

EXAMINING ORGANIZATIONAL SUPPORTS WITHIN DOMESTIC VIOLENCE  
PROGRAMS THAT SUPPORT OR HINDER RESPONSES TO REPRODUCTIVE  
COERCION

By

Sara McGirr

A DISSERTATION

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

Psychology—Doctor of Philosophy

2017

## ABSTRACT

### EXAMINING ORGANIZATIONAL SUPPORTS WITHIN DOMESTIC VIOLENCE PROGRAMS THAT SUPPORT OR HINDER RESPONSES TO REPRODUCTIVE COERCION

By

Sara McGirr

Reproductive coercion (RC) is a newly identified but commonly experienced form of domestic violence (DV) with serious potential consequences for women's health and well-being. Despite the high prevalence of RC against DV survivors, initial reports suggest that few DV advocates regularly engage in RC-related practices with their clients. In order to better understand the factors that may be impeding advocates' RC-responsiveness, the study examined data collected via a brief online survey of more than 300 domestic violence advocates across the U.S. and its territories. Results identified critical barriers and facilitators to RC-responsive practice in DV organizations on the intrapersonal and organizational ecological levels. While intrapersonal factors (levels of comfort discussing sexuality and comfort discussing reproductive health) influenced advocates' frequency of universal and targeted RC practice, the level of RC-responsive supports provided by advocates' organizations was much more impactful. In addition to supporting the assertion that intervention on multiple ecological levels has the greatest potential for successful change in professionals' behavior, the study's results also provide initial insight into a minimum level of organizational supports that may be necessary to promote more frequent RC-responsive practice in DV organizations. This guidance may prove useful for agencies aiming to improve their RC-responsiveness; by focusing on those factors, DV programs and their staff will ultimately be better prepared and better able to support survivors of RC in regaining their reproductive control.

## ACKNOWLEDGEMENTS

To my family, thank you for always supporting me in following my dreams, even when they take me far away, for teaching me how to be a professional-ish adult, and for loving me no matter what.

To my partner of three years, thank you for your steady support throughout the many celebrations and disappointments that have accompanied this project, and for always making me laugh.

To my advisor, Dr. Cris Sullivan, thank you for your mentorship, your training on how to trust my instincts, and that keen editing eye.

To my committee members, Drs. Heather McCauley, Deb Bybee, and Amy Drahota, thank you for your technical assistance and brilliant suggestions throughout my project.

To the Eco graduate students who helped to develop and implement the larger project from which this data was drawn, Cortney Vandegrift, Heather Bomsta, and Dr. Katie Gregory, thank you for the time and effort you contributed and your generosity in sharing this data.

To all of the domestic violence victim services practitioners who helped to develop the survey and the advocates who participated, thank you for taking on this task on top of all of the other incredibly meaningful and challenging work that you do daily.

To my team at Michigan Public Health Institute, including Jessica Hamel, Dr. Julia Heany, and Dr. Chiharu Kato, thank you for believing in my abilities when it was hard for me to do so, and for providing me with countless opportunities for professional development.

To my student friends, including but not limited to Jenny, Nadeeka, three Katies, and Katherine, thank you for the countless days and nights spent in coffee shops, bars, and online chats together as we co-worked; without this supportive structure I would likely have made no progress.

Finally, to all those who I have befriended during my six years in Lansing, thank you for bringing fun and balance to my life; for inspiring me to be creative and to play; and for providing safe spaces for reflection and processing when things got tough. You made this college town a home.

## TABLE OF CONTENTS

LIST OF TABLES .....	vii
LIST OF FIGURES .....	viii
INTRODUCTION .....	1
LITERATURE REVIEW .....	3
Reproductive Coercion.....	3
Interventions to Address Reproductive Coercion .....	7
RC-Responsive Practice in Domestic Violence Service Settings .....	10
Identifying Barriers and Facilitators to RC-Responsive Practice in DV Settings .....	12
Barriers and Facilitators to RSH-Responsive Practice in Other Settings .....	17
Individuals' comfort discussing sex and sexuality .....	18
Individuals' comfort discussing reproductive health topics .....	23
Organizational factors that promote or hinder RSH responsive practice .....	27
Current Study .....	33
METHOD .....	35
Survey Construction .....	35
Survey Recruitment and Administration .....	35
Measures.....	37
Analytic Techniques.....	40
The need for Rasch measurement .....	40
Rasch analysis of measures.....	46
Comfort discussing sex and sexuality with clients .....	46
Comfort discussing reproductive health with clients.....	51
Universal reproductive coercion practices.....	53
Targeted reproductive coercion practices .....	58
RC-responsive organizational supports .....	61
Descriptive and parametric analyses.....	64
RESULTS .....	65
Sample Characteristics .....	65
Descriptive Statistics .....	66
Advocates' comfort discussing sexuality and reproductive health.....	66
Organizational supports .....	67
Engagement in RC-responsive practices .....	67
Demographic and Organizational Covariates of Study Scales.....	78
Hypothesis 1 .....	79
Hypothesis 2 .....	80
Hypothesis 3 .....	81
Hypothesis 3a .....	81

Latent class probabilities as predictors of practice .....	89
Assigned class as a predictor of practice .....	93
Hypothesis 4 .....	94
DISCUSSION .....	99
Identifying Key Levers for Change .....	102
Study Limitations .....	106
Future Directions .....	108
Conclusion .....	109
REFERENCES .....	111

## LIST OF TABLES

Table 1. Descriptives, Fit Indices and Separation Indices for Rasch Analysis .....	48
Table 2. Frequencies & Descriptives: Comfort Discussing Sexuality with Clients .....	69
Table 3. Frequencies & Descriptives: Comfort Discussing Reproductive Health with Clients ....	71
Table 4. Frequencies & Descriptives: RC-Responsive Organizational Supports Items .....	72
Table 5. Frequencies & Descriptives: Universal Reproductive Coercion (RC) Practice Items ....	74
Table 6. Frequencies & Descriptives: Targeted Reproductive Coercion (RC) Practice Items.....	76
Table 7. Bivariate Correlations Between Advocate Characteristics and Study Scale Person Measure .....	78
Table 8. Inter-item Correlations for RC-Responsive Organizational Supports .....	82
Table 9. RC-Responsive Organizational Supports Latent Class Analysis Fit Indices .....	84
Table 10. Characteristics of Each Latent Class of RC-Responsive Organizational Supports (Final Four Class Solution) .....	88
Table 11. Means and Standard Errors for Universal RC Practices and Targeted RC Practice Person Measures by Latent Class Probabilities .....	91
Table 12. Bivariate Correlations Between Study Scale Person Measures .....	95

## LIST OF FIGURES

Figure 1. Simplified Study Model for Hypothesis Four .....	34
Figure 2. “Example survey rating scale. For the Q#5 scale, the “jump” between each of the ratings is equal. For the second (Q#8) and third (Q#10) scales, the “jump” from each rating to the next rating is not equal. Furthermore, the way the rating scale functions across the items is not identical. All that a researcher can assert is that the rating scale is ordinal ( $SA > A > D > SD$ ) for each item” (Boone, 2016, p. 2; SA=Strongly Agree; A=Agree; D=Disagree; SD=Strongly Disagree). .....	43
Figure 3. Wright Map for Comfort Discussing Sexuality with Clients .....	50
Figure 4. Wright map for Comfort Discussing Reproductive Health with Clients. ....	52
Figure 5. Wright map for Frequency of Universal RC Practice. ....	58
Figure 6. Wright map for Frequency of Targeted Reproductive Coercion Practice.....	59
Figure 7. Wright map for Reproductive Coercion-Responsive Organizational Supports. ....	62
Figure 8. Estimated Probabilities that Each RC-Responsive Organizational Support is Present for Advocates in Each Latent Class.....	87
Figure 9. Standardized Regression Path Coefficients for Person Measures as Predictors of Universal Reproductive Coercion Practice.....	96
Figure 10. Standardized Regression Path Coefficients for Person Measures as Predictors of Targeted Reproductive Coercion Practice .....	98



## INTRODUCTION

The connection between reproductive and sexual health (RSH) and intimate partner violence (IPV) is well recognized, with links found between IPV and both riskier sexual behavior and negative RSH outcomes (Bergmann & Stockman, 2015). An important but under-researched form of IPV that may explain this link is reproductive coercion (RC), defined as “male partners’ attempts to promote pregnancy in their female partners through verbal pressure and threats to become pregnant, direct interference with contraception, and threats and coercion related to pregnancy continuation or termination” (Miller & Silverman, 2010, p.511). Recent studies have found that between 8%-19% of women surveyed (including college students and patients in OBGYN and family planning clinics) had experienced this type of abuse (Clark, Allen, Goyal, Raker, & Gottlieb, 2014; Miller, Decker, McCauley, Tancredi, Levenson, Waldman, Schoenwal, & Silverman, 2010; Sutherland, Fantasia, and Fontenot, 2015), and that 35%-74% of survivors of other types of IPV had also experienced RC (Miller et al., 2010; Thiel de Bocanegra, Rostovtseva, Khera, & Godhwani, 2010).

While programs that support survivors of IPV offer a myriad of services, anecdotal evidence suggests that providers are much less likely to offer support or services related to reproductive and sexual health topics such as RC (V. Duplessis, personal communication, January 21, 2015; L. Hofheimer, personal communication, January 26, 2015). Given the prevalence of RC among survivors of IPV and its potential consequences, including unplanned pregnancy or rapid repeat pregnancy (Miller et al., 2014), this gap in support should be remedied to promote women’s reproductive health.

Targeted trainings on RC and related interventions are occurring, but at this point there is little to no research on the extent to which domestic violence (DV) service staff employ such

techniques, or are even aware of the presence of this type of abuse. Anecdotal evidence from DV advocate trainers suggests that few providers had ever heard of reproductive coercion before attending an RC training, let alone incorporated related practices into their work with survivors (L. Hofheimer, personal communication, January 26, 2015). DV staff cite a number of barriers to doing so, ranging from individual-level factors, such as general discomfort discussing sexuality or reproductive health topics, to organizational-level factors, such as availability of resources and support from leadership.

Given the importance of addressing RC with survivors accessing DV services, the field is eager to develop and implement approaches that successfully promote RC-responsive practice. While a small number of interventions have been developed, in the time- and funding-strapped world of DV service provision (NNEDV, 2015) administrators and staff alike may struggle to implement all or even most of the suggested shifts. In light of these conditions, recommendations are needed to provide guidance to agencies on which, if any, of the policy and practice changes might provide the most leverage in the pursuit of more frequent RC-responsive practice. It is with this goal in mind that the current study was conducted. Specifically, the study explores the effects of critical individual- and organizational-level factors on the frequency of staff engagement in RC-responsive practices. By exploring how these elements contribute to practice, the study provides information that may aid DV programs across the world in promoting effective responses to survivors experiencing RC.

## LITERATURE REVIEW

### Reproductive Coercion

Male perpetrated reproductive coercion (RC) is a type of IPV whereby an abusive male partner attempts to control his female partner's reproductive choices (Miller et al., 2010; Moore, Frohwirth, & Miller, 2010). RC behaviors generally fall into three broad categories: pregnancy coercion, birth control sabotage, and pregnancy outcome coercion (Chamberlain & Levenson, 2012; Grace & Anderson, 2016; Miller et al., 2010; Moore, Frohwirth, & Miller, 2010).

*Pregnancy coercion* involves male partners' attempts to pressure their female partners to become pregnant via verbal pressure or threats to the relationship or to the survivors safety. *Birth control sabotage* involves male partners' attempts to compromise women's contraceptive(s) of choice, such as by disposing of birth control pills or pulling out an IUD, or interfering with another agreed upon method, such as breaking or deliberately removing a male condom. Finally, *pregnancy outcome coercion* involves male partners attempts to force their female partners to continue an unwanted pregnancy or to terminate a pregnancy against her will. RC may occur alongside or independently of other types of IPV (Moore, Frohwirth, & Miller, 2010). In studies with OBGYN patients and college students, researchers found that between 32-57% of women who reported RC had also experienced IPV (Clark et al., 2014; Sutherland, Fantasia & Fontenot, 2015); however a synthesis of existing research suggests it is unclear which type of abuse usually occurs first or if they transpire concurrently (Grace & Anderson, 2016).

Abusers' specific motivations for engaging in RC behaviors have yet to be studied at length (Grace & Anderson, 2016), however, scholars theorize that RC is a form of *control* over women by their male partners (Moore et al., 2010). Indeed, this type of reproductive control crosses the domains of gendered relations as initially identified by Connell (1987, as cited in

Moore et al., 2010): *labor*, as forced pregnancy and child rearing reinforces women's domestic duties; *power*, as RC seeks to assert authority over women's sexuality and their biological propensity to become pregnant; and *cathexis*, as abusive partners demand the investment of women's sexual, emotional, and intimate energy in their romantic and motherhood roles. The dynamics of reproductive control in these gendered relations may manifest in specific motivations for male perpetrated RC. For example, such motivations might include relationship insecurity (i.e. when abusers seek to guarantee continued connection via pregnancy and shared parenting); masculine gender ideologies around fertility (i.e. the belief that men who have many children are thought to be more powerful); and beliefs about sexual ownership in relationships (i.e. the belief that men have ownership of women and their biological ability to conceive; Miller et al., 2007; Moore et al., 2010). Additionally, a qualitative study found evidence that social and structural issues may contribute to RC victimization among African American women (Nikolajski et al., 2015). African American study participants suggested that factors such as incarceration, lack of social support, and structural barriers to stable housing and employment may motivate men to secure an ongoing relationship with female partners via pregnancy.

RC is a common form of IPV against women of reproductive age (Clark et al., 2014). It has been found to impact between 8% - 19% of women in general population, clinical and college student samples (Black et al., 2011; Clark et al., 2014; Miller et al., 2010; Sutherland et al., 2015), although disclosure rates may differ based on screening method (Thaller & Messing, 2016). Among women who have also experienced physical, sexual or psychological IPV, these estimates may be much higher. In a sample of teens with a history of IPV drawn from multiple community programs, one-quarter (26%) of the 53 participants interviewed reported that their abusive male partners were actively trying to get them pregnant (Miller et al., 2007). In another

sample of women from family planning clinics (n=1278), participants who experienced physical or sexual violence from an intimate partner were more than twice as likely to report experiencing reproductive coercion as women who had not (35% v. 15% of respondents; Miller et al., 2010). These figures suggest that many women seeking services from DV programs may also have experienced some form of RC. A survey of over 3,000 survivors who called the National Domestic Violence Hotline (2011) found that 25% of participants had experienced RC. Interviews with heterosexual women using DV shelter services (n=54) echo this assessment; a large proportion of participants had experienced birth control sabotage, resistance to condom use, and forced sex by their partners (Thiel de Bocanegra et al., 2010).

RC victimization has a negative impact on the reproductive and sexual health of survivors (Miller et al., 2010; Sutherland et al., 2015). Studies have demonstrated relationships between experiences of RC and increased odds of having had one or more unintended pregnancies (Miller et al., 2010; Miller et al., 2014; Sutherland et al., 2015), diagnosis of a sexually transmitted infection (Jones et al., 2016) and history of abortion (Sutherland et al., 2015). Perhaps unsurprisingly, RC has also been shown to be associated with increased use of reproductive and sexual health services (Kazmerski et al., 2015). In a large sample of women ages 16-29 from five family planning clinic (N=1262), experiences of recent RC without other forms of IPV and RC in combination with other forms of IPV were found to be associated with increased odds of seeking multiple pregnancy tests, using emergency contraception multiple times, and seeking STI testing (Kazmerski et al., 2015). These results suggest that frequent requests for pregnancy and STI testing and emergency contraception may indicate that clients may have recently experienced RC.

While RC victimization has been reported by women from all backgrounds, several studies have found that marginalized groups such as racial or sexual minorities may be more likely to have experienced RC than their counterparts in dominant groups. Two studies of young sexual minority women found that participants who reported having had sex with other women were more likely to have experienced RC (McCauley et al., 2014; McCauley et al., 2015). Likewise, several studies have found higher rates of RC victimization among non-Hispanic African American/Black, multiracial, or Latina women compared to white women (Borrero et al., 2015; Clark et al., 2014; Holliday et al., 2017; Miller et al., 2010; Miller et al., 2014; Nikolajski et al., 2015; Sutherland et al., 2015; Upadhyay, Dworkin, Weitz, & Foster, 2014), however conflicting results have been demonstrated elsewhere using a less robust RC measure (Phillips, Bennett, Hacker & Gold, 2016). This disproportionately high prevalence of RC among women of color may at least partially explain similar racial differences in unintended pregnancies (Holliday et al., 2017). Qualitative studies have found that African American participants had experienced more extreme, overt forms of RC compared to their white counterparts, and that more African American women reported that their current or a past pregnancy resulted directly from birth control sabotage and/or pregnancy pressure by a male partner (Borrero et al., 2015; Nikolajski et al., 2015). Given these disparities, RC represents an important social justice and reproductive justice issue (Chrisler, 2014).

While little research has occurred with abusers to date, several studies have revealed patterns in survivors' responses to RC. One such finding is that women may fear negotiating condom use or resisting unwanted sex with their male partners (Raj, Silverman & Amaro, 2004; Wingood & DiClemente, 2000). Qualitative research suggests that this fear may be related to male partners' threats of violence or other forms of retaliation, such as sexual and physical

violence, accusations of female STD infection, infidelity or threats to end the relationship (El-Bassel, Gilbert, Wu, Go, & Hill, 2005; Miller et al., 2007; Mittal, Senn, & Carey, 2013; Seth, Raiford, Robinson, Wingood & DiClemente, 2010). In such situations, survivors must weigh the potential safety loss of increased violence in their relationship against the potential gain in reproductive control by requesting condom use. Given these dynamics, condom use is not a viable solution for most women in a violent relationship (Foster, Nunez, Spencer, Wolf, & Robertson-James, 2015).

Despite this diminished power to negotiate condom use or to resist sex, studies have revealed a variety of strategies that women have been able to use to resist their male partners' attempts at RC. Such strategies include using more easily concealable forms of contraception, such as Depo-Provera injections (Sutherland et al., 2015), hiding contraceptive or emergency contraceptive use (Miller et al., 2007; Nikolajski et al., 2015; Thiel de Bocanegra et al., 2010), lying about being pregnant (Miller et al., 2007), having abortions against their partners' wishes (Moore et al., 2010), lying to a partner about nonexistent fines for an intrauterine device (IUD) insertion appointment (Thiel de Bocanegra et al., 2010), checking condom placement during sex (Teitelman, Tennille, Bohinski, Jemmott, & Jemmott, 2011), promising a partner who pressured for pregnancy termination that he would not have to pay child support (Thiel de Bocanegra et al., 2010), and secretly leaving the abortion clinic after a pressuring partner dropped her off (Thiel de Bocanegra et al., 2010).

### **Interventions to Address Reproductive Coercion**

Given the prevalence of RC against women and its potential impacts on survivors' health and well-being, interventions aimed at identifying and addressing RC are imperative. One intervention that has garnered initial empirical support is the *Safety Card for Reproductive*

*Health.* This wallet-sized safety card developed by the National Health Resource Center on Domestic Violence (a project of Futures Without Violence), in partnership with the American College of Obstetricians and Gynecologists, contains questions and information related to IPV and RC. By taking 60 seconds to review the card with their patients, providers may be able to help women see the link between IPV, RC, and their reproductive health (Chamberlain & Levenson, 2012). The card also provides information on harm reduction strategies survivors can use, tips for incorporating RC considerations into safety planning, and contact information for national resources. Importantly, the card is useful regardless of whether patients choose to disclose their RC experiences to their provider, as they are encouraged to take it with them to consider in private or share with others.

An initial study of this intervention in family planning clinics found that women introduced to the card who reported recent IPV at baseline had a 71% reduction in the odds of pregnancy coercion at follow-up compared to participants who reported recent physical or sexual IPV at baseline who solely received the standard of care (Miller et al, 2011). However, this reduction in odds of pregnancy coercion was not found in reports of women who did not report other forms of recent IPV at baseline. Additionally, women in the intervention clinics were more likely to report ending a relationship at follow-up because it was unhealthy or unsafe regardless of IPV status. However, when this approach was scaled to more clinics and women (n=4,009; Miller et al., 2016), the intervention failed to demonstrate reductions in RC, other types of partner abuse, or unintended pregnancies. The cards did improve two outcomes that may contribute to women's safety: awareness of partner violence resources and self-efficacy to engage in harm reduction behaviors. Likewise, there was some evidence in this sample that women exposed to the intervention who were experiencing multiple forms of abuse



demonstrated a reduction in RC. The authors of this study suggest that the limited effects of the intervention might be due to inadequate implementation, and recommend that additional clinic-level changes might be needed to facilitate delivery. Such elements might include the development of protocols for intervention delivery, technology to facilitate this delivery, and the incorporation of IPV counseling as a billable preventative service at clinics (Miller et al., 2016).

These results indicate that the *Safety Card for Reproductive Health* may be a promising approach to screening for and educating patients on RC, but that certain organizational supports may need to be in place to promote its effective implementation. The findings of an evaluation of provider comfort and facility with this intervention in family planning clinic and home visiting program settings provides important suggestions therein (Burton & Carlyle, 2015). Through focus groups and interviews with 47 providers from multiple sites across one state, the study revealed that providers valued the tools and felt that the intervention was important, but that they struggled in knowing when and how to implement the necessary universal screening and intervention protocols. Providers reported discomfort starting the conversation, and were unsure about their own skills to respond should their client disclose RC. Additionally, clinicians in particular worried that they were sacrificing limited time in which they could offer other services, and home visitors worried that their clients were otherwise overwhelmed or not ready to be honest about their relationships. Participants expressed a desire for additional training and validation regarding their screening and intervention routines, including yearly “refresher” learning opportunities and on-site “champions” of the intervention who could provide support and accountability to ensure implementation was occurring. Tweaks such as these may help staff feel more comfortable and help with prioritization of services in limited time frames in these

established settings; however, the extent to which this intervention may or may not be appropriate for use in other venues, such as DV service programs, remains to be seen.

### **RC-Responsive Practice in Domestic Violence Service Settings**

DV service and support organizations may be uniquely positioned to intervene in situations of RC, as this type of abuse often co-occurs with other types of IPV, such as physical, sexual, or psychological abuse, for which survivors may already be seeking services (Clark et al., 2014; Miller et al., 2010; Sutherland et al., 2015). Just as DV program staff often seek to be knowledgeable on the dynamics of physical, sexual, and psychological violence, professionals working with survivors could benefit from education on reproductive coercion and related interventions in order to meet the full range of survivors' needs. While they need not be experts in sexuality, they need to demonstrate a willingness to comfortably raise RSH-related topics, and to respond in a client-centered, professional, and knowledgeable manner when their clients present sexuality-related issues (McKay, 2015).

While DV services differ from program to program, they generally incorporate activities such as providing information about adult and child survivors' rights, options and experiences; safety planning; skill building; and increasing access to community resources and social support (Sullivan, 2016). Though the models for doing so are only in their initial stages of development, RC-responsive practices can be woven into each of these activities. Researchers have called for reproductive health issues, such as RC, to be *universally* included in the intake and advocacy/counseling processes for all survivors who seek services from DV programs (Thiel de Bocanegra et al, 2010). This should include elements such as education about RC and concealable forms of birth control, information about how to access needed reproductive health resources, and assessments of women's barriers to consistent and effective use of contraceptive

methods (Duplessis & Levenson, 2014). Trainers in the field suggest that advocates should take a “don’t ask, just tell” approach when engaging in RC-responsive practices, such that DV staff share basic RC information with *all* women regardless of disclosure of RC experiences (L. Hoffheimer, personal communication, January 26, 2015). The reassurance that advocates “talk about this with everyone” can help to normalize what may feel like taboo conversations, and may allow survivors who do not disclose RC to choose to use this information at a later time or share it with others in need (Duplessis & Levenson, 2014). Researchers and advocates have likewise called for programs to universally offer over-the-counter products such as emergency contraception and pregnancy tests on site to support survivors in resisting RC or responding to its consequences (Thiel de Bocanegra et al., 2010).

In the event that RC is identified, advocates should be prepared to engage in *targeted* practice by providing information and support for dealing with potential health issues and incorporating reproductive concerns into safety planning. This could include discussions of options for emergency contraception and/or more easily concealable tamper-resistant birth control (e.g. IUD, Depo-provera injections), training on safer condom negotiation skills, and the development of strategies for staying safe while accessing reproductive health care such as pregnancy testing, pregnancy termination or prenatal care. While none of these approaches is yet linked to improved survivor outcomes in the DV service setting, they provide a compelling starting point for the field to consider.

Trainings on RC and the implementation of RC-responsive practices are occurring in DV programs around the country; however, at this point there is little to no research on the extent to which staff employ such techniques, or are even aware of the presence of this type of abuse. Anecdotal evidence from trainers suggests that few providers had ever heard of reproductive

coercion before attending an RC training, let alone incorporated related practices into their work with survivors (L. Hofheimer, personal communication, January 26, 2015). Interestingly, even once providers were introduced to the concept and its significance to survivors' health and well-being, trainers still report experiencing resistance among some staff to discussing RC or even broaching the topic of sexuality. Advocates cite a number of barriers to doing so, ranging from time constraints and lack of knowledge or skills, to organizational policies and general discomfort discussing reproductive or sexual health. The empirical identification of such barriers and facilitators among DV staff could aid the field in developing more effective approaches to promoting RC-responsive practice among advocates across the country.

### **Identifying Barriers and Facilitators to RC-Responsive Practice in DV Settings**

A nonscientific survey conducted with advocates in the Pacific Northwest, conducted by the Washington State Coalition Against Domestic Violence, has provided initial insight into factors that may present the largest barriers to RC-responsive practice among advocates (L. Hofheimer, personal communication, April 15, 2015). Among the top endorsed barriers were (1) a general discomfort discussing sexuality with clients at all, and (2) a need for more training. While these results may not be representative of all advocates everywhere, they do suggest that further examination of the barriers based in individual advocates' attitudes and comfort, as well as in related organizational supports, may reveal important points of intervention for promoting RC-responsive practices in DV service settings.

A useful theoretical framework for highlighting barriers and facilitators to RC-responsive practice is the *ecological* model. Generally speaking, ecological models identify various "levels" of contextual influences on human behavior. Several structures have been developed to map out these levels. McLeroy et al.'s (1988) seminal model is commonly used and identifies the

intrapersonal, interpersonal, organizational, community, and policy levels. Furthermore, the ecological perspective suggests that there are “links” between these levels, meaning that these levels influence each other (Golden & Earp, 2012; Meadows & Wright, 2008). In the context of organizations, this approach purports that the behavior of employees is influenced not only by individuals themselves, but also by their relationships with coworkers and clients, agency policies and practices, and the broader community and policy landscape, and finally by the interactions among these levels.

Examining social issues through an ecological lens helps stakeholders partition the environment into levels that can be used to focus attention on different types of behavioral influences (e.g. barriers and facilitators; McLeroy, et al., 1988). When an organization (such as a DV service agency) is looking to encourage a new behavior among staff (such as RC-responsive practice), consideration of the barriers and facilitators to the adoption of this behavior at multiple levels can lead to a more nuanced understanding of influencing factors. Several implementation studies (e.g. Glisson, Schoenwald, Hemmelgarn, Green, Dukes, Armstrong, & Chapman, 2010; Panzano, Seffrin, Chaney-Jones, Rot, Crane-Ross, Massatti, & Carstens, 2004) and reviews of implementation frameworks (e.g. Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005; Meyers, Durlak, & Wandersman, 2012) have likewise supported this assertion. Indeed, such frameworks often pose multi-level models of the implementation process that can guide organizations attempting to institute change (e.g. Aarons, Hurlburt, & Horwitz, 2011). While a deep dive into implementation literature is beyond the scope of this review, it is commonly acknowledged that successful change to individual behavior in organizations often requires improvements at multiple levels (Fixsen, Blasé, Metz & Van Dyke, 2015).

The most commonly examined level of the ecological model is the *intrapersonal* or individual level (McLeroy, et al., 1988). This person-centered level of analysis highlights how factors in staff's individual characteristics, such as knowledge, attitudes, behaviors, and skills, can act as barriers or facilitators to desired practice. Current training and coaching approaches presently used to promote RC-responsive practice generally touch on a variety of individual-level factors, which we may conclude are the barriers and facilitators to practice that the field believes to be most pressing. These curricula generally include education on RC-related knowledge, examination of how one's personal beliefs impact one's advocacy practice, and role play scenarios where advocates can get comfortable with RC practice in a non-threatening space (Duplessis & Levenson, 2014). This suggests that the field may currently consider the main intrapersonal barriers and facilitators to RC practice to be knowledge, beliefs, and comfort discussing RC.

While addressing these intrapersonal-level interventions may directly impact individual comfort engaging in RC-responsive practice (by shifting knowledge, personal beliefs, fear of negative response, etc.), a number of evaluations have failed to demonstrate that intervention on this level alone actually changes *practices* on its own (e.g. Bouffard & Little, 2004). These findings suggest that the identification of and shifts made to intrapersonal barriers and facilitators may be necessary but insufficient if the aim is to change professionals' behavior (Seidman & Tseng, 2011). Without supportive *organizational* structures and leadership, the desired practices are unlikely to be successfully initiated and maintained (Fixsen, et al., 2005).

The organizational level of the ecological model (McLeroy et al., 1988) is comprised of social institutions with organizational characteristics such as formal and informal policies and practices that operate within a defined domain. Identification of barriers and facilitators on the

organizational ecological level can lead to interventions that promote positive individual and setting-level outcomes, with the settings themselves mediating improved outcomes for the targeted population (Gregory, Henry, Schoeny, & METRO, 2007; Tseng & Seidman, 2007). Service organizations (including DV programs) are complicated entities, characterized by “multiple and often conflicting goals, unclear and uncertain technologies for realizing those goals, and fluid participation and inconsistent attentiveness of principal actors” (Rosenheck, 2001, p. 1608). In this ambiguous, fluid environment (Fixsen et al., 2005), one method for identifying barriers and facilitators (i.e. targets for change) on the organizational level is the “Systems Framework for Understanding Social Settings” (Tseng & Seidman, 2007).

This theoretical framework focuses on three aspects of social settings: social processes, resources, and organization of resources. *Social processes* include patterns of transactions between two or more groups of people, including organizational norms, interactional patterns and practices, and participation in activities. *Resources* include the traditional idea of economic means, but also include human, physical and temporal resources available to an organization. Finally, the *organization of resources* refers to how available resources are arranged, such as how appointments are timed and the physical layout of office space. Tseng & Seidman (2007) suggest that the quality and quantity of resources and their allocation within the setting lead to patterns in social processes that ultimately influence outcomes in the organization. As such, barriers and facilitators are generally related to the presence and/or allocation of local resources that promote or hinder desired norms, relationships or participation patterns (Tseng & Seidman, 2007).

Current approaches presently used to promote RC-responsive practice also touch on a variety of organizational-level factors as targets for changing the social process that occurs

between an advocate and a survivor seeking services (e.g. Duplessis & Levenson, 2014). Again, the inclusion of these elements as targets for change suggests that these factors are the barriers and facilitators to practice that the field believes to be most pressing on this level. In order to shift the advocate-survivor social process, current interventions include alterations to resources and their allocation within the organization. Examples of current organizational change strategies include providing new physical resources (e.g. instituting new intake questions or scripts for screening, purchasing RC informational materials to share with clients) or human resources (e.g. hiring staff with experience in reproductive and sexual health fields, formalizing warm referral processes to needed reproductive health services), or shifting the way that existing resources are allocated (e.g. prioritizing the purchase of emergency contraception and pregnancy tests, devoting a certain amount of staff time to maintaining an updated reproductive health resource list, rearranging space to allow for private conversations). Finally, changes to other social processes could be leveraged to promote this transformation; for example, shifts could be made to the interactions of staff by regularly incorporating RC topics into supervision sessions, team case review, and all staff meeting agendas.

While guidance from national and state DV leaders highlights the factors that these organizations likely believe to be key barriers and facilitators to RC-responsive practice on the interpersonal and organizational ecological levels, to date very little research has been conducted in this area. The DV literature currently cannot offer empirical evidence that these factors are indeed present in DV service organizations. Likewise, there is no evidence as of yet regarding the extent to which these factors influence practice among DV advocates. While such research is lacking in the DV service literature, studies do exist in the fields of social work and nursing that may guide empirical examinations.



## **Barriers and Facilitators to RSH-Responsive Practice in Other Settings**

The social work and nursing literatures provide an empirical evidence base that is relevant to the identification of intrapersonal and organizational barriers and facilitators to RC-responsive practices in DV service settings. While the social work literature may be more closely related to the practices of advocates, there are only a limited number of empirical studies of practicing social workers' barriers and facilitators to discussing RSH with their clients. The nursing literature, however, presents a larger relevant body of research related to such RSH discussions (Bulow, 2012). While nurses' responsibilities are not equivalent to those of DV service providers, it is logical to compare these groups for a variety of reasons. First, nurses and DV service providers have similar relationships to those whom they are serving, as they are both professionals who work closely with largely adult service seekers to offer specialized support or assistance for a discrete amount of time. Additionally, the two professions share a values-driven approach to their work. The nursing field's commitment to patient-centeredness and holistic care (Higgins, Barker, & Begley, 2008) could easily be compared to the DV service field's core tenets of survivor-driven and empowerment-focused services (Cattaneo & Goodman, 2015; Goodman & Epstein, 2008). Finally, as a profession, the characteristics of nursing (close and ongoing relationships with clients, values-driven approach, level of expertise and professionalism, etc.) are more similar to DV service provision than the characteristics of other more specialized healthcare work, such as that of physicians. Moreover, the literature on the lesser-trained paraprofessional healthcare providers' experiences of discussing sexuality with service seekers is much less robust than that in the nursing field. As such, the DV field can draw from the contributions and the lessons learned in other fields (in this case, nursing) in pursuit of promoting common causes therein, namely the RSH and well-being of service-seekers.

Although the fields share a number of commonalities, nursing and the DV service fields do have differences that are worth considering. Perhaps most notably, nurses generally work in a health context that is driven by monetary gain (e.g., billable insurance hours). DV service organizations are generally not as monetarily-driven, which could result in differential impacts on staff's likelihood to engage in RSH-responsive practices when compared with nurses. That being said, both settings often experience a shortage of time to quickly serve what is often a very large caseload, as well as pressures from external funding sources (e.g. insurance companies or grant funders) to prioritize particular services (Nakopoulou, Papaharitou, & Hatzichristou, 2009; National Network to End Domestic Violence, 2015; Teng, Hsiao, & Chou, 2010). Though the sources of these time constraints and service prioritization considerations are different in largely for-profit versus non-profit settings, the resulting impacts on providers and on service seekers' experiences are likely comparable. These shared factors include: 1) comfort discussing sex and sexuality, 2) comfort discussing reproduction-specific topics, and 3) RC-responsive organizational supports.

**Individuals' comfort discussing sex and sexuality.** One's comfort level discussing sex and sexuality is likely an important barrier to or facilitator of advocates engaging in RC-responsive care. A nonscientific survey conducted with a small number of DV advocates revealed that a general *discomfort discussing sexuality with clients* was among the top barriers to discussing reproductive coercion (L. Hofheimer, personal communication, April 15, 2015). Multiple studies with both social workers and nurses also found that a lack of comfort or confidence discussing sex was a top barrier to RSH-responsive practice (Bal & Sahiner, 2015; Bulow, 2012; Dattilo & Brewer, 2005; King, Miree, Wilson, & Clayton, 2008; Kotronoulas et al., 2009; Lavie-Ajayi, 2016; Mahieu, Van Elssen & Gastmans, 2011; Reynolds & Magnan,

2005; Strawgate-Kanefsky, 2000; Trotter, Brogatzki, Duggan, Foster & Levie, 2006; Vassiliadou et al., 2008; Yildiz & Dereli, 2012). In response to these findings, scholars in these fields have called repeatedly for more training focused on improving providers' confidence and comfort discussing sex in hopes of encouraging more frequent RSH practice (e.g. Higgins et al., 2008; Magnan, Reynolds, & Galvin, 2006). In order for interventions to similarly aid advocates in overcoming discomfort engaging in RC-responsive practices, they must target the factors that are at the root of this feeling. Research with social workers and nurses suggests that the elements contributing to discomfort likely include a lack of knowledge, embarrassment, personal beliefs about sexuality, and fear of a negative client response.

The most often-cited barrier to practitioners feeling comfortable discussing sexuality among both social workers and nurses was a lack of knowledge. This includes both knowledge about the particular RSH issues that their service seekers may be experiencing, as well as the basic understanding that their clients or patients might have sexuality-related concerns as part of their condition (Algier & Kav, 2008; Ayaz, 2013; Bulow, 2012; Dyer & das Nair, 2013; Dyer, Aubeeluck, Yates, & Nair, 2015; Kotronoulas et al., 2009; Mahieu et al., 2011; Nakopoulou et al., 2009; Quinn, 2003; Strawgate-Kanefsky, 2000; Reebals, Brown, & Buckner, 2006; Stead, Brown, Fallowfield, & Selby, 2003). Another area where nurses may lack knowledge is regarding sufficient information about proper nursing interventions around sexuality concerns. In three studies with nurses across Europe, practitioners expressed concerns that they might need specialist knowledge in order to engage in conversations about sexuality, and were hesitant to broach the subject given that they might not be well qualified to do so. Specifically, they were worried that they might not have the most up-to-date knowledge about sexuality-related

developments in medicine or the correct sexuality-related language to use with patients (Gott, Galena, Hinchliff, & Elford, 2004; Jaarsma et al., 2010; Nakopoulou et al., 2009).

Greater knowledge about how sexuality-related topics relate specifically to their clients' care may result in advocates more frequently initiating RC-related discussions. One study involved qualitative interviews with Swedish nurses several months after they attended a nursing practice-focused human sexuality training (Saunamäki, & Engström, 2014). These interviews revealed that nurses who had followed through in talking with their patients about sexuality after receiving RSH training had done so partially because of their newly acquired knowledge. Nurses reported feeling responsible for speaking with patients about sexuality because they had new information about its significance to their patients' well-being. The authors asserted that this knowledge seemed to inspire nurses to set aside personal beliefs in favor of helping patients address sexual concerns that may previously have been ignored. This claim has been supported in the social work literature, where studies have found that RSH knowledge was significantly related to frequency of RSH-related practice (Bulow, 2012; Strawgate-Kanefsy, 2000).

While many providers may cite a lack of knowledge about sexuality and related interventions as primary obstacles to RSH care, such knowledge may not actually impact practice. A survey of Swedish nurses found that over 90% of participants reported that they understood how patients' diseases and treatment might affect their sexuality; however, 60% of participants did not feel confident in their ability to address patients' concerns, and 80% of respondents did not actually take the time to discuss sexual concerns when working with patients (Saunamäki, Andersson, & Engström, 2010). This study highlights the lack of congruity between service providers' self-reports of RC knowledge, and their comfort and confidence in carrying out interventions or their likelihood of actually addressing sexual concerns. These results suggest

that knowledge of RC may be an important but not independently sufficient predictor of RC-responsive practice.

Another source of discomfort may be the belief that discussing sexuality-related topics is embarrassing or taboo. Two literature reviews of sexuality and the nursing process (Ayaz, 2013; Mahieu et al., 2011) highlighted feelings of embarrassment as one of the major barriers to RSH-responsive practice, as did two studies of social workers (Lavie-Ajayi, 2016; Trotter et al., 2006). This embarrassment may be rooted in some providers' belief that sexuality is a taboo subject (Dyer & das Nair, 2013; Nakopoulou et al., 2009; Quinn, Happell, & Browne, 2011; Saunamäki & Engström, 2014; Stead et al., 2003) or is too private or personal to be an appropriate topic for conversation (Trotter et al., 2006) and as such should not be discussed. In general, talking about sexuality is not seen as appropriate for public discussion in western societies (Ussher et al., 2013). This private/public dichotomy may deter service providers from broaching what is seen as a socially unacceptable topic—sexuality—in professional conversation (Lavie-Ajayi, 2016).

Beliefs and values around sexuality are another individual-level factor that impact an individual's comfort engaging in RC-responsive practices. Beliefs about patients' sexuality are often dominated by personal rather than professional values about the nature of individuals' sexuality and their sexual rights (Ruane & Hayter, 2008). Individuals who report more sex-positive personal attitudes (meaning they were generally more erotophilic) may report greater confidence, comfort, skills and knowledge in addressing sexuality-related issues. For example, both social workers and nurses with more negative attitudes toward human sexuality were less inclined to practice RSH-responsive care (Algier & Kav, 2008; Bulow, 2012; King et al., 2008; Reynolds & Magnan, 2005; Sohocki, 2010; Strawgate-Kanefsky, 2000). Religious beliefs that promoted more conservative views about sexuality were also considered a barrier to discussing

sexuality (Bal & Sahiner, 2015; Kotronoulas et al., 2009; Lavin & Hyde, 2006). Self-reports from another group of nurses indicated that 40% of those surveyed reported that their personal values sometimes affected their conversation on sexual problems with patients (Akinci, 2011).

Encouragingly, at least one study has demonstrated that the barrier of individual beliefs about sexuality can be overcome. Interviews with psychiatric nurses in Quebec following a discussion-based intervention on sexuality-related care found that nurses have the capacity to reconcile their personal beliefs on sexuality with RSH-responsive care via their commitment to quality patient care (Wright & Pugnaire-Gros, 2010). By focusing on a core principle of nursing, the desire to provide holistic patient care, participants in this participatory action research project and intervention were empowered to provide RSH care *within* their existing belief structures, rather than being forced to provide RSH care *despite* their beliefs. If advocates were likewise empowered, they could also potentially find the middle ground wherein they would be able to stay true to their values while also providing effective RC care.

Finally, advocates may also feel uncomfortable discussing sexuality because they believe that survivors could consider such conversations to be unexpected, intrusive and/or a violation of their privacy. Surveys of nurses and nursing students in the U.S. found that a majority of respondents did not believe that patients expect nurses to ask about sexual concerns (Reynolds & Magnan, 2005; Magnan & Norris, 2008; Magnan et al., 2005). Interviews with nurses in the U.K. revealed that providers had fears that asking about a topic as private as sexuality may offend their patients, and that it could jeopardize the provider-patient relationship (Algier & Kav, 2008; Gott et al., 2004; Jaarsma et al., 2010). Indeed, if providers believe that their relationships with clients are based on trust, it is quite possible that they may avoid discussion of topics that could breed mistrust by eliciting discomfort or anxiety (Magnan et al., 2005). Given the widely shared

taboo in western cultures around sexuality (Iantaffi, 2015) it is very possible that advocates may similarly fear survivors' response to questions regarding RC. That being said, general advocacy practice commonly involves asking about very painful, private matters, so asking about sex may not elicit a qualitatively different response.

**Individuals' comfort discussing reproductive health topics.** In addition to one's comfort level talking about sex and sexuality, ease of discussing reproductive health can also impact one's willingness to engage in RC-responsive practice. Reproductive health care topics such as contraception (including birth control methods, emergency contraception and forced contraception), pregnancy termination, and adoption are frequently relevant in social work practice settings (Alzate, 2009; Constantine, Jerman, & Constantine, 2009; Whitaker & Arrington, 2008) and are particularly important when intervening in cases of RC. Indeed, social workers may serve as one of the only points of contact for clients regarding reproductive health questions (Alzate, 2009; Ely, Flaherty, Akers, & Noland, 2012; Whitaker & Arrington, 2008). Despite the significance of addressing these topics, advocates may be uncomfortable discussing reproductive choices with clients. Barriers such as a lack of knowledge about abortion or emergency contraceptives, personal beliefs about restricting reproductive health options, and fear of social stigma may contribute to this reluctance.

A lack of knowledge about the science, behavioral impacts, and methods for accessing abortion and emergency contraception (EC) may negatively impact an individual's comfort engaging in RC-responsive practices. Studies with both social workers and nurses have found that a lack of knowledge in this area may be a cause of a lack of discussion related to abortion or EC with clients (Akers, Gold, Borrero, Santucci & Schwarz, 2010; Bell & Rubin, 2013; Miller et al., 2011; Reed, Vaughn, & Pomerantz, 2012). Incorrect information about the *science* behind

these reproductive health tools may present one barrier to their use. A survey of licensed social workers in Pennsylvania (N=197) found major gaps in participants' understanding of how EC works (Bell & Rubin, 2013). While items related to birth control and condom use were answered correctly by more than 85% of the respondents, items related to EC had the fewest right answers, with only 21-28% of participants answering correctly. These results demonstrated a gap in social workers' understanding that EC is not the same as the abortion pill, and that EC does not interfere with a pregnancy that has already occurred. This gap in knowledge was also found among social work students (N=116; Flaherty et al., 2012). Additionally, a qualitative study with healthcare providers found that participants felt it was difficult to keep up with what was perceived to be the rapidly changing pharmacology and technology used in EC (Akers, Gold, Borrero, Santucci, & Schwarz, 2010).

Misconceptions about the social and behavioral impacts of access to abortion and EC may also stand in the way of discussions on these topics. For example, two different studies found that healthcare providers held several false beliefs about emergency contraception that could deter them from recommending its use, such as assuming that access to EC would increase risky sexual behaviors (Miller et al., 2011; Reed, Vaughn, & Pomerantz, 2012). Furthermore, some healthcare providers erroneously believe that expanding access to safe and affordable abortion necessarily leads to more abortions, a falsehood that has been disproven repeatedly (e.g. Jones & Jerman, 2014). Providers who wish to promote individual responsibility and overall RSH could be hesitant to bring up EC or abortion if they wrongly believed these options might contribute to undesirable consequences.

Finally, a lack of knowledge about the rules and regulations around accessing EC or abortion may contribute to advocates' reluctance to incorporate RC-responsive care into their



practice. For example, more than three-quarters of social workers in one survey did not know that a prescription is not needed to access EC (Bell & Rubin, 2013), and 41% of social work students in another study did not even know if abortion was legal in their state (Ely, Flaherty, Akers & Noland, 2012). Such gaps in understanding may contribute to providers' discomfort engaging in RC-responsive practices due to the fear of appearing incompetent or not being able to respond adequately to clients' needs. Interestingly, *perception* of knowledge may be more powerful than *actual* knowledge in predicting likelihood of discussing reproductive health topics with clients. Social workers who rated themselves as more knowledgeable were more likely to discuss family planning with clients, regardless of their actual performance on an abortion knowledge test (Bell & Rubin, 2013).

Advocates may hold personal beliefs that make them more or less likely to discuss reproductive health options with survivors. Despite the common use of contraceptives, EC, and abortion, the topic remains highly controversial in the U.S. (Guttmacher, 2016). Studies have found a wide range of opinions about *who* should have access to birth control, EC, and abortion and *under what circumstances* they should be allowed access in samples of social work students (Begun et al., 2016; Ely, et al., 2012; Falherty et al., 2012) and healthcare providers (Akers et al., 2010; Miller et al., 2011), as well as among the general public (Hess & Rueb, 2005). For example, in one survey of social work students, almost one half of the participants said they would *not* make a referral for an abortion. In another study, healthcare providers described being hesitant to suggest EC to patients because of a belief that they should be punished for inadequate contraception use, particularly in adolescents (Miller et al., 2011). Beliefs that champion the restriction of reproductive health options may be influenced by individual providers' upbringing, religion, political affiliation, social context, or other factors (Alzate, 2009; Begun et al., 2016;

Ely, et al., 2012). The practice of “conscientious objection” to providing or referring clients to reproductive healthcare based on personal beliefs has become a widespread barrier to care for many women. Navigating the space between these closely held personal perspectives and one’s professional responsibilities to the health, well being, and self-determination of clients can be challenging for providers (Begun et al., 2016).

The sometimes-hostile atmosphere around reproductive health care in the U.S. may also contribute to the stigmatization of advocates who *do* discuss reproductive health-related options with their clients. Healthcare providers who perform abortions in the U.S. are often stigmatized in the cultural discourse, law, politics, churches, and communities (Harris, Debbink, Martin & Hassinger, 2011). A qualitative study with abortion providers found that these healthcare professionals experience the manifestations of stigma in a variety of ways, including experiences of violence or threats of violence, marginalization in the healthcare field, missed funding opportunities, issues cultivating and maintaining friendships, and exclusion from participation in local communities and institutions (Harris et al., 2011). This can result in a wariness in interpersonal relations (Joffe, 2010), social isolation, a loss of self esteem, and may even result in an exit from the field (Harris et al., 2011).

The fear of experiencing this stigma and resulting fallout may present a barrier to RC-responsive practice among advocates. Providers may choose to opt out of aiding access to birth control, EC, or pregnancy termination out of fear of discrimination or negative legal or social consequences (Faúndesa, Duarte, & Osis, 2013). A few participants in a qualitative study of healthcare providers expressed suspicion that the main reason that providers were unwilling to perform abortions was actually the fear of social stigma, rather than the often-given excuse of “religious objection” (Sedgh et al., 2012). Given the severity of the consequences described

above, it is not hard to imagine that advocates may also choose to avoid engaging in practices related to reproductive health rather than risk exposure. If an advocate was believed to be promoting a “pro-choice” agenda by providing EC on site or offering referrals for pregnancy termination, that advocate could potentially experience backlash in their personal and professional life along the lines of that described by abortion providers. While the risk therein likely varies greatly based on one’s organization and community, the potential could be enough to make advocates think twice about engaging in RC-responsive care.

**Organizational factors that promote or hinder RSH responsive practice.** While individual comfort discussing sexuality and reproductive health are likely significant determinants of advocates’ likelihood to engage in RC-responsive care, there are likely setting-level factors that also impact such outcomes. Formal and informal organizational practices, policies and resources (aka “organizational supports”) may either hinder or facilitate effective RC-related conversations between providers and clients. Anecdotal reports suggest that a lack of clarity around RC-relevant agency policies at DV organizations, such as whether staff may offer emergency contraception or the degree to which they may discuss abortion, may similarly stand in the way of broaching RC topics with survivors (V. Duplessis, personal communication, January 21, 2015). Conversely, incorporating clear, concrete RC-responsive elements into advocates’ practice materials, such as requiring universal education about RC during intake processes, may be a powerful facilitator (L. Hofheimer, personal communication, January 26, 2015). While very little research exists to date on organizational-level barriers and facilitators to advocates engaging in RC-responsive practice, the factors identified by the social work and nursing fields outlined below gesture toward potential contributors therein. These factors

represent potential points of intervention for DV organizations looking to shift their supports to promote better RC care.

First, providers may be more likely to engage in RC-responsive practices if they have access to physical spaces that feel appropriate for the task at hand. For example, one such critical physical element is a *private* place to talk to patients. Providers reported feeling hesitant to bring up sexuality if others would be able to hear the content of their conversations (Dyer & das Nair, 2013; King et al., 2008; Nakopoulou et al., 2009; Saunamäki & Engström, 2014; White, 2002). They wanted privacy to discuss such sensitive topics to prevent the patient from becoming embarrassed, however such space was often hard to come by among the shared rooms and wards of clinical spaces where patients are often quite physically close to one another (Kotronoulas et al., 2009). Similarly, nurses identified ambient noise in the environment, such as telephones ringing across the ward, as another barrier (Kotronoulas et al., 2009). Having a quiet space can help nurses stay focused and convey respect when having conversations on sensitive issues such as sexuality. Similarly, working in DV service settings with a lack of private space may make sensitive discussions, such as those related to sexuality, occur less often due to concerns that confidential information may be overheard.

Another resource that may facilitate discussions of sexuality is educational materials for teaching specific topics (Kotronoulas et al., 2009; Nagel & Neal, 2008; White, 2002). Materials such as leaflets and posters can provide an informative jumping off point for RSH-responsive discussions. However, one study found that only 30% of nurses interviewed were aware of written materials on the subject available in their field that they could share with patients (Stead et al., 2003). This suggests that having these resources only has the potential to be helpful to clients if providers are also made aware of their presence. Likewise, a lack of posters or leaflets

that are relevant to the particular population being served and their potential RSH-related issues can also present a barrier to such conversations (Gott et al., 2004). Such materials developed for use among survivors have been reported to make RC conversations easier for DV service providers (V. Duplessis, personal communication, January 21, 2015).

Having the appropriate resources to care for victims of RC and the power to provide them to clients may contribute to a sense among providers that they can respond adequately should a client disclose RC victimization. This could include, for example, resource lists with information on specialists who can provide more in-depth treatment of reproductive health concerns, or permission to access and distribute pregnancy tests and emergency contraception on site. In a study with nurses, providers said their lack of power to provide medications or refer patients to sexuality experts presented a barrier to RSH conversations (Gott et al., 2004). Likewise, a lack of referral procedures or existing organizational connections with RSH specialists may also interfere with providers' likelihood to engage patients in sexuality-related conversations (Tsai, 2004). If advocates fear that they won't be able to respond adequately to the complex reproductive health needs of a patient who discloses RC by connecting them with needed resources, providers may avoid asking about RSH concerns.

The presence of screening questions or scripts related to RC in regularly used documents may encourage RC-responsive practice. The integration of relevant questions into intake and discharge forms and RC-related services into resource sheets can build in opportunities for such conversations to simply become part of standard procedures. Healthcare providers cited the lack of reminders on exam forms or prompts within their electronic medical record systems as one reason for neglecting to discuss EC with patients (Akers et al., 2010). Nurses in another study echoed this sentiment, expressing that the inclusion of sexuality as a search word in electronic

medical records, as part of discharge talks, and as a topic in guidelines for treating different diseases indicated to nurses that issues of sexuality are to be addressed with service seekers as part of regular practice (Saunamäki & Engström, 2014).

An institution's capacity to provide training opportunities around RC-responsive practices may impact advocates' likelihood of engaging in sexuality-related conversations. Whether such trainings are provided to new staff at orientation or as part of a one-time or ongoing professional development opportunity for staff, these trainings may be essential for individuals to gain the necessary knowledge, confidence and comfort needed to engage in effective RC practice. A number of studies have demonstrated that nurses identified their lack of training or education as one of the most critical barriers to engaging in sexuality-related topics with patients (Algier & Kav, 2008; Dyer & das Nair, 2013; Gott et al., 2004; Hautamäki, Miettinen, Kellokumpu-Lehtinen, Aalto, & Lehto, 2007; Lavin & Hyde, 2006). However, institutions may find it difficult to provide training to staff due to resource constraints and a lack of interest from administration and/or staff (Gott et al., 2004). Studies on the impact of training revealed that such activities may improve nurses' relevant knowledge, attitudes, skills, and comfort, and ultimately improve their likelihood to engage in RSH-relevant communication (Akinci, 2011; Kim, Kang & Kim, 2011; Kotronoulas et al., 2009; Krebs, 2007; Magnan et al., 2005; Quinn & Happell, 2012; Sack, Drabant, & Perrin, 2002; Saunamäki & Engström, 2014; Sohocki, 2010; Sung & Lin, 2013; Weerakoon, Sitharthan, & Skowronski, 2008). As such, a lack of organizational capacity to offer such training opportunities may present a significant barrier to RC-responsive practice. Social workers who had received RSH training were likewise found to have significantly greater RSH knowledge and more positive attitudes toward sexuality than those without training (Strawgate-Kanefsky, 2000). While such trainings may benefit DV

providers, their organizations may similarly struggle to regularly provide these opportunities due to decreased funding and staffing cuts (NNEDV, 2014).

Support in the form of formal coaching or mentoring by a more experienced peer or supervisor can help professionals put knowledge into practice (Seidman & Tseng, 2011). In a study with nurses, some providers reported that they avoided talking about sexual issues with their patients because they had no role model to follow in developing these skills (Stead et al., 2003). In another study, some nurses stated that their supervisors acted as barriers to discussing sexuality with their patients, as these managers generally did not like them taking the initiative to engage in such practices that might upset existing procedures (Nakopoulou et al., 2009). These findings echo other scholars who suggest that by providing empathy, emotional support, and practical know-how on implementing skills, supervisors or other leaders conversely may help advocates to implement these practices more frequently (Seidman & Tseng, 2011).

Formal or informal rules about the prioritization of RC-related concerns relative to other service needs may impact the frequency of RC-responsive practice. In some cases, providers or their clients may view other practices as more immediately beneficial to their health and well-being, and choose to hold off on RC-related conversations. Alternatively, providers may be required to prioritize particular facets of clinical practice or screening over RSH by virtue of organizational regulations (Gott et al., 2004), which may be guided by administrative policies linked to financial reimbursements from public or private insurance. This may result in limited time and resources for engaging in non-prioritized areas, such as RC.

The lack of time is often cited as a key barrier to RC-responsive care among already busy providers. Time constraints were commonly endorsed as one of the most significant barriers to discussing sexuality in studies among nurses (Haboubi & Lincoln, 2003; King et al., 2008;

Reynolds & Magnan, 2005). Similarly, when asked to reflect on their reasons for not addressing sexuality, most nurses interviewed in a qualitative study in Sweden felt that there was no time to talk about this issue in their current stressful working environments (Saunamäki & Engström, 2014). They believed that sexual concerns should not be addressed in a hurried manner, and as such, having ample time was essential to engage clients on this topic. Nurses in a mixed methods study and a qualitative study also noted the lack of time for patient counseling as a contributor to diminished conversations about EC (Akers et al., 2010; Miller et al., 2011). In other studies, nurses described sexual health as a “can of worms,” meaning the topic was too complex to be addressed adequately in the limited time they had with patients (Gott et al., 2004; Stead et al., 2003). The knowledge that they may not be able to sufficiently address the time-consuming issues that could be brought up by patients led nurses to avoid even beginning such conversations. This time pressure was heightened when severe physical health problems were present, as these concerns were seen to take precedence over sexual health when time with patients was limited (Nakopoulou et al., 2009). Finally, providers also felt that they needed to build a rapport with patients first before discussing sensitive issues, but that their tight clinical timelines often did not allow for this (Gott et al., 2004). While the lack of time is a result of differing pressures in the non-profit sector compared to the monetarily driven healthcare sector, the impact of time constraints on DV staff’s availability is likely comparable, suggesting this may be a factor impacting frequency of RC-responsive practice.

Finally, formalizing an organization’s overall policies and practices regarding RC discussions may facilitate RC-responsive practice. The inclusion of formal policies supporting RC-related practices in advocate guidelines may signal to providers that such issues are to be discussed with clients as part of their job responsibilities. Nurses in one study indicated that



having written workplace guidelines for discussing sexuality was helpful, as these policies lessened their hesitation to bring up the topic (Saunamäki & Engström, 2014). More specifically, another study identified a lack of clarity around which healthcare team members were responsible for initiating sexuality-related conversations as a significant barrier to RSH practice among nurses (Nagel & Neal, 2008). These findings suggest that explicitly stating the organization's expectations about screening, education, and treatment of RC may help clarify roles and improve the frequency of RC-responsive practice. Just as doctors at Catholic hospitals are prohibited from providing contraception and abortion by the policies spelled out in the Ethical and Religious Directives for Catholic Health Care Services (United States Conference of Catholic Bishops, 2009), so too should DV organizations that wish to promote comprehensive RSH services establish explicit guidelines for their advocates to follow to carry forward this mission.

### **Current Study**

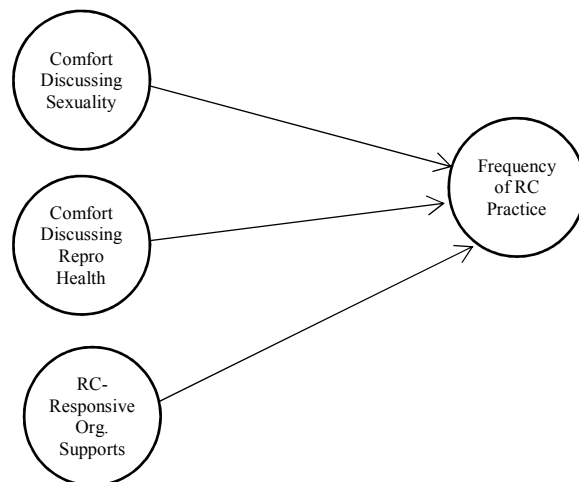
The current study aimed to provide insight into the relative impacts of individual comfort and organizational supports on the frequency of RC-responsive practice among DV advocates. This research sought to help DV organizations make empirically informed decisions about which intervention(s) to undertake in order to address the most impactful barriers to RC-responsive practice. The study examined data from a multi-state online survey of domestic violence direct service providers. Participants included paid staff and volunteers from DV victim service focused agencies who carried out direct service tasks such as crisis line coverage, case management, therapy, intake processing, children's advocacy, or medical, legal, housing or general adult advocacy. These participants, hereafter referred to generally as "advocates," were surveyed about their universal and targeted RC practices. They were asked about their comfort

level discussing sexuality and reproductive health, as well as the presence of RC-responsive organizational supports. The study first describes the advocates' practice and perceptions, and then tests the following hypotheses:

1. Higher levels of comfort discussing sexuality will be associated with more frequent universal and targeted RC practice.
2. Higher levels of comfort discussing reproductive health will be associated with more frequent universal and targeted RC practice.
3. The number of RC-responsive organizational supports will be positively associated with more frequent universal and targeted RC practice.

3a. Exploratory Research Question: Are certain combinations of RC-responsive organizational supports more influential than other combinations?

4. The combination of comfort discussing sexuality, comfort discussing reproductive health, and organizational supports will significantly predict both types of RC practice.



*Figure 1.* Simplified Study Model for Hypothesis Four.

## **METHOD**

### **Survey Construction**

In order to develop an online survey related to RC practices, we first consulted with three organizations around the country with expertise in this area: a national training and technical assistance leader, a state domestic violence coalition, and a local DV service program. These organizations have led the field in helping local programs incorporate reproductive and sexual health-responsive practices into domestic violence organizations by developing innovative approaches therein and/or providing related training and technical assistance. Representatives of these organizations provided ongoing insight into advocates' attitudes and practices in this arena based on their experiences in the field, informed the researchers where additional information was needed to inform future intervention efforts, and gave feedback on drafts of the survey. Combining their input with the relevant literature from public health and nursing, we developed a brief survey, which was then piloted by the staff of two domestic violence programs for clarity and functionality. The survey was estimated to take 15-20 minutes to complete, and included the option for participants to skip questions or end the survey early if they should wish to do so.

### **Survey Recruitment and Administration**

Human subjects approval was obtained through Michigan State University's Institutional Review Board before the start of data collection. The finalized survey was distributed nationally in August 2015 to all state domestic violence coalitions. At the request of the National Resource Center on Domestic Violence and the investigators via a national coalition listserv email, state coalitions were encouraged to use various modes of online contact to invite advocates in their states to participate. State coalition staff who opted to help recruit participants then sent out information about the survey via email or online bulletins to local domestic violence focused

programs who were members of their coalition. These entities generally included domestic violence service programs, dual domestic violence and sexual assault focused programs, and general crime victim services organizations. The sample recruitment emails provided to state coalitions included language inviting direct service staff and volunteers of domestic violence programs to participate in a brief anonymous online survey about their work with survivors. The recruitment email intentionally left out the fact that the survey pertained to reproductive coercion, in order to minimize self-selection bias based on either strong interest or disinterest in the topic.

A reminder email from the National Resource Center on Domestic Violence and the investigators was circulated via the same national coalition listserv two weeks after the launch of the survey to encourage coalitions to distribute the information. Finally, in order to boost participation the investigators extended the time frame for responses by 10 days and connected via email with contacts at coalitions in states where few or no surveys had been completed three weeks after the survey launch. These targeted invitations served to remind coalition members of the opportunity to assist with recruitment, and to answer any questions they may have regarding the survey. The survey was open for a total of five weeks, and was closed in September, 2015.

Program staff were eligible to begin the online survey if they lived in the United States or a US territory, were at least 18 years old, were proficient in reading English, and were currently employed by or volunteering for a program that primarily provides direct services to survivors of IPV in a direct service role. All participants were consented on the initial screen of the survey, and warned about the potentially sensitive nature of the questions. Participation in the brief online survey was anonymous unless participants chose to share their email address for a chance to win a \$25 gift card in a drawing, in which case participants' identities were kept confidential.

The survey was started 2377 times. 1879 of these potentially duplicated individuals consented to participate and were randomized into one of four surveys related to reproductive and sexual health practices in domestic violence service settings. A total of 471 participants were randomized to complete the survey related to *reproductive coercion- organizational supports*. In the initial demographics portion of the survey, participants were asked questions regarding their work. As the target population for the survey was individuals who work in direct service with survivors more than 50% of the time (regardless of number of hours worked or volunteered per week), and have at least 50% of their clients fit the description of “women abused by men,” 97 individuals who did not fit this criteria were screened out following this section and were not included in the analysis. Finally, three respondents were ultimately excluded from the analysis because they failed to complete at least one of the substantive scales of interest, resulting in a final sample of 371 advocates.

## **Measures**

To date, no validated scales exist that capture information about provider practice related to addressing reproductive coercion. In order to answer the study’s research questions, five measures were created or adapted in collaboration with the consultant organizations, incorporating relevant literature and studies of service delivery provider capacity. To ensure participant comprehension of the concept of reproductive coercion, a note about its definition was included at the top of each relevant survey page:

“Note: For this survey, we are defining *Reproductive Coercion* as behaviors an abusive partner uses to maintain power and control around reproductive issues (such as "attempting to impregnate a partner against her wishes (pregnancy pressure), controlling outcomes of a pregnancy (pregnancy coercion), coercing a

partner to have unprotected sex (sexual coercion), or interfering with her attempts to use birth control (birth control sabotage)").”

First, an existing scale was modified to capture participants’ comfort discussing sex and sexuality. *Comfort Discussing Sexuality with Clients* is an 11-item scale using two subscales from the Sexual Health Care Scale-Attitude (Kim, Kang & Kim, 2011): (1) discomfort in providing sexual health care (7 items), and (2) feeling uncertain about patient’s acceptance (4 items). These items were modified to represent survivors of IPV rather than patients and were answered using a three-point scale (1 = agree, 2 = uncertain and 3 = disagree). A mean scale score of reverse coded responses was calculated for each participant that represented their average level of comfort discussing sexuality with clients ( $M = 2.48$ ,  $SD = 0.48$ ,  $\alpha = 0.90$ ).

The 6-item measure, *Comfort Discussing Reproductive Health with Clients*, assessed participants’ comfort level talking with clients about topics related to reproductive health (e.g., birth control; pregnancy termination; adoption; emergency contraception). The scale used a 4-point response format, ranging from 1 = very uncomfortable, to 4 = very comfortable. A mean scale score was calculated for each participant that represented their average level of comfort discussing reproductive health topics with clients ( $M = 1.69$ ,  $SD = 0.66$ ,  $\alpha = 0.87$ ).

The *Universal RC Practice scale* included 10 items that asked the frequency with which advocates engaged in particular skills relevant to reproductive coercion with all clients (e.g., providing information to all clients about emergency contraception; screening for RC). Advocates were asked how frequently they engaged in each practice in the last year using a six-point response format (1 = never to 6 = always). A mean scale score was calculated for each participant that represents their average frequency of engagement in RC-related practices with their general client population ( $M = 2.16$ ,  $SD = 0.92$ ,  $\alpha = 0.89$ ).

The *Targeted RC Practice scale* included 6 items that asked the frequency with which advocates engage in particular RC-related skills with survivors that they knew or believed to have experienced reproductive coercion (e.g., helping acquire a pregnancy test; incorporating RC considerations into safety planning). Advocates were asked how frequently they engaged in each practice in the last year using a six-point response format (1 = never to 6 = always). Participants were only asked these questions if they identified that they had worked with one or more clients in the past year that they believed or knew to have experienced reproductive coercion ( $n=180$ ). A mean scale score was calculated for each participant that represents their average frequency of engagement in RC-related practices with survivors of RC ( $M = 2.41$ ,  $SD = 1.10$ ,  $\alpha = 0.88$ ).

The *RC-Responsive Organizational Supports index* included 15 items that asked about the presence or absence of a list of supports that are thought to promote RSH and RC-responsive care (e.g. having a RSH resource list, displaying RSH materials, including intake questions about unwanted pregnancy or birth control, offering EC or pregnancy tests on site; see Table 5 for complete list of items). Advocates answered using a five-point response format (1=Yes, 2=I think so, 3= I don't think so, 4= No, 5= Have no idea). Responses were recoded into a dichotomous Yes or No format (1&2 = Yes (1); 3&4= No (0); 5=Missing). An index score was calculated for each participant that is equal to the sum of the "yes" answers, representing the total number of supports in place at the advocate's organization ( $M = 4.31$ ,  $SD = 2.94$ ).

Advocates were also asked for socio-demographic information, their role in their organization, and the length of time they had been working with IPV survivors, among other details regarding their service population and professional position.

## **Analytic Techniques**

**The need for Rasch measurement.** Before data analysis began, the survey data were reviewed using Rasch Measurement techniques to 1) understand how the measures were operating, and 2) correct for common psychometric issues that can result in incorrect statistical conclusions. This technique was chosen because the survey data were comprised of multiple scales created for this study, some ordinal and some nominal, and each using different response options. An ideal approach to analyzing data such as this is the Rasch Analysis technique. Below is a brief description of Rasch Analysis, why this process was chosen, and how it addresses four psychometric issues particularly relevant to this study (ordinal data, unequal difficulties among items, data noise, and missing data).

Rasch measurement, in part, can be thought of as a psychometric technique by which measurement scales (e.g., surveys, tests) can be built and used in studies. As a researcher, one has to do many things, such as design an instrument, prove an instrument is reliable and valid, revise an instrument, and compute scale scores that are used for parametric statistical tests. Rasch measurement allows one to do all these things as part of one process. A full description of the logic and math behind Rasch Measurement is beyond the scope of the current study; however, detailed explanations are provided elsewhere (Boone, 2016). Briefly, the process involves a number of activities, which often include testing to see if the data meet Rasch model expectations; information on the quality of individual items, including individual item fit; testing the assumption of unidimensionality; checking to see if the scale works in the same way across groups (invariance as determined by Differential Item Functioning); and examining the reliability and targeting of the scale to the sample. All of these activities provide a strategy by which sample-independent item measures and item-independent respondent measures can be



computed.

While this approach may sound complex, the benefits of undertaking such steps rather than a traditional psychometric examination of scales are manifold. Psychometric evaluation of such scales is traditionally conducted using factor analytic techniques (confirming the presence of one or more valid unidimensional scales) and/or the calculation of Cronbach's alpha. In recent years, however, other more advanced psychometric approaches such as Rasch Analysis have been developed to improve the precision with which researchers construct instruments, monitor instrument quality, and compute respondents' scores. While factor analysis and the calculation of Cronbach's alpha can assess traditional psychometric standards of validity and reliability by confirming the presence of one or more valid unidimensional scales, Rasch techniques can do this and more.

In addition to testing for unidimensionality, Rasch analyses allow researchers to intensively examine the extent to which patterns of responses are predictable given what we know about the trait we are measuring and the sample we have surveyed. In other words, assuming only one trait is being measured the responses of each person to each item should be predictable based on their responses to other items within a scale. This information can help researchers know if they should remove particular items that don't fit this predictable pattern, collapse two or more categories of item responses, or add new items to capture aspects of the trait that are currently missing. In addition to assessing the quality of a measure, other common problems with survey data may also be addressed within the framework of the Rasch model. These include complications from ordinal data, unequal difficulties among items, data noise, and missing data. These problems and the solutions that Rasch measurement offers are detailed below.

Rasch analysis addresses two challenges associated with ordinal survey data: 1) understanding the degree of difference between responses, and 2) understanding how these degrees of difference may change throughout the survey. In community psychology, as in many other specialties, surveys often use self report rating scales (e.g. strongly agree, agree, disagree, and strongly disagree; never, sometimes, usually, always). The data from these scales are *ordinal*, meaning that the researcher only knows the *order* of the responses (that the response of “strongly disagree” is a lower level of agreement than “disagree”) but not the *degree* of difference (how much lower “strongly disagree” is). With ordinal data, we do not know if the intervals between the responses (strongly agree-agree, agree-disagree, disagree-strongly disagree) are equal in size. In other words, we do not know if “agree” is truly halfway between “disagree” and “strongly agree.” Even if these responses are coded as “3”= agree, “2”=disagree, and “1”=strongly disagree in a dataset, these numbers are arbitrarily assigned, and do not represent actual distances.

Not only may the steps between neighboring rating categories be unequal, but the pattern of steps may differ from question to question. Figure 3 (Boone, 2016, p.2) shows the potential unequal spacing of rating-scale categories along a line of “agreeableness” for three survey items. In this figure we can see that the threshold of “agreeableness” in moving from one category to the next is equal in Question 5, but the space between disagree and agree is much further apart in Question 8. This suggests it would take a great deal more “agreeableness” to move between these two responses than to move from strongly disagree to disagree. Conversely, the space between agree and disagree is much closer in Question 10. This suggests these categories may essentially be identical, that is, they reflect the same level of agreeableness to the question.

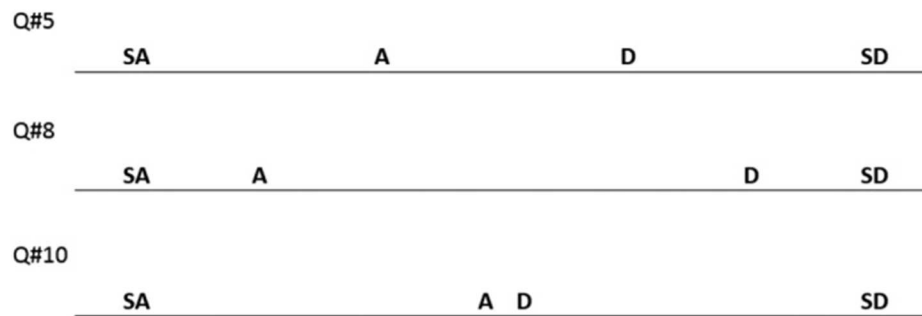


Figure 2. “Example survey rating scale. For the Q#5 scale, the “jump” between each of the ratings is equal. For the second (Q#8) and third (Q#10) scales, the “jump” from each rating to the next rating is not equal. Furthermore, the way the rating scale functions across the items is not identical. All that a researcher can assert is that the rating scale is ordinal ( $SA > A > D > SD$ ) for each item” (Boone, 2016, p. 2; SA=Strongly Agree; A=Agree; D=Disagree; SD=Strongly Disagree).

Rasch Analysis can be used to overcome the problems with ordinal data by helping researchers compute *equal* interval (linear) measures by essentially transforming the *non-equal* interval rating scales. This is important because if parametric tests such as regression and ANOVA are used on raw data without any transformation, a researcher may be violating requirements of these tests. Ignoring the parametric requirement of using linear measures, as researchers often do, can result in incorrect statistical conclusions. For example, a researcher may think an intervention has not had a significant impact upon clients when it really has impacted them at a statistical level of significance. Rasch techniques offer a way to avoid these pitfalls and make use of rating-scale data to compute linear “person measures.” The term “person measure” is the name of the Rasch scale number that expresses the performance of a scale respondent, taking into account the measurement nuances described herein.

Another challenge accounted for by Rasch person measures is the existence of *unequal difficulties* across all survey items. Just as all test items cannot be assumed to exhibit the same

degree of difficulty, all survey items should not be assumed to be equally easy to agree to. For example, a 3 (agree) in response to item 8 of a survey should not be assumed to indicate the same level of agreement with the overall scale as answering a 3 (agree) to item 10. Rasch analysis allows researchers to see how items act on a continuum of “easiest” to agree with, to “hardest” to agree with, and adjusts items’ weights in participants’ scores accordingly.

To understand this issue, consider an imaginary instrument intended to capture new DV advocates’ self-efficacy related to their job. One item might be “I work to find better ways to advocate for my clients,” and another “I am very effective in helping my clients deal with their legal problems.” It is likely the case that advocates new to the field may have more confidence in their ability to find better ways to work with their clients than their ability to immediately perform highly on a complicated task - dealing with legal issues. As such, it may be easier for a new advocate to answer “4-strongly agree” to the item concerning finding better ways to advocate for clients in comparison to answering “4-strongly agree” to the item involving legal problems. If a simple sum score of the items were used to represent advocates’ level of self-efficacy, both questions would be contributing equally to the assessment of this trait without any regard for the different levels of difficulty. Conversely, if Rasch Analysis was used, the degree to which each item is easy or more difficult to agree with would be taken into account when the person measures were calculated. Additionally, the researcher would be able to see the relative difficulty of each question, which can help to assess if the survey includes a sufficient number of easy, medium, and difficult to agree with items that can capture respondents at all levels of the construct.

Rasch techniques also allow for the identification of items that don’t contribute meaningfully to measurement or that create unnecessary “noise” in the data. Such items might

include questions that don't help differentiate between levels of the construct (e.g. everyone answered the question the same way), or questions that aren't working correctly (e.g. an easy multiple choice question that was answered incorrectly by respondents who otherwise did well on the test). These items can be identified by reviewing fit statistics for each instrument item; if an item does not clearly fit, it is often best to remove it from the instrument.

Another challenge aided by Rasch Analysis is *missing data*. When respondents do not answer all items on a survey, researchers must make a decision about how to deal with that missing information. Commonly, researchers choose rather rudimentary solutions, such as removing the respondent from the study overall, replacing the missing data with the mean for that item, or inserting a respondent's most frequent answer to the other scale questions. This can negatively impact the results of data analyses. Instead of employing these less desirable techniques, researchers can simply use a Rasch Measurement approach. Rasch measurement does not require that a respondent have answered all items on a survey to be assigned a person measure. Rather, the mathematical properties of Rasch Measurement (which are beyond the scope of the current description) dictate that not all items need to be completed by all respondents to calculate accurate person measures.

In summary, Rasch techniques involve corrections for a variety of psychometric issues (e.g., rating scales are ordinal, not all survey items are the same level of difficulty, items are not useful, data are missing) so that accurate representations of respondents' scores can be computed as "person measures." This process involves a number of activities, which include testing the assumption of unidimensionality using factor analysis; assessing fit information to examine the quality of individual items and to look for outlying individual responses; and examining a Wright

Map to explore how well the scale targets the sample. A description of a Rasch analysis conducted in Winsteps (Linacre, 2012) with each study scale is provided below.

**Rasch analysis of measures.**

*Comfort discussing sexuality with clients.* The *Comfort Discussing Sexuality with Clients* scale was first examined using an Exploratory Factor Analysis (EFA) in SPSS to determine if it met the Rasch Measurement criteria of examining a singular construct. Principle axis extraction was used to identify the initial set of uncorrelated factors. Two factors emerged as having Eigenvalues greater than one; these factors explained approximately 62% of the shared variance. However, additional evidence supported a one factor solution, including a sharp drop off in the scree plot between the first and second factors, and a relatively low drop in variance explained (62% to 51%) in moving from a two to one factor solution. Additionally, in this initial unrotated solution all items' largest loadings exceeded 0.59 and were on Factor 1, suggesting a one factor solution might be sufficient. In order to further aid interpretation, a Promax (oblique) rotation was conducted. The Promax rotation factor correlation matrix revealed a strong relationship between the factors (0.65), providing further support for a one factor solution. Finally, the Promax two factor solution had three items that primarily loaded on Factor 2. However, these items were originally from two different subscales of the Sexual Health Care Scale-Attitude (Kim, Kang & Kim, 2011) which was the basis for this measure, suggesting an atheoretical pattern that might be specific to this sample. Given this collection of evidence, a one factor solution was retained, suggesting that a Rasch analysis may be undertaken of the singular construct of *Comfort Discussing Sexuality with Clients*.

A Rasch Analysis was then undertaken using the Winsteps program (Linacre, 2012). The quality of data entry and coding were in part verified through a review of the Winsteps item

entry table, which suggested the data were ready to be analysed. Prior to statistical analysis of final person measures, item and person fit and reliability statistics were examined to evaluate data quality. First, fit statistics were utilized to identify respondents who might have provided idiosyncratic answers to one or more survey items (outliers). If an individual's Person Outfit MNSQ was more extreme than  $\pm 2$ , her Person Outfit ZSTD scores were examined. If the Outfit ZSTD score was more extreme than  $\pm 3$ , the individual was marked as a misfitting respondent. A review revealed a total of six misfitting respondents. These individuals' responses to each item were examined; those responses which had a z-residual greater than 3 were removed from the data set. Doing so improved overall person and item fit, and person and item separation. An analysis of Item Fit was also conducted. No items were identified that exceeded the acceptable range for Item Outfit MNSQ or Item Infit MNSQ. Next, a review of the functioning of rating scale categories was completed. As was expected, each response was "most probable" for some combination of item difficulty and person measure, and none of the items' ratings exhibited disordering in their average person measures. A final review of the overall person and item fit and person and item separation found that all indices were within acceptable ranges for statistical analyses (see Table 1).

Table 1.

*Descriptives, Fit Indices and Separation Indices for Rasch Analysis*

Scale	Valid N	Mean Person Measure	SD	Person Outfit (MNSQ)	Item Oufit (MNSQ)	Person Separation (Real, Non- Extreme)	Item Separation (Real, Non- Extreme)
Comfort Discussing Sexuality with Clie	325	2.02	2.19	0.90	0.90	1.97	8.57
Comfort Discussing Reproductive Health with Clients	370	2.45	2.35	1.04	1.04	1.55	9.80
Universal Reproductive Coercion Practice	362	-2.01	1.83	0.98	1.02	2.33	5.79
Targeted Reproducti Coercion Practice	189	-1.71	2.13	0.99	0.98	2.21	4.15
RC-Responsive Organizational Supports	338	-1.72	1.90	0.84	0.84	1.41	9.34

To evaluate the construct validity of the retained 11-item *Comfort Discussing Sexuality with Clients* measurement device, a Wright Map was constructed wherein each item and person is plotted using a Rasch measure. Lower person measures and lower item difficulties are presented at the base of the map, and respondents that are more comfortable discussing sexuality and items that are more difficult to disagree with are presented at the top of the map. Figure 3 presents this map with all items and respondents. An examination of this figure suggests that the measure may be too easy to agree with, as respondents generally skewed toward the top of the map. The mean item measure is nearly one standard deviation below the mean person measure, suggesting most of the people generally agreed with most of the items, and as such were quite comfortable discussing sexuality according to this tool. This analysis suggests that some changes



could be made to improve the precision of this scale in future studies, particularly around the identification of additional items to fill the measurement gap in the higher person measures.

However for the current examination, these person measures were saved for all respondents for parametric statistical analyses.



***Comfort discussing reproductive health with clients.*** The *Comfort Discussing Reproductive Health with Clients* scale was likewise first examined using an EFA. Principle axis extraction identified a single factor with an eigenvalue greater than one, which explained 62% of the shared variance. This factor structure suggested that a Rasch analysis may be undertaken of the singular construct of *Comfort Discussing Reproductive Health with Clients*.

A Rasch Analysis was then undertaken in Winsteps (Linacre, 2012) using the procedures identified in the previous section. The review of Person Outfit MNSQ and Person Outfit ZSTD revealed a total of six misfitting respondents. These individuals' responses to each item were examined; those responses which had a z-residual greater than 3 were removed from the data set. Doing so improved overall person and item fit, and person and item separation. No items were identified that exceeded the acceptable range for Item Outfit MNSQ or Item Infit MNSQ, and the functioning of rating scale categories was as expected. A final review of the overall person and item fit and person and item separation found that all indices were within acceptable ranges for statistical analyses (see Table 1).

To evaluate the construct validity of the retained 6-item *Comfort Discussing Reproductive Health with Clients* measurement device, a Wright Map was constructed. Figure 4 presents this map with all items and respondents. An examination of this figure suggests that this scale, much like the *Comfort Discussing Sexuality with Clients* scale, may be too easy to agree with, as respondents generally skewed toward the top of the map. The mean item measure is one standard deviation below the mean person measure, suggesting most of the people generally agreed with most of the items, and as such were quite comfortable discussing reproductive health with clients according to this tool. This analysis suggests that some changes could be made to improve the precision of this scale in future studies, particularly around the identification of

Figure 4. Wright map for Comfort Discussing Reproductive Health with Clients



***Universal reproductive coercion practices.*** The *Universal RC Practice* scale was also first examined using an EFA. Principle axis extraction identified a two factor solution that explained 66% of the shared variance. However, similar to the Comfort Discussing Sexuality with Clients scale above, additional evidence supported a one factor solution. This evidence included a sharp drop off in the scree plot between the first and second factors (eigenvalues of 5.39 and 1.19, respectively), and a relatively low drop in variance explained (66% to 54%) in moving from a two to one factor solution. Additionally, in this initial unrotated solution all items' largest loadings exceeded 0.51 and were on Factor 1, suggesting a one factor solution might be sufficient. In order to further aid interpretation, a Promax (oblique) rotation was conducted. The Promax rotation factor correlation matrix revealed a strong relationship between the factors (0.64), providing further support for a one factor solution. Finally, the Promax two factor solution had three of the 10 items primarily load on Factor 2—the frequency with which respondents “Gave out RC brochure/information card,” “Talked about RC as a health concern,” and “Asked about birth control sabotage.” However, these items do not appear to capture a theoretical aspect of universal RC practices that is conceptually distinct from the other seven items, as both potential “factors” include screening and education components related to an array of RC-relevant topics. This suggests the extraction of a second factor may be the result of an atheoretical pattern specific to this sample. Given this collection of evidence, a one factor solution was retained, suggesting that a Rasch analysis may be undertaken of the singular construct of *Universal Reproductive Coercion Practices*.

A Rasch Analysis was then undertaken in Winsteps (Linacre, 2012) using the procedures identified in the previous sections. The review of Person Outfit MNSQ and Person Outfit ZSTD revealed a total of fourteen misfitting respondents. These individuals' responses to each item

were examined; those responses which had a z-residual greater than 3 were removed from the data set. Doing so improved overall person and item fit, and person and item separation. Next, a review of Item Outfit MNSQ and Item Infit MNSQ revealed misfit in Item 9 (*Offered a survivor a free at-home pregnancy test*) and Item 10 (*Asked a pregnant survivor if she and her partner agree about what she should do about her pregnancy*). Item 9 exceeded the appropriate level of Outfit MNSQ & ZSTD (1.53, 5.0), and Item 10 exceeded the acceptable level of Infit MNSQ & ZSTD (1.87, 7.3). These fit statistics suggest underfit, meaning there is too much unexplained variance in the data. In order to correct this misfit, individual responses to Items 9 and 10 that had a z residual at or beyond +/- 3 were deleted. This resulted in the deletion of five responses to Item 9, and eleven responses to Item 10. Following this procedure, a new Rasch Analysis revealed that Item 10's Outfit MNSQ was now within an acceptable range (1.15), but that Item 9's Infit MNSQ and ZSTD were largely unchanged (1.84, 6.9). Consideration was given to deleting individual responses with a z residual of +/- 2 to further improve Item Fit, but doing so would have resulted in the deletion of approximately 10% of the sample's responses, a misfit rate which is much higher than the 5% rate that would be expected by chance (Boone, Staver, & Yale, 2014). As such, Item 9 was considered for deletion from the scale.

First, an examination of the substantive significance of the item was undertaken. In comparison to the other items on the scale, it may be the case that Item 9 (*Offered a survivor a free at-home pregnancy test*) captures a conceptually distinct element of RC-responsive practice that is, in fact, a separate construct. The frequency with which an advocate is able to offer a free pregnancy test is largely contingent on whether their agency *has* that relatively expensive physical resource. This stands in contrast to the majority of other practices on the scale, which focus on information sharing or screening—practices that don't require stocking costly materials

on site. The exception to this rule is Item 1 (*Give out brochure or info card*), which also touches on a physical resource-dependent factor. However, one might argue that 1) the financial cost of these resources differs greatly, with brochures being much less expensive than pregnancy tests, and that 2) brochures are a much more common resource for advocates to distribute in their practice than pharmaceutical devices. Additionally, the presence or absence of such informational materials might be much more strongly connected with information sharing or screening practices than pregnancy tests, as such cards are often provided alongside training for advocates on how to engage in information sharing and screening practices. The data also provide preliminary support for this conclusion, as most of the other items on the scale have slightly higher correlations with Item 1 than with Item 9. Given the potentially theoretically distinct nature of the item, its high misfit values, the threat to measurement presented by item infit problems, and the difficulty of diagnosing and remedying them (Boone, Staver, & Yale, 2014), the decision was made to exclude this item from the scale.

This resulted in a nine item *Universal RC Practices* scale. All remaining items fit the model within an acceptable range. An examination of the functioning of rating scale categories for each item revealed that Item 1 had an unexpected pattern of mean person measures. The mean person measure for the response “Almost Always” was lower than for the response “Sometimes,” which violated the assumption that the mean measures should grow higher with each response category. However, this was likely the result of the small number of respondents—only one—who used the “Almost Always” response, and as such this anomaly was not acted upon. A final review of the overall person and item fit and person and item separation found that all indices were within acceptable ranges for statistical analyses (see Table 1).

To evaluate the construct validity of the new 9-item *Universal RC Practice* measurement device, a Wright Map was constructed. Figure 5 presents this map with all items and respondents. An examination of this figure suggests that this scale may have been difficult, as respondents generally skewed toward the bottom of the map. The mean item measure is more than one standard deviation above the mean person measure, suggesting most of the people generally had low frequencies with which they engaged in most of the Universal RC Practices. Additionally, the item measures are quite close together, suggesting there may be too many items oversampling one level of the trait. The small amount of variation that does exist demonstrates that the least frequent practices were Item 1 (*Giving a brochure or info card*), and Item 6, (*Giving info about emergency contraception*), and the most frequent practices were Item 5 (*Asking if survivor wanted to talk to a healthcare worker about reproductive health*) and Item 8 (*Offering information about getting a pregnancy test elsewhere*). This ordering is aligned with expectations, as advocates would likely be more comfortable referring clients elsewhere for reproductive health-related discussions and services than offering such education or resources themselves. This analysis suggests that some changes could be made to improve the precision of this scale in future studies, particularly around the identification of additional items to fill the measurement gap in the lower person measures and potentially the deletion of items that seem to capture similar frequency of practice levels. However for the current examination, these person measures were saved for all respondents for parametric statistical analyses.



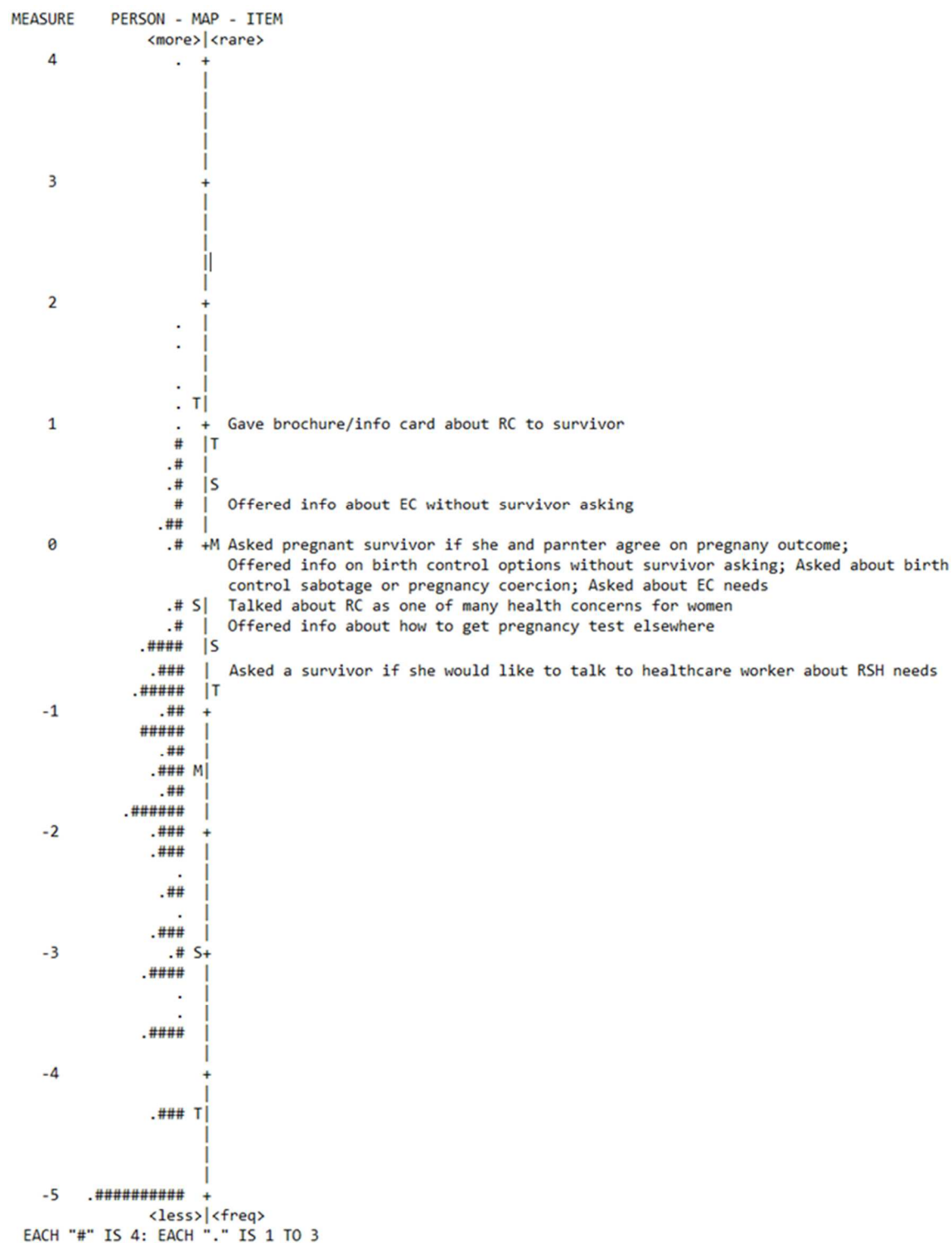


Figure 5. Wright map for Frequency of Universal RC Practice.

***Targeted reproductive coercion practices.*** The *Targeted RC Practices* scale was first examined using an EFA. Principle axis extraction identified a single factor with an eigenvalue greater than one, which explained 62% of the shared variance. This factor structure suggested that a Rasch analysis may be undertaken of the singular construct of *Targeted RC Practices*.

A Rasch Analysis was then undertaken in Winsteps (Linacre, 2012) using the procedures identified in the first section. The review of Person Outfit MNSQ and Person Outfit ZSTD revealed a total of seven misfitting respondents. These individuals' responses to each item were examined; those responses which had a z-residual greater than 3 were removed from the data set. Doing so improved overall person and item fit, and person and item separation. Item 3 (*Helped a survivor get a pregnancy test*) exceeded the acceptable range for Item Outfit MNSQ and ZSTD (1.36, 2.7) and Item Infit MNSQ and ZSTD (1.54, 4.0). These fit statistics suggest underfit, meaning there is too much unexplained variance in the data. In order to correct this misfit, individual responses to Item 3 that had a z residual at or beyond +/- 3 were deleted. This resulted in the deletion of three responses to Item 3. This brought Item 3's Outfit MNSQ within the acceptable range (1.23), and lowered Infit MNSQ and ZSTD (1.38, 2.9) but did not rectify the Infit problem entirely. In order to further improve item fit, 13 individual responses with a z residual of +/- 2 on Item 3 were deleted. Following this procedure, a new Rasch Analysis revealed that Item 3's Infit MNSQ was now within an acceptable range (1.00), and that the functioning of rating scale categories was as expected. A final review of the overall person and item fit and person and item separation found that all indices were within acceptable ranges for statistical analyses (see Table 1).

To evaluate the construct validity of the 6-item *Targeted RC Practices* measurement device, a Wright Map was constructed. Figure 6 presents this map with all items and

respondents. An examination of this figure suggests that this scale may have also have been difficult, as respondents generally skewed toward the bottom of the map. The mean item measure is slightly less than one standard deviation above the mean person measure, suggesting most of the people generally had low frequencies with which they engaged in most of the Targeted RC Practices, though perhaps slightly more frequently than the items in the Universal RC Practices scale. This may be the result of a small set of outliers with very high person measures, or a function of the smaller group of people who completed this scale due to the survey skip pattern. (Participants were only asked these items if they reported having a client they believed had experienced RC in the last year.)

Additionally, the item measures are quite close together, suggesting there may be too many items oversampling one level of the trait. The small amount of variation that does exist demonstrates that the least frequent practices were Item 4 (*Discussing pregnancy termination options*), and Item 3 (*Helping survivor get pregnancy test*), and the most frequent practices were Item 6 (*Asking pregnancy survivor if she and her partner agree on what to do about pregnancy*) and Item 5 (*Incorporating RC into safety planning*). This ordering is aligned with expectations, as pregnancy termination is commonly challenging for people in the U.S. to discuss (Guttmacher, 2016). Likewise, advocates may expect that pregnant survivors are more likely to expect questions about their reproductive health than non-pregnant survivors, and may be more likely to see comprehensive safety planning as part of their role than other RC-responsive practices. This analysis suggests that some changes could be made to improve the precision of this scale in future studies, particularly around the identification of additional items to fill the measurement gap in the lower person measures and potentially the deletion of items that seem to

capture similar frequency of practice levels. However for the current examination, these person measures were saved for all respondents for parametric statistical analyses.

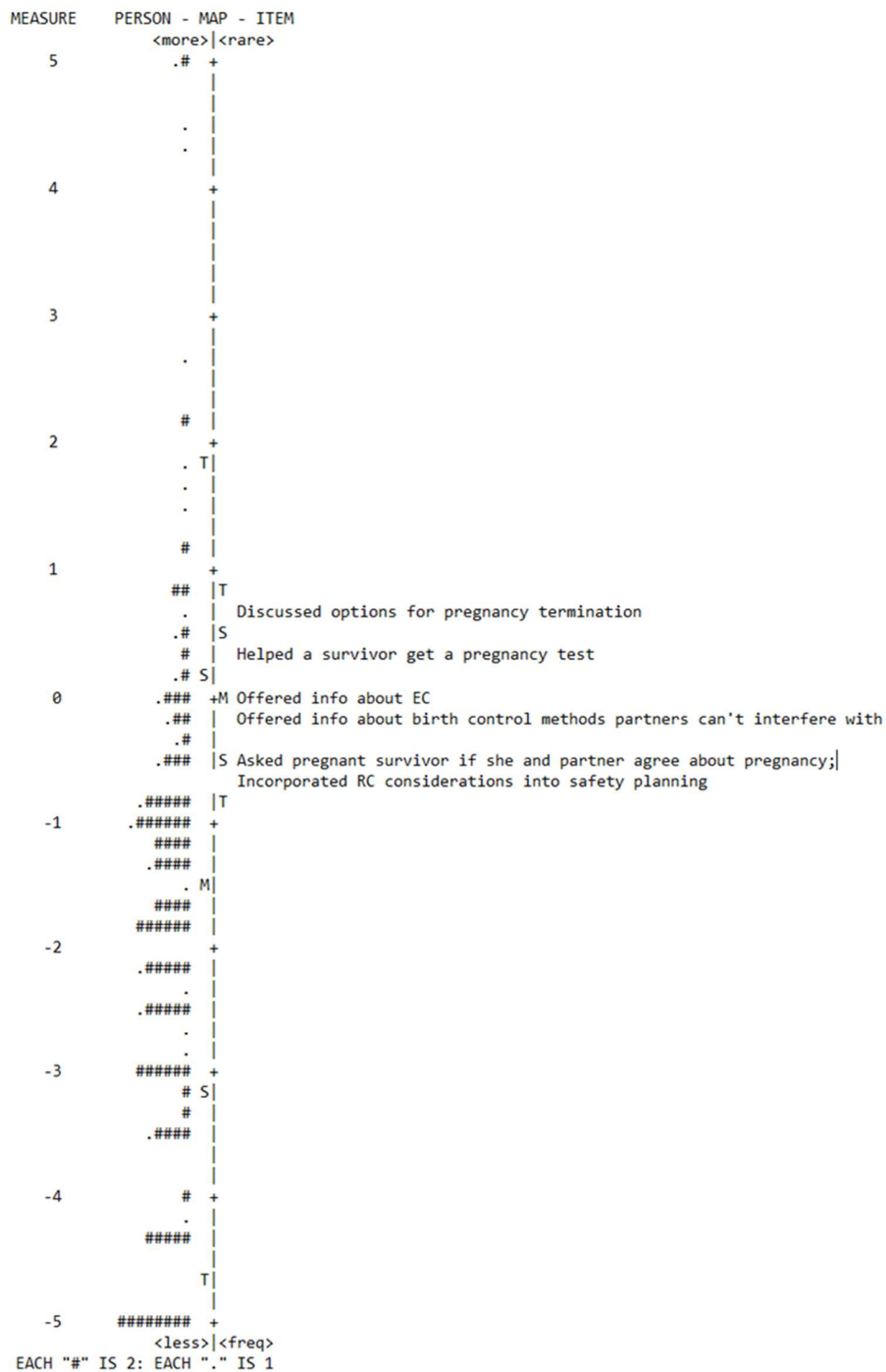


Figure 6. Wright map for Frequency of Targeted Reproductive Coercion Practice.

***RC-responsive organizational supports.*** Because the *RC-Responsive Organizational Supports* scale uses dichotomous items, an exploratory factor analysis was not appropriate. In order to determine the extent to which these items may be treated as a single construct, a Rasch analysis was undertaken.

A Rasch Analysis was completed in Winsteps (Linacre, 2012) using the procedures identified in the previous sections. The review of Person Outfit MNSQ and Person Outfit ZSTD revealed a total of nine misfitting respondents. These individuals' responses to each item were examined; those responses which had a z-residual greater than 3 were removed from the data set. Doing so improved overall person and item fit, and person and item separation. Item 15 (*Program has pregnancy tests available onsite*) exceeded the acceptable range for Item Outfit MNSQ and ZSTD (1.69, 3.5). These fit statistics suggest underfit, meaning there is too much unexplained variance in the data. In order to correct this misfit, individual responses to Item 15 that had a z residual at or beyond  $\pm 3$  were deleted. This resulted in the deletion of eleven responses to Item 15. This brought Item 15's Outfit MNSQ within the acceptable range (1.07). Other items exceeded the lower boundary of acceptable Outfit MNSQ, but their Outfit ZSTD scores did not exceed  $\pm 2$ , suggesting no action was required. Lastly, the functioning of rating scale categories was as expected for all items. A final review of the overall person and item fit and person and item separation found that, while the measure may be slightly overfit, all indices were within acceptable ranges for statistical analyses (see Table 1).

To evaluate the construct validity of the 15-item *RC-Responsive Organizational Supports* measurement device, a Wright Map was constructed. Figure 7 presents this map with all items and respondents. An examination of this figure suggests that this scale may have also have been difficult, as respondents generally skewed toward the bottom of the map. The mean item measure

is one standard deviation above the mean person measure, suggesting many of the people did not have many of these RC-responsive practices present at their organization. The items are more spread out than in previous scales, suggesting this scale performs better than the previous scales in sampling from different levels of its trait, organizational RC-responsiveness. However, there are large gaps, such as between the “easiest” supports to have in place (Item 1, *a private place to talk*, and Item 3, *resource list with RSH contacts*) and the medium level items. The ordering of the item is logical. For example, the aforementioned “easy” items are resources that are often present in DV programs, and the items about formal incorporation of RSH topics into required forms and processes (a much less common practice) are clumped together toward the more “difficult” end of the map. Interestingly, Item 4 (*required employee training*) and Item 5 (*leadership bringing up the topic*) were located at the same position, suggesting they may sample a similar facet of RC-responsive organizational practice. This analysis suggests that some changes could be made to improve the precision of this scale in future studies, particularly around the identification of additional items to fill the measurement gap between the easiest items and the medium/hard items. However, for the current examination, these person measures were saved for all respondents for parametric statistical analyses.

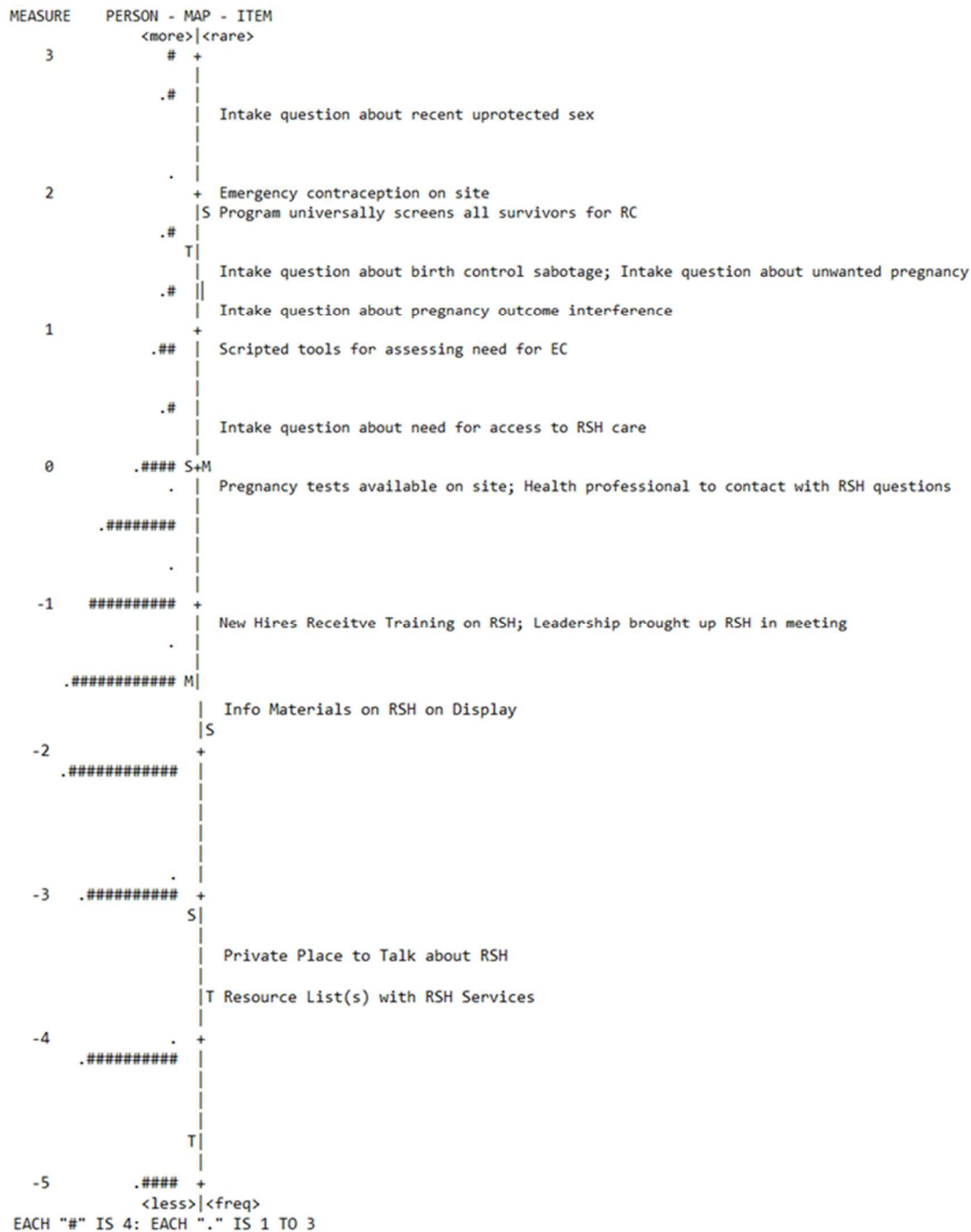


Figure 7. Wright map for Reproductive Coercion-Responsive Organizational Supports.

In summary, Rasch techniques were employed 1) to understand how the five study measures were operating, and 2) to produce “person measures” that correct for common

psychometric issues with survey data. This process involved a number of activities, wherein each measure was determined to be unidimensional; extreme or irregular individual responses were removed; items were adjusted or removed to ensure the quality of the scales; and the degree to which the scale adequately captures the trait in the sample was assessed. The person measures produced herein were used in the study's parametric analyses, which are described below.

**Descriptive and parametric analyses.** The study used a combination of statistical techniques to explore the nature of the sample, advocates' responses to the survey items, and relationships among the Rasch person measures. These techniques tested the substantive hypotheses outlined above by using linear regression, latent class analysis, ANOVA, and hierarchical regression. Each analysis is described in detail in the Results section.



## RESULTS

The results of the study are presented next. Following a description of the sample, an examination of the descriptive statistics for each of the study's scales was undertaken to describe the current state of comfort, practice, and organizational supports in the field. Next, advocate characteristics were examined as potential covariates of the study scales. Finally, the results of the statistical testing of the study hypotheses are presented.

### Sample Characteristics

The final sample included in the analyses was comprised of 371 participants from forty-four U.S. states and territories. The largest group of respondents from a state or territory was 40 and the smallest was one. The sample was comprised largely of heterosexual (85%), white (70%), middle-aged ( $M=40$  years,  $SD=13.96$ ) females (98%) and a majority of respondents (69%) identified as slightly to extremely politically liberal. On average, participants had worked or volunteered in the area of IPV services for almost eight years, and had worked at their current organization for almost three years. Over half of respondents identified their role in their organization solely as an advocate (58%), 9% identified as a combination of advocate and some other role (e.g., community education and prevention, outreach, counselor), 6% identified as Counselors, and 5% identified as Executive Directors. Five percent were volunteering for the organization; the remainder were paid staff.

Almost 40% of the represented organizations identified as domestic violence victim service agencies (39.8%), while 40% addressed both DV and sexual assault. Half of the respondents worked primarily in a communal shelter setting (47%), while 11.6% worked in Outreach/Satellite/Drop-in Offices and 11.3% worked in Counseling Office settings. Advocates perceived the political climates in the demographic areas within which they worked to range

from liberal (45.2%) to conservative (33.2%; 21.6% moderate) and reported that their organizations were located in rural (36%), urban (38%), suburban (14%), and mixed/other (12%) communities. Only 6% of respondents were aware of their organization having a religious affiliation.

## **Descriptive Statistics**

**Advocates' comfort discussing sexuality and reproductive health.** Advocates were asked a series of items about their level of comfort discussing sexuality and reproductive health with clients. On average, advocates indicated that they were comfortable discussing sexuality with their clients (see Table 2). Participants' reports suggest they generally did not perceive any discomfort to be rooted in their *own* misgivings about discussing sexuality. Over 80% of participants *disagreed* with the statement "I may be embarrassed if clients broach sexual issues" (82%). Additionally, approximately three-quarters of respondents reportedly disagreed with the statements "Discussing sex is a difficult thing to do" (76%) and "I feel uncomfortable discussing sex with clients" (74%). Conversely, advocates' greatest discomfort seemed to lie in their fear of their clients' reaction. A majority of participants agreed with or were uncertain what they thought about the statements "I am afraid clients would feel their privacy was invaded if I asked specific questions about sex" (64%) and "I am afraid clients would be offended if I broached sexual issues" (59%). This pattern did not hold for all items however; a large proportion of respondents disagreed with the statement "Clients would be uncomfortable if I broached sexual issues" (83%).

When asked about their comfort discussing a variety of reproductive health topics with their clients, responses were more mixed (see Table 3). A majority of advocates reported feeling *very comfortable* asking survivors about pregnancy coercion (70%); providing information about

concealable birth control methods (67%); and talking to a survivor about emergency contraception (61%). However, when it came to discussing condom negotiation tactics and options for putting a child up for adoption, levels of comfort appeared to drop. While 75% or more participants still reported feeling *somewhat* or *very comfortable* in these areas, the degree of comfort was certainly lessened. Finally, discussing pregnancy termination options with clients was by far the most contentious topic. 35% of advocates reported feeling *very* or *somewhat uncomfortable* with such conversations.

**Organizational supports.** Next, advocates were asked about whether or not their organization had a variety of supports present at their agency (see Table 4). The majority of respondents indicated that they either did NOT have the support or were not sure if they had the support on 12 of the 15 items. The most common supports reported were lists including reproductive and sexual health (RSH) resources (77%); private places to talk with clients about health concerns (74%); and posters, brochures or other informational materials about RSH openly displayed (51%). The least common supports were questions on an intake form about recent unprotected sex (6%); program-wide universal screening of all survivors for RC (9%); and emergency contraception available on site (9%). Additionally, few participants reported having any of the RC-responsive questions on their intake forms.

**Engagement in RC-responsive practices.** Next, survey respondents were asked how frequently they engaged in a variety of universal and targeted reproductive coercion-responsive practices when working with a survivor in the last year (see Tables 5 & 6). As was previously stated, universal RC-responsive practices are those actions that experts in the field believe advocates should be engaging in with 100% of clients. Interestingly, the sample *never* exceeded ten percent of advocates engaging in these practices 75% or more of the time. In fact, the

*majority* of respondents reported engaging in *all ten* practices less than 25% of the time. This included three items where the majority *never* engaged in the practice: offering a survivor a free at-home pregnancy test (67%); giving information cards about RC to a survivor (60%); and offering information about emergency contraception (51%).

One hundred eighty-nine advocates reported that they had worked with a survivor they knew or suspected had experienced RC in the last year. When this group was asked the frequency with which they engage in certain targeted-RC responsive practices in such situations, the response was somewhat improved. Although the majority of respondents still reported engaging in all practices less than 25% of the time, there were no items where a majority had *never* taken the action. Additionally, three items exceeded ten percent of advocates engaging in these practices 75% or more of the time: incorporated RC considerations into safety planning (16%); asked pregnant survivor if she and her partner agree about pregnancy (13%); and helped a survivor get a pregnancy test (11%). In short, the distribution of the responses shifted slightly more positively.

Table 2.

*Frequencies & Descriptives: Comfort Discussing Sexuality with Clients*


---

*Please respond to the following statements by ticking the column which best represents your attitudes.*

---

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Agree</i>	<i>Uncertain</i>	<i>Disagree</i>
1. Discussing sex is a difficult thing to do.	324	2.70	0.57	19 (5.9%)	59 (18.2%)	246 (75.9%)
2. I am not ready to talk about sexual issues with clients.	322	2.36	0.73	49 (15.2)	109 (33.9)	164 (50.9)
3. I am afraid conversation about sex with clients would bring about a distance between me and them.	324	2.50	0.80	63 (19.4)	36 (11.1)	225 (69.4)
4. Clients would be uncomfortable if I broached sexual issues.	325	2.78	0.51	14 (4.3)	42 (12.9)	269 (82.8)
5. I am reluctant to discuss sex with clients of the opposite sex.	324	2.28	0.81	74 (22.8)	85 (26.2)	165 (50.9)
6. It is uncomfortable to discuss sexual issues with clients.	322	2.59	0.67	33 (10.2)	65 (20.2)	224 (69.6)
7. I may be embarrassed if clients broach sexual issues.	324	2.77	0.52	15 (4.6)	45 (13.9)	264 (81.5)
8. I am afraid clients would feel their privacy was invaded if I asked specific questions about sex.	320	2.08	0.79	88 (27.5)	118 (36.9)	114 (35.6)

Table 2. (cont'd)

9. I feel uncomfortable discussing specific sexual activities with clients.	325	2.24	0.77	66 (20.3)	116 (35.7)	143 (44.0)
10. I am afraid clients would be offended if I broached sexual issues.	324	2.29	0.67	39 (12.0)	153 (47.2)	132 (40.7)
11. I feel uncomfortable discussing sex with clients.	325	2.69	0.57	18 (5.5)	66 (20.3)	241 (74.2)

---

Table 3.

*Frequencies & Descriptives: Comfort Discussing Reproductive Health with Clients*

<i>How comfortable do you feel doing the following?</i>							
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Very Uncomfortable</i>	<i>Somewhat Uncomfortable</i>	<i>Somewhat Comfortable</i>	<i>Very Comfortable</i>
1. Asking a survivor if she felt her partner was trying to get her pregnant when she did not want to be	367	3.61	0.70	11 (3.0%)	13 (3.5%)	85 (23.2%)	258 (70.3)
2. Giving a survivor information about birth control methods that are easy to conceal or hide from a partner	359	3.55	0.74	13 (3.6)	15 (4.2)	92 (25.6)	239 (66.6)
3. Talking to a survivor about emergency contraception (medications taken after unprotected intercourse that prevent pregnancy)	363	3.47	0.78	13 (3.6)	25 (6.9)	105 (28.9)	220 (60.6)
4. Talking to a survivor about how to negotiate condom use (convince a male partner to use a condom)	359	3.24	0.85	17 (4.7)	45 (12.5)	131 (36.5)	166 (46.2)
5. Talking with a pregnant survivor about her options for putting their child up for adoption	356	3.11	0.93	24 (6.7)	64 (18.0)	118 (33.1)	150 (42.1)
6. Talking with a survivor about her options for pregnancy termination	354	2.86	1.08	55 (15.5)	69 (19.5)	100 (28.2)	130 (36.7)

Table 4.

*Frequencies & Descriptives: RC-Responsive Organizational Supports Items*

<i>Now we are going to ask you a few questions about the organization where you currently work/volunteer.</i>			
	<i>N</i>	<i>Yes</i>	<i>No or Have No Idea</i>
1. Does your program have a private place that is regularly used to screen and talk with clients about health concerns?	338	250 (74%)	88 (26%)
2. Does your program have a particular health educator, nurse, PA or doctor the staff can contact with questions about reproductive and sexual health?	338	90 (27)	248 (73)
3. Does your program have a resource list(s) that identifies clinical referrals/resources for survivors who want to access reproductive/sexual health care?	337	258 (77)	79 (23)
4. Do new hires receive training on reproductive/sexual health issues (as related to DV/SA) during orientation?	336	139 (41)	197 (59)
5. Has anyone in a leadership position brought up reproductive/sexual health-related issues during meetings with staff (e.g., staff meetings, case reviews) in the <b>last year</b> ?	335	133 (40)	202 (60)
6. Are there any posters, brochures, and/or other informational materials about reproductive/sexual health openly displayed at your organization?	337	170 (51)	167 (49)
7. Does your organization's intake form include questions asking (directly or indirectly) if a survivor has recently (within the past 5 days) had unprotected sex?	335	20 (6)	315 (94)
8. Does your organization's intake form include questions asking (directly or indirectly) if a survivor is concerned about having an unwanted pregnancy?	335	38 (11)	297 (89)
9. Does your organization's intake form include questions asking (directly or indirectly) if a survivor needs access to reproductive/sexual health care?	335	70 (21)	265 (79)



Table 4. (cont'd)

10. Does your organization's intake form include questions asking (directly or indirectly) if a survivor has experienced birth control sabotage or otherwise had a partner try to get her pregnant without her consent?	335	38 (11)	297 (89)
11. Does your organization's intake form include questions asking (directly or indirectly) if a survivor has had a partner attempt to interfere with her desired outcome of a pregnancy?	335	45 (13)	290 (87)
12. Does your program universally screen all survivors for reproductive coercion?	335	30 (9)	305 (91)
13. Do staff in your program have scripted tools/instructions on how to assess for the need for emergency contraception?	335	50 (15)	285 (85)
14. Does your program have emergency contraception available on site?	335	29 (9)	306 (91)
15. Does your program have pregnancy tests available on site?	335	90 (27)	245 (73)

---

Table 5.

*Frequencies & Descriptives: Universal Reproductive Coercion (RC) Practice Items*


---

*How frequently have you done the following while working with a survivor at your current agency in the last year?*

Responses:

- Never (0%)
- Occasionally (1-25% of the time)
- Sometimes (26-50% of the time)
- Frequently (51-75% of the time)
- Almost always (76%-99% of the time)
- Always (100% of the time)
- [Only on #7: Not applicable- I've never worked with a pregnant survivor; Coded as missing]

---

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Never</i>	<i>Occasionall y</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>	<i>Always</i>
1. Gave a brochure or information card about reproductive coercion to a survivor	362	1.71	1.05	217 (59.9%)	75 (20.7%)	40 (11.0%)	21 (5.8%)	7 (1.9%)	2 (0.6%)
2. Talked about reproductive coercion as one of many health concerns for women	362	2.27	1.16	109 (30.1)	123 (34.0)	71 (19.6)	43 (11.9)	13 (3.6)	3 (3.6)
3. Asked whether a partner has sabotaged a survivor's birth control or otherwise tried to get her pregnant when she doesn't want to be	362	2.18	1.23	135 (37.3)	107 (29.6)	67 (18.5)	32 (8.8)	15 (4.1)	6 (1.7)

---

Table 5. (cont'd)

4. Asked (directly or indirectly) if a survivor may need emergency contraception	362	2.18	1.26	140 (38.7)	104 (28.7)	60 (16.6)	37 (10.2)	14 (3.9)	7 (1.9)
5. Asked a survivor if she would like to talk to a healthcare worker about her reproductive health needs	362	2.56	1.38	96 (26.5)	109 (30.1)	68 (18.8)	48 (13.3)	29 (8.0)	12 (3.3)
6. Offered information about emergency contraception (instead of waiting for the survivor to ask)	362	1.94	1.24	186 (51.4)	84 (23.2)	46 (12.7)	25 (6.9)	15 (4.1)	6 (1.7)
7. Offered information about birth control options (instead of waiting for the survivor to ask)	362	2.10	1.25	157 (43.4)	93 (25.7)	57 (15.7)	34 (9.4)	16 (4.4)	5 (1.4)
8. Offered a information about how to get a pregnancy test elsewhere	362	2.37	1.39	125 (34.5)	97 (26.8)	71 (19.6)	32 (8.8)	23 (6.4)	14 (3.9)
9. Offered a survivor a free at-home pregnancy test	362	1.76	1.32	242 (66.9)	42 (11.6)	37 (10.2)	16 (4.4)	13 (3.6)	12 (3.3)
10. Asked a pregnant survivor if she and her partner agree about what she should do about her pregnancy	343	2.27	1.30	118 (34.4)	111 (32.4)	53 (15.5)	34 (9.9)	19 (5.5)	8 (2.3)

Table 6.

*Frequencies & Descriptives: Targeted Reproductive Coercion (RC) Practice Items*


---

*If you know or suspect a female survivor has experienced [RC], how frequently have you done the following at your current organization in the last year?*

Responses:

- Never (0%)
- Occasionally (1-25% of the time)
- Sometimes (26-50% of the time)
- Frequently (51-75% of the time)
- Almost always (76%-99% of the time)
- Always (100% of the time)
- [Only on #6: Not applicable- I've never worked with a pregnant survivor in this situation; Coded as missing]

---

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Never</i>	<i>Occasionall y</i>	<i>Sometime s</i>	<i>Frequently</i>	<i>Almost Always</i>	<i>Always</i>
1. Offered information about emergency contraception (e.g. that a medication taken after unprotected intercourse can prevent pregnancy, how the medication works, how someone can get it)	189	2.37	1.40	61 (32.3%)	63 (33.3%)	26 (13.8%)	21 (11.1%)	9 (4.8%)	9 (4.8%)
2. Offered information about birth control methods that partners can't interfere with	189	2.44	1.40	62 (32.8)	46 (24.3)	44 (23.3)	17 (9.0)	13 (6.9)	7 (3.7)
3. Helped a survivor get a pregnancy test	188	2.26	1.49	82 (43.6)	45 (23.9)	22 (11.7)	18 (9.6)	12 (6.4)	9 (4.8)

---

Table 6. (cont'd)

4. Discussed options for pregnancy termination	189	2.07	1.22	75 (39.7)	64 (33.9)	27 (14.3)	11 (5.8)	8 (4.2)	4 (2.1)
5. Incorporated reproductive coercion considerations into safety planning to reduce survivors' risk of unwanted pregnancy or sexually transmitted infection	189	2.73	1.49	47 (24.9)	52 (27.5)	35 (18.5)	24 (12.7)	22 (11.6)	9 (4.8)
6. Asked pregnant survivor if she & her partner agree about pregnancy	181	2.66	1.47	47 (26.0)	52 (28.7)	31 (17.1)	27 (14.9)	15 (8.3)	9 (5.0)

---

## Demographic and Organizational Covariates of Study Scales

A number of individual as well as organizational level characteristics were examined to see if they related to advocates' comfort discussing sexuality, comfort discussing reproductive health, frequency of universal and targeted RC practices, and RC-responsive organizational supports. Table 7 displays significant correlations.

Table 7.

### *Bivariate Correlations Between Advocate Characteristics and Study Scale Person Measures*

Scale	Age	Years in DV Movement	Years at Organization	Estimated % of Clients who Experienced RC	Personal Political Conservatism
Comfort Discussing Sexuality with Clients	0.02	0.10	0.04	-0.06	-0.02
Comfort Discussing Reproductive Health with Clients	0.15**	0.20**	0.14	-0.01	-0.07
Universal Reproductive Coercion Practice	0.10	0.18**	0.23*	0.16**	0.12*
Targeted Reproductive Coercion Practice	0.16*	0.12	0.21	0.11	0.06
RC-Responsive Organizational Support	0.09	0.12*	-0.01	0.09	0.07

\*\* Correlation significant at the  $p < .01$  level (two tailed)

\* Correlation significant at the  $p < .05$  level (two tailed)

*Comfort Discussing Reproductive Health with Clients* was significantly correlated with respondent age and years of participation in the DV movement, suggesting more experienced and/or older advocates are more comfortable having such conversations. This pattern of age and experience modestly predicting person measures was found with several scales. *Universal RC Practice* person measures were significantly correlated with years in the DV movement and

years at one's organization, *Targeted RC Practice* person measures were significantly correlated with respondent age, and *RC-Responsive Organizational Supports* person measures were significantly correlated with years in the DV movement. Perception of clients' experiences of RC may also influence or be influenced by advocates' attitudes and practices. Advocates who reported that they had "worked with a survivor they knew or suspected had experienced RC in the last year" had significantly higher *Comfort Talking about Sex with Clients* ( $F(1, 332)=6.26, p<.05$ ) and *Universal RC Practice* ( $F(1, 359)=45.45, p<.001$ ) scores than advocates who did not believe they had worked with a survivor of RC in that time. Likewise, advocates' estimates of the percentage of their clients that they believed had experienced RC was significantly related to *Universal RC Practice* scores. Finally, personal political conservatism was significantly correlated with *Universal RC Practices*, suggesting that advocates who are more politically conservative may engage in such practices slightly more frequently. No significant correlation was found between percentage of time spent in direct service with survivors and any of the study scales, and no group differences were found based on race, gender identity, or sexual identity.

There were no significant differences in the study scales based on the political climate of advocates' organization's service area, their organization's religious affiliation, their role in their organization, nor on their main work setting. Likewise, no significant differences existed between organizations that offered only domestic violence services and organizations that offered both domestic violence and sexual assault services.

### **Hypothesis 1**

To test whether higher levels of comfort discussing sexuality would be associated with more frequent universal and targeted RC practice, participants' person measures for the universal RC practice and targeted RC practice scales were regressed onto their comfort discussing

sexuality with clients person measures. As hypothesized, comfort discussing sexuality with clients significantly predicted advocates' frequency of engagement in Universal RC practices,  $b = 0.294$ ,  $F(1, 323) = 46.54$ ,  $p < .001$ . Level of comfort discussing sexuality with clients explained a significant proportion of variance in Universal RC practice,  $R^2 = 0.13$ . Comfort discussing sexuality with clients also significantly predicted advocates' frequency of engagement in Targeted RC practices,  $b = 0.344$ ,  $F(1, 172) = 24.47$ ,  $p < .001$ . Level of comfort discussing sexuality with clients explained a significant proportion of variance in Targeted RC practice,  $R^2 = 0.13$ . These results support the prediction that advocates who are more comfortable discussing sexuality with clients would engage in Universal and Targeted RC practices more frequently.

## **Hypothesis 2**

To test whether higher levels of comfort discussing reproductive health would be associated with more frequent universal and targeted RC practice, participants' person measures for the universal RC practice and targeted RC practice scales were regressed onto their comfort discussing reproductive health with clients person measures. As hypothesized, comfort discussing reproductive health with clients significantly predicted advocates' frequency of engagement in Universal RC practices,  $b = 0.236$ ,  $F(1, 360) = 36.99$ ,  $p < .001$ . Level of comfort discussing reproductive health with clients explained a significant proportion of variance in Universal RC practice,  $R^2 = 0.09$ . Comfort discussing reproductive health with clients also significantly predicted advocates' frequency of engagement in Targeted RC practices,  $b = 0.232$ ,  $F(1, 188) = 13.49$ ,  $p < .001$ . Level of comfort discussing reproductive health with clients explained a significant proportion of variance in Targeted RC practice,  $R^2 = 0.07$ . These results support the prediction that advocates who are more comfortable discussing reproductive health with clients engage in Universal and Targeted RC practices more frequently.



### **Hypothesis 3**

To test whether RC-responsive organizational supports would be associated with more frequent universal and targeted RC practice, participants' person measures for the universal RC practice and targeted RC practice scales were regressed onto their RC organizational supports person measures. As hypothesized, organizational supports significantly predicted advocates' frequency of engagement in Universal RC practices,  $b = 0.40$ ,  $F(1, 337) = 66.82$ ,  $p < .001$ . Organizational supports explained a significant proportion of variance in Universal RC practice,  $R^2 = 0.17$ . Organizational supports person measures also significantly predicted advocates' frequency of engagement in Targeted RC practices,  $b = 0.463$ ,  $F(1, 181) = 39.80$ ,  $p < .001$ . Organizational support person measures explained a significant proportion of variance in Targeted RC practice,  $R^2 = 0.18$ . These results support the prediction that advocates who have more RC-responsive organizations engage in Universal and Targeted RC practices more frequently.

### **Hypothesis 3a**

Exploratory Research Question 3a sought to explore if there are certain combinations of RC-responsive organizational supports that are more influential than other combinations. In order to undertake the exploration detailed in Hypothesis 3a, a Latent Class Analysis (LCA) was conducted. LCA aims to uncover unobserved heterogeneity in a population and to find substantively meaningful groups of people that are similar in their responses to measured variables (Muthen, 2004). Given the exploratory nature of this study, one-, two-, three-, four-, and five-class solutions were examined using the 15 RC-responsive organizational support items. All analyses were conducted using Mplus (Version 7.4, Muthen & Muthen, 2012). The inter-item correlations are presented in Table 8.

Table 8.

*Inter-item Correlations for RC-Responsive Organizational Supports*

<i>Item</i>	Private Space	Health Prof. Contact	RSH on Resource List	New Employee Training	Leader. Bring up	Info Materials	Intake-Unprotect. Sex	Intake-Unwanted Pregnancy	Intake-Access to RSH Services	Intake-Birth Control Sabotage	Intake-Pregnancy Outcome	Universal Screening	Script for EC Assessment	EC on site	Pregnancy Tests on Site
Private Space	1.00	.25	.27	.16	.20	.17	.09	.15	.17	.15	.18	.09	.08	.09	.16
Health Professional Contact	.25	1.00	.11	.15	.17	.16	.19	.17	.17	.21	.24	.10	.13	.15	.15
RSH on Resource List	.27	.11	1.00	.18	.21	.21	.05	.11	.15	.13	.18	.07	.17	.04	.01
New Employee Training	.16	.15	.18	1.00	.42	.33	.09	.25	.24	.27	.29	.21	.21	.15	.03
Leadership Bring up	.20	.17	.21	.42	1.00	.41	.13	.15	.27	.27	.25	.19	.13	.12	.13
Info Materials	.17	.16	.21	.33	.41	1.00	.05	.16	.18	.15	.13	.12	.16	.13	.13
Intake-Unprotected sex	.09	.19	.05	.09	.13	.05	1.00	.55	.37	.39	.38	.14	.28	.24	.19
Intake-Unwanted Pregnancy	.15	.17	.11	.25	.15	.16	.55	1.00	.56	.50	.52	.32	.30	.16	.12
Intake- Access to RSH Services	.17	.17	.15	.24	.27	.18	.37	.56	1.00	.42	.53	.35	.26	.08	.07
Intake- Birth Control Sabotage	.15	.21	.13	.27	.27	.15	.39	.50	.42	1.00	.77	.35	.22	.26	.17

Table 8. (cont'd)

Intake- Pregnancy Outcome	.18	.24	.18	.29	.25	.13	.38	.52	.53	.77	1.00	.37	.23	.19	.12
Universal Screening	.09	.10	.07	.21	.19	.12	.14	.32	.35	.35	.37	1.00	.22	.24	.02
Script for EC Assessment	.08	.13	.17	.21	.13	.16	.28	.30	.26	.22	.23	.22	1.00	.17	.09
EC on Site	.09	.15	.04	.15	.12	.13	.24	.16	.08	.26	.19	.24	.17	1.00	.32
Pregnancy Tests on	.16	.15	.01	.03	.13	.13	.19	.12	.07	.17	.12	.02	.09	.32	1.00

Two statistics obtained with LCA, the Bayesian information criterion (BI) and the bootstrap likelihood ratio test (BLRT), have been found to be the most effective at identifying the number of latent classes that should be extracted from the indicator variables (Nylund, Asparouhov, & Muthen, 2007). Both criteria were considered in selecting from among the five different solutions. With the BIC, the solution with the smallest value is identified as the optimal model, whereas the BLRT tests the statistical significance of the improvement in the model when an additional class is extracted. Additionally, the classification quality of the model was evaluated according to the entropy criterion, in which the values range from 0 to 1, where values closer to 1 indicate good classification.

Table 9 shows the fit indices for each model solution. The BIC was smallest for the three-class solution, indicating three classes should be extracted. The BLRT, however, was statistically significant for the four-class solution, but not the five-class solution. Interestingly, the four-class solution extracted three classes with characteristics almost identical to those in the three-class solution, and one very small class of advocates (n=13).

Table 9.

*RC-Responsive Organizational Supports Latent Class Analysis Fit Indices*

	Free Parameters	H0 Value	BIC	Entropy	Bootstrapped LRT p-value
1 class solution	15	-2412.06	4911.46	-	-
2 class solution	31	-2150.31	4481.13	0.92	<.001
3 class solution	47	-2073.06	<b>4419.80</b>	0.79	<.001
4 class solution	63	-2036.99	4440.84	0.85	<.001
5 class solution	79	-2014.37	4488.75	0.86	0.06

In both solutions, advocates in the first class (the “Moderate RC-Responsiveness” class) had the largest number of organizational supports. They overwhelmingly reported having

information sharing supports (private spaces, RSH-inclusive resource lists, RSH-related informational materials), leadership supports (new hires receive training on RSH, and leadership bringing up RSH at a meeting in the last year), and several procedural supports (questions on the intake about access to RSH care, birth control sabotage, and pregnancy outcome interference). A smaller majority of this class reported having a medical contact for RSH-related questions, and having a question about unwanted pregnancy on their intake forms. This class had a small prevalence estimate at 11% (3 class solution) and 10% (4 class solution) of the sample.

Advocates were fairly evenly split between the second and third classes (42% and 46%, respectively in the 3 class solution; 35% and 51% in the 4 class solution). Survey respondents in the second class (the “Fair RC-Responsiveness” class) were characterized by the presence of information sharing supports (private spaces, RSH-inclusive resource lists, and RSH-related informational materials). A small majority of these individuals also reported having leadership supports (new hires receive training on RSH, and leadership bringing up RSH at a meeting in the last year). Finally, advocates in the remaining class (the “Poor RC-Responsiveness” class) reported having few or no organizational supports. These individuals generally only had the informational supports of Private Spaces and/or RSH-Inclusive Resource Lists, if that.

In the four-class solution, the fourth class (N= 13, 4%) was quite small. While normally a class of this size would be disregarded as an artifact of over-extraction, the combination of characteristics of advocates in this class is theoretically intriguing. This class was characterized by individuals who had the basic informational supports of the poor RC-responsiveness class (Private Spaces and RSH-Inclusive Resource Lists); did NOT have leadership supports of the fair or moderate RC-responsiveness classes (new hires receive training on RSH, and leadership bringing up RSH at a meeting in the last year); but DID have several procedural supports

(questions on the intake about access to RSH care, 84%; unprotected sex, 55%; unwanted pregnancy, 100%; and scripted tools for assessing need for emergency contraception, 55%). The latter three of these particular procedural supports were not present for the majority of advocates in any of the other classes. Finally, very few advocates in this category said their agency had questions on their intake that were *specific to reproductive coercion* compared to the moderate RC-responsiveness class, including questions about birth control sabotage (0% v. 87% in the moderate class) and pregnancy outcome interference (22% v. 97% in the moderate class). It could be the case that these agencies have *reproductive and sexual health screening* supports, but not *reproductive coercion-responsiveness supports*. As such, this class is referred to as the “RSH Screening” class.

There were several types of organizational supports that were not probable for the majority of members of any class to endorse in either the three- or four-class solution. These included a procedural support (intake question(s) about universal screening for RC) and medical supports on site (pregnancy tests, emergency contraception). However, advocates in the Moderate RC-Responsiveness class had the highest probability of having all three of these supports.

The final piece of evidence considered in selecting a class solution was the entropy statistic, which describes the classification quality of an LCA model on a scale from 0 to 1. Higher levels of entropy are affiliated with better classification, with 0.80 generally considered to be the lower threshold of acceptability. The entropy was 0.79 for the three-class solution, and 0.85 for the four-class solution, indicating that the latter model was slightly better at assigning advocates to particular RC-responsive organizational support classes. It may be the case that avoiding forcing the 13 advocates in Class 4 into one of the three main classifications by

providing an additional class may provide better clarity within these classes and allow for a needed alternative for the advocates who simply don't fit elsewhere. While replication of a particular class structure with another data set would provide further insight into the best possible solution, given the available evidence and the potentially theoretically important nature of the fourth class, a four class solution was retained. Figure 8 presents a graph of the estimated probabilities of the occurrence of each support by class, and Table 10 describes the prevailing characteristics of each class.

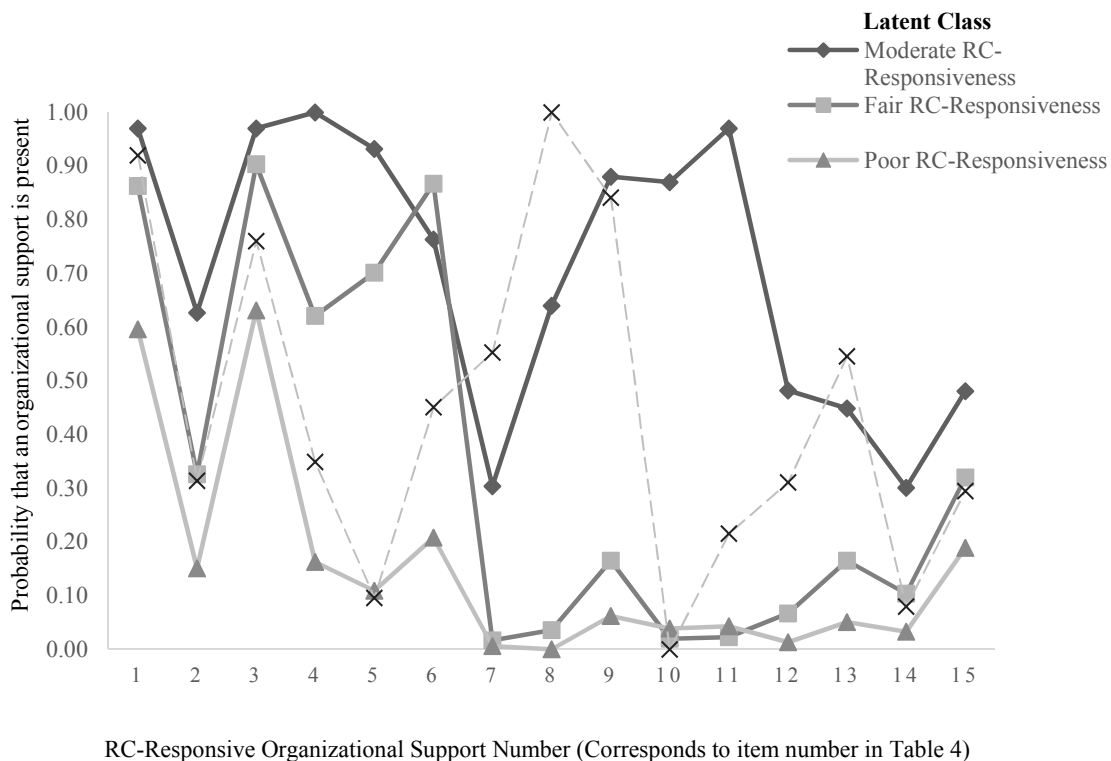


Figure 8. Estimated Probabilities that Each RC-Responsive Organizational Support is Present for Advocates in Each Latent Class.





Table 10.

*Characteristics of Each Latent Class of RC-Responsive Organizational Supports (Final Four Class Solution)*

<b>Moderate RC-Responsiveness</b> (10% prevalence)	<b>Fair RC-Responsiveness</b> (35% prevalence)	<b>Poor RC-Responsiveness</b> (51% prevalence)	<b>RSH Screening</b> (4% prevalence)
<b>Information Supports</b> Private Space RSH-inclusive resource lists RSH-related informational materi Medical Contact for Questions  <b>Leadership Supports</b> New hires receive RSH training Leadership brings up RSH at meetings  <b>Procedural Supports</b> <i>Intake Questions on...</i> Access to RSH care Unwanted pregnancy Pregnancy outcome interference Birth control sabotage	<b>Information Supports</b> Private Space RSH-inclusive resource lists RSH-related informational materials  <b>Leadership Supports</b> New hires receive RSH training Leadership brings up RSH at meetings	<b>Information Supports</b> Private Space RSH-inclusive resource lists	<b>Information Supports</b> Private Space RSH-inclusive resource lists          <b>Procedural Supports</b> <i>Intake Questions on...</i> Access to RSH care Unwanted pregnancy Unprotected sex Scripted tools for assessing EC needs

*Note: RSH = Reproductive and sexual health; EC= Emergency contraceptive*

In summary, these results suggest that the sample may indeed be comprised of groups of advocates from organizations with distinct levels of RC-responsive organizational supports. This class structure additionally provides support for the use of the organizational support *person measures* as a sufficient measure of the construct, and vice versa. As was discussed in the results of the Rausch Measurement analysis, several organizational supports appear to cluster around a few levels of “difficulty.” This pattern suggests a step by step movement through these supports wherein organizations are more able to offer particular services at the same time and before other, less common services. An examination of the Wright map for this measure reveals that these “steps” roughly correspond to the three major classes identified in the LCA. First, we see a clustering of *private space* and *RSH items on resource lists* at the bottom of the map, corresponding with the Poor RC-responsiveness class. Second, we see a clustering of *leadership bringing up RC*, *training on RC*, and *RC informational materials* toward the bottom/mid portion of the map, roughly corresponding with the characteristics of the Fair RC Responsiveness class. Finally, a clustering of the intake and healthcare worker connections toward the mid portion of the map generally corresponds with the Moderate RC Responsiveness class. The duplication of these patterns in the two measurement approaches provides flexibility for researchers who may wish to use one or the other in their analyses.

**Latent class probabilities as predictors of practice.** To test whether advocates’ probability of being in a particular RC-responsive organizational support class would be associated with more frequent universal and targeted RC practice, the modified BCH method for Mplus (BCH; Bakk & Vermunt, 2014, as cited in Asparouhov and Muthen, 2015) was used. The BCH method allows for the prediction of a distal outcome by an LCA, without the results of the latent class variable being impacted by the other variable(s). As such, the latent class

probabilities are still based on the original class indicators (the dichotomized organizational supports), despite other variables being included on the model. As described by Asparouhov and Muthen (2015, p.3),

“The BCH method uses weights  $w_{ij}$  which reflect the measurement error of the latent class variable. In the estimation of the auxiliary model, the  $i$ -th observation in class/group  $j$  is assigned a weight of  $w_{ij}$  and the auxiliary model is estimated as a multiple group model using these weights.”

In order to use this method to predict the person measures for both universal and targeted RC practice using the LCA, initially the automatic version of the BCH procedure was implemented in Mplus (Version 7.4, Muthen & Muthen, 2012).. This procedure first estimates the latent class model using the 15 binary indicator variables, and then evaluates the mean of universal or targeted practice across the different classes using the approach of Bakk and Vermunt (2014, as cited in Asparouhov and Muthen, 2015). The results demonstrated that the mean of the Universal RC-responsive person measures was significantly higher in the Moderate responsiveness class compared to the Fair responsiveness ( $p < 0.05$ ) and the Poor responsiveness classes ( $p < 0.001$ ). Likewise, the Fair responsiveness class's mean was significantly greater than the Poor responsiveness class's mean ( $p < 0.001$ ). Interestingly, the RSH screening class had significantly higher frequency of Universal Practice compared to the Poor RC-responsiveness class ( $p < 0.05$ ), but did not significantly differ from either the Fair or Moderate classes (see Table 11 for means and standard deviations).

Table 11.

*Means and Standard Errors for Universal RC Practices and Targeted RC Practice Person Measures by Latent Class Probabilities*

	Moderate Responsiveness	Fair Responsiveness	Poor Responsiveness	RSH Screening
Universal RC Practice	-0.73 (0.24)	-1.43 (0.18)	-2.73 (0.15)	-1.54 (0.59)
Universal RC Practice, controlling for Comfort Variables	-1.60 (0.30)	-2.05 (0.21)	-3.20 (0.15)	-2.07 (0.58)
Targeted RC Practice	-0.57 (0.31)	-1.28 (0.25)	-2.57 (0.28)	2.15 (0.57)

In order to test if RC-responsive organizational support class significantly predicted Universal RC Practice person measures, *controlling for Comfort Discussing Sexuality and Comfort Discussing Reproductive Health*, the manual version of the BCH procedure was implemented in Mplus (Version 7.4, Muthen & Muthen, 2012). In the first step of this procedure, a four class model was estimated using only the 15 binary indicator variables; the resulting BCH weights were saved to a data set with the other variables of interest. In step two, several models were estimated using the BCH weights as training data. As the class specific intercepts show the influence of the latent class variable on the practice outcome beyond the influence of the covariate comfort variables, the initial model constrained the intercepts of Universal Practice to be equal across all classes. The Wald Chi-Square Test of parameter constraints revealed a significant difference between the constrained and unconstrained models ( $\chi^2 = 36.47$ ,  $df=3$ ,  $p<0.001$ ) suggesting there is a difference among classes even when controlling for the other predictors. Next, separate models were run to constrain two class intercepts of Universal Practice to be equal at a time (a total of six models) to elucidate which classes differed from one another. The Wald Chi-Square test was significant in two of the six models, revealing that both Moderate

& Fair-Responsiveness Classes had significantly higher Universal RC Practice scores than the Poor-Responsiveness class, when controlling for the comfort variables. Several significant differences identified in the previous automatic BCH procedure were no longer present once these covariates were controlled for. However, it is notable that the model examining the Poor-Responsiveness class and the RSH Screening class was nearing significance ( $p=0.058$ ; See Table 11 for means and standard deviations).

These patterns varied somewhat for Targeted RC practice. Using the automatic version of the BCH procedure, the RSH screening class had a significantly higher Targeted RC practice person measure mean than the other three classes ( $p<0.001$ ). Both the Moderate responsiveness and the Fair responsiveness classes had significantly higher Targeted RC practice score means than the Poor responsiveness class ( $p<0.001$ ), but the Moderate class no longer had significantly greater scores than the Fair responsiveness class ( $p=0.08$ ). This may be in part due to the changes in sample size for the Targeted RC Practice analyses, as participants only had scores for this measure if they believed they had worked with a survivor of RC in the last year ( $n=182$ , down from  $n=338$ ; See Table 11 for means and standard deviations). An attempt to control for the comfort covariates using the manual version of the BCH procedure described above was unsuccessful, as the sample covariance of the Comfort Discussing Reproductive Health variable in the RSH Screening class is singular. As such, a model controlling for the comfort covariates was not identifiable and could not be estimated.

In summary, these results suggest that the “RC-responsiveness class” to which an organization belongs significantly impacts the frequency with which its advocates engage in RC-related practices, regardless of how comfortable they are talking about sex or reproductive health. Simply having private space and a resource list with RSH services is not sufficient to

support advocates in assessing for RC, educating survivors on RC, or incorporating RSH considerations into their advocacy.

**Assigned class as a predictor of practice.** A simplified approach to examining group differences by class is to use *assigned class* as a stand-in for the more complex probabilities used in the previous analyses. In this case, “assigned class” refers to a categorical variable with values (1, 2, 3, or 4) assigned to each advocate based their most likely RC-responsiveness latent class. While this approach is less precise, it is a desirable stand-in in certain cases. In order to examine whether or not this simplified measurement approach is reasonable for the field, a test of the extent to which our results were replicated using assigned class was undertaken.

An ANOVA examining differences in Universal RC practice by assigned class found a roughly similar mean pattern to that produced by the automatic BCH procedure, but only identified half of the significant differences. The ANOVA found significant differences between the Poor Responsiveness class and both the Moderate and Fair Responsiveness classes, but did not identify significant differences between the Moderate and Fair classes or between the RSH Screening class and any other class. The Targeted RC Practices ANOVA was likewise impacted. Again, the pattern in the means was similar, but the mean for the RSH Screening class was much smaller in the ANOVA compared to the BCH analysis (1.77 v. 2.15). Unsurprisingly, the RSH Screening class no longer had significantly greater Targeted RC Practice scores than the Moderate or Fair Responsiveness class, but did retain its significant difference from the Poor Responsiveness class ( $p < 0.05$ ). The relationships among the other classes remained largely unchanged with both the Moderate Responsiveness and the Fair Responsiveness classes having significantly higher Targeted RC practice score means than the Poor Responsiveness class, but finding no significant differences between the Moderate and Fair Responsiveness classes

themselves. These results demonstrate that the *assigned class* approach, while not as precise a measure as the weights used in the BCH analysis, may be sufficient for studies examining differences between “poor responsiveness” organizations and either “fair” or “moderate-responsiveness” organizations. However, it is likely not sensitive enough to test for differences between “fair” and “moderate” classes, or to examine the RSH Screening class at all.

#### **Hypothesis 4**

The fourth hypothesis predicted that the combination of comfort discussing sexuality, comfort discussing reproductive health, and organizational supports would together significantly predict both Universal RC Practice and Targeted RC Practice. Prior to conducting the hierarchical multiple regressions, two power analyses to test the sensitivity of the models were completed using the “Linear multiple regression: Fixed model, R<sup>2</sup> increase” statistical test in g\*power (Faul, Erdfelder, Buchner, & Lang, 2009). For a regression with 3 independent variables, 2-tailed  $p < .05$ , and power of .80, the minimum detectable effect size ( $f^2$ ) for an independent variable in the Universal RC Practices model (N=324) is 0.02, and for the Targeted RC Practices model (N=171) is 0.05.

Next, relevant assumptions of hierarchical regression were tested. An examination of correlations (see Table 12) revealed that none of the independent variables were highly correlated. Additionally, the Tolerance and VIF statistics were all within acceptable limits, suggesting the assumption of multicollinearity was met. As all variables used were person measures resulting from Rasch Analysis, no tests of univariate outliers were conducted. An examination of the Mahalanobis distance scores indicated there were two multivariate outliers, which were removed from the analysis. The skewness and kurtosis of the independent variables were all within an acceptable range, and an examination of scatter plots of the standardized

residuals indicated the assumptions of linearity and homoscedasticity were all satisfied.

Table 12.

*Bivariate Correlations Between Study Scale Person Measures*

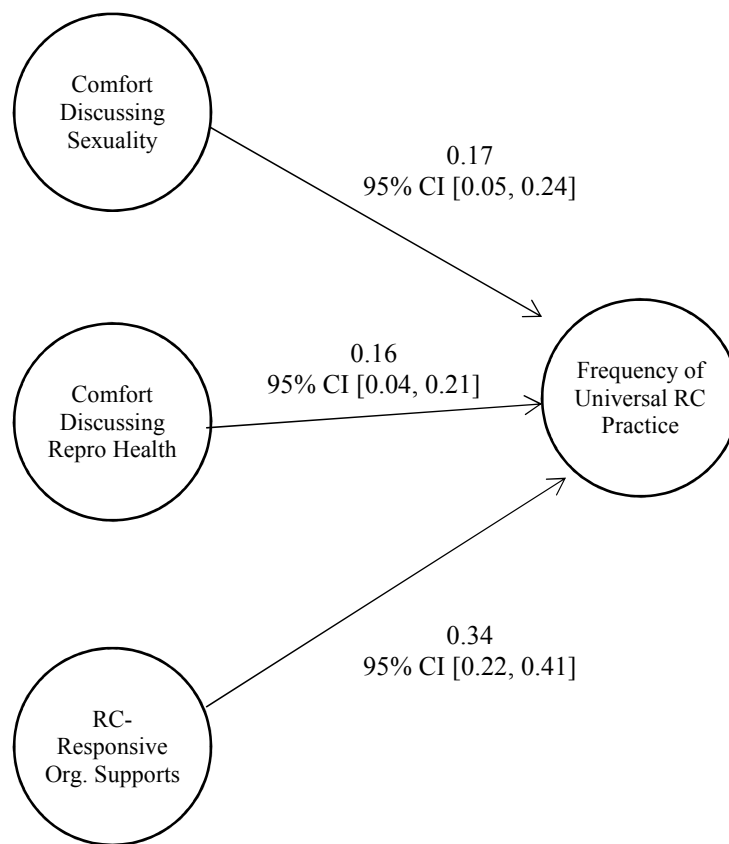
<i>Scale</i>	Comfort Discussing Sexuality	Comfort Discussing RH	Universal RC Practice	Targeted RC Practice	RC- Responsive Org Supports
Comfort Discussing Sexuality with Clients	-	0.51	0.36	0.35	0.30
Comfort Discussing Reproductive Health with Clients		-	0.31	0.26	0.19
Universal Reproductive Coercion Practice			-	0.74	0.41
Targeted Reproductive Coercion Practice				-	0.43
RC-Responsive Organizational Supports					-

Note: All correlations were significant at the 0.01 level (2-tailed).

A three stage hierarchical multiple regression was conducted with Universal RC Practices as the dependent variable. *Comfort Discussing Sexuality with Clients* was entered at stage one of the regression. *Comfort Discussing Reproductive Health* was entered at stage two, and *RC-Responsive Organizational Support* was entered at stage three. The independent variables were entered in this order to test the extent to which the organizational-level element impacts practice beyond the individual-level elements. The hierarchical multiple regression revealed that at Stage One, Comfort Discussing Sexuality significantly predicted Universal RC Practice,  $F(1, 323) = 46.54$ ,  $p < .001$ ,  $R^2 = 0.13$ . At Stage Two, Comfort Discussing Reproductive Health significantly predicted Universal RC Practice above and beyond Comfort Discussing Sexuality, with a significant change in variance from Stage One ( $R^2$  change = 0.03,  $p < 0.01$ ). Adding RC-



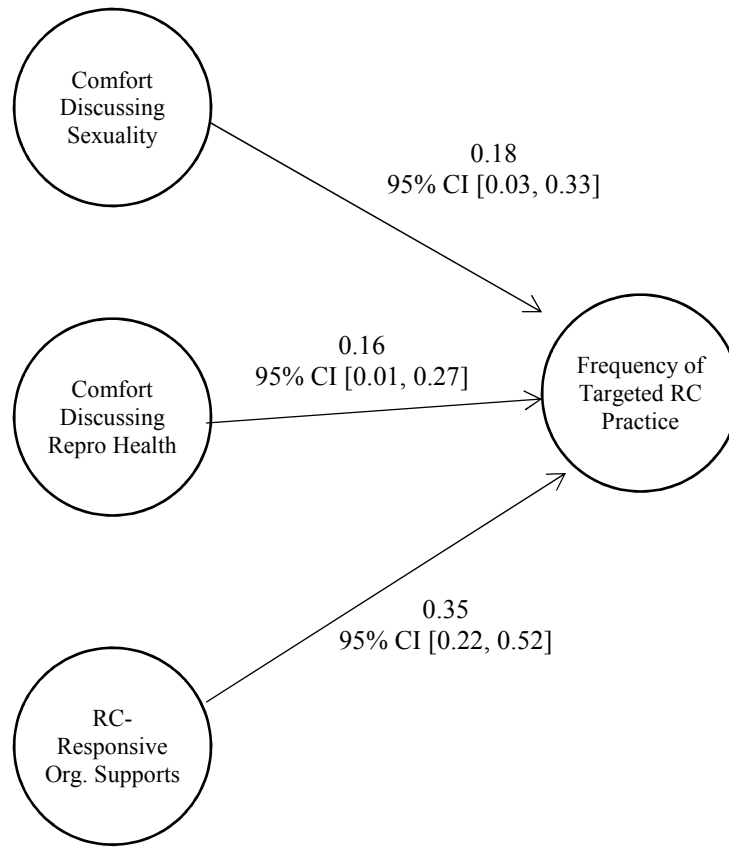
Responsive Organizational Supports to the model in Stage Three likewise revealed that this variable contributed a significant amount of unique variance beyond Step Two ( $R^2$  change= 0.10,  $p < 0.001$ ). All three independent variables remained significant predictors of Universal RC Practice ( $p < 0.01$ ) in this final stage, and together accounted for 25% of the variance. The standardized path coefficients are presented in Figure 9.



*Figure 9.* Standardized Regression Path Coefficients for Person Measures as Predictors of Universal Reproductive Coercion Practice.

A similar three stage hierarchical multiple regression was conducted with Targeted RC Practices as the dependent variable. *Comfort Discussing Sexuality with Clients* (person

measures) was entered at stage one of the regression, *Comfort Discussing Reproductive Health* was entered at stage two, and *RC-Responsive Organizational Support* was entered at stage three. The hierarchical multiple regression revealed that at Stage One, Comfort Discussing Sexuality with Clients significantly predicted Targeted RC Practice,  $F(1, 171) = 24.47, p < .001$ . Comfort discussing sexuality explained a significant proportion of variance in Universal RC practice,  $R^2 = 0.17$ . At Stage Two, Comfort Discussing Reproductive Health significantly predicted Targeted RC Practice above and beyond Comfort Discussing Sexuality, with a small but significant change in variance from Stage One ( $R^2$  change = 0.02,  $p = 0.05$ ). Adding RC-Responsive Organizational Supports to the model in Stage Three revealed that this variable contributed a significant amount of unique variance to the outcome variable beyond the predictors in Step Two ( $R^2$  change = 0.11,  $p < 0.001$ ). All three independent variables remained significant predictors of Targeted RC Practice ( $p < 0.01$ ) in this final stage, and together accounted for 25% of the variance. The standardized path coefficients are presented in Figure 10.



*Figure 10.* Standardized Regression Path Coefficients for Person Measures as Predictors of Targeted Reproductive Coercion Practice.

## **DISCUSSION**

Awareness about the phenomenon of RC and how domestic violence programs should respond to it slowly growing. However, the prospect of engaging with clients around RSH health can be daunting for many advocates and organizations. Despite the challenges that may come with incorporating more RC-responsive practices and policies into services for survivors, the negative impacts of such victimization on women's lives demands a robust response from the field. This is particularly important given the disproportionate experiences of RC among already marginalized groups, including women of color and sexual minorities (Holliday et al., 2017; McCauley et al., 2015). As training and technical assistance organizations across the country begin to formulate and refine their recommended approaches to building RC-responsive capacity within programs, it is critical that they prioritize interventions that target those barriers and facilitators that most greatly impact frequency of RC-responsive of universal and targeted RC-responsive practice. By focusing efforts on those factors, DV programs and their staff will ultimately be better prepared and better able to support survivors of RC in regaining their reproductive control.

The current study was the first to investigate the effect of three common barriers and facilitators to RSH practice in the social work and nursing fields in the DV service context—comfort discussing sexuality with clients, comfort discussing reproductive health with clients, and the presence of relevant organizational supports. Results of the study demonstrated that each of these factors was significantly related to frequency of RC-responsive practice. This finding lends support to the application of these barriers and facilitators from the social work and nursing literatures into the DV service context.

Overall, advocates reported feeling quite comfortable discussing both sexuality and reproductive health. While they reported fairly high levels of both types of comfort, these variables were only moderately related, suggesting that each has a distinct place in promoting advocates' ability to engage in RC-responsive practice. As such, intervention developers aiming to improve advocates' comfort should take both facets into consideration, designing training and coaching approaches that target the underlying fears, beliefs, and knowledge gaps that may differentially drive discomfort addressing sexuality and discomfort discussing reproductive health with clients.

Additionally, the level of comfort discussing reproductive health reported by advocates varied by topic. For example, participants were less comfortable discussing pregnancy termination with clients, and were more comfortable discussing emergency contraception. While discomfort discussing pregnancy termination was to be expected given its politically, morally, and socially charged nature, advocates' relative comfort discussing EC was somewhat surprising. Previous research with social workers has found that these professionals often don't understand how EC works (Bell & Rubin, 2013), have misconceptions about it contributing to riskier sexual behavior (Miller, et al., 2012), and lack knowledge about how to access EC (Bell & Rubin, 2013). Such factors would likely contribute to less comfort discussing this contraception option with clients. This result could point to a special willingness to discuss EC among often politically liberal and social justice-oriented DV advocates, or to other fundamental differences between the social work and domestic violence fields. This finding may also signal a growth in understanding of EC in general since the previous studies were conducted, or could even be the result of a sample-specific phenomenon. Further research is needed to determine which explanation holds true.

The presence of RC-responsive organizational supports was the most influential factor on frequency of RC practice, yet most advocates reported that their agencies did not have the overwhelming majority of RC supports measured. Indeed, over half of the sample was identified as having “poor RC-responsiveness” in the class analysis, suggesting that most organizations studied (and perhaps in the greater field) were not providing adequate supports for their staff to engage in RC practice. This finding stands in contrast to the very high levels of comfort reported by many advocates, and suggests that organizational resources may in fact be the area with greater potential for growth and improvement in the field compared to individual training. Indeed, interventions focused on increasing the availability of RC-responsive organizational supports in DV agencies (such as the reorganization or introduction of human, physical, temporal or financial resources) are likely the next frontier for improving RC-responsiveness among advocates. While initial guidance exists on best practices therein (Duplessis & Levenson, 2014), anecdotal reports suggest that interest in such changes lags behind willingness to engage in individual-level advocate trainings, perhaps due to the more complex nature of organizational-level change.

This study was the first to examine potential barriers and facilitators to reproductive coercion-responsive practice on *multiple ecological levels*. The results of the study support the assertion that intervention on both the individual level (comfort) and organizational level (organizational RC-responsive supports) can significantly impact advocates’ practice for the better, and that a combination of strategies across levels has the greatest potential for successful change in professionals’ behavior (Seidman & Tseng, 2011). The study supports these points in two main ways.

First, advocates generally reported high levels of comfort discussing sexuality and reproductive health topics with clients, but very few reported regularly engaging in RC-related skills with survivors. This dearth of RC practice was even the case when advocates were working with survivors they believed to be victims of RC. In other words, despite feeling comfortable discussing these topics with clients, advocates were rarely actually bringing them up in their practice. These results suggest that something beyond these individual-level factors may need to be present to more fully support advocates' RC practice, a proposal that is aligned with the implementation literature (e.g. Aarons, Hurlburt, & McCue Horwitz, 2011; Glisson, Schoenwald, Hemmelgarn, Green, Dukes, Armstrong, & Chapman, 2010; Meyers, Durlak, & Wandersman, 2012).

Second, the study found that the level of organizational support an advocate had around RC was more strongly related to how frequently they did RC-related practices than individual comfort. In fact, no matter how comfortable or uncomfortable an individual advocate was, if she had certain RC supports in place she was much more likely to be RC-responsive in her practice. The opposite held true as well—advocates generally engaged in RC practice less frequently if they didn't have organizational resources to support them. This finding is aligned with ecological thinking in the organizational change literature, which asserts that without supportive organizational structures and leadership, the desired practices are unlikely to be successfully installed and maintained (Fixsen, et al. 2005).

### **Identifying Key Levers for Change**

While incorporating multiple strategies may be desirable, learning and integrating a large number of changes can be taxing for both individual practitioners and organizations. Indeed, a major challenge for implementation specialists is to identify interventions that facilitate

implementation of desired practices while minimizing barriers to implementation (Goldman et al., 2001). In other words, the cure can become the disease, with intervention supports potentially further hindering incorporation of the desired practice by overloading staff. The study findings highlight naturalistic combinations of practices currently emerging in the field that may provide guidance for leadership hoping to identify key changes to implement first.

The study suggests that there may be a minimum level of supports that must be present in order to promote greater RC-responsive practice among advocates. Simply having a private space to talk and a resource list that includes RSH-related agencies (the characteristics of the Poor-responsiveness class) does *not* appear to be distinctly different than doing nothing at all. Rather, ***an organization must additionally have at a minimum the characteristics of the Fair-responsiveness class in order to see preliminary benefits to their advocates' frequency of RC practice.*** In other words, leadership must be willing and able to:

- 1) require staff to attend trainings on RC specifically and RSH broadly;
- 2) offer private places to screen and talk with clients about health concerns;
- 3) provide and openly display informational materials on RC, such as posters, brochures, and/or cards about reproductive/sexual health;
- 4) include clinical referrals/resources on their resource list for survivors who want to access reproductive/sexual health care; and
- 5) raise RSH-related issues during meetings with staff.

Interestingly, significant differences were *not* consistently identified between the Moderate- and Fair-Responsiveness classes. Despite the advocates from organizations in the Moderate-responsiveness class engaging in RC practice slightly more frequently, these differences were not large enough to be statistically significant. Further research is needed with



more organizations in the Moderate-Responsiveness class to determine if this was a result of the small class size or not, and to interpret the meaning of the fourth class (RSH Screening).

Lastly, there was no “High-Responsiveness” class identified, as the Moderate class was characterized by having only *two-thirds* of the fifteen organizational supports measured. The five supports that were unlikely to be present were as follows: 1) A question about unprotected sex on intake form; 2) Universal screening for RC; 3) Scripted tools to assess for EC need; 4) EC available on site; and 5) Pregnancy tests available on site. These organizational supports represent two important next steps in RC-responsiveness that innovators in the field are working to implement: a) *Universal* screening and b) having over-the-counter reproductive health tools available on site. Organizations that implement universal screening incorporate screening and education tools into their intake process with *every* survivor they see. This approach is encouraged for a variety of reasons: survivors may not even recognize that RC is a type of abuse; survivors might be hesitant to bring it up even though they want to speak about it; and survivors may take the RC information and share with others in their life who may be experiencing this type of abuse even if they themselves are not. The more advocates speak about RC as part of their general practice, the more normalized such discussions will become among staff, clients, and hopefully among the wider community. Providing over-the-counter reproductive health tools on site, such as emergency contraception and pregnancy tests, also represents a normalization of reproductive health concerns among clients. Just as organizations may have materials present to help survivors respond to common legal, housing, or human services-related needs, so too should these agencies have reproductive health resources readily available. Likewise, as EC and pregnancy tests are available over-the-counter, agencies should not experience any legal problems with making these medications available to survivors engaging

with their program. Only when organizations are able to incorporate these elements in to their institutional supports will they reach the point of “High-Responsiveness.”

The study has potential implications for informing existing approaches to promoting RC-responsive capacity among organizations and advocates. As was described earlier, the results suggest that a multi-level approach to such interventions may provide the most leverage for changing the behavior of advocates. As such, agencies invested in responding to the needs of survivors of RC may not be providing sufficient resources for their advocates by solely offering trainings focused on improving comfort or other individual-level factors. The study findings provide guidance for leadership hoping to identify key internal changes to tackle first. Results suggest leadership must be able and willing to at a minimum those practices present in the “Fair RC-Responsiveness” class described above. Organizations offering RC training and technical assistance should share this minimum service threshold with their clients to ensure that the services they are providing will make as significant an impact as possible.

Training organizations and the DV agencies implementing changes should also be encouraged that additional supports above and beyond the basic necessities outlined above do appear to improve advocates’ frequency of RC, although the degree to which this is the case remains to be seen. Additional supports that may encourage practice include the incorporation of RC-specific questions on intake forms, and the formation of relationships with a health educator, nurse, PA or doctor that staff can contact with questions about reproductive and sexual health. Such multi-level organizational changes to processes and structures could both facilitate and reinforce the alterations in individual comfort that training and coaching may elicit for employees, paving the way to higher levels of practitioner fidelity to the desired practice (Fixsen,

et al 2005). Additional research is needed to identify the maximum threshold of new supports after which staff may become overloaded, impairing implementation.

### **Study Limitations**

There are a number of methodological limitations that must be considered when interpreting the results of the study, including the recruitment strategy, the relatively homogenous sample, and the nature and administration of the measures. While these limitations do raise some questions about the representativeness of the sample and strength of the study's conclusions, they are well within the scope of limitations common to preliminary studies into a new line of inquiry.

Although the sample was relatively large and nationwide, it was a convenience sample and not nationally representative. While a variety of states and organizational settings were represented, the settings may not have been representative of DV service settings as a whole. Advocates were invited to participate through their state domestic violence coalition, and some coalitions may have been more effective at recruiting than others. In addition, not all domestic violence organizations are members of their state coalitions and therefore might not have been invited to participate. Additionally, it is possible that advocates from the same agency may have participated in the survey, but we do not know the extent to which that occurred. (Advocates were not asked which agency they represented in order to maintain anonymity.) This could have resulted in unaddressed interdependence among those observations, and could inflate the organizational measures. Future studies should attempt to account for this possibility by collecting agency-level data in a manner that is responsive to participants' need for anonymity when completing these potentially sensitive measures, or by collecting a larger sample that would allow for statistical corrections for this possibility.

This study also lacks diversity among advocate respondents. The sample consisted primarily of heterosexual, White, middle-aged females, which—while representative of many domestic violence staff across the country—did preclude examining differences in attitude or behavior by singular racial groups, ethnicity, gender, or sexual orientation. Expanding upon this study’s findings should include specific efforts to broaden sample diversity. Furthermore, advocates were intentionally not told the topic of the survey a priori, and while that is a strength in reducing bias, it is unclear whether this would have hampered or helped recruitment.

The study relied on retrospective self-report measures that were developed by the research team, as there are no existing validated scales in the area of comfort, practice, or organizational supports related to RC service provision, and no scales measuring attitudes toward reproductive and sexual health service provision that have been validated for DV advocates. While self-report measures have a variety of potential limitations, including the possibility of bias from participants’ inaccurate memory or understanding of their beliefs or behaviors, or pressure to respond in a socially desirable manner (Bachrach, et al., 1999), these are common weaknesses of studies that seek to extend the borders of our working knowledge. Further refinement of these measures, as well as triangulation of the self-report data using client reports or reviews of agency policies, could improve future explorations in this arena.

This survey was conducted online—requiring participants to have a minimum level of computer literacy, as well as internet access. In addition, this survey was not translated into additional languages beyond English—which may have eliminated non-English-speaking advocates from participating. Taking steps to improve the accessibility of the survey to better incorporate these groups—whether by providing translation or allowing survey administration via telephone—could break down these barriers to participation. Despite these limitations, this

study offers invaluable preliminary insights into DV advocates' perspectives, practices, and resources so that programs can offer the best possible services to survivors of RC.

### **Future Directions**

The results of this study provide a strong foundation upon which to build, but further research is needed in order to support DV service organizations and staff in effectively integrating RC-responsive practices. While comfort discussing sexuality and reproductive health, and the presence of RC-responsive organizational supports each significantly predicted frequency of universal and targeted RC-responsive practice, the combined model only explained a quarter of the variance in each of these outcomes. This suggests that further research is needed to understand other barriers and supports that may impact advocates' behaviors. Frameworks for implementing evidence-based practices in public service sectors (e.g. Aarons, Hurlburt, & McCue Horwitz) could point researchers toward other elements to examine that typically impact the successful uptake of an intervention, including other "inner context" elements within the intrapersonal, interpersonal and organizational ecological levels of DV agencies (e.g. advocates' RC-related knowledge, survivors' responses to RC-related discussions, or other organizational-level barriers to practice) and "outer context" elements in the ecological levels of the broader community and world (e.g. sex-phobic community attitudes, collaboration or competition with other service providers, or funder-level barriers). Likewise, research on how the barriers and facilitators impact each other, particularly across ecological levels, could further develop our understanding of how these factors interact. Such an understanding would inform the development of future interventions with an intended ripple effect across the whole ecological system (Kelly, 1971).

Future research could also include interviews or focus groups with advocates to explore the results of this study in depth. Greater context to explain why providers are hesitant to address RC, as well as additional information on other barriers that advocates face, would further enrich the survey findings and inform future quantitative efforts. Likewise studies could also examine the extent to which advocate training on RC promotes individuals' RC-responsive practices and the degree to which such practices promote improved survivor outcomes. This study could be employed across a variety of settings with differing organizational supports and barriers to explore the extent to which such institutional-level factors impact the effectiveness of training or practice in supporting survivors.

Finally, while existing IPV-specific intervention materials provide a helpful introduction to the topic and a brief set of practice guidelines, further development therein is needed to ensure all critical barriers are addressed. In addition to drawing on best practices in organizational change, developers should likewise actively involve survivors and IPV providers in this intervention development process in order to find and build upon successful indigenous approaches (Miller & Shinn, 2005). Finally, further testing of these approaches is necessary to demonstrate their effectiveness. Given the risks that survivors of RC face to their RSH and the unique position of IPV service providers to intervene therein, the need for evidence-informed approaches that will help agencies make the greatest possible impact is great.

## **Conclusion**

Reproductive coercion is a newly acknowledged but commonly experienced form of intimate partner violence with serious potential consequences for women's health and well-being. By normalizing and attending to clients' experiences of RC and connecting them with needed services and resources, DV advocates can provide much-needed support for survivors of

this type of abuse. Despite having the unique opportunity to intervene in this area as part of their routine work with clients, few advocates report regularly engaging in RC-related practices. In order to better understand the factors that may be impeding advocates' RC-responsiveness, the study sought to identify critical barriers and facilitators to RC-responsive practice on the intrapersonal and organizational ecological levels of DV organizations.

The findings of this study have implications for the leaders of DV service agencies. While intrapersonal factors (levels of comfort discussing sexuality and comfort discussing reproductive health) influenced advocates' frequency of universal and targeted RC practice, the level of RC-responsive supports provided by their organizations was actually much more impactful. While the ideal maximum level of organizational supports is still up for debate, the current study outlined a minimum level of supports that may be necessary for improved frequency of RC practice. This guidance may be useful for agencies looking to use limited resources strategically in future RC-responsiveness efforts. Additionally, the study results reinforce the validity of employing an ecological approach to understanding barriers and facilitators to RC-responsiveness, suggesting that taking a multi-level change approach may indeed be most beneficial for understanding change in individual behavior. Finally, the study laid the groundwork for future research in the area of RC-responsive practices in the DV service setting. While much additional work is needed to understand the factors that contribute to more frequent RC practice and the degree to which such practices impact survivors' health and well-being outcomes, the present study lays the groundwork for a myriad of exciting future examinations.

## REFERENCES



## REFERENCES

- Aarons, G. A., Hurlburt, M., & Horwitz, S. M. (2011). Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and Policy in Mental Health and Mental Health Services Research*, 38(1), 4-23.
- Akers, A.Y., Gold, M.A., Borrero, S., Santucci, A., & Schwarz, E.B. (2010). Providers' perspectives on challenges to contraceptive counseling in primary care settings. *Journal of Women's Health*, 19(6), 1163-1170.
- Akinci, A.C. (2011). The comfort levels of nurses during clinical experiences which include sexual topics. *Sexuality and Disability*, 29(3), 239-250.
- Algier, L. & Kav, S. (2008). Nurses' approach to sexuality-related issues in patients receiving cancer treatment. *Turkish Journal of Cancer*, 38(3), 135–141.
- Alzate, M. (2009). The role of sexual and reproductive rights in social work practice. *Affilia: Journal of Women and Social Work*, 24(2), 108-119.
- Asparouhov, T., & Muthén, B. (2014). Auxiliary variables in mixture modeling: Using the BCH method in Mplus to estimate a distal outcome model and an arbitrary secondary model. *Mplus Web Notes*, 21(2).
- Ayaz, S. (2013). Sexuality and nursing process: a literature review. *Sexuality and Disability*, 31(1), 3-12.
- Bachrach, C. A., Cain, V. S., Jobe, J. B., Kurtzman, H. S., Stone, A. A., & Turkkan, J. S. (1999). The Science of Self-Report: Implications for Research and Practice. *LEA, Mahwah, NJ*, 29-47.
- Bal, M.D. & Sahiner, N.C. (2015). Turkish nursing students' attitudes and beliefs regarding sexual health. *Sexuality and Disability*, 33(2), 223-231.
- Begun, S., Bird, M., Ramseyer Winter, V., Massey Combs, K., & McKay, K. (2016). Correlates of Social Work Students' Abortion Knowledge and Attitudes: Implications for Education and Research. *Social Work in Public Health*, 31(4), 276-287.
- Bell, M. & Rubin, D. (2013). Social Workers and Family Planning Knowledge: Are We Still Gatekeepers?. *Journal of Baccalaureate Social Work*, 18( 1-17).
- Bennett, C.C., Anderson, L.S., Cooper, S., Hassol, L., Klein, D.C., & Rosenblum, G. (1966). *Community psychology: A report of the Boston Conference on the education of psychologists for Community Mental Health* (pp. 1-30). Boston: Boston University.

- Bergmann, J. & Stockman, J. (2015). How does intimate partner violence affect condom and oral contraceptive Use in the United States? *Contraception*, 438-455.
- Black, M.C., Basile, K.C., Breiding, M.J., Smith, S.G., Walters, M.L., Merrick, M.T., Chen, J., & Stevens, M.R. (2011). *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Boone, W. J. (2016). Rasch Analysis for Instrument Development: Why, When, and How?. *CBE-Life Sciences Education*, 15(4), rm4.
- Boone, W. J., Staver, J. R., & Yale, M. S. (2014). *Rasch analysis in the human sciences* (pp. 69-91). Dordrecht: Springer.
- Borrero, S., Nikolajski, C., Steinberg, J.R., Freedman, L., Akers, A.Y., Ibrahim, S., & Schwarz, E.B. (2015). It just happens: A qualitative study exploring low-income women's perspectives on pregnancy intention and planning. *Contraception*, 91, 150–156.
- Bouffard, S., & Little, P. (2004). Promoting Quality through Professional Development: A Framework for Evaluation. Issues and Opportunities in Out-of-School Time Evaluation. Number 8. *Harvard University Harvard Family Research Project*.
- Bulow, S.M. (2012). *Initiation of sexual discussion in social work practice with cancer patients: A nationwide survey of social workers*. (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (Order No. 3541259).
- Burton, C.W. & Carlyle, K.E. (2015). Screening and intervening: evaluating a training program on intimate partner violence and reproductive coercion for family planning and home visiting providers. *Family & Community Health*, 38(3), 227-239.
- Cattaneo, L.B. & Goodman, L.A. (2015). What is empowerment anyway? A model for domestic violence practice, research, and evaluation. *Psychology of Violence*, 5, 84-94.
- Chamberlain, L. & Levenson, R. (2012). *Addressing Intimate Partner Violence, Reproductive and Sexual Coercion: A Guide for Obstetric, Gynecologic and Reproductive Health Care Settings, Second Edition*. San Francisco, CA: Futures Without Violence [Online]. Accessed on August, 27, 2012.
- Chrisler, J.C. (2014). A reproductive justice approach to women's health. *Analyses of Social Issues and Public Policy*, 14(1), 205-209.
- Clark, L.E., Allen, R.H., Goyal, V., Raker, C., & Gottlieb, A.S. (2014). Reproductive coercion and co-occurring intimate partner violence in obstetrics and gynecology patients. *American Journal of Obstetrics and Gynecology*, 210(1), 42-e1
- Constantine, W.L., Jerman, P., & Constantine, N.A. (2009). *Sex education and reproductive health needs of foster and transitioning youth in three California counties*. Center for Research on Adolescent Health and Development, Public Health Institute. Retrieved on

November 10, 2016 from

[http://www.researchandevaluationsystems.com/reports/4\\_full\\_report\\_fly\\_2\\_11\\_2009.pdf](http://www.researchandevaluationsystems.com/reports/4_full_report_fly_2_11_2009.pdf)

- Dattilo, J. & Brewer, M.K. (2005). Assessing clients' sexual health as a component of holistic nursing practice: Senior nursing students share their experiences. *Journal of Holistic Nursing*, 23(2), 208-219.
- Duplessis, V. & Levenson, R. (2014) *Integrating health services into domestic violence programs: Tools for advocates*. San Francisco, CA: Futures Without Violence
- Dyer, K. & das Nair, R. (2013). Why don't healthcare professionals talk about sex? A systematic review of recent qualitative studies conducted in the United Kingdom. *The Journal of Sexual Medicine*, 10(11), 2658-2670.
- Dyer, K., Aubeeluck, A., Yates, N.L., & Nair, R.D. (2015). A multiple timepoint pre-post evaluation of a 'Sexual Respect' DVD to improve competence in discussing sex with patients with disability. *Sexuality and Disability*, 33(3), 385-397.
- El-Bassel, N., Gilbert, L., Wu, E., Go, H., & Hill, J. (2005). HIV and intimate partner violence among methadone-maintained women in New York City. *Social Science & Medicine*, 61(1), 171-183.
- Ely, G., Flaherty, C., Akers, L.S., & Noland, T.B. (2012). Social work student attitudes towards the social work perspective on abortion. *Journal of Social Work Values and Ethics*, 9(2), 34-35.□
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160.
- Faúndes, A., Duarte, G.A., & Osis, M.J.D. (2013). Conscientious objection or fear of social stigma and unawareness of ethical obligations. *International Journal of Gynecology & Obstetrics*, 123, S57-S59.
- Fixsen, D., Blase, K., Metz, A., & Van Dyke, M. (2015). Implementation science. *International encyclopedia of the social and behavioral sciences*, 695-702.
- Flaherty, C., Ely, G.E., Akers, L.S., Dignan, M., & Bonistall, N.T. (2012). Social work student attitudes toward contraception and the HPV vaccine. *Social work in Health Care*, 51(4), 361-381.
- Foster, J., Núñez, A., Spencer, S., Wolf, J., & Robertson-James, C. (2015). Sexual safety planning as an HIV prevention strategy for survivors of domestic violence. *Journal of Women's Health*, 25(6), 623-629.
- Glisson, C., Schoenwald, S.K., Hemmelgarn, A., Green, P., Dukes, D., Armstrong, K.S., & Chapman, J.E. (2010). Randomized trial of MST and ARC in a two-level evidence-based

- treatment implementation strategy. *Journal of Consulting and Clinical Psychology*, 78 (4), 537–550.
- Golden, S. D., & Earp, J. A. L. (2012). Social ecological approaches to individuals and their contexts twenty years of health education & behavior health promotion interventions. *Health Education & Behavior*, 39(3), 364-372.
- Goldman, H.H. Ganju, V., Dranke, R.E., Gorman, P., Hogan, M., Hyde, P.S., et al. (2001). Policy implications for implementing evidence based practices. *Psychiatric Services*, 52, 1591-1597.
- Goodman, L.A. & Epstein, D. (2008). *Listening to battered women: A survivor-centered approach to advocacy, mental health, and justice*. Washington, DC: American Psychological Association.
- Gott, M., Galena, E., Hinchliff, S., & Elford, H. (2004). “Opening a can of worms”: GP and practice nurse barriers to talking about sexual health in primary care. *Family Practice*, 21(5), 528-536.
- Grace, K.T., & Anderson, J.C. (2016). Reproductive coercion: A systematic review. *Trauma, Violence, & Abuse*, 1-20.
- Gregory, A., Henry, D. B., Schoeny, M. E., & Metropolitan Area Child Study Research Group. (2007). School climate and implementation of a preventive intervention. *American journal of community psychology*, 40(3-4), 250-260.
- Guttmacher Institute. (2016). *State policies in brief: An overview of abortion laws*. Retrieved on December 5 from <https://www.guttmacher.org/state-policy/explore/overview-abortion-laws>
- Haboubi, N.H.J. & Lincoln, N. (2003). Views of health professionals on discussing sexual issues with patients. *Disability and Rehabilitation*, 25(6), 291-296.
- Harris, L.H., Debbink, M., Martin, L., & Hassinger, J. (2011). Dynamics of stigma in abortion work: findings from a pilot study of the Providers Share Workshop. *Social Science & Medicine*, 73(7), 1062-1070.
- Hautamäki, K., Miettinen, M., Kellokumpu-Lehtinen, P.L., Aalto, P., & Lehto, J. (2007). Opening communication with cancer patients about sexuality-related issues. *Cancer Nursing*, 30(5), 399-404.
- Hess, J. & Rueb, J. (2005). Attitudes toward abortion, religion, and party affiliation among college students. *Current Psychology*, 24(1), 24–42.
- Higgins, A., Barker, P., & Begley, C.M. (2008). ‘Veiling sexualities’: a grounded theory of mental health nurses responses to issues of sexuality. *Journal of Advanced Nursing*, 62(3), 307-317.

- Holliday, C., McCauley, H., Silverman, J., Ricci, E., Decker, M., Tancredi, D., Burke, JG, Documet, P., Borrero, S., & Miller, E. (2017). Racial/ethnic differences in women's experiences of reproductive coercion, intimate partner violence, and unintended pregnancy. *Journal of Women's Health*.
- Iantaffi, A. (2015). Having "the talk" across disciplines. *Sexual and Relationship Therapy*, 30(2), 195-195.
- Jaarsma, T., Strömberg, A., Fridlund, B., De Geest, S., Mårtensson, J., Moons, P., ... & Thompson, D.R. (2010). Sexual counselling of cardiac patients: nurses' perception of practice, responsibility and confidence. *European Journal of Cardiovascular Nursing*, 9(1), 24-29.
- Joffe, C. (2010). *Dispatches from the abortion wars: The costs of fanaticism to doctors, patients, and the rest of us*. Beacon Press.
- Jones, K.A., Cornelius, M.D., Silverman, J.G., Tancredi, D.J., Decker, M.R., Haggerty, C.L....& Miller, E. (2016). Abusive experiences and young women's sexual health outcomes: Is condom negotiation self-efficacy a mediator? *Perspectives on Sexual and Reproductive Health*, 48(2), 57-64.
- Jones, R.K. & Jerman, J. (2014). Abortion incidence and service availability in the United States, 2011. *Perspectives on Sexual and Reproductive Health*, 46(1), 3-14.
- Kazmerski, T., McCauley, H.L., Jones, K., Borrero, S., Silverman, J.G., Decker, M.R....& Miller, E. (2015). Use of reproductive and sexual health services among female family planning clinic clients exposed to partner violence and reproductive coercion. *Maternal Child Health Journal*, 19(7), 1490-1496.
- Kim, S., Kang, H.S., & Kim, J.H. (2011). A sexual health care attitude scale for nurses: Development and psychometric evaluation. *International Journal of Nursing Studies*, 48(12), 1522-1532.
- King, L., Miree, C.A., Wilson, C., & Clayton, H. (2008). Oncology nurses' perceptions of barriers to discussion of fertility preservation with patients with cancer. *Clinical Journal of Oncology Nursing*, 12 (3), 467.
- Kotronoulas, G., Papadopoulou, C., & Patiraki, E. (2009). Nurses' knowledge, attitudes, and practices regarding provision of sexual health care in patients with cancer: critical review of the evidence. *Supportive Care in Cancer*, 17(5), 479-501.
- Krebs, L.U. (2007). Sexual assessment: research and clinical. *Nursing Clinics of North America*, 42(4), 515-529.
- Lavie-Ajayi, M. (2016). 'It Will Continue to Embarrass Me on Some Level, and I Think that's OK': Conceptualising Embarrassment in Discussions about Sex between Social Workers and Service Users. *British Journal of Social Work*, 0, 1-18.

- Lavin, M., & Hyde, A. (2006). Sexuality as an aspect of nursing care for women receiving chemotherapy for breast cancer in an Irish context. *European Journal of Oncology Nursing*, 10(1), 10-18.
- Linacre, J. M. (2012). Winsteps®(Version 3.75. 0)[Computer Software]. Beaverton, Oregon: Winsteps. com. Retrieved January 1, 2012.
- Magnan, M.A., & Norris, D.M. (2008). Nursing students' perceptions of barriers to addressing patient sexuality concerns. *The Journal of Nursing Education*, 47(6), 260-268.
- Magnan, M.E., Reynolds, K.E., & Galvin, E.A. (2005). Barriers to addressing patient sexuality in nursing practice. *Medsurg Nursing*, 14(5), 282.
- Mahieu, L., Van Elssen, K., & Gastmans, C. (2011). Nurses' perceptions of sexuality in institutionalized elderly: A literature review. *International Journal of Nursing Studies*, 48(9), 1140-1154.
- McCauley, H. L., Silverman, J. G., Jones, K. A., Tancredi, D. J., Decker, M. R., McCormick, M. C., ... & Miller, E. (2017). Psychometric properties and refinement of the Reproductive Coercion Scale. *Contraception*, 95(3), 292-298.
- McCauley, H.L., Dick, R.N., Tancredi, D.J., Goldstein, S., Blackburn, S., Silverman, J. G., ... & Miller, E. (2014). Differences by sexual minority status in relationship abuse and sexual and reproductive health among adolescent females. *Journal of Adolescent Health*, 55(5), 652-658.
- McCauley, H.L., Silverman, J.G., Decker, M.R., Agénor, M., Borrero, S., Tancredi, D.J., ... & Miller, E. (2015). Sexual and reproductive health indicators and intimate partner violence victimization among female family planning clinic patients who have sex with women and men. *Journal of Women's Health*, 24(8), 621-628.
- McKay, K. (2015). *Sexuality education within masters of social work programs*. (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (Order No. 3712681).
- Meadows, D. H., & Wright, D. (2008). *Thinking in systems: A primer*. chelsea green publishing.
- Meyers, D. C., Durlak, J. A., & Wandersman, A. (2012). The quality implementation framework: A synthesis of critical steps in the implementation process. *American journal of community psychology*, 50(3-4), 462-480.
- Miller E., Decker M.R., Reed E., Raj A., Hathaway J.E., & Silverman J.G. (2007). Male partner pregnancy-promoting behaviors and adolescent partner violence: Findings from a qualitative study with adolescent females. *Ambulatory Pediatrics*, 7(5), 360-366.
- Miller, E., & Silverman, J. (2010). Reproductive coercion and partner violence: Implications for clinical assessment of unintended pregnancy. *Expert Review of Obstetrics & Gynecology*, 5(5), 511-515.

- Miller, E., Decker, M., McCauley, H., Tancredi, D., Levenson, R., Waldman, J., . . . Silverman, J. (2010). Pregnancy coercion, intimate partner violence and unintended pregnancy. *Contraception*, 81(4), 316-322.
- Miller, E., Decker, M.R., McCauley, H.L., Tancredi, D.J., Levenson, R.R., Waldman, J., ... & Silverman, J.G. (2011). A family planning clinic partner violence intervention to reduce risk associated with reproductive coercion. *Contraception*, 83(3), 274-280.
- Miller, E., McCauley, H.L., Tancredi, D.J., Decker, M.R., Anderson, H., & Silverman, J. G. (2014). Recent reproductive coercion and unintended pregnancy among female family planning clients. *Contraception*, 89(2), 122-128.
- Miller, E., Tancredi, D. J., Decker, M. R., McCauley, H. L., Jones, K. A., Anderson, H., ... & Silverman, J. G. (2016). A family planning clinic-based intervention to address reproductive coercion: a cluster randomized controlled trial. *Contraception*, 94(1), 58-67.
- Miller, M.K., Plantz, D.M., Dowd, D.M., Mollen, C.J., Reed, J., Vaughn, L., & Gold, M. A. (2011). Pediatric emergency health care providers' knowledge, attitudes, and experiences regarding emergency contraception. *Academic Emergency Medicine*, 18(6), 605-612.
- Miller, R. L., & Shinn, M. (2005). Learning from communities: Overcoming difficulties in dissemination of prevention and promotion efforts. *American journal of community psychology*, 35(3-4), 169-183.
- Mittal, M., Senn, T. E., & Carey, M. P. (2013). Fear of violent consequences and condom use among women attending an STD clinic. *Women & Health*, 53(8), 795-807.
- Moore, A. M., Frohwirth, L., & Miller, E. (2010). Male reproductive control of women who have experienced intimate partner violence in the United States. *Social Science & Medicine*, 70(11), 1737-1744.
- Muthén, B. (2004). Latent variable analysis. *The Sage handbook of quantitative methodology for the social sciences*. Thousand Oaks, CA: Sage Publications, 345-68.
- Muthén, L. K., & Muthén, B. O. (2012). Mplus statistical modeling software: Release 7.0. Los Angeles, CA: Muthén & Muthén.
- Nagel, K. & Neal, M. (2008). Discussions regarding sperm banking with adolescent and young adult males who have cancer. *Journal of Pediatric Oncology Nursing*, 25(2), 102-106.
- Nakopoulou, E., Papaharitou, S., & Hatzichristou, D. (2009). Patients' sexual health: A qualitative research approach on Greek nurses' perceptions. *The Journal of Sexual Medicine*, 6(8), 2124-2132.
- National Domestic Violence Hotline. (2011). *1 in 4 Callers to the National Domestic Violence Hotline report birth control sabotage and pregnancy coercion*. Retrieved May 20, 2014 from <http://www.thehotline.org/2011/02/1-in-4-callers-to-the-national-domestic-violence-hotline-report-birth-control-sabotage-and-pregnancy-coercion/>

- National Network to End Domestic Violence, NNEDV. (2015). *Domestic Violence Counts 2015: A 24-hour census of domestic violence shelters and services*. Retrieved July 20, 2016 from [http://nnedv.org/downloads/Census/DVCounts2015/DVCounts15\\_NatlReport.compressed.pdf](http://nnedv.org/downloads/Census/DVCounts2015/DVCounts15_NatlReport.compressed.pdf)
- Nikolajski, C., Miller, E., McCauley, H.L., Akers, A., Schwarz, E.B., Freedman, L., ... & Borrero, S. (2015). Race and reproductive coercion: A qualitative assessment. *Women's Health Issues, 25*(3), 216-223.
- Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural equation modeling, 14*(4), 535-569.
- Panzano, P.C., Seffrin, B., Chaney-Jones, S., Roth, D., Crane-Ross, D., Massatti, R., Carstens, C., 2004. The innovation diffusion and adoption research project (IDARP). In: Roth, D., Lutz, W. (Eds.), *New Research in Mental Health*, vol. 16. Ohio Department of Mental Health Office of Program Evaluation and Research, Columbus, OH, pp. 78–89.
- Phillips, S.J., Bennett, A.H., Hacker, M.R., & Gold, M. (2016). Reproductive coercion: an under-recognized challenge for primary care patients. *Family Practice, 33*(3), 286-289.
- Quinn, B. (2003). Sexual health in cancer care. *Nursing Times, 99*(4), 32-34.
- Quinn, C. & Happell, B. (2012). Getting BETTER: Breaking the ice and warming to the inclusion of sexuality in mental health nursing care. *International Journal of Mental Health Nursing, 21*(2), 154-162.
- Quinn, C., Happell, B., & Browne, G. (2011). Talking or avoiding? Mental health nurses' views about discussing sexual health with consumers. *International Journal of Mental Health Nursing, 20*(1), 21-28.
- Raj, A., Silverman, J.G., & Amaro, H. (2004). Abused women report greater male partner risk and gender-based risk for HIV: Findings from a community-based study with Hispanic women. *AIDS Care, 16*(4), 519-529.
- Reebals, J.F., Brown, R., & Buckner, E.B. (2006). Nurse practice issues regarding sperm banking in adolescent male cancer patients. *Journal of Pediatric Oncology Nursing, 23*(4), 182-188.
- Reed, J.L., Vaughn, L.M., & Pomerantz, W.J. (2012). Attitudes and knowledge regarding emergency contraception among emergency department adolescents and providers. *Pediatric Emergency Care, 28*(8), 775-779.
- Reynolds, K. & Magnan, M.A. (2005). Nursing attitudes and beliefs towards human sexuality: Collaborative research promoting evidence based practice. *Clinical Nurse Specialist, 19*(5), 255-260.



- Rosenheck, R.A. (2001). Organizational process: A missing link between research and practice. *Psychiatric Services*, 52, 1607-1612.
- Ruane, J. & Hayter, M. (2008). Nurses' attitudes towards sexual relationships between patients in high security psychiatric hospitals in England: An exploratory qualitative study. *International Journal of Nursing Studies*, 45(12), 1731-1741.
- Sack, S., Drabant, B., & Perrin, E. (2002). Communicating about sexuality: an initiative across the core clerkships. *Academic Medicine*, 77(11), 1159-1160.
- Saunamäki, N. & Engström, M. (2014). Registered nurses' reflections on discussing sexuality with patients: responsibilities, doubts and fears. *Journal of Clinical Nursing*, 23(3-4), 531-540.
- Saunamäki, N., Andersson, M., & Engström, M. (2010). Discussing sexuality with patients: nurses' attitudes and beliefs. *Journal of Advanced Nursing*, 66(6), 1308-1316.
- Sedgh, G., Singh, S., Shah, I.H., Åhman, E., Henshaw, S.K., & Bankole, A. (2012). Induced abortion: incidence and trends worldwide from 1995 to 2008. *The Lancet*, 379(9816), 625-632.
- Seidman, E. & Tseng, V. (2011). Changing social settings: A framework for action. In Aber, M. S., Maton, K. I., & Seidman, E. (eds), *Empowering settings and voices for social change*. Oxford;New York: Oxford University Press, 12-37.
- Seth, P., Raiford, J.L., Robinson, L.S., Wingood, G.M., & DiClemente, R.J. (2010). Intimate partner violence and other partner-related factors: Correlates of sexually transmissible infections and risky sexual behaviours among young adult African American women. *Sexual Health*, 7(1), 25-30.
- Sohocki, J. (2010). *Nurses' sexual attitudes, beliefs, and education: The threats to sexual health and holistic nursing practice*. (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (Order No. AAI3452694).
- Stead, M.L., Brown, J.M., Fallowfield, L., & Selby, P. (2003). Lack of communication between healthcare professionals and women with ovarian cancer about sexual issues. *British Journal of Cancer*, 88(5), 666-671.
- Strawgate-Kanefsky, L. (2000). *A national survey of clinical social workers' knowledge, attitudes, and practice regarding sexuality*. (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Databases. (Order No. 9963439).
- Sullivan, C.M. (2016). *Examining the work of domestic violence programs within a "Social and Emotional Well-being Promotion" conceptual framework*. Harrisburg, PA: National Resource Center on Domestic Violence at [www.dvevidenceproject.org](http://www.dvevidenceproject.org).

- Sung, S.C. & Lin, Y.C. (2013). Effectiveness of the sexual healthcare education in nursing students' knowledge, attitude, and self-efficacy on sexual healthcare. *Nurse Education Today*, 33(5), 498-503.
- Sutherland, M.A., Fantasia, H.C., & Fontenot, H. (2015). Reproductive coercion and partner violence among college women. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 44(2), 218-227.
- Teitelman, A.M., Tennille, J., Bohinski, J.M., Jemmott, L.S., & Jemmott III, J.B. (2011). Unwanted unprotected sex: Condom coercion by male partners and self-silencing of condom negotiation among adolescent girls. *Advances in Nursing Science*, 34(3), 243-259.
- Teng C.I., Hsiao F.J., & Chou T.I. (2010) Nurse-perceived time pressure and patient-perceived care quality. *Journal of Nursing Management*, 18(3), 275–284.
- Thaller, J. & Messing, J.T. (2016). Reproductive coercion by an intimate partner: Occurrence, associations, and interference with sexual health decision making. *Health & Social Work*, 4(1), e11-e19.
- Thiel de Bocanegra, H., Rostovtseva, D.P., Khera, S., & Godhwani, N. (2010). Birth control sabotage and forced sex: Experiences reported by women in domestic violence shelters. *Violence Against Women*, 16(5), 601–612.
- Trotter, J., Brogatzki, L., Duggan, L., Foster, E., & Levie, J. (2006). Revealing disagreement and discomfort through auto-ethnography and personal narrative: Sexuality in social work education and practice. *Qualitative Social Work*, 5 (3), 369-388.
- Tsai, Y.F. (2004) Nurses' facilitators and barriers for taking a sexual history in Taiwan. *Applied Nursing Research* 17(4), 257–264.
- United States Conference of Catholic Bishops. (2009). *Ethical and religious directives for Catholic health care services*. Retrieved on March 4, 2016 at <http://www.usccb.org/issues-and-action/human-life-and-dignity/health-care/upload/Ethical-Religious-Directives-Catholic-Health-Care-Services-fifth-edition-2009.pdf>.
- Upadhyay, U.D., Dworkin, S.L., Weitz, T.A., & Foster, D.G. (2014). Development and validation of a reproductive autonomy scale. *Studies in Family Planning*, 45(1), 19–41.
- Ussher, J.M., Perz, J., Gilbert, E., Wong, W.T., Mason, C., Hobbs, K. and Kirsten, L. (2013) Talking about sex after cancer: A discourse analytic study of health care professional accounts of sexual communication with patients. *Psychology & Health*, 28(12), 1370–90.
- Vassiliadou, A., Stamatopoulou, E., Triantafyllou, G., Gerodimou, E., Toulia, G., & Pistolas, D. (2008). The role of nurses in the sexual counseling of patients after myocardial infarction. *Health Sciences Journal*, 2(2), 111-118.

- Weerakoon, P., Sitharthan, G., & Skowronski, D. (2008). Online sexuality education and health professional students' comfort in dealing with sexual issues. *Sexual and Relationship Therapy*, 23(3), 247-257.
- Whitaker, T. & Arrington, P. (2008). *Social workers at work. NASW Membership Workforce Study*. Washington, DC: National Association of Social Workers. Retrieved from <http://workforce.socialworkers.org/studies/SWatWork.pdf>
- White, I. (2002). Facilitating sexual expression: Challenges for contemporary practice. In H. Heath & I. White (Eds.), *The challenge of sexuality in health care* (pp. 243-263). Malden, MA: Blackwell Science, Inc.
- Wingood, G.M. & DiClemente, R.J. (2000). Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. *Health Education & Behavior*, 27(5), 539-565.
- Wright, D. & Pugnaire-Gros, C. (2010). Let's talk about sex: Promoting staff dialogue on a mental health nursing unit. *Journal for Nurses in Staff Development*, 26 (6), 250–255.
- Yıldız, H. & Dereli, E. (2012). The views and attitudes of nurses on the topic of sexual counseling. *Sexuality and Disability*, 30(1), 89-95.