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Women's self-defense and sexual assault resistance: The state of the field

Jocelyn A. Hollander

University of Oregon

Correspondence
Jocelyn A. Hollander, Department of Sociology, 1291 University of Oregon, Eugene, OR 97403-1291.
Email: jocelynh@uoregon.edu

Abstract
Public attention to sexual assault has increased dramatically over the last decade, spurring questions about how it can be prevented. One approach that has received scant attention is women's self-defense training (sometimes known as sexual assault resistance training). This neglect is curious because empowerment-based women's self-defense (ESD) training is so far the only approach that has produced substantively significant decreases in victimization rates. In this article, I review the research evidence on women's self-defense training. Does resisting a sexual assault affect the outcome of sexual violence? Does self-defense training further reduce women's risk of violence? What are the other consequences of self-defense training? How does self-defense work for different groups of women—for example, those who have survived prior victimizations? Are the critiques of women's self-defense training valid? Finally, what do we still need to learn about women's self-defense? Overall, I argue that this evidence presents a compelling case that women's self-defense training should be central to any efforts to prevent sexual violence.

1 WOMEN'S SELF-DEFENSE AND SEXUAL ASSAULT RESISTANCE: THE STATE OF THE FIELD

The past decade has seen dramatically increased public attention to sexual assault. In 2014, President Obama's White House Task Force focused national attention on high rates of sexual assault on college campuses. A range of front-page news stories—from Bill Cosby's alleged serial assaults of women, to the forced resignations of Bill O'Reilly, Harvey Weinstein, and many others, to waves of stories about patterns of sexual assault in college sports, to Donald Trump's videorecorded comments about grabbing women "by the pussy," to the #MeToo movement—have moved sexual violence to the unprecedented center of public conversation.
This heightened concern about sexual assault has brought attention to the question of how it can be prevented. In contrast with past decades, when much “prevention” was actually focused more on aiding survivors after an assault or instructing women to use restrictive “safety strategies” to reduce their risk of violence (most of which were not evidence-based and served mainly to constrain women’s lives [Stanko, 1997]), recent years have seen a refreshing focus on potential and actual perpetrators and how to reduce their likelihood of committing violence in the future. Unfortunately, perpetrator-focused approaches have not yet shown any effectiveness for preventing violence (Anderson & Whiston, 2005; DeGue et al., 2014; Lonsway et al., 2009; Orchowski, Gidycz, & Murphy, 2010). Strategies that focus on the role of bystanders for preventing violence are more promising (e.g., Coker et al., 2017; Jouriles, Krauss, Vu, Banyard, & McDonald, 2018) but are as yet unproven for reducing perpetration or victimization (Edwards et al., 2018).

One approach that has been lost in the rush to perpetrator- and bystander-focused prevention is women’s self-defense training.1 Initially, an important element of second-wave feminist approaches to violence against women (Bevacqua, 2000; Gavey, 2009; Searles & Berger, 1987)—and also a force in the early 20th century (Rouse, 2017; Rouse & Slutsky, 2014)—self-defense training has more recently been ignored and, in some cases, vilified by antiviolence activists and feminists (Hasday, 2001; Hollander, 2009; Kelly & Sharp-Jeffs, 2016; Mardorossian, 2003; McCaughey, 2013; McCaughey & Cermele, 2014, 2015; Seith & Kelly, 2003; Thompson, 2014). When Nia Sanchez, for example, the 2014 Miss USA winner and a black belt in taekwondo, advocated martial arts and self-defense training as a path to reducing campus sexual assaults, she was attacked for “victim blaming” (“Rape culture wins,” 2014). The White House Task Force’s recommendations for preventing sexual assault on college campuses (Office of the Vice President and the White House Council on Women and Girls, 2014) completely ignored self-defense training, basing their recommendations on the CDC’s analysis of existing programs (DeGue et al., 2014), which focuses only on perpetrator prevention.

This neglect is all the more curious because women’s self-defense training is the only sexual violence prevention strategy with solid evidence of effectiveness at reducing rates of victimization. Recent research in Canada, Kenya, and the U.S. has found that women are much less likely to be assaulted after taking an empowerment-based self-defense class (Hollander, 2014; Samquist et al., 2014; Senn et al., 2015; Sinclair et al., 2013). These effects are both large and immediate and, according to one study, are sustained over at least 2 years (Senn et al., 2017). In addition, participants in these studies report a range of other positive effects. Moreover, self-defense training is a cost-effective way of addressing sexual assault, especially when compared with the cost of medical services for survivors, not to mention the long-term psychological effects of victimization (McCaughey & Cermele, 2015; Samquist et al., 2014; Sinclair et al., 2013). In light of these findings, the dismissal of self-defense training is perplexing indeed.

In this article, I review the research evidence on women’s self-defense training. I begin by defining women’s self-defense training and then discuss the following questions. Does resisting a sexual assault affect the outcome of sexual violence? Does self-defense training further reduce women’s risk of violence? Are there other consequences of self-defense training? How does self-defense work for different types of women—for example, those who have survived prior victimizations? Are the critiques of women’s self-defense training valid? Finally, what do we still need to learn about women’s self-defense? Overall, I argue that this evidence presents a compelling case that women’s self-defense training should be central to any efforts to reduce sexual violence.

2 WHAT IS WOMEN’S SELF-DEFENSE?

It is important, first, to distinguish between the practice of self-defense in an assault situation and self-defense training; these two meanings of the term “self-defense” are often confused (Hollander, 2016). The practice of self-defense involves women’s use of any of a range of strategies—be they physical, verbal, or emotional—to deter an imminent assault or resist an assault in progress. Women need not have received any formal training in self-defense to use such strategies. Indeed, at least 70–80% of women use some sort of self-protective strategies when faced with a sexual
assault or rape (Clay-Warner, 2002; Tark & Kleck, 2014; see also Fisher, Daigle, Cullen, & Santana, 2007; Kleck & Sayles, 1990; Quinsey & Upfold, 1985); presumably few of these women have received any formal training.  

In contrast, women’s self-defense training is an educational process that takes place before any future assault occurs, with the aim of teaching women practical skills to avoid, deter, interrupt, and resist assault; this educational process itself may reduce women’s risk of violence. Beyond that common focus, however, self-defense classes vary tremendously in terms of their length, content, and approach (Searles & Berger, 1987). A 1-hr lecture by a police officer, a drop-in kickboxing class taught by a fitness coach with no specific training in self-defense, a 30-hr class taught by an instructor with decades of training in women’s self-defense, and multiple years of training in martial arts can all be described as “women’s self-defense training.”

The only type of women’s self-defense training that has received rigorous evaluation is feminist or empowerment self-defense (ESD). These courses are based in feminist understandings of violence against women, with its analysis that this violence both stems from and maintains gender inequality and the oppression of women. They are also evidence-based, provide a comprehensive “toolbox” of strategies for the full continuum of assaults against women, explicitly hold perpetrators responsible for violence, transform understandings of women’s bodies and gender more generally, and aim to empower rather than frighten or restrict women (National Women’s Martial Arts Federation, n.d.; Hollander, 2016; 2015; Hollander, In press; Rentschler, 1999; Searles & Follansbee, 1984; Seith & Kelly, 2003; Taylor & Wanamaker, 2014; Telsey, 2001; Thompson, 2014; Wanamaker, 2015). ESD courses thus go far beyond the physical training that most people associate with the term “self-defense.” Although research on ESD training is fairly new, we now have a growing body of rigorously conducted work that demonstrates its effectiveness (Hollander, 2014; Sarnquist et al., 2014; Senn et al., 2015; Senn et al., 2017; Sinclair et al., 2013). Nonetheless, there continues to be misunderstanding about both what women’s self-defense is and the differences among the various types of self-defense training; this confusion has kept ESD classes from becoming an integral part of the antiviolence movement (Thompson, 2014).

3 | DOES PRACTICING SELF-DEFENSE REDUCE THE RISK OF SEXUAL VIOLENCE?

As noted above, a range of studies have found that between 70% and 80% of women employ some sort of self-protective strategy when faced with an assault. Scholars typically divide these strategies into four basic categories: forceful physical strategies, such as punching or kicking, forceful verbal strategies, such as yelling or threatening, nonforceful physical strategies, such as removing the offender’s hand or running away, and nonforceful verbal strategies, such as pleading or crying (Guerette & Santana, 2010; Ullman, 1997, 2007). Another approach, primarily among researchers who study the effects of alcohol on acquaintance rape (e.g., Nurius, Norris, Macy, & Huang, 2004; Testa, VanZile-Tamsen, Livingston, & Buddie, 2006), uses three categories: assertive or direct responses (e.g., raising one’s voice, using physical resistance, or leaving the situation), diplomatic or polite responses (e.g., making an excuse or apologetically explaining that one is not yet ready for sex), and passive or immobile responses (e.g., feeling paralyzed, stiffening one’s body to indicate a lack of interest, or just going along). These two categorization schemes are not fully parallel; for example, telling a perpetrator to stop would be categorized as a nonforceful verbal strategy in the first scheme but as an assertive response in the second. Women’s resistance tends to mirror the behavior they are resisting; physical resistance is more likely when the assailant uses physical force (Edwards et al., 2014; Fisher et al., 2007; Siegel, Sorenson, Golding, Burnam, & Stein, 1989; Ullman, 1998). However, only 20–25% of women use forceful physical resistance in rape situations (Ullman, 2007).

Employing any sort of strategy reduces women’s risk of completed rape. In Clay-Warner’s (2002) analysis of National Crime Victimization Survey data, taking “self-protective action” reduced the likelihood of completed rape by 87%. Physical self-defense was especially effective, resulting in an 81% decrease in the likelihood of completed rape, across situations (see also Fisher et al., 2007; Guerette & Santana, 2010; Kleck & Sayles, 1990; Quinsey &
Upfold, 1985; Tark & Kleck, 2004, 2014). In other words, although women have often been told to not resist an assault, resistance works. However, there is significant evidence that forceful physical, nonforceful physical, and forceful verbal resistance strategies are far more likely to end an assault than nonforceful verbal strategies (Bart & O’Brien, 1984; Clay-Warner, 2002; Tark & Kleck, 2014; Ullman, 1997, 2007; Zoucha-Jensen & Coyne, 1993), and that women who use multiple strategies are more likely to avoid rape (Bart, 1981; Bart & O’Brien, 1984; Clay-Warner, 2002; Queen’s Bench Foundation, 1976; Ullman, 1997, 2007). This makes sense; as Kleck and Sayles argued nearly three decades ago,

Victim resistance makes rape completion more difficult, i.e., it raises the costs of rape. It increases the effort required of the rapist to complete the act, and it can prolong the time required and thereby increase the risk of discovery by other parties and of capture by the police. Further, when resistance is forceful, it can raise the probability of the offender suffering injury and pain. Simple economic, behaviorist, and deterrence perspectives would predict that resistance should, other things being equal, reduce the probability of the completion of the rape attempt. (1990, p. 149)

A common fear is that resisting an assault will result in greater injury to the woman than submission. Although there is indeed a correlation between resistance and physical injury (see Ullman & Knight, 1992), there are two flaws with this line of thinking. First, it ignores the outcome of the assault itself—which can range from unwanted touching to rape to, in rare circumstances, murder—as well as its consequences, which can be significant and long lasting (Briere & Jordan, 2004; Koss, 1993; Post, Mezey, Maxwell, & Wibert, 2002). Second, in most cases, physical injury precedes resistance, rather than following it. In other words, women resist because they are being injured, rather than being injured because they resist (Guerette & Santana, 2010; Quinsey & Upfold, 1985; Tark & Kleck, 2004, 2014; Ullman, 1998; Ullman & Knight, 1991, 1992). Tark and Kleck (2004) state decisively that resistance is therefore generally the best path of action unless there are specific signs to the contrary.

In addition to stopping an assault or lessening its severity, resistance provides additional benefits. Women who resist assault report less severe mental and physical health consequences, even if they are raped (Bart & O’Brien, 1984, 1985; Gidycz & Dardis, 2014; Koss, Woodruff, & Koss, 1991; Ullman & Brecklin, 2003), and may blame themselves less for the assault (Bart & O’Brien, 1985; Rozee & Koss, 2001). In other words, resistance can aid recovery from assault.

It is important to note that assertive resistance is less likely in certain circumstances. Women are more likely to use passive or verbal resistance tactics with acquaintances and intimates. Research on psychological barriers to resistance suggests an explanation: with acquaintances, women may be concerned not simply with avoiding assault but also with maintaining relationships with the perpetrator and others in their social network, as well as avoiding embarrassment, angering the perpetrator, and rejection (Norris, Nurius, & Dimeff, 1996; Stoner et al., 2007; see also Edwards et al., 2014). In these situations, women must walk a “cognitive tightrope,” balancing the desire to maintain social relationships and attractiveness to others with avoiding sexual assault (Norris, 2011). Intoxicated women are also more likely to respond passively to sexual aggression, increasing the likelihood of completed sexual assault (Abbey, Clinton, McAuslan, Zawacki, & Buck, 2002; Davis, George, & Norris, 2004; Masters, Norris, Stoner, & George, 2006; Norris et al., 1996; Stoner et al., 2007; Testa et al., 2006). Women who have been drinking perceive less risk and experience more uncertainty and conflict about the situation and so have more difficulty deciding to resist; women who are drunk “teeter on the cognitive tightrope” even more than nonintoxicated women (Stoner et al., 2007, p. 353).

4 DOES SELF-DEFENSE TRAINING REDUCE WOMEN’S RISK OF VIOLENCE?

Several recent studies suggest that focused training in empowerment self-defense (ESD) can significantly reduce women’s risk of sexual assault. A large experimental study conducted by Senn et al. (2015) on three Canadian
university campuses evaluated a 12-hr “sexual assault resistance” course,\(^5\) EAAA (Enhanced Assess, Acknowledge, Act), which included training in assessing risk, overcoming emotional barriers to action, and physical self-defense, as well as “emancipatory sexuality education.” Women who completed the EAAA program were nearly half as likely to report being raped during the 1-year follow-up period than women in a control group. Unwanted sexual contact and attempted rape were also significantly lower for women who completed the training. The program was equally effective for women who had and had not reported prior experiences of sexual violence. Research in a completely different context conducted by Sinclair et al. (2013; see also Samquist et al., 2014) found similarly large decreases in sexual assault following ESD training among adolescent girls in highly impoverished areas of Nairobi, Kenya. Girls at schools that received the training, provided by the organization No Means No Worldwide, were 63% less likely to have experienced a sexual assault 1 year later than girls at schools who received only a standard life skills class. More than half the girls reported at the 1-year follow-up that they had already used the skills they learned to stop a sexual assault; for most, verbal skills were sufficient to halt the assault. They also said they were more likely to disclose any future sexual assault, a change which can provide better access to resources for intervention and support. Schools that implemented the self-defense curriculum also reported that dropouts due to pregnancy declined by nearly one half following the training (Samquist et al., 2017). A later study by the same research group (Baiočchi et al., 2016) implemented this curriculum in somewhat younger cohort (aged 10–16), pairing it with a “healthy gender norms” curriculum for boys, and found similarly large decreases in the risk of sexual assault.

Hollander (2004, 2014, 2015) evaluated the effectiveness of a preexisting ESD class offered on an Oregon college campus. This research was quasi-experimental, in that participants were not randomly assigned to take or not take the self-defense class (as in Senn’s and Sinclair et al.’s research). Rather, Hollander compared outcomes for women who voluntarily enrolled in the self-defense class with outcomes for similar women who did not choose to learn self-defense. She found that women who completed the 30-hr course, which included training in awareness, boundary setting, assertiveness, de-escalation, and verbal and physical resistance (see Senn, Hollander, & Gidycz, in press) were much less likely to report experiencing unwanted sexual contact, sexual coercion, attempted rape, and rape during the year following the course than were women in the comparison group. Overall, those in the comparison group were 1.58 times more likely to report any kind of sexual assault. Unlike the Canadian study, which did not find statistically significant differences in sexual coercion, the Oregon study found much less sexual coercion among self-defense students. This difference may be due to the somewhat different focus of the class, which includes more training in verbal assertiveness and boundary setting than the Canadian class. Testa and Demen (1999) found that sexual coercion, but not rape or attempted rape, was associated with low assertiveness. Although Hollander’s research was quasi-experimental, the fact that its findings parallel those of the much larger experimental studies lends weight to the finding that self-defense training reduces the risk of sexual assault.

In both Senn’s and Hollander’s studies, women with ESD training not only experienced fewer completed rapes but also fewer attempted rapes. In other words, women with ESD training are not only better able to resist an assault in process, but they are also less likely to be approached in the first place. Although the mechanisms are not yet clear, there is some evidence that potential assailants engage in a process of “interviewing” or “testing” potential targets before initiating a physical assault (de Becker, 1999) in order to assess whether they will be compliant victims. It is possible that by encouraging firm boundary setting and clear communication in daily life, ESD courses teach women to respond assertively to these tests, discouraging potential perpetrators from initiating an assault.

Several other studies also lend weight to the conclusion that self-defense training reduces the risk of victimization. Orchowski, Gidycz, and Raffle (2008) found that the Ohio Sexual Assault Risk Reduction (SARR) program, which includes 2 hrs of physical self-defense training, reduced the incidence of sexual assault over a 2-month follow-up period. This change was not sustained at the 4-month follow-up, however, and other evaluations of the program have been mixed. Holtzman and Menning’s Elemental program, which like the other programs described above combines training in risk recognition, communication, and verbal and physical self-defense techniques (practiced with padded attackers), also shows indications that it may reduce the risk of sexual assault. Participants scored significantly higher on the Sexual Assault Self-Protection scale, which is associated with a lower risk of sexual assault (Holtzman &
Menning, 2015; Menning & Holtzman, 2015). Although it did not include physical self-defense training, Simpson Rowe and colleagues (Simpson Rowe, Jouriles, & McDonald, 2014; Simpson Rowe, Jouriles, McDonald, Platt, & Gomez, 2012) found that an assertiveness training intervention using a virtual reality environment reduced the likelihood of subsequent sexual victimization among adolescent girls across a 3-month follow-up period. Finally, Brecklin and Ullman (2005) found that women who were victimized after self-defense or assertiveness training (their data set does not distinguish between the two or detail the type or length of training) were more likely to report that their resistance stopped the assault or lessened its severity than women without training.

5 | ARE THERE OTHER CONSEQUENCES OF SELF-DEFENSE TRAINING?

In addition to reducing the risk of assault, self-defense training has other benefits to women that extend far beyond the moment of assault. Multiple studies have found that women who learn self-defense report greatly increased self-defense self-efficacy, or the confidence that one could defend oneself effectively if assaulted (David, Simpson, & Cotton, 2006; Gidycz et al., 2015; Hollander, 2004, 2014, 2015; Jordan & Mossman, 2017b; Kidder, Boell, & Moyer, 1983; McDaniel, 1993; Orchowski et al., 2008; Ozer & Bandura, 1990; Pinciotti & Orcutt, 2017; Senn, 2013; Senn et al., 2017; Senn, Gee, & Thake, 2011; Weitlauf, Cervone, Smith, & Wright, 2001; Weitlauf, Smith, & Cervone, 2000). Self-efficacy is a major predictor of actual effectiveness (Bandura, 1977, 1997) and is linked to a range of positive psychological and behavioral outcomes (Pinciotti & Orcutt, 2017), including assertive responses to sexual assault (Nurius, Norris, Graham, & Gaylord, 2000). Weitlauf et al. (2001) and Weitlauf et al. (2000) found that women’s increased self-confidence generalized beyond assault situations to many everyday situations; Hollander (2004, 2015) reported similar results and presented compelling qualitative evidence of those effects throughout her participants’ daily lives. Self-defense students also report increased physical self-efficacy, or perceptions of their own physical competence (Hollander, 2004; Weitlauf et al., 2001; Weitlauf et al., 2000), and in one study demonstrated higher self-defense skill proficiency during a mock assault (Ozer & Bandura, 1990). These effects do not require extensive training; Quiney and Upfold (1986, p. 128) concluded that “reasonable proficiency in simple self-defense techniques can be acquired by untrained persons in 3 hours of instruction”.

In several studies, students report reductions in fear of violence after taking a self-defense class (Cohn, Kidder, & Harvey, 1978; Kidder et al., 1983; McDaniel, 1993, 1993; Ozer & Bandura, 1990). Participants in Hollander’s (2004, 2015) research also reported a decrease in fear, but only some time after taking the class; fear had not declined at the post-test immediately following the class. She attributes this “sleeper effect” to the fact that, while taking the class, women were constantly reminded about the possibility of danger. Only after the class was over were the participants able to feel less fearful (Senn et al., in press). Because fear significantly constrains women’s lives (Gordon & Riger, 1989; Madriz, 1997; Stanko, 1993), women who have completed a self-defense program use fewer avoidance behaviors, showing an increase in freedom of action (Dank & Ziv, 2015; Kelly & Sharp-Jeffs, 2016; Ozer & Bandura, 1990).

Self-defense students report decreased symptoms of anxiety and depression (Brecklin, 2004; Ozer & Bandura, 1990). Survivors who have taken self-defense classes also report decreases in PTSD symptoms (David et al., 2006), as well as reductions in self-blame for past assaults (Brecklin & Ullman, 2004; Gidycz et al., 2015; Gidycz, Rich, Orchowski, King, & Miller, 2006; Senn, Hobden, & Eliasziw, 2016) as they come to understand the dynamics of assault and attribute more responsibility to perpetrators rather than to victims (Gidycz et al., 2015; Gidycz et al., 2006; Senn et al., 2017; Senn et al., 2011; Senn et al., 2016; Senn, Saunders, & Gee, 2008). Reducing self-blame may decrease vulnerability to future assaults, because self-blame impedes assertive resistance (Nurius et al., 2000, 2004). Women with self-defense training who are later assaulted also report feeling less scared and angrier during the assault (Brecklin & Ullman, 2004); experiencing anger, rather than fear or shock, is associated with rape avoidance (Bart & O’Brien, 1984, 1985; Levine-MacCombie & Koss, 1986; Queen’s Bench Foundation, 1976).

Self-defense training has been demonstrated to increase women’s knowledge of effective self-defense strategies (Jordan & Mossman, 2017a, 2017b, Senn et al., 2017, Senn et al., 2011). It also increases their ability to
recognize abusive behavior and risky situations (Gidycz et al., 2006; Jordan & Mossman, 2017a, 2017b) and their likelihood of reporting it to others (Gidycz et al., 2006; Samquist et al., 2014; Sinclair et al., 2013). Importantly, it affects women's behavioral intentions; after a self-defense class, they are more likely to report that they intend to use forceful or assertive rather than passive strategies to resist an assault (Gidycz et al., 2015; 2006; Senn et al., 2017; Senn, et al., 2011). As noted above, assertive strategies are associated with rape avoidance. These intentions matter; in a prospective study, Gidycz, Van Wynsberge, and Edwards (2008) found that women's behavioral intentions did in fact predict their actual use of resistance strategies during sexual assault (see also Turchik, Probst, Chau, Nigoff, & Gidycz, 2007).

Self-defense students also report major changes in their perceptions of and feelings about their own bodies. Overall, they feel more positive about and proud of their bodies after learning self-defense, and move from seeing their bodies as a source of vulnerability and shame to a source of strength and power. As McCaughey writes, "self-defense transforms the way it feels to inhabit a female body. It changes what it means to be a woman" (1997, p. 2; see also Hollander, 2004; Cahill, 2001, 2009; McCaughey, 1998; Rentschler, 1999; Thompson, 2014). More broadly, women who have taken an ESD class report that the experience changes their ideas and beliefs about gender: they are more likely to see women (as a group, not just women who have learned self-defense) as strong, capable, and worthy of respect and less likely to see men's violence as inevitable (De Welde, 2003a; Hollander, 2004; McCaughey, 1997). Self-defense training also helps women develop a critical consciousness about gender, including a deeper understanding of gender inequality (Cermele, 2004; Hollander, 2004, 2015) and reduced endorsement of rape myths (Senn et al., 2017; Senn et al., 2011; Senn et al., 2008). Perhaps most importantly, they report a new belief that they are worth defending and that they have the right to do so (Hollander, 2004, 2015; Jordan & Mossman, 2017a; McCaughey, 1997).

These changes in knowledge, beliefs, and emotions produce changes in women's behavior. After taking a self-defense class, women are more likely to report using the tactics they learn in class in their everyday lives (Gidycz et al., 2015, 2006, Hollander, 2004, 2014; Jordan & Mossman, 2017a; Orchowski et al., 2008; Senn et al., 2011; Senn et al., in press). Importantly, these tactics are not the conventional advice given to women (lock your doors, don't go out alone at night, or use a buddy system) but a range of strategies that increase their safety without restricting their freedom (e.g., recognizing risk cues in their environment and behaving assertively with others).

Women also report post-class increases in their assertiveness across a range of social contexts (Weitlauf et al., 2000), from everyday interactions (including consensual sexual interactions) to situations where they feel endangered (Gidycz et al., 2015; Hollander, 2004, 2013; Orchowski et al., 2008; Testa & Dermen, 1999). In Hollander's (2004) research, over 80% of participants reported an increase in their perceived right to be assertive after taking an ESD class. A related concept is self-silencing, or the tendency for women to "silence" their own thoughts and feelings in deference to others (Jack & Dill, 1992). A small Israeli study (Dank & Ziv, 2015) found significantly less self-silencing among women who had taken an ESD class compared with women who were about to take a class and with a control group.

Assertiveness is important because of its association with victimization. Low assertiveness in situations with men predicts future victimization, whereas situation-specific assertiveness is protective (Greene & Navarro, 1998), especially for resisting sexual coercion (Testa & Dermen, 1999). Kelley, Orchowski, and Gidycz (2016) found that low sexual assertiveness was a strong predictor of revictimization among a sample of first-year college women and argue that "increasing women's sexual assertiveness may be a particularly important component of reducing risk for sexual revictimization." It is not yet not clear, however, how and why assertiveness is protective:

Do more assertive women protect themselves better in risky situations, or are they more likely to avoid risky situations and potential perpetrators before risk is ever incurred? Conversely, do potential perpetrators avoid assertive women as they look for safe victims? (Greene & Navarro, 1998, p. 601)

The effects of these changes may ripple beyond the immediate situation. Hollander (2013, 2016) speculates that the behavioral changes reported by self-defense students may affect others' behavior. When self-defense students
set and enforce clearer interactional boundaries, for example, the men with whom they interact may behave differently, both in the interaction in question and in subsequent interactions with other women. These shifts could have major consequences for communities (Cahill, 2009; Flood, 2015; Gavvez, 2009; Gidycz & Dardis, 2014; McCaughey, 1997; McCaughey & Cermele, 2015). Of course, changes in culture and structure are also necessary to support and solidify these behavioral changes (Dworkin, Fleming, & Colvin, 2015). However, the challenge of self-defense to existing culture is deep:

By viewing women and girls as strong and capable, human beings whose space for action in the world can be expanded through new knowledge and skills, WSD [Women's Self-Defense] challenges a social reality which positions women as the victims. In other words WSD represents a shift away from thinking and practices that begin from viewing women/girls in terms of deficits towards a perspective which stresses their resources and potential. (Seith & Kelly, 2003, p. 52)

Self-defense training challenges existing stories about sexual violence—for example, that it is inevitable or that women cannot influence the outcome of an assault—and creates new cultural narratives (Cermele, 2010; Hollander & Rodgers, 2014; Kelly, Radford, Hesler, Kelly, & Radford, 1996; McCaughey, 1997) that may contribute to larger social change.

6 HOW DOES SELF-DEFENSE TRAINING WORK FOR DIFFERENT GROUPS OF WOMEN?

Because the study of self-defense training is still in its infancy, there is as yet little analysis of its effectiveness for women in different social positions. Nearly all research on self-defense training has focused on college students, who tend to be relatively homogenous in terms of age, race, education, and social class. The most extensive research on group differences focuses on survivors of sexual assault, who are at high risk for revictimization (Classen, Palesh, & Aggarwal, 2005), perhaps because they are slower to identify risk factors (Norris, Nurius, & Graham, 1999) and less likely to use assertive resistance strategies than those who have not experienced a sexual assault (Atkeson, Calhoun, & Morris, 1989; Gidycz et al., 2008; Stoner et al., 2007; Vanzile-Tamsen, Testa, & Livingston, 2005). In several studies, survivors report increased self-efficacy, assertiveness, and sense of control and decreased anxiety, psychological distress, and self-blame for previous assaults after self-defense training (Brecklin, 2011; David et al., 2006; Pinciotti & Orcutt, 2017). In one study, survivors had lower self-efficacy and higher perceived vulnerability and avoidant behaviors than nonsurvivors before taking the class but showed no differences at posttest and follow-up (Ozer & Bandura, 1990). Self-defense training effectively erased the differences between survivors and nonsurvivors on these dimensions. Some practitioners recommend ESD training as a clinical intervention for survivors of trauma (Rosenblum & Taska, 2014; Stevenson, 2006).

In terms of age, a few studies have focused on girls younger than college age, including No Means No Worldwide's research on Kenyan adolescents described above (Baiochi et al., 2016; Sarnquist et al., 2014; Sinclair et al., 2013). Jordan and Mossman (2017a) evaluated an ESD program for New Zealand schoolgirls ages 7–17 and found that, after taking the 5–8-hr class, girls reported increased awareness and understanding of assault, knowledge of ways to keep themselves and others safe, confidence in their ability to use self-defense skills, and general confidence and self-esteem. Girls also reported many stories about how they used the skills they learned in the class to identify and avoid dangerous situations and defend themselves and others. Although not specifically focused on sexual assault, Brenick, Shattuck, Donlan, Duh, and Zurbriggen (2014) evaluated the Kidpower Everyday Safety-Skills Program, which teaches many of the same skills (except physical self-defense) as do ESD courses, such as awareness, risk recognition, boundary setting, and escape. The researchers found that after participating in the program, students demonstrated increased knowledge and strategies for risky situations; these changes persisted at least 3 months.
Practicing self-defense can be more challenging for women with disabilities, who have often been excluded from self-defense classes for this reason (Ballan & Freyer, 2012). However, Madorsky (1990) argues that "although people with disabilities may have certain limitations, such as vision, hearing, speech, or mobility, they are usually able to develop other capabilities and to draw on available resources to protect themselves" (p. 434). Self-defense curricula have been developed and evaluated for women with visual impairments (Pava, Bateman, Appleton, & Glascock, 1991), female veterans suffering from PTSD (David et al., 2006), and other disabilities (Dryden, Desmarais, & Arsenault, 2014, 2017; see also Seith & Kelly, 2003).

The research literature has only nodded at the likely importance of race in understanding self-defense effectiveness. Speidel (2014) noted that African-American women face an additional set of challenges when learning physical self-defense: a racialized history of sexual objectification, stereotypes about sexual promiscuity and the "strong Black woman," and a historical absence of legal protection from sexual violence. Some authors have noted that physical resistance to violence may be more risky for women of color and other marginalized groups (De Welde, 2003b; Kaba, 2012, 2014; see also Law, 2012; Logan, 2015; Power, Cole, & Fredrickson, 2011; Telsey, 1981). Overall, the differential effects of self-defense training is an area that requires much further research.

7 | ARE THE CRITIQUES OF WOMEN’S SELF-DEFENSE TRAINING VALID?

In the 1970s and 1980s, feminists celebrated self-defense training as a way to challenge gender inequality and decrease women’s dependence on men and the state (Bevacqua, 2000; Gavey, 2005, 2009; New York Radical Feminists, 1974). Self-defense was framed “as a path to more radical social change, disrupting the cultural dynamics that make rape possible” and was “advocated as necessary for basic freedom and equality” (Gavey, 2009, pp. 105–106). Since that time, however, a curious shift has occurred, such that self-defense training is now vilified by many feminists but advocated by police officers (witness university police departments’ enthusiastic embrace of the R.A.D. program6).

Critiques of self-defense training take several forms (see Gidycz & Dardis, 2014; Hollander, 2009, 2016 for a fuller review). Some are grounded in misunderstandings of self-defense training or use the shortcomings of some self-defense classes to condemn all classes. For example, some critics contend that women’s self-defense classes teach women to restrict their lives to prevent violence (by, for example, monitoring their alcohol consumption or their choice of clothing or staying away from public spaces; e.g., Georgia Network to End Sexual Assault, n.d.). Although some self-defense classes may indeed make such recommendations, ESD classes specifically aim to expand rather than restrict women’s lives, providing women with tools so that they can move freely through public space and participate in public life as equals (Hollander, 2004, 2016; McCaughey & Cermele, 2015; Seith & Kelly, 2003). Others contend that women’s self-defense classes focus only on stranger assault (e.g., DeKeseredy, 2014; McEwan, 2008). While this is certainly true for a subset of classes, ESD classes put assaults by acquaintances and intimates at the center. Senn’s EAAA class, for example, discusses only assaults by known others (Senn et al., 2015; Senn et al., 2011).

Some critics see any approach targeting women as inherently victim blaming because, they say, such approaches place the responsibility for stopping violence on victims, not perpetrators (e.g., Georgia Network to End Sexual Assault, n.d.; Mardorossian, 2003). Proponents argue, however, that teaching women to resist violence does not imply that women are responsible for stopping it (Gidycz & Dardis, 2014; Hollander, 2009, 2016; Telsey, 2001; Thompson, 2014). Rather, such measures are necessary—though not sufficient—in a world where no perpetrator-focused violence prevention strategy has proven effective and where, in any case, no strategy could ever provide perfect prevention (Gidycz & Dardis, 2014; Hollander, 2009, 2016; Marcus, 1992; McCaughey & Cermele, 2015; Orchowski et al., 2010; Senn et al., 2011; Senn et al., 2008). ESD’s grounding in a feminist analysis of gender inequality helps women understand the connection between individual experiences and social structures; this
grounding discourages individual victim blame (Greenberg & Messner, 2014; Seith & Kelly, 2003; Thompson, 2014). Moreover, some note that focusing only on perpetrators leaves rape prevention “in the hands of men,” who “will simply have to choose to stop raping for rape to end” (Burton, 1998, p. 198), while denying women access to valuable skills that could protect them (Gidycz & Dardis, 2014).

Other critics contend that women’s self-defense training does not get at the root causes of violence. In the language of public health, this argument suggests that self-defense training is not primary prevention (Indiana Sexual Violence Primary Prevention Council, n.d.; DeQue et al., 2014), because it does not target perpetrators and because, they assume, the techniques it teaches are useful only after an assault has already begun. There are, however, serious flaws with this argument. Self-defense training is logically similar to many other interventions that are widely considered to be primary prevention (McCaughey & Cermele, 2015). Many self-defense classes teach not only physical resistance but also a range of strategies that can be used before an assault begins, including awareness, de-escalation, and verbal assertiveness. The fact that women with ESD training report fewer attempted assaults than those without training (Hollander, 2014; Senn et al., 2015) suggests that these strategies help women prevent the initiation of violence as well as cope with it. Some scholars believe that by changing interactional patterns and norms as well as women’s self-perceptions and identities, self-defense classes target root causes of violence, including expectations about gender and sexuality and gender inequality itself (Cahill, 2009; Cahill & Hunt, 2016; Gavey, 2009; Gidycz & Dardis, 2014; Hollander, 2009, 2013, 2016; McCaughey, 1997; McCaughey & Cermele, 2015). Moreover, changing men does not necessarily entail intervening directly with men; empowering women may transform gender relations by shifting the wider conditions within which men make choices about violence and non-violence. By shifting women’s expectations of partners and intimate relations, interventions may increase the pressures on and incentives for heterosexual men to adopt non-violent practices and identities. (Flood, 2015, p. S171; see also Gavey, 2009; Marcus, 1992)

A related critique is that self-defense training is too individual and does not address the social and political causes of rape. As Cahill writes, however,

Such a distinction relies on viewing individual bodies as separate and separable from overarching political discourses. Individual bodies are political expressions ... and intervening in their habits and way of being is no less a political act than lobbying for the reform of laws regarding rape .... To change social perceptions of women women’s bodies are, and what they can do, is to change political discourse. (2009, p. 378; see also McCaughey, 1997)

By disrupting cultural ideas about female vulnerability and male physical dominance, women’s self-defense training “strikes at the heart of rape culture” (Marcus, 1992, p. 400). ESD courses, at least, make this link to larger social structures explicit by locating violence against women in a social rather than individual context (Hollander, in press; Jones & Mattingly, 2016; Thompson, 2014).

8 | LIMITATIONS OF EXISTING RESEARCH AND SUGGESTIONS FOR THE FUTURE

Research on women’s self-defense training has expanded rapidly in the past decade. The vast majority of this research focuses on college students on university campuses. This focus is understandable: in addition to ease of access to college populations, the high rate of assault among college students means, unfortunately, that it is possible to detect the effects of interventions within relatively short periods of time. However, it is unknown whether the findings of these studies are generalizable to broader populations. It is also notable that most research on self-defense training has been conducted in the U.S., though that is slowly starting to change (e.g., Dank & Ziv, 2015; Drwecki, 2010; Kelly & Sharp-Jeffs, 2016; Lachenal, 2014; Sarnquist et al., 2014; Seith & Kelly, 2003; Sinclair
et al., 2013). The Kenyan studies, in particular, demonstrate that ESD training can be effective beyond a Western context, as well as showing the potential for large-scale implementation (Kelly & Sharp-Jeffs, 2016). We as yet have no studies comparing the effectiveness of different programs, with the exception of Ball and Martin's (2012) small-scale comparison of martial arts and “modern” self-defense training.7

In sum, then, although research on women's self-defense training is expanding quickly, there is still much work to be done. In particular, the field needs research that addresses the following questions:

• There are many different types of self-defense classes, but most have never been evaluated. Which types of classes are most effective? Does effectiveness vary across different types of situations (e.g., with known vs. unknown assailants or in assaults perpetrated via force vs. coercion vs. incapacitation)?
• Self-defense classes are complex and may include instruction in physical resistance skills, verbal assertiveness skills, awareness, boundary setting, de-escalation, etc. Some involve full-force practice, with or without mock assailants. Which elements (or more likely, which combination of elements) are most important for positive outcomes?
• Self-defense classes range from 1-hr workshops to a lifetime of training; how much training is necessary to achieve significant reductions in victimization and other positive outcomes?
• What is the optimal timing of self-defense training? Most classes are aimed at college student populations, but there is considerable evidence that younger people are also at high risk for sexual assault (e.g., Tjaden & Thoennes, 1998). How would earlier intervention affect assault rates?
• Existing studies have evaluated a narrow set of outcomes, focused mostly on situations where harm is threatened. If women's self-defense training works in part by changing women's self-perceptions and interactional patterns, those mediating outcomes should be assessed.
• What are the mechanisms that produce these effects?
• Most research has focused on college students; we need studies of the effectiveness of self-defense training for a broader range of women.
• What are the long-term consequences of self-defense training? Only a few studies have used 1-year follow-up measures, and only one study (Senn et al., 2017) has used a 2-year follow-up. Do the effects of learning self-defense persist past that point?
• What are the effects of self-defense training for broader populations—for those with whom self-defense students interact and for the communities in which they live?

Senn, Hollander, and Gidycz (in press) have begun some of this work by comparing their three streams of research, but much more is needed. There is also a great need for systematic, high-quality studies that use large sample sizes, random assignment to treatment and control groups where possible, longer follow-up periods, and better outcome measures (see Brecklin, 2008 for an excellent discussion of the limitations of current research on self-defense training), as well as replication of existing studies.

9 | SUMMARY AND CONCLUSION

Overall, women's self-defense and sexual assault resistance training is long overdue for wider recognition. The recent dramatic increase in public attention to issues of sexual assault has sparked a search for effective prevention strategies as universities, the military, and now a range of other industries search for ways to stem harassment and abuse. Although a few other strategies appear promising (notably bystander intervention, though this approach is not without its shortcomings [see Jones & Mattingly, 2016; McCaughey & Cermele, 2015]), empowerment-based women's
self-defense (ESD) training is so far the only approach that has produced large and substantively significant decreases in victimization rates. There are many other kinds of self-defense training, but they have not yet received systematic evaluation; the lack of commonly accepted standards or credentialing makes confusion between different approaches inevitable (Jones & Mattingly, 2016; Kelly & Sharp-Jeffs, 2016).8

The research literature is clear that, in most cases, resisting assault increases the likelihood of escape and reduces the severity of consequences. ESD training increases the effectiveness of this resistance and, equally importantly, reduces the likelihood of attempted assaults, suggesting that this training helps to deter assaults before they begin. In addition, ESD training has been shown to empower women in a variety of ways, including increasing their self-confidence and self-efficacy, decreasing fear, and decreasing feelings of self-blame. Many women are interested in learning to defend themselves against violence but may not be able to locate convenient or affordable classes (Hollander, 2010). Although there have been significant critiques of women’s self-defense training, these tend to be based on misunderstandings of self-defense or attributing the flaws of some self-defense classes to all.

The dismissal of self-defense training not only ignores the growing evidence base but actually contributes to the problem of sexual assault. As Ullman (2007, p. 426) concludes, “Failing to provide empirical information about effective resistance strategies and training in self-defense techniques allows men to continue completing more rapes of women”. Moreover, this absence “dangerously reinforces men’s sense of superiority and women’s sense of vulnerability and, in so doing, propels the rape culture” (McCaughey & Cermele, 2015, p. 10). What might happen if the effectiveness of resistance were widely known, and empowerment self-defense training was available to any woman who wanted it? As McCaughey and Cermele (2015, p. 10) speculate, it might foster “dramatic culture-shifting, population-level change” by transforming the beliefs that undergird gender inequality.

Much research remains to be done. Nonetheless, until other interventions have been shown to be effective—and even after they are—women’s self-defense training must be a key element of any violence prevention plan (Gidycz & Dardis, 2014; Hollander, 2016; McCaughey & Cermele, 2015; Senn et al., in press). And, until rigorous evaluations of other approaches demonstrate their effectiveness, this training should be empowerment-based or feminist in orientation. ESD training is both gender-transformative, in that it seeks to transform existing gender arrangements, and gender-empowering (Gupta, 2001; see also Bay-Cheng, 2012). In addition to reducing women’s risk of assault, ESD training contributes to women’s empowerment—both individually and as a group—and is a key social justice intervention for reducing gender inequality.

ENDNOTES

1 There is no consensus on what term to use to describe this kind of training. Similar programs are described, variously, as “self-defense,” “rape resistance,” “sexual assault resistance,” “risk reduction,” “rape prevention,” and other terms. None of these terms is perfect; “self-defense” is often perceived to be limited to physical fighting (Hollander, in press; Telsey, 2006); “rape prevention” suggests that women can prevent rape, ignoring the importance of perpetrator behavior. Norris argues that the term “risk reduction” “removes the burden of preventing rape from the woman and emphasizes taking steps to reduce risk, acknowledging that risk reduction does not ensure risk elimination” (Norris, 2011, p. 371). Senn, however, objects to the term “risk reduction” and the idea of training women to “avoid risk” because she believes they suggest that the woman is at fault. She called her program “rape resistance rather than risk reduction so that it would be clear that the focus is on women’s resistance to men’s threatening behavior.” (Senn, 2011, p. 125) In this paper, I use the umbrella term “self-defense training” but recognize its shortcomings.

2 Koss, Gidycz, and Wilsniewski’s (1987) study examining sexual assault among students from 32 colleges and universities appears to be the only research to have investigated the prevalence of self-defense training. Their survey instrument asked participants if they had ever “studied self-defense or taken assertiveness training”; 21.8% of those participants reported that they had such training (Brecklin & Ullman, 2005, p. 486). However, beyond the problem of distinguishing between self-defense and assertiveness training, the generalizability of this finding to the general population or to the present day is unknown.

3 Of course, many survivors of sexual assault do take self-defense classes (Brecklin, 2004; Brecklin & Ullman, 2004; Hollander, 2010). However, they generally do so with the aim of preventing future assaults.
4 This “full continuum” includes any form of sexual assault or coercion, from street harassment to rape, and including assaults by known others as well as strangers. Focusing only on rape “minimizes or even ignores the vast majority of sexually coercive behaviors” (Adams-Curtis & Forbes, 2004, p. 98).

5 Senn does not identify the EAAA program as an empowerment-self-defense intervention, framing it as “sexual assault resistance” instead. However, the program includes many of the important elements of ESD, including that it is evidence-based, takes a feminist approach, provides a toolbox of verbal and physical strategies, holds perpetrators responsible for violence, and challenges myths of women’s vulnerability. I therefore include it as an ESD course for the purposes of this analysis.

6 R.A.D. (Rape Aggression Defense), the most frequent type of women’s self-defense class on college campuses, is a 12-hr course that focuses almost exclusively on physical defense against strangers (The R.A.D. Systems of Self-Defense, Inc., 2014). However, these classes have never been evaluated for their effectiveness in preventing sexual assault, and some experts consider them to be poorly designed (Schorn, 2015).

7 The “modern” self-defense training program evaluated by Ball and Martin (2012) included threat recognition and physical training as well as a simulated attack by a padded mock assailant. This study found that self-defense training, but not martial arts training, increased students’ self-defense self-efficacy while reducing their “life-threatening” fear. Other writers have described reasons why conventional martial arts training may not be adequate to prepare women to resist sexual assault (Kelly & Sharp-Jeffs, 2016; Ousley, Shuford, & Roberts, 2013; Quinsey, Marion, Upfold, & Popple, 1986).

8 As Jones and Mattingly argue, “Many self-defense classes are little more than introductions to various martial arts, with an exclusive emphasis on physical fighting techniques and warnings about ‘stranger danger.’ Such an approach includes no awareness of the larger social context or realities of interpersonal violence and may run the gamut from nonharming to ineffective, to disempowering, to retraumatizing” (Jones & Mattingly, 2016, p. 268).

ORCID
Jocelyn A. Hollander http://orcid.org/0000-0002-5072-191X

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Jocelyn Hollander is a Professor of Sociology at the University of Oregon. Her research focuses on the prevention of violence against women, especially through women’s self-defense training, and sociological gender theory.

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