dating was in fact significantly correlated with increased depression. No significant correlation was found between being single and dating and depression. Possibly if the single status were divided into these separate categories in the women and depression literature a similar relationship would exist.

Relationship status as a whole (all four categories combined) did not predict depression among lesbians when entered into a regression equation with the other predictor variables. This may have resulted from the mixed findings of the individual categories. Since two of the categories were significantly correlated with depression and two were not, relationship status as an overall construct did not predict depression for lesbians.

While the research on women and depression consistently cites marital status as a correlate and predictor of depression for women, relationship status does not predict depression for lesbians. Lesbians in committed relationships, however, do tend to have low levels of depression, as do married women, and single non-dating lesbians tend

to have somewhat elevated levels of depression unlike nonmarried women in general.

*Relationship satisfaction.* Relationship satisfaction was not correlated with depression among the lesbians in this study. This was surprising because it contradicts the women and depression literature. It also contradicts Kurdek's (1994) finding that increased relationship satisfaction is correlated with decreased anxiety, depression and interpersonal sensitivity (negative affectivity) for lesbians.

Relationship satisfaction was also not a significant predictor of depression among lesbians in relationships when entered into a regression equation with outness, and with perceived social support from friends and family. Since relationship satisfaction is not significantly correlated with any of the other variables in the equation, its lack of predictive ability cannot be attributed to shared variance. Instead, one has to ask why marital satisfaction predicts depression for women, while relationship satisfaction does not predict depression for lesbians.

The unexpected finding that relationship satisfaction does not predict depression for lesbians in relationships may be explained by the absence of a legal commitment in lesbian relationships. In other words, since marriages are more difficult to end than lesbian relationships, there may be more unhappily married women than there are unhappily partnered lesbians. If a lesbian relationship gets unbearable it is easier and possibly more acceptable to end than it is when a marriage becomes unbearable. The present study lends some support to this hypothesis by the mere distribution of relationship satisfaction scores. Forty-six percent of partnered lesbians in the present study circled a 5 on the scale, and another 36% circled 4, indicating that 82% were extremely satisfied with their relationship. Less than 1% of the participants were totally dissatisfied with their relationships, and only 5% circled a two on the scale. This suggests that lesbians may not be experiencing the degree of dissatisfaction with their relationships that married women experience, and therefore may not be at risk for depression based on relationship satisfaction.

*Perceived social support from friends and from family.* Perceived social support from friends and perceived social support from family were significantly negatively correlated with depression. This relationship was expected, based on the women and depression literature which indicates that social support is associated with depression in women across ages, races, in community samples, and in psychiatric

samples (e.g., Lin et al., 1986; Palinkas et al., 1990; Taylor et al., 1991). Like women in general, lesbians experiencing less social support tend to experience more depression.

Previous research has found that lesbians depend more on friends than on family for support (Kurdek, 1988; Kurdek & Schmitt, 1986; 1987). This finding was replicated in the present study. The mean score for perceived social support from friends was 16, compared with a mean score of 9 for perceived social support from family. Lesbians clearly do not see their families as being their main source of support. Lesbians may perceive their friends as more supportive than their family because they are more likely to be out to their friends than to their family. When participants in the present study were asked to indicate how out they were to lesbian and gay friends, heterosexual friends, and family, they indicated that they were most out to lesbian and gay friends, next came heterosexual friends, then came their families. It may be difficult for lesbians to rely on their families for support if their families are unaware of their sexual orientation.

The different influence that perceptions of support from family and from friends have on depression among lesbians becomes apparent when these variables are entered into a regression equation along with the other epidemiologic variables. Social support from friends was the most potent predictor of depression, accounting for 8.4% of the variance in depression scores. Social support from family was also a significant predictor of depression, but only accounted for 2% of the variance in depression scores. Clearly, as perceptions of support from friends declined, depression increased, and this increase was more intense than when perceptions of support from family declined.

*Outness.* It was expected that disclosure of sexual orientation would influence depression scores, and that more disclosure would predict less depression. However, disclosure of sexual orientation was not found to be significantly correlated with, or predictive of, depression. This was surprising as theoretical writings and anecdotal reports of links between depression and being closeted are abundant. Furthermore, this finding differed from Kurdek and Schmitt's research which found that gay men who were more open about their sexual orientation were less depressed. While it makes intuitive sense that being out buffers against isolation and therefore decreases risk for depression, reality may be more complicated. Possibly, being out buffers against isolation from the gay and lesbian community, but increases isolation

from the heterosexual community. These two effects may cancel each other out, thereby eliminating any effect disclosure of sexual orientation has on depression.

Post hoc analyses were conducted to see if depression was significantly related to degree of disclosure of sexual orientation in different contexts. None of the contexts were significantly correlated with depression. Being out or closeted with one's family, friends, at work, or in the community were all unrelated to level of depression experienced.

*Relationship status satisfaction.* The motivation for measuring relationship status satisfaction came from the idea that regardless of a lesbian's relationship status, her risk for depression would increase if she were dissatisfied with this status. Relationship status satisfaction was the second strongest predictor of depression, accounting for 7.4% of the variance in depression scores.

The results of the regression equation and the correlational analysis of relationship status satisfaction should however be considered in the context of the correlations between relationship status satisfaction and each specific relationship status. If one looks at these correlations it becomes apparent that relationship status satisfaction is significantly correlated with each relationship status, but only positively correlated with being in a committed relationship. Being in a committed relationship was strongly related to being satisfied with one's relationship status, while being in any of the other categories (single and dating, single and not dating, ending or ended a committed relationship) was significantly related with decreased relationship status satisfaction. This implies that relationship status may indirectly influence a lesbian's risk for depression even though it was not found to be a significant predictor of depression when entered into the stepwise regression equation.

### *Implications of Findings*

The present research was able to account for 17.83% of the variance in depression scores with three variables: perceived social support from friends, relationship status satisfaction, and perceived social support from family. This finding is relatively robust when one considers all possible factors that could account for depression, such as abuse or abuse history, stress, physical illness, alcohol or drug use, mourning, etc.

The intention of this study was to begin research exclusively on

lesbians and depression. This is the first study to investigate whether lesbians can benefit from the women and depression literature and if two unique factors can predict depression among lesbians. The results suggest that like women in general, lesbians who feel unsupported are at increased risk for depression. Unlike women in general, relationship status and relationship satisfaction do not predict depression among lesbians; however, relationship status satisfaction does. Furthermore, few lesbians have children or are unemployed, making these predictors of depression among women less relevant for the majority of lesbians. Finally, this study disputed the popular belief that disclosure of sexual orientation is associated with depression among lesbians. While the women and depression literature focusing on social support may be relevant to lesbians, much of the women and depression research does not speak to the needs of lesbians. The present research has begun a much needed body of research on lesbians and depression.

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