

The Costs of Rape

Carin Perilloux · Joshua D. Duntley · David M. Buss

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Abstract The current study examined costs experienced by victims of completed rape ($n = 49$) and attempted sexual assault ($n = 91$) using quantitative analyses of 13 domains: health, self-esteem, self-perceived attractiveness, self-perceived mate value, family relationships, work life, social life, social reputation, sexual reputation, desire to have sex, frequency of sex, enjoyment of sex, and long-term, committed relationships. Women also provided descriptive accounts of their experiences, and we used these to illustrate the costs in the victims' own words. Compared to victims of an attempted sexual assault, victims of a completed rape reported significantly more negative outcomes in 11 of the 13 domains. The most negatively affected domains were self-esteem, sexual reputation, frequency of sex, desire to have sex, and self-perceived mate value. Although victims of rape experienced more negative effects than victims of attempted sexual assault, both groups of victims reported negative effects in every domain. Discussion focuses on the implications of the differing degrees and patterns of the costs of attempted and completed sexual victimization.

Keywords Sexual victimization · Rape · Costs · Consequences · Women

C. Perilloux · D. M. Buss
Department of Psychology, University of Texas at Austin,
Austin, TX, USA

J. D. Duntley
Social and Behavioral Sciences, The Richard Stockton
College of New Jersey, Galloway Township, NJ, USA

Present Address:
C. Perilloux (✉)
Department of Psychology, Bronfman Science Center,
Williams College, 18 Hoxsey Street, Williamstown,
MA 01267, USA
e-mail: carin.perilloux@williams.edu

Introduction

Of over a hundred things that a man could do to upset a woman, women rate sexually aggressive acts as the most upsetting, even more upsetting than non-sexual physical abuse and partner infidelity (Buss, 1989). Women's psychological upset is only the tip of the iceberg. After experiencing sexual victimization, women often develop clinical symptoms, such as depression (Atkeson, Calhoun, Resick, & Ellis, 1982; Elliott, Mok, & Briere, 2004; Littleton, Axsom, Breitkopf, & Berenson, 2006; Santiago, McCall-Perez, Gorcey, & Beigel, 1985; Thompson & Kingree, 2010), anxiety (Littleton et al., 2006), sexual dysfunction (Campbell & Soeken, 1999; Elliott et al., 2004; Feldman-Summers, Gordon, & Meagher, 1979), and post-traumatic stress disorder (Kilpatrick, Saunders, Amick-McMullan, & Best, 1989; Littleton et al., 2006; Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992).

Perhaps because these symptoms are so debilitating, much research on the consequences of rape has concentrated on these clinical outcomes. Fewer studies have focused on assessing the wide spectrum of domains of functioning in which victims of sexual assault might experience costs that do not necessarily reach diagnosable clinical thresholds. Exceptions include studies that compare victims to matched samples of non-victims and find substantial negative effects of rape on various aspects of women's lives, including work life, family life, self-esteem, sexual functioning, and romantic relationships (Campbell & Soeken, 1999; Ellis, Atkeson, & Calhoun, 1981; Feldman-Summers et al., 1979; Resick, Calhoun, Atkeson, & Ellis, 1981; Zweig, Crockett, Sayer, & Vicary, 1999).

An evolutionary psychological perspective can broaden the scope of inquiry to areas of life that would be expected to have a particularly large impact on women in the evolutionary currency of fitness, namely social and mating-related costs. Furthermore, an evolutionary perspective can provide a deeper theoretical understanding for why costs assessed in previous studies based on

intuitive expectations of rape consequences are indeed experienced by women as so costly. Because the exercise of preferential choice of sexual and romantic partners is a cardinal feature of women's evolved mating strategies, rape imposes the evolutionarily heavy cost of bypassing that strategy and interfering with the benefits that women could reap. An example of benefits women reap from preferential mate choice is the selection of a man with attributes that auger well for long-term commitment: honesty, industriousness, dependability, bravery, physical strength, intelligence, the ability and willingness to invest in them and their children, and the ability to protect them from harm. Rape deprives a woman of these key benefits that she could obtain from a carefully chosen consensual romantic relationship.

Rape also can impose costs in the form of an unwanted or untimely pregnancy (Gottschall & Gottschall, 2003) by a male that has circumvented female choice, thus preventing her from choosing a male she assesses as having good genes, low parasite load, and good health. These costs of rape have been documented in a variety of insect and fish species (Arnqvist & Rowe, 2005) and may apply to human rape as well. Furthermore, women can suffer direct physical injury from rape, another cost also widely documented in the non-human animal and insect literatures (Arnqvist & Rowe, 2005; Lalumiere, Harris, Quinsey, & Rice, 2005).

In addition to these more direct consequences of rape that are shared among many species, there are additional costs that arise specifically among human rape victims. An evolutionary perspective allows us to pinpoint and explain the adaptive consequences of these additional costs. For example, women who are raped are hypothesized to suffer from decreased mate value, which could undermine their attempts to attract a high quality long-term mate. Sexual reputation can have a profound impact on a woman's existing romantic relationship. Because men prioritize cues to sexual fidelity in long-term mating (Buss & Schmitt, 1993), damage to a woman's sexual reputation can impair her value in the long-term mating market. If a rape victim is already mated, she risks losing her current romantic partner. He may perceive her to be lower in mate value, he may worry about damage to his own social reputation, or he may regard the rape as infidelity (Buss, 2003; McKibbin & Shackelford, 2011).

Damage to a woman's reputation may also serve as input to recalibrate victims' self-perceptions of attractiveness and mate value. These internal variables influence the quality of mates sought, attracted, and successfully retained by women. Damage to a woman's self-perceived mate value as a consequence of rape could lead her to settle for a mate of substantially lower quality than she could otherwise obtain (Kirkpatrick & Ellis, 2001). These hypothesized reputation effects, combined with detrimental recalibration of self-perceptions, represent large costs that women may experience as a result of rape.

Beyond areas of functioning closely tied to mating, victims would have also faced costs within domains of familial and social relationships. Humans are an intensely social species. More than

most other species, humans form alliances with family and friends that historically have been critical to fitness. Having close kin relationships (both emotionally and physically) can reduce women's likelihood of physical abuse, partner violence, and rape (Campbell, 1992; Figueredo et al., 2001; McKibbin & Shackelford, 2011; Smuts, 1992). Similarly, humans form close friendships marked by deep engagement that can last for years or decades and provide a bounty of benefits (Bleske & Buss, 2001; Tooby & Cosmides, 1996). Rape can affect these relationships in various ways. In families, the rape of a daughter or sister can bring much shame upon the family and, in certain cultures, the family is expected to punish the victim or else the entire family will be punished (Lalumiere et al., 2005). Parents and siblings sometimes distance themselves from the shame and derogation befalling the victim, thus weakening or eliminating her most valuable line of protection. Friends, likewise, sometimes distance themselves for fear of derogation. Such damage to kin relations, friendships, and social alliances can be exceptionally costly for victims in fitness currencies (e.g., Campbell, Ahrens, Sefl, Wasco, & Barnes, 2001; Davis, Brickman, & Baker, 1991).

An evolutionary perspective on the costs of rape can be viewed as complementary with other perspectives. Feminist and mainstream psychological perspectives on rape, for example, have highlighted how the tremendous psychological costs of rape induce rage, fear, self-loathing, humiliation, shame, disgust, and oppression (e.g., Vandermassen, 2011). An evolutionary perspective is compatible with these perspectives in that it provides a functional explanation for why women experience rape as so traumatizing.

The primary goal of the current study was to measure the degree to which sexual victimization affects the many domains of fitness-relevant functioning. Moreover, we compared the magnitude of damage to these domains of functioning in victims of attempted versus completed sexual assault. We used quantitative methods for objective comparison of the groups and subjective responses to illustrate the range of experiences reported by victims. Thus, in addition to numerical evaluations, victims described the impact of their actual experiences on each domain of functioning.

Method

Participants

Participants were recruited through university organizations as volunteers or to partially satisfy a research requirement in psychology courses. In the current study, we included participants who fit into one of two categories: women who reported a completed penile-vaginal rape that occurred after puberty, defined here as age 13, ($n = 49$; age: $M = 20.31$ years, $SD = 2.56$) and women who experienced an attempted sexual assault after puberty ($n = 91$; age: $M = 19.78$ years, $SD = 1.67$). Because of

the nature of the open-ended instrument and the fact that we cannot know the perpetrator's true goals, women reporting any form of attempted victimization (e.g., attempted rape, attempts to molest) were included in the attempted group. Most perpetrators were known to the victims and this did not vary by group: 58.2% friends or acquaintances, 28.4% hopeful, current, or past mates, 4% family members, and 10.4% strangers. Regardless of group, women reported an average of 2.65 lifetime experiences of any form of sexual victimization ($SD = 6.25$). Self-reported family income during childhood was approximately "middle class" on our 7-point scale for both the attempted ($M = 4.52$, $SD = 0.94$) and completed ($M = 4.65$, $SD = 1.09$) groups. The groups did not significantly differ in age, $t(138) = 1.47$, or family income, $t(138) < 1$.

Measures

The measures used for the current study were part of a larger online survey of victimization experiences approved by the university's institutional review board. Throughout the instrument, victimization was defined as follows: "Sexual victimization refers to being a nonconsensual (unwilling) participant in sexual activity with another person. Engaging in sexual activity with another person without your consent, against your wishes, or against your will may all be considered examples of sexual victimization. Another person attempting to get you to engage in sexual activity without your consent, against your wishes, or against your will may also be considered sexual victimization. It can be committed by a wide range of people, including strangers, acquaintances, current or ex-romantic partners, dates, fellow employees, neighbors, fellow students, and others. Sexual activity may include, but is not limited to, intercourse, anal sex, oral sex, or penetration."

Because the current study compared victims of completed rape to victims of attempted sexual assault, only the victim instrument is described here; non-victims completed a separate instrument. The victim instrument consisted of about 200 questions concerning the most vividly remembered sexual victimization experience. The questions ranged from factual details, such as time and location, to more subjective details, such as costs experienced and emotions surrounding the event (full instrument available from the corresponding author). For the current study, we analyzed victims' responses to questions about the costs experienced after the victimization. We created a list of 13 domains in which victims may have experienced changes after the victimization: health, self-esteem, self-perceived attractiveness, self-perceived value as a romantic partner, family relationships, work life, social life, social reputation, sexual reputation, desire to have sex, frequency of sex, enjoyment of sex, and long-term, committed relationship(s). For each of the 13 domains, the participant rated it (i.e., "Rate how much the victimization affected this area

of your life") on a scale of -3 ("Extremely negatively affected") to $+3$ ("Extremely positively affected") with 0 representing no change. Also for each domain, a follow-up item asked how the victimization affected that domain in open-ended format (e.g., "Please describe how being sexually victimized affected your health and how long this effect lasted. Please provide as many specific examples as you can remember.>").

Procedure

Participants received the web address of the study and were instructed to access it when they had enough time and privacy to complete the entire instrument. After providing informed consent, participants read the definition of victimization and indicated whether they had experienced a completed or attempted sexual victimization based on this definition. If so, they were directed to our victim instrument. The entire study, of which the section analyzed here is but one part, took approximately 30–45 min to complete. At the end, participants were debriefed.

Results

We conducted a MANOVA comparing the ratings of the completed group to the attempted group across the 13 domains. Because the age at which the victimization occurred was younger among completed rape victims ($M = 16.94$ years, $SD = 1.97$) than women in the attempted group ($M = 17.63$ years, $SD = 1.85$), $t(138) = 2.07$, $p = .04$, we used the elapsed time as a covariate in the MANOVA. Because MANOVA only includes participants who responded to all of the included items, six participants from the completed group and 14 participants from the attempted group were excluded to perform this analysis (similar results were obtained when the items were compared individually using t -tests). The results of the MANOVA, as shown in Table 1, indicated that women in the completed group rated 11 of the 13 items as significantly more costly than women in the attempted group. The only two domains that did not significantly differ were "work life" and "enjoyment of sex." Based on effect sizes, self-esteem, self-perceived value as a romantic partner, and sexual reputation showed large effects; frequency of sex, long-term relationships, self-perceived attractiveness, social reputation, health, and sexual desire showed medium effects; family relationships, social life, and work life showed small effects.

Below, we provide the results for each domain in order of descending effect size. Each domain is accompanied by a selection of actual descriptions written by participants explaining how the victimization affected them—not as a reflection of the documented quantitative group differences, but rather to illustrate the alarming costs reported by victims of attempted and completed sexual assault.

Table 1 Costliness ratings of the completed and attempted groups

	Completed (<i>n</i> = 49)		Attempted (<i>n</i> = 91)		η_p^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Self-esteem	-1.79	0.83	-0.75	0.96	0.19
Value as a romantic partner	-1.51	1.10	-0.40	1.05	0.17
Sexual reputation	-1.65	1.13	-0.53	1.13	0.15
Frequency of sex	-1.51	1.26	-0.53	1.01	0.13
Long term relationships	-1.26	1.26	-0.25	1.03	0.12
Attractiveness	-0.88	1.18	-0.06	0.91	0.12
Social reputation	-0.95	0.97	-0.27	0.72	0.11
Health	-0.86	1.06	-0.19	0.73	0.10
Sexual desire	-1.33	1.38	-0.38	1.03	0.10
Family relationships	-0.65	0.95	-0.19	0.80	0.04
Social life	-1.05	1.11	-0.55	0.97	0.04
Work life	-0.37	0.95	-0.17	0.57	0.01
Enjoyment of sex	-0.77	1.25	-0.45	0.88	0.01

Note For each variable, absolute range, -3 to 3

Self-Esteem

The completed group reported significantly more negative effects of the victimization on their self-esteem than the attempted group, $F(1, 117) = 27.53, p < .001, \eta_p^2 = 0.19$.

It affected my self-esteem in a negative way because I felt really dirty just like in the movies. I never understood why they felt that way in movies, but then I knew. It's the feeling of contamination, of disgust. I went home and took a long shower and went to bed. (19 years old, attempted victimization at age 19)

My self-esteem plummeted after the sexual victimization. I was depressed and didn't think myself worthy of dating other guys. I was scared to get too close and intimate with other guys, and I was really beating myself up over the fact that I didn't fight back more and try to resist the sexual victimization. I thought I was weak, stupid, and naive. I didn't think of myself attractive or worthy of care from other people. I just didn't have confidence in myself anymore. (23 years old, completed rape at age 18)

Self-Perceived Value as a Romantic Partner

The completed group reported significantly more negative effects of the victimization on their self-perceived value as a romantic partner than the attempted group, $F(1, 117) = 23.63, p < .001, \eta_p^2 = 0.17$.

I am a Christian and past physical experiences are a big deal between Christian relationships ... None of my subsequent romantic partners knows about it and I do not think they would be too happy about it—they would probably blame me for it. (21 years old, attempted victimization at age 19)

But I am struggling with PTSD, and I have a lot of issues right now that most people cannot deal with. I feel that I have to act like I'm ok even if I'm not, so that my romantic partner will not think that I'm overly needy because of the assault. I always think that my romantic partner will leave me or hurt me at any moment. This in turn makes me less desirable. (22 years old, completed rape at age 19)

Sexual Reputation

The completed group reported significantly more negative effects of the victimization on their sexual reputation than the attempted group, $F(1, 117) = 20.93, p < .001, \eta_p^2 = 0.15$.

No one wants to sleep with the girl who slept with the guy known for having multiple sex partners and possibly being infected with STDs. (21 years old, attempted victimization at age 14)

I was considered a slut and guys were more interested in me because I had slept with someone. (20 years old, completed rape at age 13)

Frequency of Sex

The completed group reported significantly more negative effects of the victimization on their frequency of sex than the attempted group, $F(1, 117) = 17.56, p < .001, \eta_p^2 = 0.13$.

It negatively affected my frequency of sex because I didn't want to give into anyone so easily. I wanted it my way and when I wanted it. Not his way or when he wanted it. (21 years old, attempted victimization at age 18)

Although I had more and more sex, I didn't like it. But my frequency went way, way, way up. I was indiscriminate

because I felt that it didn't matter anymore. (22 years old, completed rape at age 19)

Long-Term, Committed Relationships

The completed group reported significantly more negative effects of the victimization on their long-term relationships than the attempted group, $F(1, 117) = 15.56, p < .001, \eta_p^2 = 0.12$.

My current boyfriend is really good about it, he tries to understand and work with me, but he feels that it has more to do with him, and sometimes gets upset about it. He doesn't seem to understand how I can in my mind equate him and the other guy. I don't; it's just the situation. (20 years old, attempted victimization at age 16)

It ruined it. [My partner] couldn't get it out of his head that it was my fault. He started criticizing my behavior and what I wore. Basically, I think how you act and how you dress gives guys the idea that you want to have sex with them. It wasn't, "You look beautiful in that," it was, "Guys are going to think you want sex." Our relationship ended because of stuff like that. (21 years old, completed rape at age 19)

Self-Perceived Attractiveness

The completed group reported significantly more negative effects of the victimization on their perceptions of their own attractiveness than the attempted group, $F(1, 117) = 15.55, p < .001, \eta_p^2 = 0.12$.

I realized that I may be a little more attractive than before. This actually made me begin to dress more conservatively because I was afraid of attracting someone to do this to me again. I am even now, still aware. (18 years old, attempted victimization at age 17)

I felt that I had to become unattractive so that it could never happen again. I didn't want to feel or be attractive. (21 years old, completed rape at age 19)

Social Reputation

The completed group reported significantly more negative effects of the victimization on their social reputation than the attempted group, $F(1, 117) = 15.16, p < .001, \eta_p^2 = 0.11$.

Once my friends found out what he was doing they all abandoned me and started rumors about me. I lost all of my friends and people were constantly talking behind my back. (19 years old, attempted victimization at age 15)

I think people thought I kind of asked for it because I was so drunk. Somehow the news got a hold of the story and after

that rumors began and I can only imagine what people said about me. (22 years old, completed rape at age 18)

Health

The completed group reported significantly more negative effects of the victimization on their health than the attempted group, $F(1, 117) = 13.08, p < .001, \eta_p^2 = 0.10$.

It was more my mental health that was affected 'cause he did not actually rape me 'cause I got away before he could. But my mental state was affected for a while because I thought it was my fault. All my fault. I thought that maybe I had thrown myself at him to make him think it was ok. (19 years old, attempted victimization at age 17)

I got pregnant, stopped eating because I didn't know what to do, miscarried, and then decided I deserved to die because of what I had done. An eating disorder and self mutilation shortly followed. (20 years old, completed rape at age 13)

Sexual Desire

The completed group reported significantly more negative effects of the victimization on their desire to have sex than the attempted group, $F(1, 117) = 12.65, p < .001, \eta_p^2 = 0.10$.

When I think about sex I don't think about it as a pleasure. I think about more of it as an action I will eventually have to do if I get married. (19 years old, attempted victimization at age 16)

Never wanted to have sex again. I wanted to prove that I really didn't want sex. I wanted to prove this to myself and to everyone else that knew about the situation. I wanted to prove that I wasn't a slut. (20 years old, completed rape at age 13)

Family Relationships

The completed group reported significantly more negative effects of the victimization on their family relationships than the attempted group, $F(1, 117) = 4.42, p = .04, \eta_p^2 = 0.04$.

I did not like not being able to tell my family. I would never tell my mom because I would not want to upset her. I know she would always feel bad because she was molested as a little girl once by a neighbor. I would never want her to know I had gone through anything like that. (22 years old, attempted victimization at age 21)

I was really angry at my family for not protecting me more. (20 years old, completed rape at age 13)

Social Life

The completed group reported significantly more negative effects of the victimization on their social life than the attempted group, $F(1, 117) = 4.42, p = .04, \eta_p^2 = 0.04$.

I stopped going out. I was content to just sit at home by myself. I avoided family outings so that I could be in an empty house. I didn't go out with friends so I could just sleep. I slept a lot instead of going out. (19 years old, attempted victimization at age 17)

I basically became a hermit and refused to go out to party or socialize. This also included skipping a great deal of class and just moping around my dorm. I would stay on my computer ... and only venture out at night for late night snacks and talks with a few close friends. Many of my friends didn't understand my sudden hermitic lifestyle so I have lost quite a few. (20 years old, completed rape at age 18)

Work Life

The completed group and the attempted group did not differ significantly in their reported effects of the victimization on their work life, $F(1, 117) = 1.67, p = .20, \eta_p^2 = 0.01$.

I quit that job immediately; even after they fired my boss. The effect of being victimized pervades my work life today in that I am highly sensitive to any touch by co-workers and set people straight when I think they have ulterior intentions. (23 years old, attempted victimization at age 17)

It has completely utterly destroyed my academic career. I was an aspiring physician and since then my grades and my desire to learn have been shot. I'm somewhat still working through and trying to regain my former ambitious self because of this incident, but hopefully my major will be understanding of my sudden decline in grades since my second semester freshman year. (20 years old, completed rape at age 18)

Enjoyment of Sex

The completed group and the attempted group did not differ significantly in their reported effects of the victimization on their enjoyment of sex, $F(1, 117) = 0.85, p = .36, \eta_p^2 = 0.01$.

I seem to not enjoy sex as much because I tend to overthink the emotional vs. physical side of sex, and which one my partner is most interested in. (18 years old, attempted victimization at age 16)

It decreased my enjoyment of sex substantially. Every time I would have sex and manage to orgasm I immediately started feeling like a whore. It was easier if I didn't

enjoy it. It was better still if I didn't have sex at all. (21 years old, completed rape at age 19)

Regaining Normalcy

Although the bulk of our data indicated that these women experienced significantly negative consequences after their victimization, many women commented that various domains of their lives have either returned to "normal" or have at least improved in a measurable way. Several examples are provided below to illustrate that the passage of time, and the incorporation of positive life changes, ameliorated the costs faced by these women.

Because of the traumatic experience, I remember having a fear of what would happen to my ability to enjoy sex with someone that I love. However, because my boyfriend was incredibly understanding and supportive, he never pushed me in any direction I didn't go, so I was allowed to rediscover who I was as a sexual being, and develop a healthy sexual image of myself. (20 years old, completed rape at age 18)

I got a lot closer to my family. My friends were frustrated with me (they had warned me about this guy before we began dating), so I really only had my family to lean on. They helped me get through a lot. (19 years old, attempted victimization at age 17)

It had a slight positive effect on my romantic relationships. I have been with my boyfriend for a little over a year now and I think because this happened I appreciate him EVEN MORE than I would if it didn't happen. My boyfriend respects me and takes very good care of me and holds my opinions and beliefs very high. (20 years old, attempted victimization at age 18)

Discussion

The current findings showed that reproductively relevant domains of sexuality, romantic relationships, and reputation were severely negatively affected by sexual victimization. There is good evidence that rape has been a major recurrent adaptive problem for women across cultures and over time (Lalumiere et al., 2005). An evolutionary perspective provides deeper insight into why certain consequences of rape are so costly for women. Rape imposes numerous costs on women's sexuality that would have been reproductively relevant throughout our ancestral past. Historically, rape could have led to untimely pregnancy, pregnancy by a man who has circumvented a woman's evolved mate choice mechanisms, lack of paternal investment in potential offspring, being labeled promiscuous or unfaithful, and many other costs (Buss, 2003; Gottschall & Gottschall, 2003). As the current

study illustrated, an evolutionary perspective can point to previously unexamined costs of rape, such as damage to a woman's self-perceived mate value, shed light on why previously documented costs of rape are indeed perceived to be so costly, and propose specialized defenses in women designed to prevent rape and to minimize its costs (Buss, 2003; Duntley, 2005; McKibbin, Shackelford, Miner, Bates, & Liddle, 2011; McKibbin et al., 2009; Thornhill & Thornhill, 1990).

An evolutionary perspective may provide an interesting point-of-view on the relationship between group knowledge, derogation, and women's sexuality after rape. Due to the high costs that would have been associated with reputational damage in the small-group living that characterized our ancestral past, victims may conditionally recalibrate to either short-term or long-term mating orientation after the victimization. This could explain the great variability in women's sexual reactions to victimization—ranging from excessive promiscuity to complete asexuality (deVisser, Smith, Rissel, Richters, & Grulich, 2003; Kelly, 2009). If the victim receives input from the social group that her reputation has been publicly sullied by the victimization, she may tend toward a short-term mating strategy rather than pursuing a long-term strategy if high-quality potential long-term mates may find her less desirable. Victims whose assaults are secret or who are able to change social groups, on the other hand, may adhere more closely to a long-term mating strategy after the assault. These predictions could be tested in future studies.

The current study also highlighted important differences between the effects of completed and attempted sexual assault. For nearly every domain tested, completed rape victims experienced more negative effects than did victims of an attempted sexual assault. Women in the attempted group, however, did report significantly negative effects on nearly every domain assessed. Consistent with previous literature on unacknowledged victims (Littleton, Rhatigan, & Axsom, 2007), there may be a class of victims who do not view themselves as true victims because their victimization was not “completed.” Although the effects that the attempted group experienced were not perceived to be as costly as those experienced by completed rape victims, victims of attempted sexual assault nonetheless reported significantly negative effects in their lives. Future research should consider victims of attempted sexual assault as an important group to study in their own right.

One interesting pattern of distinction between completed and attempted sexual assault effects was highlighted in three facets of sexuality assessed in this study: frequency of sex, desire for sex, and enjoyment of sex. Completed rape victims experienced significantly more negative effects in their frequency of sex and desire for sex than the attempted group, but there was no difference in enjoyment of sex. These effects could be by-products of less frequent sex among completed rape victims. Perhaps victims who stopped having sex after the victimization indicated “no effect” on sexual enjoyment since it no longer applied.

Indeed, in the current study, frequency of sex was significantly positively correlated with enjoyment of sex, but only among victims of attempted sexual assault, $r(82) = .24, p = .03$. There was no significant correlation of frequency of sex with enjoyment of sex among completed rape victims, $r(48) = -.01$. This implies that victims of attempted sexual assault continued to pursue sex to the extent that they enjoyed it, but victims of completed rape were not consistent: presumably, some of them actually enjoyed the sex they had while others had sex but did not enjoy the act. Because of the differing pattern of effects on sexuality, there is good reason to consider completed and attempted sexual assault victims to be similar in the sense that the victimization negatively impacts their lives, but distinct in the specific ways they react.

In addition to documenting extensive examples of costliness, the current study also provides hope in the form of victims' own words. Spontaneous descriptions of positive effects, or at least of feeling like their pre-victimization selves, provide qualitative evidence of the previously documented quantitative attenuation of post-victimization consequences (e.g., Resick et al., 1981). Women often show exceptional resilience. With support and assistance, many rape victims may be able to regain normalcy in some of the domains of their lives affected by the victimization.

As in all correlational and retrospective studies, the current study cannot speak to the causality of the effects documented. We were limited to victims' self-perceptions and memory of the changes they experienced as a result of the victimization. Longitudinal studies of larger samples could partially address this limitation by measuring these domains at multiple points in time in order to compare women's ratings prior to and after victimization for those women who experience victimization during the course of the study. Another limitation of the current study is the sample consisted only of college women in their late teens and early 20s, and thus cannot speak directly to the entire population of female victims—although young women do experience the highest rate of victimization (National Center for Victims of Crime and Crime Victims Research and Treatment Center, 1992; Tjaden & Thoennes, 2000). Finally, future studies could explore other factors that may influence costs experienced by victims, such as the secrecy of the victimization, family support or condemnation, the type of police response, or whether the perpetrator continued to be present in the victim's life following the victimization.

The current study points to the necessity of examining more domains of functioning negatively affected by rape. The incorporation of an evolutionary perspective provides heuristic value in guiding researchers to previously unexamined domains. For example, an evolutionary perspective led us to include damage to self-perceived mate value and sexual reputation as potential costs of rape—costs that our study documented empirically. Moreover, an evolutionary perspective, while compatible with other psychological and feminist perspectives, adds an additional layer

of theoretical insight by providing a framework for understanding why the forms of damage that rape victims experience are indeed so costly.

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