Published in final edited form as:

J Health Psychol. 2011 January ; 16(1): 12–21. doi:10.1177/1359105310367527.

Psychological Adjustment among Women Living with Genital Herpes

JESSICA L. BARNACK-TAVLARIS,

Comprehensive San Diego State University/University of California San Diego Cancer Center Partnership, USA

DIANE M. REDDY, and

University of Wisconsin—Milwaukee, USA

KATIE PORTS

University of Wisconsin—Milwaukee, USA

Abstract

This study investigated the psychosocial factors that influence psychological adjustment among women with genital herpes, while taking into account the physical factors. Women with herpes ($N = 105$, age 18–30) completed an on-line survey about factors related to their diagnosis and herpes-related quality of life. Perceived stigma, acceptance coping, denial coping, support from the Internet, and support from religious/spiritual figures accounted for 65.9 percent of the variance in quality of life scores. The findings reveal the importance of specific coping strategies and sources of support on psychological adjustment to herpes. Furthermore, a significant interaction between stigma and acceptance coping suggests a complex relationship between these two psychosocial factors that warrants future research.

Keywords

coping; herpes; psychological adjustment; stigma; women

UNDERSTANDING the factors that influence coping and psychological adjustment to chronic illness is necessary in developing interventions to improve or maintain quality of life. One chronic illness that needs more research given its documented effects on psychological functioning is genital herpes (Drob, Loemer, & Lifshutz, 1985; Kroon, 2000). Genital herpes is an incurable sexually transmitted infection (STI) affecting approximately one in five people in the USA, and is more commonly reported among women than men (Center for Disease Control and Prevention (CDC), 2008). Researchers have found some physical aspects of herpes to be associated with poorer quality of life including, higher perceived severity and adherence to suppressive therapy (Doward et al., 1998), increased frequency of recurrences, and pain during recurrences (Patel et al., 2001). A herpes diagnosis can have several psychological and interpersonal implications, including but not limited to symptoms of depression (Green et al., 2003; Patel et al., 2001), diminished self-concept (Newton & McCabe, 2005), withdrawal from intimate relationships (Radecki Breitkopf, 2004), and diminished quality of life (Doward et al., 1998). While previous

researchers have demonstrated that physical aspects of herpes influence psychological adjustment, those studies did not take into account the psychosocial factors that can influence adjustment to a chronic illness, such as: health provider communication; stigma; coping; and social support. Therefore, the purpose of this study was to comprehensively explain how health provider communication, stigma, coping, and social support influence psychological adjustment among women with genital herpes, while taking into account the physical attributes of the illness (illness severity and length of time since diagnosis).

Physicians, nurses, nurse practitioners, and other types of health care providers can relay a herpes diagnosis to a patient; therefore, throughout this discussion, the term 'health provider' is used to encompass these providers. The way in which providers communicate diagnoses to patients can influence various aspects of patients' experiences (Ptacek & Eberhardt, 1996; Schmid Mast, Kindlimann, & Langewitz, 2005). Among the different ways physicians may communicate diagnoses to patients, the patient-centered approach (providing patients with information and hope, in a non-dominant, supportive way) has been found to result in higher patient satisfaction and treatment compliance (Dowsett et al., 2000; Schmid Mast et al., 2005; Williams, Weinman, & Dale, 1998). Although the patient-centered approach has been explored with regard to diseases such as cancer, it has not been evaluated with an STI diagnosis. Furthermore, the type and quality of information a provider dispenses is important to assess in relation to psychological adjustment. Patients require information and counseling from their health providers (Gilbert, Lloyd Schulz, & Ebel, 2002); however, health providers experience several barriers to providing a full range of resources including time, staff, and the anticipated emotional reactions of patients (Alexander & Naisbett, 2002). Therefore, it is important to examine whether a lack of sufficient information or counseling from a health provider affects psychological adjustment.

Stigma can be defined as a characteristic that has a negative effect on how a person is perceived (Goffman, 1963). People may stigmatize others when they perceive a person to be personally responsible for contracting an illness, or when an illness is believed to be contagious, untreatable, or incurable (Fortenberry, 2004; Radecki Breitkopf, 2004; Weiner, 1993). Given that feelings of promiscuity and shame may accompany a herpes diagnosis (Bickford, Barton, & Mandalia, 2007), individuals may feel responsible for contracting it, which may lead to increased sensitivity to herpes-related stigma (Radecki Breitkopf, 2004). Although previous researchers have found evidence of herpes-related stigma (Newton & McCabe, 2008), its relationship to herpes-related psychological adjustment is unknown. This is an important question to answer, given that perceived stigma has been found to have an inverse relationship to physical and mental health (Major & O'Brien, 2005).

Building on Lazarus and Folkman's (1984) theoretical constructs of emotion and problem-focused coping, Carver, Scheier, and Kumari Weintraub (1989) further emphasized the need to measure various types of emotion-focused (e.g. seeking emotional support, acceptance), problem-focused (e.g. planning, restraint coping), and less useful coping strategies (e.g. behavioral and mental disengagement). Researchers have found that people with genital herpes who reported poorer psychological adjustment used cognitive coping strategies such as negative thoughts, wishful thinking, and self-blame, more than people with better psychological adjustment (Manne & Sandler, 1984). Perceived control over an illness or symptoms of an illness has also been associated with better psychological adjustment (Griffin & Rabkin, 1998; Reed, Taylor, & Kemeny, 1993; Taylor, 1983).

Perceived social support has a direct and buffering effect on health and well-being (Cohen & Wills, 1985), and it is an important component in effective coping that may result in positive psychological adjustment (Lazarus & Folkman, 1984; Taylor & Stanton, 2007). Researchers

have found *general* social support to be related to psychological functioning in the case of herpes (Manne & Sandler, 1984; Silver, Auerback, Vishniavsky, & Kaplowitz, 1986); however, *herpes-related* social support may be more relevant to assessing psychological adjustment to herpes.

The present study

Although researchers have found the physical attributes of herpes to be associated with poor psychological well-being, there has been no comprehensive investigation of how health provider communication, social support, herpes stigma, and coping can influence psychological adjustment, while controlling for the physical aspects that may affect adjustment. In this study, it was hypothesized that patient-centered communication, lower levels of perceived stigma, better social support, and positive coping strategies would significantly predict positive psychological adjustment, while controlling for illness severity and length of time since diagnosis.

Method

Participants

Participants were 105 heterosexual women aged 18 to 30 ($M = 23.98$, $SD = 3.90$) who were diagnosed with genital herpes within the past 22 months ($M = 6.53$ months, $SD = 4.59$), and were not experiencing an outbreak at the time they completed the survey. All women were English speaking and not currently pregnant/trying to get pregnant. The majority of women were Caucasian ($n = 71$, 67.6%); an additional 19 (18.1%) were African American, five (4.8%) were Hispanic/Latina, three (2.9%) were more than one race/ethnicity, three (2.9%) were Asian American, two (1.9%) were American Indian/Alaskan Native, and two (1.9%) were Native Hawaiian/Pacific Islander. Most women had some college education or higher ($n = 94$, 89.5%). Sixty-one percent ($n = 64$) had private health insurance, and 21.9 percent ($n = 23$) had federally or state funded health insurance. The majority of women ($n = 73$, 69.6%) reported that they disclosed to all of their partners. A little over half the women ($n = 57$, 53.4%) were not in a relationship, and 42.9 percent ($n = 45$) were currently in a relationship (all but five had disclosed to their current partner). The number of outbreaks women reported ranged from 0 to 12 ($M = 2.23$, $SD = 1.98$), and 57 (53.8%) were not using suppressive therapy.

Most participants ($n = 74$, 70.5%) were recruited via postings in on-line forums; however, recruitment fliers were sent to approximately 200 clinics and college campuses in popular cities across the USA. The survey was available to women from September 2008 to March 2009. Participants had the option to enter into a raffle for one of 10, \$50 Visa gift cards (66 women entered the raffle).

Materials

Data were collected using an on-line anonymous survey about patient-provider communication and satisfaction, social support, perceived stigma, coping, and psychological adjustment. Participants were also asked demographic, sexual/relationship, and medical history questions.

Health provider communication—The Health Care Climate Questionnaire (HCCQ; Williams, Grow, Freedman, Ryan, & Deci, 1996) is a 15-item questionnaire that measures a defining aspect of patient-centered physician communication—patient autonomy and support (Fiscella, Franks, Srinivasan, Kravitz, & Epstein, 2007). Examples of items from the HCCQ are, ‘I feel that my health provider has provided me choices and options’, and ‘I feel

understood by my health provider'. Participants responded on a Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree), where higher scores reflect more patient-centered orientation. Researchers have found the HCCQ to have excellent reliability ($\alpha = .92$) and validity ($r = .89$) (Fiscella et al., 2007).

Herpes topics perceived by participants to be important topics for health providers to discuss, the degree to which participants' health providers covered these topics, and satisfaction with their physicians' coverage were assessed using questions adapted from a survey conducted by Gilbert and colleagues (2002). Participants responded on a seven-point Likert-type scale ranging from 1 (not at all) to 7 (extremely).

Herpes stigma—The HIV stigma scale (Berger, Ferrans, & Lashley, 2001) was adapted to address herpes-related stigma. The original scale measured perceived stigma among a sample of 318 adults with HIV and contains 40 items, with four sub-scales (personalized stigma, disclosure concerns, negative self-image, and concern with public attitudes about people with HIV). Participants responded using a four-point Likert-type scale (1 = strongly disagree, 4 = strongly agree) and higher scores indicate more perceived stigma. An example of an item from each of the subscales are as follows: 'I have been hurt by how people reacted to learning I have herpes' (personalized stigma); 'I work hard to keep my herpes a secret' (disclosure concerns); 'I feel I'm not as good as others because I have herpes' (negative self-image); and 'Most people think a person with herpes is disgusting' (concern with public attitudes about people with herpes). Berger et al. (2001) have found the scale to have good construct validity (.54–.65), internal consistency (.96), and test–retest reliability (.92) on patients with HIV/AIDS. Four questions were removed from the scale for the present study, because the researchers believed the statements would not apply to herpes in the same way they apply to HIV/AIDS (e.g. 'I worry about people discriminating against me because I have HIV/AIDS').

Coping and herpes-related social support—Coping with herpes was measured using a brief version (28 items) of the COPE scale (Carver et al., 1989), which has subscales measuring emotion-focused coping, problem-focused coping, and less useful strategies. Participants were asked to indicate the extent to which they were using the different coping strategies to deal with herpes. Examples of the items include, 'I've been getting comfort and understanding from someone', and 'I've been blaming myself for things that happened'. Participants responded to the items on a four-point Likert-type scale, ranging from 1 (I haven't been doing this at all) to 4 (I have been doing this a lot). The subscales have been shown to have good internal reliability and test–retest reliability in a sample of undergraduates (Carver et al., 1989).

Similar to Reilly and Woo's (2004) study, participants' sources of social support and perceived helpfulness of that support were measured by asking participants if they have received help pertaining to herpes from the following sources since their diagnosis: health providers; parents; friends; siblings; mental health providers; religious/spiritual figures; the Internet; academic professionals; casual (occasional) sex partners; exclusive (long-term) sex partners; national organizations for herpes; or community organizations. Participants were also asked how helpful each source was on a scale ranging from 1 (not at all helpful) to 7 (extremely helpful), with higher scores indicating more perceived helpfulness.

Psychological adjustment—The Herpes-Related Quality of Life Scale (RGHQoL; Doward et al., 1998) was used to assess psychological adjustment. This 20-item scale has been internationally validated to assess quality of life in individuals with herpes, and includes items that measure depression, physical functioning, and relational functioning. High scores on this measure are indicative of better quality of life. Internal consistency for

the US measure ranges from .93 to .95, and test–retest reliability is .86 (Doward et al., 1998).

Procedure

Participants completed the survey after meeting inclusion criteria (female, heterosexual, diagnosed within the past two years, not currently experiencing an outbreak, not currently pregnant/trying to get pregnant, English speaking) and agreeing to informed consent. Upon completion, participants were directed to resources for coping with herpes. If participants wanted to enter the gift card raffle, they were directed to an on-line form that asked them to provide their contact information, which was kept in a database separate from their questionnaire responses to maintain anonymity. All study-related procedures and materials were approved by the Institutional Review Board.

Data analysis

Scales were tabulated and reliability analyses were conducted. Hierarchical Multiple Linear Regressions were conducted for all models, using SPSS. Because there was minimal data missing at random, pair-wise deletion of cases was used. A comparison between list-wise and pair-wise deletion procedures showed no differences in the relationships between the predictor and outcome variables.

Results

Preliminary correlations determined that there were no significant relationships between any variables in the model and number of months since diagnosis, number of outbreaks, or relationship status.

Health provider communication

The majority of participants' health providers were female ($n = 92$, 76%), between the ages of 31 and 50 ($n = 97$, 80.1%), and Caucasian ($n = 89$, 73.6%). Participants' health providers were mostly gynecologists ($n = 60$, 49.6%) or general physicians ($n = 35$, 28.9%). Participants' scores on the HCCQ (patient-centered communication) ranged from 15 to 105 ($M = 68.12$, $SD = 23.31$), were normally distributed, and had internal reliability (Cronbach's $\alpha = .943$).

Table 1 presents the 13 topics participants rated as important for their health provider to cover, how much their provider covered those topics, and how satisfied women were with the topic coverage. Paired t -tests confirmed that for every topic, the frequency with which health providers discussed the topics and women's satisfaction with each topic, was significantly lower than participants' perceived importance ($p < .001$).

Herpes stigma scale

Thirty-six items of Berger et al.'s (2001) scale measured perceived herpes stigma. Participants' scores ranged from 48 to 142 ($M = 91.38$, $SD = 19.98$), were normally distributed, and had strong internal reliability (Cronbach's $\alpha = .921$). Principal components analysis revealed four reliable factors (Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .866) that loaded differently than the subscales identified in the HIV sample (Table 2).

Coping

A principal components analysis was conducted on the 28-item COPE scale, and eight reliable factors emerged (Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .707; Table

2). For hypotheses related to coping, the eight factors were entered into the model instead of the 28 individual items.

Herpes-related social support

Participants' scores of perceived social support ranged from 15 to 64 ($M = 33.48$, $SD = 11.07$), and perceived helpfulness ranged from 3 to 57 ($M = 24.48$, $SD = 13.21$) (see Table 3). Paired samples t -tests indicated significant differences ($p < .05$) between the means of support received and perceived helpfulness for every source of support except the Internet ($p > .05$).

Predicting psychological adjustment

Participants' scores on the quality of life measure (RGHQoL) ranged from 0 to 55, ($M = 22.27$, $SD = 14.35$). The RGHQoL scores were non-normally distributed (Kurtosis = $-.571$); therefore, z -scores were computed and used in further analyses. Excellent internal consistency was found for the RGHQoL (Cronbach's $\alpha = .946$). There was no significant relationship between number of outbreaks, use of suppressive therapy, and psychological adjustment; thus, they were not controlled for in the model. Correlations revealed significant relationships between quality of life and two of the stigma factors: *Negative Thoughts* ($r = -.871$) and *Other's Beliefs about Herpes* ($r = -.630$), suggesting a high amount of common variance; therefore, those two stigma factors were not included as predictors in the model for quality of life. Instead, the stigma factors, *Reactions of Others* and *Disclosure Concerns* were combined and entered into the model as a measure of total stigma.

A hierarchical multiple linear regression was performed to test the hypothesis that: patient-centered communication, perceived stigma, social support, and coping strategies would significantly predict positive psychological adjustment (quality of life). The significant predictors in the model accounted for 65.9 percent of the variance in quality of life scores, $F(6, 63) = 20.33$, $p < .0001$. Lower perceived stigma was associated with better quality of life, $\beta = -.364$, $t = -4.678$, $p < .0001$. Acceptance coping was associated with better quality of life, $\beta = .457$, $t = 5.223$, $p < .0001$. Denial coping predicted poorer quality of life, $\beta = -.283$, $t = -3.321$, $p < .01$. Support received from the Internet predicted poorer quality of life, $\beta = -.213$, $t = -2.768$, $p < .01$. Support received from religious/spiritual figures predicted better quality of life, $\beta = .210$, $t = 2.721$, $p < .01$. There was also a significant interaction that predicted quality of life: perceived stigma and acceptance coping, $\beta = -.329$, $t = -4.268$, $p < .0001$ (Fig. 1).

Discussion

Women in this sample reported low levels of quality of life, supporting previous research that herpes can negatively influence psychological well-being (Drob et al., 1985; Kroon, 2000). The findings regarding predictors of psychological adjustment are robust, suggesting that perceived herpes stigma, denial coping, acceptance coping, support from the Internet, and support from religious/spiritual figures may play a crucial role in the quality of life for the women in this sample. Previous researchers have found a connection between the use of suppressive therapy, number of outbreaks, and quality of life (Doward et al., 1998; Patel et al., 2001), yet an important finding in the present study is that there was no relationship between suppressive therapy or number of outbreaks on quality of life. This may indicate that factors related to illness severity may not be predictive of quality of life and more attention to the psychosocial factors is needed. Use of acceptance coping was associated with better quality of life, while use of denial coping was related to poorer quality of life. This relates to Manne and Sandler's (1984) finding that wishful thinking was associated with poorer psychological adjustment among individuals with herpes.

Goffman's (1963) theory of stigmatized individuals posits that individuals with stigmatized conditions can experience many negative consequences of people's reactions. For the women in the present study, perceived herpes stigma had a strong association with quality of life. In addition, there was a significant interaction between perceived stigma and acceptance coping on quality of life. One possible explanation is that when women have high levels of perceived stigma, the use of acceptance coping skills may not improve their quality of life to the extent those skills would help women with lower levels of stigma. Alternatively, stigma may serve as a barrier to the use of acceptance coping skills.

Previous researchers have found social support to be an important factor in psychological outcomes for individuals with herpes (Manne & Sandler, 1984; Silver et al., 1986). The findings in the present study highlight the importance of the *source* of support, rather than the general quantity or perceived helpfulness of social support. The majority of participants received herpes-related social support from the Internet, followed by friends, exclusive sex partners, and health providers. Higher levels of support received from the Internet predicted poorer quality of life, while higher levels of support received from religious/spiritual figures predicted better quality of life. There were significant differences between quantity of support and perceived helpfulness of that support for every source except for the Internet, meaning women perceived support from the Internet to be most helpful, even though this type of support did not predict better psychological adjustment. These findings raise the important question of what type of support women are receiving from the Internet, and why that support is related to poorer adjustment. It is possible that perceived stigma and/or lack of information from health providers leads women to seek support from the Internet, where they can find support while remaining anonymous. Future researchers should examine the extent to which anonymous support seeking actually reinforces perceived stigma for STIs or other stigmatized conditions, thus resulting in poorer psychological outcomes.

One interesting finding with regard to health provider communication was that women reported a significant discrepancy between the importance they placed on having information about various topics and the extent to which their health provider informed women about those topics. For the topics that women reported their health provider covered to some extent, women's satisfaction with that coverage was significantly lower. The order of importance for different topics that women reported was similar to what has been found in previous research (Gilbert et al., 2002). If women leave their health provider's office uninformed after a profound diagnosis, they may seek this information elsewhere, which may explain why many women in this sample turned to the Internet for support. Additionally, patient-centered communication was not found to predict psychological adjustment. Future research should examine whether women's perceptions of their health providers are influenced by the power differentials that exist between patients and health providers.

This study is not without limitations. The majority of participants found out about the study using on-line forums, which may suggest they represent a group that is different from the general population of heterosexual women with herpes; however, previous researchers have found similar psychological effects when women were recruited through other means (e.g. clinics, posting fliers). In addition, previous researchers have reported that depressed persons with herpes were least likely to disclose to their partners (Green et al., 2003), while the present study found high levels of disclosure despite poor quality of life. Another limitation was that the majority of the sample (67.6%) was Caucasian. Although this was not a goal of the present study, it would be useful for future researchers to examine the predictors of quality of life among women of color, given the high reports of STIs among women of color (CDC, 2008).

Despite limitations, the findings in this study have theoretical and empirical importance. This is the first known study to have quantitatively measured perceived herpes stigma and its relationship to various ways of coping and psychological adjustment for women with genital herpes. Lazarus and Folkman (1984) theorized that emotion-focused coping is more likely to take place when there is no perceived reaction to a stressor that is constructive. Two emotion-focused ways of coping are acceptance coping and denial coping, which were implicated in the quality of life among women in the present sample. Women may not foresee or have access to constructive coping strategies for herpes, and therefore engage in ways of coping that may have an effect on quality of life. Although denial coping may be useful in the initial stages of coping with a stressor, the continued use of these strategies can have negative effects (Carver et al., 1989; Manne, Ostroff, Winkel, Fox, & Grana, 2005; Taylor & Stanton, 2007), which is reinforced in the present study. Another important empirical question that the findings of the present study raise is whether the relationship between stigma and coping has the same impact on psychological adjustment for individuals with other stigmatized conditions or illnesses. It is unknown whether genital herpes is a special case where stigma has a profound impact on coping and adjustment.

As evidenced in this study and in previous research, a herpes diagnosis can have profound effects on psychological well-being. The present findings document the strong influence perceived stigma, denial coping, acceptance coping, and specific sources of social support can have on the quality of life among women with herpes. Although women reported difficulties with psychological adjustment, some were still using positive coping strategies, which may provide enlightening and useful information for future research.

Acknowledgments

This research was conducted at the University of Wisconsin—Milwaukee, and was supported in part by a grant to the author from the American Psychological Association. The first author is supported by grants #U54 CA132384 and #U54 CA132379 from the National Cancer Institute. We would like to acknowledge the University of Wisconsin—Milwaukee faculty who provided their expertise and valuable feedback on this research: Dr Raymond Fleming, Dr Susan Lima, Dr Katie Mosack (Department of Psychology), and Dr Lindsay Timmerman (Department of Communications).

Copyright permission was granted from Galen Research Limited on 7 October 2008 for use of the Recurrent Genital Herpes Quality of Life questionnaire.

References

- Alexander L, Naisbett B. Patient and physician partnerships in managing genital herpes. *Journal of Infectious Diseases*. 2002; 186(Suppl):S57–65. [PubMed: 12353188]
- Berger BE, Ferrans CE, Lashley FR. Measuring stigma in people with HIV: Psychometric assessment of the HIV stigma scale. *Research in Nursing & Health*. 2001; 24:518–529. [PubMed: 11746080]
- Bickford J, Barton SE, Mandalia S. Chronic genital herpes and disclosure... The influence of stigma. *International Journal of STD & AIDS*. 2007; 18:589–592. [PubMed: 17784999]
- Carver CS, Scheier MF, Kumari Weintraub J. Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*. 1989; 56:267–283. [PubMed: 2926629]
- Center for Disease Control and Prevention (CDC). [accessed 12 July 2008] Genital herpes: CDC fact sheet. 2008. <http://www.cdc.gov/std/Herpes/STDFact-Herpes.htm#common>
- Cohen S, Wills TA. Stress, social support, and the buffering hypothesis. *Psychological Bulletin*. 1985; 98:310–357. [PubMed: 3901065]
- Doward LC, McKenna SP, Kohlmann T, Niero M, Patrick D, Spencer B, Thorsen H. The international development of the RGHQoL: A quality of life measure for recurrent genital herpes. *Quality of Life Research*. 1998; 7:143–153. [PubMed: 9523496]

- Dowsett SM, Saul JL, Butow PN, Dunn SM, Boyer MJ, Findlow R, Dunsmore J. Communication styles in the cancer consultation: Preferences for a patient-centered approach. *Psycho-Oncology*. 2000; 9:147–156. [PubMed: 10767752]
- Drob S, Loemer M, Lifshutz H. Genital herpes: The psychological consequences. *British Journal of Medical Psychology*. 1985; 58:307–315. [PubMed: 4092013]
- Fiscella K, Franks P, Srinivasan M, Kravitz RL, Epstein R. Ratings of physician communication by real and standardized patients. *Annals of Family Medicine*. 2007; 5:151–158. [PubMed: 17389540]
- Fortenberry JD. The effects of stigma on genital herpes care-seeking behaviours. *Herpes*. 2004; 11:8–11. [PubMed: 15115631]
- Gilbert LK, Lloyd Schulz S, Ebel C. Education and counseling for genital herpes: Perspectives from patients. *Herpes*. 2002; 9:78–82. [PubMed: 12470606]
- Goffman, E. *Stigma: Notes on the management of spoiled identity*. London: Penguin Group; 1963.
- Green J, Ferrier S, Kocsis A, Shadrick J, Ukoumunne OC, Murphy S, Hetherington J. Determinants of disclosure of genital herpes to partners. *Sexually Transmitted Infections*. 2003; 79:42–44. [PubMed: 12576613]
- Griffin KW, Rabkin JG. Perceived control over illness, realistic acceptance, and psychological adjustment in people with AIDS. *Journal of Social and Clinical Psychology*. 1998; 14:407–424.
- Kroon, S. Optimizing the management of genital herpes—psychological perspective. In: Whitley, RJ., editor. *Optimizing the management of genital herpes*. London: Royal Society of Medicine Press; 2000. p. 47–51.
- Lazarus, RS.; Folkman, S. *Stress, appraisal, and coping*. New York: Springer Publishing Company; 1984.
- Major B, O'Brien LT. The social psychology of stigma. *Annual Reviews of Psychology*. 2005; 56:393–421.
- Manne SL, Ostroff J, Winkel G, Fox K, Grana G. Partner unsupportive responses, avoidant coping, and distress among women with early stage breast cancer: Patient and partner perspectives. *Health Psychology*. 2005; 24:635–641. [PubMed: 16287411]
- Manne S, Sandler I. Coping and adjustment to genital herpes. *Journal of Behavioral Medicine*. 1984; 7:391–410. [PubMed: 6542939]
- Newton DC, McCabe MP. The impact of stigma on couples managing a sexually transmitted infection. *Sexual and Relationship Therapy*. 2005; 20:51–63.
- Newton DC, McCabe MP. Sexually transmitted infections: Impact on individuals and their relationships. *Journal of Health Psychology*. 2008; 13:864–869. [PubMed: 18809636]
- Patel R, Boselli F, Cairo I, Barnett G, Price M, Wulf HC. Patients' perspectives on the burden of recurrent genital herpes. *International Journal of STD & AIDS*. 2001; 12:640–645. [PubMed: 11564330]
- Ptacek JT, Eberhardt TL. Breaking bad news: A review of the literature. *Journal of the American Medical Association*. 1996; 276:496–502. [PubMed: 8691562]
- Radecki Breitkopf C. The theoretical basis of stigma as applied to genital herpes. *Herpes*. 2004; 11:4–7. [PubMed: 15115630]
- Reed GM, Taylor SE, Kemeny ME. Perceived control and psychological adjustment in gay men with AIDS. *Journal of Applied Social Psychology*. 1993; 23:791–824.
- Reilly T, Woo G. Social support and maintenance of safer sex practices among people living with HIV/AIDS. *Health & Social Work*. 2004; 29:97–105. [PubMed: 15156842]
- Schmid Mast M, Kindlimann A, Langewitz W. Recipients' perspective on breaking bad news: How you put it really makes a difference. *Patient Education and Counseling*. 2005; 58:244–251. [PubMed: 16081235]
- Silver PS, Auerback SM, Vishniavsky N, Kaplowitz LG. Psychological factors in recurrent genital herpes infection: Stress, coping style, social support, emotional dysfunction, and symptom recurrence. *Journal of Psychosomatic Research*. 1986; 20:163–171. [PubMed: 3723447]
- Taylor SE. Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist*. 1983; 38:1161–1173.

- Taylor SE, Stanton AL. Coping resources, coping processes, and mental health. *Annual Reviews of Clinical Psychology*. 2007; 3:377–401.
- Weiner B. On sin and sickness: A theory of perceived responsibility and social motivation. *American Psychologist*. 1993; 48:957–965. [PubMed: 8214914]
- Williams GC, Grow VM, Freedman ZR, Ryan RM, Deci EL. Motivational predictors of weight-loss and weight-loss maintenance. *Journal of Personality and Social Psychology*. 1996; 70(1):115–126. [PubMed: 8558405]
- Williams S, Weinman J, Dale J. Doctor–patient communication and patient satisfaction: A review. *Family Practice*. 1998; 15:480–492. [PubMed: 9848436]

Biographies

JESSICA BARNACK-TAVLARIS is a postdoctoral fellow at the Comprehensive San Diego State University/University of California San Diego Cancer Center Partnership, conducting research in cancer disparities. Her current research focuses on cervical cancer prevention in underserved populations.

DIANE REDDY, Professor and Director of Health Psychology has authored over 25 scientific articles on women's health and edited *Psychological perspectives on women's health*, which is regarded as a comprehensive scholarly resource for research on important topics in women's health.

KATIE A. PORTS is a Doctoral Candidate in Experimental Psychology at the University of Wisconsin—Milwaukee. Her research interests are in Health Psychology and typically focus on women's reproductive health.

Figure 1.
Significant interaction between stigma and acceptance coping on quality of life.

Table 1

Perceived importance of herpes-related topics, and the extent to which they were covered by health providers

Topic	How important Mean	Health provider coverage Mean	Satisfaction Mean
How widespread herpes is	6.79	4.10	4.38
Treatment options for outbreaks	6.71	4.77	4.89
How herpes is transmitted	6.69	4.46	4.69
How to prevent transmission	6.68	4.30	4.56
Emotional impact of herpes	6.67	3.05	3.60
How herpes can be present without symptoms.	6.66	3.89	4.38
How to talk to sexual partners about herpes	6.59	3.03	3.80
Suppressive therapy	6.59	4.26	4.69
How herpes recurs over time	6.57	4.36	4.72
Discussing risk reduction with partner	6.57	3.36	3.80
Preventing transmission during pregnancy	6.50	2.95	4.18
How herpes affects sexual relationships	6.35	3.10	3.64
How to use condoms correctly	6.01	2.48	3.66

Note: Means were on a scale of 1(not at all) to 7(extremely/a great deal). Means for satisfaction are based on participants who reported coverage

Table 2

Principal components analyses for stigma and coping scales

Factor α	# of items	M*	SD	Cronbach's
Perceived herpes stigma				
Reactions of others	13	20.64	11.13	.93
Negative thoughts	10	30.21	7.86	.93
Other's beliefs about herpes	3	9.86	2.25	.85
Disclosure concerns	9	26.96	5.65	.72
Factor α	# of items	M**	SD	Cronbach's
Brief COPE				
Support coping	5	11.82	4.40	.85
Denial coping	2	3.78	1.94	.80
Acceptance coping	2	5.64	1.80	.82
Action/problem solving coping	4	13.46	3.75	.79
Prayer/meditation	2	4.25	2.19	.90
Negative thoughts/blame coping	4	8.88	2.95	.71
Substance abuse	2	3.43	2.02	.94
Joking	2	3.31	1.94	.84

Notes:

* Responses were on a four-point scale. Higher scores indicate higher levels of perceived stigma

** Responses were on a four-point scale. Higher scores indicate more use of the coping strategy

Table 3

Sources of support and perceived helpfulness

Source	Mean received ^a	Mean helpfulness ^a
Internet	5.71	5.36
Friends	4.08	3.52 **
Health providers	3.58	3.37 *
Exclusive sex partners	2.92	2.19 **
Parents	2.79	2.05 **
National organizations for herpes	2.49	1.76 **
Siblings	2.23	1.49 **
Mental health providers	2.00	1.22 **
Casual sex partners	1.80	.94 **
Religious/spiritual figures	1.75	.92 **
Other	1.59	.69 **
Academic professionals	1.47	.63 **
Community organizations	1.43	.63 **

Notes:

^aMean on a scale of 1 (not at all) to 7 (a great deal/extremely)

* Means differ significantly at the .05 level

** Means differ significantly at the .005 level