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Depression and Self-Rated Health Among Rural Women Who Experienced Adolescent Dating Abuse: A Mixed Methods Study

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Abstract

This study used mixed methods to examine the experiences and health of rural, young adult women (*N* = 100) who self-reported past experience of physical, emotional and verbal, sexual, and relational abuse in adolescent dating relationships. Few studies have examined the lasting health ramifications of adolescent dating abuse adolescent dating abuse in rural populations, and almost no mixed methods studies have explored adolescent dating abuse. Participants completed questionnaires on demographics, relationship behaviors, and mental health symptoms. A subsample (*n* = 10) of participants also completed semi-structured, in-depth interviews with the primary

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investigator. Results suggest that depressive symptoms and self-rating of health in these women are associated with particular kinds and severity of abusive experiences, and that adolescent dating abuse has ramifications for health and development beyond the duration of the original relationship. Self-rated health (SRH) was inversely associated with abusive behaviors in the relationship, whereas depressive symptoms were positively correlated with such behaviors. Self-rated health was also negatively correlated with depressive symptoms. The results of this study represent an important step toward establishing lifetime health risks posed by adolescent dating abuse.

Keywords
dating abuse, depression, adolescent, rural, women

Introduction and Study Aims

Evidence suggests that adolescent dating abuse most often and most injuriously victimizes young women, who are also more likely than young men to experience decreased self-esteem, poorer self-concept, depression, suicidal ideation, and engagement in risky behaviors thereafter (Amar & Gennaro, 2005; Banister & Schreiber, 2001; Chan, Strauss, Brownridge, Tiwari, & Leung, 2008; Connor, Steingard, Anderson, & Melloni, 2003; Johnson et al., 2005; Räty, Larsson, Söderfeldt, & Larsson, 2005; Silverman, Raj, & Clements, 2004; Silverman, Raj, Mucci, & Hathaway, 2001). For victims of adolescent dating abuse in rural communities, the influences of social pressures, community norms, and lack of resources may intersect with common adolescent issues of social pressure, gender role expectations, and lack of awareness of available supports (Black, Tolman, Callahan, Saunders, & Weisz, 2008; Foshee et al., 2008; Johnson et al., 2005; Leipert & George, 2008; Peek-Asa et al., 2011). In the few studies of adolescent dating abuse focused on rural populations, results indicate more incidents of abuse as well as greater severity (Atav & Spencer, 2002; Marquart, Nannini, Edwards, Stanley, & Wayman, 2007; Spencer & Bryant, 2000).

Many studies of adolescent dating abuse have focused on physical abuse, sometimes including sexual abuse (Ackard, Eisenberg, & Neumark-Sztainer, 2007; Bossarte, Swahn, & Breiding, 2009; Marquart et al., 2007; Sears, Byers, & Price, 2007). Hébert, Lavoie, Vitaro, McDuff, and Tremblay (2008) found, however, that psychological abuse was more common than physical or sexual abuse, and that dating victimization was associated with increased mental health symptoms in young women. This suggests a need for greater

understanding of the types of adolescent dating abuse that young women experience, and how those experiences can affect health. The aims of our study were therefore to discover how rural, young adult women defined and described past experiences of adolescent dating abuse, what kinds of behaviors they reported experiencing and how frequently, and if they reported symptoms of depression or poor self-rating of health.

Theoretical Frameworks

This study relied on two theoretical frameworks—one supported by quantitative, basic science research on stress, and one supported by qualitative evaluations of relationships. The first is the physiologic theory of allostatic loading, which suggests that stress over time creates hormonal imbalances leading to inflammation and tissue breakdown, as well as to depression and anxiety (Leonard, 2005; Wolkowitz, Epel, & Reus, 2001). Intimate partner abuse has been shown to be a stressor yielding such changes (Humphreys et al., 2012). Experiences of abuse and resultant allostatic loading have long-term health implications, even when the abuse occurred years prior (Campbell et al., 2002; Carpenter et al., 2010; Cromer & Sachs-Ericsson, 2006; Humphreys, Cooper, & Miaskowski, 2011; Midei, Matthews, Chang, & Bromberger, 2012; Newton et al., 2011; Tyrka et al., 2010). The second theory, the investment model, describes how an intimate relationship may be valued such that an individual might be unwilling to terminate it despite abuse (Burton, Halpern-Felsher, Rankin, Rehm, & Humphreys, 2011; Rusbult, 1983).

Method

Participants and Procedures

Approval was first obtained from the appropriate institutional review board. Data were collected from September 2008 through September 2010. We focused on rural women because these women represent an understudied population at considerable risk of relationship abuse (Bosch & Schumm, 2004; Leipert & George, 2008). All participants completed questionnaires, and received a list of supportive resources to contact in case of emotional distress. A purposive subsample was invited to participate in an extended interview with the principal investigator (PI). Informed consent was obtained before questionnaire completion, with reaffirmation at the interview. Interviews took place in private settings and data were de-identified as soon as the individual completed participation. Demographics are included in Table 1.

Table 1. Demographic and Descriptive Statistics.

Variable	Total Sample		Interviewed Subsample	
	M (*SD*)	Minimum/ Maximum (*n*)	*M* (*SD*)	Minimum/ Maximum (*n*)
Current age (years)	25.9 (5.25)	19.0/35.9 (*97*)	26.16 (5.44)	19.03/34.41 (*10*)
Age at time of abusive relationship (years)	16.31 (1.67)	11/20 (*100*)	15.7 (0.95)	14.0/17.0 (*10*)
Length of relationship (months)	36.42 (31.3)	1.0/120.0 (*99*)	38.1 (25.61)	3.0/96.0 (*10*)
Time since relationship (years)	9.64 (5.45)	0.73/22.37 (*97*)	10.46 (5.29)	4.32/19.41 (*10*)
Self-rated health	8.15 (1.49)	3/10 (*100*)	7.8 (1.48)	5/10 (*10*)
	Frequency (*n*)	%	Frequency (*n*)	%
Ethnicity				
African American	33	33	6	60
Caucasian	60	60	4	40
Asian	1	1		
Hispanic/Latina	2	2		
Mixed	4	4		
	(*100*)			
Employment				
Employed	51	51	5	50
Unemployed	49	49	5	50
	(*100*)		(*10*)	
Education				
Grade school or less	14	14.1	2	20
High school diploma	28	28.3	3	30
Some college (no degree earned)	36	36.4	2	20
College degree	19	19.2	3	30

(continued)

Table 1. (continued)

	Frequency (*n*)	%	Frequency (*n*)	%
Graduate/ professional degree	2 (*100*)	2.0	(*10*)	
Monthly income				
<US$500	51	52.6	5	50
US$501-US$800	15	15.5	1	10
US$801-US$1,250	14	14.4	1	10
US$1,251-US$2,100	9	9.3	1	10
US$2,101-US$2,900	4	4.1	2	20
US$2,901-US$4,200	2	2.1	(*10*)	
US$4,201-US$6,250	2 (*97*)	2.1		
Children				
No children	59	59	6	60
Children	41 (*100*)	41	4 (*10*)	40
Type of partner				
Casual or group partner	4	4	0	0
Boyfriend	86	80	10	100
Girlfriend	1	1	0	0
Engaged partner	8	8	0	0
Friend with benefits	1 (*100*)	1	0 (*10*)	0
Experienced abusive relationship in adulthood				
Yes	50	50.5	3	30
No	49 (*99*)	49.5	7 (*10*)	70
Previously disclosed abuse to anyone				
Yes	47	48	10	100
No	51 (*98*)	52	0 (*10*)	0

Note. Italics in this table show how many participants the calculation is based upon.

Setting, recruitment, and screening. The study population was English-speaking, community-based women aged 18 to 35 years ($N = 100$) from a largely rural county in the southeastern United States. Recruitment strategies included flyering in public locations as well as at a community college, community health clinic, and homeless shelters; print and electronic advertising; snowball sampling via previous participants; and publicizing the study through community organizations. Multiple sampling methods were used to maximize awareness of the study among eligible women, because young adults—particularly those in more isolated communities—may be more inclined to participate in studies if they hear about them in different ways or if their friends refer them (Bost, 2005; Sadler, Lee, Lim, & Fullerton, 2010). Interested women contacted the PI, who screened participants using a modified version of the Abuse Assessment Screen (AAS; Soeken, McFarlane, Parker, & Lominack, 1998), to determine that the relationship of interest occurred before age 21, and included a pattern of abusive incidents with the same partner. Participants were excluded from participation and offered referral information if they stated that they were currently in an abusive relationship. Any potential participant responding affirmatively to one or more items was invited to participate. Participants who stated that they had had more than one abusive partner as an adolescent were asked to reference the relationship that held the most personal meaning.

Quantitative sample and data collection. Participants were English-speaking women who self-reported experiencing adolescent dating abuse. Participant age ranged from 19 to 35 years ($M = 25.9$, $SD = 5.26$). Information about types and incidences of abusive behaviors in the relationship of interest was gathered via the Conflict in Adolescent Dating Relationships Inventory (CADRI; Wolfe et al., 2001) and depressive symptoms were assessed using the Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 1996). Table 2 details these measures. A single item on the demographic questionnaire assessed self-rated health (SRH), asking participants to rate their overall health on a scale of 0 (*poor*) to 10 (*excellent*).

Qualitative sample and data collection. During questionnaire completion, all participants were asked if they would be willing to be interviewed and all replied affirmatively. So that our interviewed subsample represented the total sample as much as possible, we reviewed the demographic information of the larger sample iteratively. We then identified women for interviews purposively, so that the subsample demographics were similar to the total sample demographics throughout data collection. We also applied criterion sampling

Table 2. Quantitative Measures.

Variable, Instrument	Operationalization	Scoring	Rationale, Psychometrics
Demographics; original questionnaire	Current age, ethnicity, employment, monthly income, educational level, age at the time of abusive relationship, time since abusive relationship, SRH, whether or not abuse disclosed previously	Participants rated current health on a 0-10 (poor–excellent) scale	N/A
Abusive behaviors experienced and/or perpetrated in an adolescent dating relationship; CADRI	34-item self-report of interaction, conflict behaviors Scale of 1-4 (never–often) for partner's behaviors toward participant, participant's toward partner	Continuous total score for quality of abusiveness in the relationships (0-75); subscales (1-4; never–often) for physical, sexual, verbal/emotional, and relational abuse; threatening behaviors	Extensive reliability testing prior to the publication of CADRI (Wolfe et al., 2001). No cutoff scores established Study Cronbach's alpha coefficients ranged from .72 to .86 for subscales; .90 for complete instrument
Depressive symptoms; BDI-II	21-item self-report measure of depressive symptoms, attitudes in past 2 weeks Provides statements for endorsement (e.g., "I do not feel sad," "I feel sad much of the time," "I am sad all the time," "I am so sad or unhappy that I can't stand it")	Continuous score (0-63) for past 14-day depressive symptoms; ranges: 0-13, minimal symptoms; 14-19, mild symptoms; 20-28, moderate symptoms; 29-63, severe symptoms	Reflects DSM-IV criteria for depression (Beck, Steer, & Brown, 1996) Reliability, validity established among similar samples (Rich, Gidycz, Warkentin, Loh, & Weiland, 2005). Cronbach's α = .94, in this sample

Note. SRH = self-rated health; CADRI = Conflict in Adolescent Dating Relationships Inventory; BDI-II = Beck Depression Inventory–II; DSM-IV = Diagnostic and Statistical Manual of Mental Disorders (4th ed.; American Psychiatric Association, 1994).

based on types of abuse reported, age, income, and ethnicity. Given the relative dearth of published research on the health of women following adolescent dating abuse, we felt that it was important to try to capture as much of that experience—including diversity on these criteria—as possible. This process also helped to minimize non-randomization bias as described by Collins

(2010) and enhanced maximal sample variation, so that we could more fully explore the complexity of adolescent dating abuse and its impact on subsequent life experiences (Coyne, 1997; Creswell & Plano Clark, 2011). The women in the subsample (n = 10) were those we identified via the above process, re-contacted within 2 weeks of questionnaire completion, and who then accepted our invitation to interview. Table 1 also includes subsample demographics.

The PI obtained qualitative data via individual, semi-structured interviews. Interviews lasted a minimum of 1 hr, were digitally recorded, and transcribed by a professional transcriptionist. Open-ended questions covered participants' feelings during and after the relationship, views of the relationship with regard to health and behavior, and experiences and thoughts after the relationship through the present.

Analysis

Reflecting our intent to pursue both exploratory and confirmatory data, quantitative and qualitative data were analyzed separately but simultaneously in parallel mixed analysis with a convergent design (Creswell & Plano Clark, 2011; Onwuegbuzie & Teddlie, 2003). Data management and analyses were facilitated by the use of SPSS statistical software package (SPSS, Inc.) and ATLAS.ti™ qualitative data analysis software (Cleverbridge, Inc.). Descriptive statistics are shown in Table 1. Relationships between types of abusive behaviors, depressive symptoms, and SRH reported by participants were examined with Pearson's correlation coefficients. No cases had missing values for any of these variables. A two-tailed p value of $<.05$ was considered statistically significant.

Recordings and transcriptions of interviews were reviewed iteratively and in tandem. Qualitative data were initially coded in an open fashion to establish the widest possible range of interpretations (Strauss, 1987). We attended to prosodic inflection so that our interpretation accounted for differences in emotion and intent conveyed in speech pattern and emphasis (Dupuis & Pichora-Fuller, 2010). Accounting for prosody is important with young adults, who may use verbal irony or sarcasm to make a point (Nilsen, Glenwright, & Huyder, 2011; Vetter, Leipold, Kliegel, Phillips, & Altgassen, 2013). Our experiences with transcription analysis alone suggested that errors in interpretation could occur if prosody was not considered. This has been identified as a limitation of working with transcriptions (Carlson, 2010). We then applied a thematic analysis technique. Summaries of the interviews were developed and compared, to identify thematic threads as described by

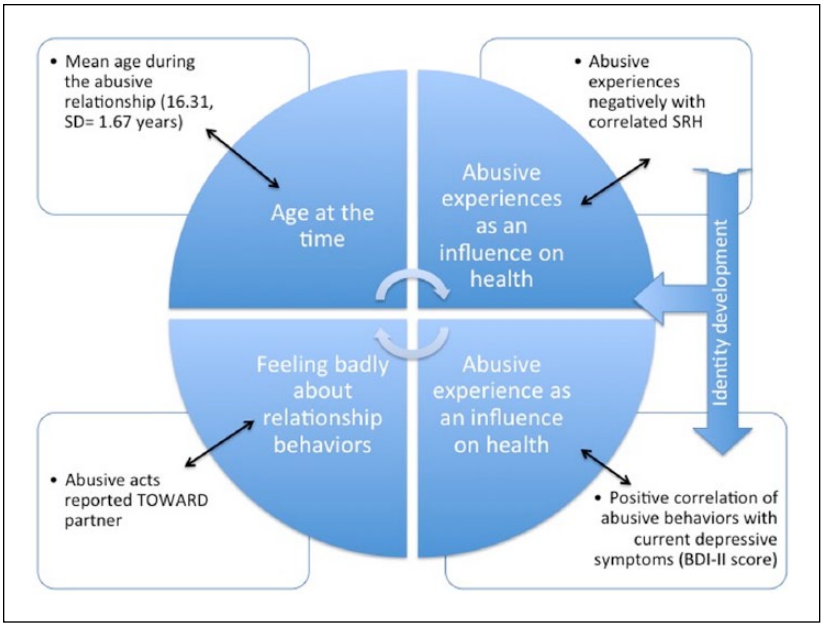

Figure 1. Relationships among quantitative and qualitative data.
Note. SRH = self-rated health; BDI-II = Beck Depression Inventory–II.

Boyatzis (1998). Summaries included open codes and notes on prosodic emphasis. These allowed us to develop additional codes about the importance of aspects of experience, such as age or an emotion. We clustered codes across interviews, gradually creating larger and more abstract themes (DeSantis & Ugarriza, 2000).

Results

We report here demographics and SRH, BDI-II, and CADRI scores for the total sample; demographics of the subsample; and three relevant themes. This is consistent with both convergent design and parallel mixed analysis, as we looked to each dataset to inform, refute, or substantiate the other, following initial analysis (Creswell & Plano Clark, 2011; Onwuegbuzie & Combs, 2010). Relationships among data are illustrated in Figure 1. In keeping with convergent design, we report findings from each dataset separately, and then compare the results.

Quantitative Findings

Demographics. Table 1 summarizes characteristics of the total sample and subsample. Overall, participants were in their mid-20s and experienced the abusive relationship about 10 years prior to participation (M = 9.64, SD = 5.45, range = 1-22 years). The mean age at the time of the abusive relationship was 16.31 years (SD = 1.67). The average relationship length was just over 3 years (M = 36.42 months, range = 1 month to 10 years). Over half (52.6%) reported a monthly income under US$500, and an additional 15.5% reported less than US$800—well below the 2009 poverty guideline (U.S. Department of Health & Human Services, 2009). More than half of participants (52%) reported that they had not told anyone about the abuse prior to participation; interestingly, all who participated in an interview (n = 10) reported that they had told someone.

Abusive behaviors. Individual mean CADRI scores ranged from 1.23 to 3.10 on a scale of 1 to 4 (*never* to *often*; see Table 2). The CADRI mean for the overall abusive quality of the relationship was 2.76 (SD = 0.45). The mean score for overall abusive behaviors reported by participants from partners was 3.17 (SD = 0.57). The mean for abusive behaviors reported by participants toward their partners was 2.34 (SD = 0.60). Behaviors in the subscales for partner's threatening behavior (M = 2.89, SD = 1.0) and partner's emotional-verbal abuse (M = 3.17, SD = 0.57) were most common.

Depressive symptoms. Participants' BDI-II scores ranged from 0 to 55, with a mean of 17.61 (SD = 13.15). The BDI-II establishes a score range of 0 to 63 for the past 14-day depressive symptom incidence where a score of 0 to 13 indicates minimal symptoms, 14 to 19 mild symptoms, 20 to 28 moderate symptoms, and 29 to 63 severe symptoms (see Table 2). Forty-seven percent (n = 47) of our sample scored below 13, indicating minimal depressive symptoms, but 41% (n = 41) scored between 20 and 55, indicating moderate to severe symptoms (Beck et al., 1996).

Correlations. Table 3 includes means and standard deviations for the sample scores on each measure. Each CADRI subscale score and the total abusiveness score were examined in relation with BDI-II score and SRH via Pearson's correlation coefficients. Correlations were on the whole small to moderate in magnitude, ranging from .02 to .44, as shown in Table 3 (Cohen, 1988; Cohen, Cohen, West, & Aiken, 2003). Depressive symptoms were generally positively correlated with abusive behaviors, whether perpetrated by the participant or her partner. These correlations ranged from very small at

Table 3. Means, Standard Deviations, and Correlations of CADRI Scores, BDI-II Score, and Self-Reported Health Rating.

Measure	*M*	*SD*	1	2
1. Health rating	8.15	1.50	1	−.43**
2. BDI-II score	17.61	13.15	−.43**	1
CADRI				
Physical relationship	2.41	0.34	−.12	.39**
Physical participant	2.12	0.34	−.07	.44**
Physical partner	2.69	0.45	−.12	.25*
Threatening relationship	2.19	0.65	−.20*	.34**
Threatening participant	1.47	0.59	−.15	.36**
Threatening partner	2.90	1.00	−.18	.23*
Sexual relationship	2.19	0.69	−.19	.12
Sexual participant	1.57	0.63	−.07	.20*
Sexual partner	2.81	1.01	−.18	.07
Relational relationship	1.84	0.55	−.23*	.02
Relational participant	1.25	0.35	−.08	.09
Relational partner	2.43	0.99	−.23*	−.02
Emotional/verbal relationship	1.82	0.57	−.08	.27**
Emotional/verbal participant	1.26	0.47	.03	.25*
Emotional/verbal partner	2.38	0.98	−.15	.17
Total score–relationship	2.76	0.45	−.17	.31**
Total score–participant	2.34	0.60	−.07	.37**
Total score–partner	3.17	0.57	−.21*	.18

Note. BDI-II = Beck Depression Inventory–II; CADRI = Conflict in Adolescent Dating Relationships Inventory.
*Correlation is significant at the .05 level (two-tailed).
**Correlation is significant at the .01 level (two-tailed).

.07 (sexual abuse by the partner) to moderate at .44 (physical abuse by the participant). This latter value was also the most statistically significant correlation ($r = .438$, $p < .000$). We also performed a regression analysis to examine the potentially moderating effects of the length of time since the abusive adolescent relationship and of experiencing abuse in adulthood on the BDI-II score. No statistically significant effects were found in either analysis; however, a correlational analysis of the BDI-II score with abusive experience in adulthood was extremely statistically significant ($r = .519$, $p < .000$). This suggests a kind of dose-dependent effect of additional abuse on depression, as has been seen elsewhere (Lindhorst & Oxford, 2008).

SRH correlated negatively with abusive behaviors but only correlations with behaviors perpetrated by the partner and in the overall relationship reached statistical significance. Relational abuse—the use of valued relationships with others, such as friends or peer groups, against an individual—exhibited the largest negative correlations with SRH, when perpetrated by the partner and in the overall relationship ($r = -.23$, $p < .05$, for both). Nonetheless, these correlations are relatively small. An additional statistically significant relationship was a moderate negative correlation between SRH and BDI-II score ($r = -.43$, $p < .01$).

Qualitative Findings

Several major themes emerged from the qualitative data, some of which are reported elsewhere (Burton, Halpern-Felsher, Rehm, Rankin, & Humphreys, 2013). The themes most relevant to the overall aims of the study were *Age at the time, Abuse as an influence on health*, and *Feeling bad about relationship behaviors*. Each was identified in a majority of interviews ($n \geq 7$), with *Age at the time* in all interviews. Participant names in this article are pseudonyms.

Age at the time. All interview participants remarked on what it meant to be in an abusive relationship as an adolescent, and several specifically described themselves as *young* at the time. The adolescent developmental activity of asserting individual identity in some cases overlapped with an abusive relationship such that desire for a relationship and domain over decision making precluded accessing support. Anna, who married her abusive partner at age 16, described how her mother "tried to get me out of it . . . Being 16, young and stupid, I didn't listen." Kiara's mother identified an abusive behavior and suggested that it was a controlling act, but "I, like, did not believe her, slash want to believe her, in the slightest . . . And besides that . . . what 16 year-old girl wants to talk to her parents?"

Participants also said that they were "young" in terms of relationship experience during the abusive relationship. Beth described not initially recognizing abusive behaviors and suggested that youth and the novelty of dating limited her ability to do so: "It was pretty scary . . . You know, I was very young, I'd never had a serious relationship . . . because I was a kid." Irene, who ended her relationship when the abuse became physical, commented,

> For me [the physical incident] was enough, but for some people, I understand why they would be okay with that, if they really liked them. And . . . because I was young, and I really liked this guy a lot, so I can see why girls would let that slide, if you really think you love a guy.

Feeling bad about relationship behaviors. This theme developed from participants' descriptions of persistent guilt, self-reproach, remorse, and deserving punishment. We identified terms such as guilt or guilty, *sorry*, and *felt bad*, as well as descriptive instances in which the women indicated being unhappy with or feeling regret about things they did during the relationship. This theme is encapsulated in Gina's description of an act of physical self-defense against sexual coercion. Stating that she was at "a breaking point," she said,

> He wanted to have sex, and I did not, so I pushed him off of me, and he fell . . . And I said, I'm sorry . . . And he made me feel so guilty . . . that I ended up having sex so I could make him happy again . . . a lot of the times that we had sex, it was because I felt guilty, that I felt like I was depriving him of something every man has a right to.

Similarly, Ina described attempting to use emotionally and relationally abusive tactics like her partner's: ignoring phone calls, flirting openly with others. His response was to "act so burdened" that she thought, "I must be crazy, because he was so convinced that I was out of line . . ." Ina felt bad about her behavior, realized the relationship was unhealthy, and tried to end it, but then felt worse because, in Ina's words, "[he'd] been such an important part of my life." Beth also recalled a time when, in her words, "I said something wrong, I think I told him to shut up or something" because her partner was insulting her in front of others. Her partner responded physically, and "there I am apologizing to him for what *I* did, which I think was very minimal compared to [the abuse]."

Abuse as an influence on health. Relational abuse often isolated the women from social supports, and forced them into what they viewed as unhealthy situations. Gina's partner demanded she choose between him and her friends, whose numbers he deleted from her phonebook, saying, "I don't want you seeing them again . . . Just keep in mind, I'm the one that loves you." Anna described her mother's efforts to get her out of it, whereupon her partner threatened her mother, and made "threatening phone calls . . . to her, you know, 'Stay out of our [relationship],'" until Anna was cut off completely. Michelle explained that her partner governed her relationships with others: "If he didn't like a friend, I wasn't their friend. If he didn't want me to talk to a certain person, then I wasn't talking to them, I wasn't looking at them."

As to ongoing health, Zoe stated that she "was never the same," while others described feeling "broke down," "numb," or otherwise traumatized. Anna reported focusing on her health as an adult because "I had to stop and think,

if I'm not one piece, if I'm not healthy, if my mind and body is not healthy, then I'm no help to my kids." She also described being unable to complete "self-healing to get me back to the way I was," due to a need to remain respectful toward her abusive partner for the sake of their child because "that's his dad." Beth noted that she was vigilant about threats in social situations in ways that she felt were unreasonable, but "it's just because I don't want anyone treating me like I was treated when I was young."

Comparing the Quantitative and Qualitative Data

The theme *Age at the time* brought context to the finding that participants' mean age at the time of the relationship was 16.31 years ($SD = 1.67$) and supported some developmental ramifications of an abusive adolescent relationship. Interview participants referred to their youth, lack of relationship experiences, and what they viewed as failure either to recognize or to acknowledge abusive patterns as functions of their age at the time.

Participants also described persistent feelings of unhappiness and distress that they ascribed to the abusive experience even years after ($M = 9.64$, $SD = 5.45$) the relationship. The theme *Abuse as an influence on health* developed from participants' statements that the abusive experiences hurt them, left them feeling "broke down," "I'm not worth anything, I'm just trash," and as if "my mind and body is not healthy." The women continued to have negative feelings about the relationships and themselves in adulthood. As Beth said, "I'm 30 years old, it's affected me; I still have problems with it. It's very serious." Descriptions of not being "back to the way I was," having adult health potentially affected "in a bad way" by the abusive partner, and feeling traumatized and distressed by the experience further contextualized the finding of inverse correlations between BDI-II scores and SRH. Irene repeatedly stated, "I should have seen it coming," and Beth said, "I just don't want to feel vulnerable or anything like that. I want to feel like I am in control of this . . . I feel stupid about it." We also compared this theme with correlations with SRH and BDI-II scores. Statistically significant negative correlations were found between SRH and CADRI scores for relational abuse by the partner, whereas BDI-II scores correlated positively with experiences of physical abuse, threatening behaviors, and emotional-verbal abuse (see Table 3).

The theme *Feeling bad about relationship behaviors* elucidates the finding that 41% of the total sample had BDI-II scores between 20 and 55, indicating moderate to severe depressive symptoms. In the qualitative data, we found that the women felt particularly badly about times when they believed that they had been abusive themselves, although many instances were acts of

self-defense ("he wanted to have sex, and I did not, so I pushed him off") or in response to partners' abusive behaviors ("I think I told him to shut up or something"). We found statistically significant, positive correlations between participants' CADRI scores for their own physically abusive behaviors as well as their overall reported abusive acts and BDI-II scores (see Table 3).

Discussion

The use of mixed methods to examine adolescent dating abuse brings context to established associations among adolescent dating abuse, depression, sexual health issues, and decreased overall health in the long term (Ackard & Neumark-Sztainer, 2002; Alleyne-Green, Coleman-Cowger, & Henry, 2012; Amar & Gennaro, 2005; Csoboth, Birkás, & Purebl, 2005; Hanson, 2002; Krupnick et al., 2004; Miller, Jordan, Levenson, & Silverman, 2010; Pape & Arias, 1995; Raiford, Diclemente, & Wingood, 2009; Renker, 1999; Silverman et al., 2001). Our data revealed an inverse relationship between experiencing relational abuse—behaviors that cut a victim off from other social contacts or supports—in an adolescent relationship and self-rated health in young adulthood. This suggests a confluence of rural and adolescent health constructs, in that relational abuse isolates an affected young woman, who may thus be influenced to believe that she is unlikeable, unattractive, and unappealing to others as a friend or dating partner (Murphy & Hoover, 1999; Pronk & Zimmer-Gembeck, 2010). In rural communities where peer groups are small and tight-knit, relational abuse may be particularly disruptive, reducing already limited social contacts for young women (Leipert & George, 2008).

Although the mean SRH of 8.15 was toward the upper end of the scale we used, there are important considerations for interpretation. Relational abuse that isolates may also inhibit development of self-concept with regard to health potential, such that even significant symptoms—such as the depressive symptoms in our sample—are perceived as acceptable within an overall SRH or health-related quality of life schema (Corso, Edwards, Fang, & Mercy, 2008). Relational abuse in adolescence may thus create a sense of isolation and decreased potential health—of having "a hard life"—that could be habituated and carried into adulthood (Banister & Schreiber, 2001; Ely, Nugent, & Flaherty, 2009; Johnson et al., 2005).

In our sample, a surprising majority (52%) reported that they had never before told anyone about their abuse, suggesting that they had not sought care related to these experiences, nor had any provider ever screened them for a history of abuse. In interviews, participants indicated that mental health issues—such as a sense of not feeling "one piece," feeling unsafe, fearful, or

suspicious even in new relationships—plagued them as adults. It is thus possible that ongoing, untreated depressive symptoms affected participants' SRH in this study. Prior research has described the stigma attached to mental health care by rural adolescents, and young people may abjure such care as a result (Elliott & Larson, 2004). Depression has also been shown to have specific, adverse inflammatory and allostatic loading effects that may affect physical health (Wolkowitz et al., 2011), and experiences of intimate partner abuse have been linked to cellular changes that may manifest as adverse symptomologies (Humphreys et al., 2012). Future studies should examine the impact of careseeking, screening, and therapeutic support on health outcomes among women affected by adolescent dating abuse.

The women in this sample also reported engaging in apparently abusive relational or violent acts, often in retaliation to partners' abusive or controlling behaviors. The CADRI scores for these acts correlated positively with BDI-II scores, indicating that such actions were linked to a greater frequency of recent depressive symptoms. In describing herself as "depriving him of something every man has a right to," Gina reflected expectations reported elsewhere by rural women, insofar as others' desires are prioritized in relationships and aggressive actions by women are perceived as outside the bounds of appropriate behavior, even when in self-defense (Leipert & George, 2008). Young women who feel that they are responsible for or contributing to abusive patterns may also be less satisfied with the relationship and have fewer positive feelings about it (Hettrich & O'Leary, 2007). When seen through the lens of rural community gender role norms, the sense that such behaviors are wrong may be magnified.

Limitations and Conclusions

The generalizability of this study is limited. First, the study has a relatively small sample size and homogenous population. Although sample ethnicity was reflective of the local population, discovering how young women from different cultural backgrounds experience and think about adolescent dating abuse is an important task for future research. In addition, non-heterosexual women were nearly absent from this study. As the study is cross-sectional and relies on participants' recall of abusive experiences, we cannot determine whether depression and decreased SRH are precursors to or consequences of experiencing adolescent dating abuse, or other traumatic experiences. Finally, we did not anticipate the high incidence of subsequent abusive relationships in the sample and did not explore this in the interviews as thoroughly as we might have. This offers an excellent direction for future research. Overall, this article contributes to the literature by providing new perspectives on how

experiences of adolescent dating abuse may affect the lives of young women in rural settings, and suggests useful directions for further research.

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