

**GENDER EQUITY IN COMMUNITY SUSTAINABILITY:
BREASTFEEDING AND INTIMATE PARTNER ABUSE**

By

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ABSTRACT

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We live within a web, connected to our family, friends, communities, societies, nations and ultimately, the greater biome of the Earth. Healthy, thriving women and children benefit their communities; healthy women work to contribute to and help care for their families and friends, and healthy children are able to learn well at school and are best positioned to develop into healthy, able citizens. Unfortunately, the presence of intimate partner abuse (IPA) negatively impacts maternal and child health, resulting in lost productivity, missed schooling, increased healthcare costs, and in some cases the deaths of women and infants. IPA is a critical issue in community wellbeing and sustainability.

This dissertation presents three studies focused on better understanding dynamics around IPA that impact women and children. The first two studies examine how abuse impacts breastfeeding. Providing human milk for infants has numerous benefits for infants and mothers which accumulate across individuals, resulting in substantial improvements at the community, national and global levels.

The first study uses a nationwide dataset to quantitatively explore the relationship between reported physical abuse and breastfeeding initiation. This study contributes to the literature by using an alternate approach that is not definitive, but points toward new areas for future research. Working to resolve this question can

provide healthcare professionals, IPA advocates and policy makers with better information to begin to shape interventions to support mothers coping with abuse.

The second study is a qualitative exploration of mothers' experience of living with an abusive partner while breastfeeding. Using thematic content analysis, themes emerged around mothers using gender performativity, successfully and unsuccessfully, to attempt to stem the violence and chaos in their relationships.

The third study examines organizational resilience for nonprofits, which often function as a key part of the social safety net by providing services to vulnerable populations and strengthening communities. Finding no models specific to nonprofits, a model of OR from the for-profit sector was adapted and extended to cover unique aspects of nonprofits that the for-profit OR model does not contain. The gap between OR and social-ecological resilience (SER) was also examined, and several SER concepts were added to enhance our nonprofit OR model. The adapted model can be used by researchers and practitioners to better understand and evaluate OR not only in IPA agencies, but all nonprofits.

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CHAPTER 1: INTRODUCTION

Women and children made up more than 66% of the world population in 2021 (projected; United Nations, 2019). As roughly two-thirds of humanity, the health and well-being of these groups is paramount to the health and well-being of our communities. However, these two groups have less power in society, fewer rights and protections and face unique health challenges.

The United Nations recognize such inequities have costs and consequences for communities. To this end, they have created several Sustainable Development Goals (SDGs) to prioritize the well-being of women and children as an integral part of creating more sustainable communities. SDG 5 explicitly recognizes the power imbalance between genders and seeks to ‘empower girls and women’ (United Nations, 2021). SDGs 1 (ending poverty), 2 (zero hunger), 3 (good health and well-being) and 4 (quality education) also focus on children, as well as women (United Nations, 2021).

As women and children are keystones to sustainable communities, this dissertation focuses on a topic related to increasing their health and well-being. Intimate partner abuse (IPA) is a complex social issue, and this dissertation seeks to examine issues related to IPA on several levels. The relationship between IPA and breastfeeding is examined on the individual level (Chapter 2; quantitative methodology) and the individual and family level (Chapter 3; qualitative). The final chapter (4) looks at IPA at the organizational/community level, adapting a model of organizational resilience for the nonprofit sector and using it to examine coping and adaptation in a sample of IPA agencies during the COVID-19 pandemic.

IPA was accepted for centuries or regarded as a private family matter and only since World War II have the societal impacts of IPA been recognized, gradually spurring efforts to work toward ending it (Barner & Carney, 2011). Looking at abuse on a spatial scale (Cash et al., 2006), IPA impacts humans at multiple levels. It is estimated that 31% of women in the US have experienced or will experience physical violence (being slapped, pushed, or shoved) from an intimate partner, and an estimated 22% of these women will experience severe physical violence (defined as being hit, kicked, burned, bitten, beaten, or attacked with an object or weapon) in their lifetime (Breiding, 2014). Experiencing IPA impacts victims' ability to work (Dalal & Dawad, 2011), take care of themselves (Vos et al., 2006), parent (Levendosky & Graham-Bermann, 2001), connect with family and friends and contribute to their community. On a family level, children and other family members are often involved and experience lifelong impacts (Katz, 2016; Cater, Miller, Howell & Graham-Bermann, 2015; Hamby, Finkelhor, Turner & Ormrod, 2016; Willman & Team, 2009). IPA also has an intergenerational impact, with a higher likelihood of daughters growing up and having an abusive partner and of sons growing into perpetrators of IPA (Hindin, Kishor & Ansara, 2008; Capaldi, Knoble, Shortt & Kim, 2012). Family impacts spill out into communities and affect classrooms (Klencakova, Pentaraki & McManus, 2021), workplaces (MacGregor, Oliver, MacQuarrie & Wathen, 2021), law enforcement, courts, and health systems (Willman & Team, 2009; Cadilhac et al., 2015). Twenty percent of IPA-related murders involved not the death of the abuse victim, but of a neighbor, friend, family member, bystander or first responder (such as an EMT or police officer; Smith, Fowler & Niolon, 2014). At the national level,

the cost of intimate partner rape, physical violence and stalking in 2003 was estimated at more than \$5.8 billion annually (NCIPC, 2003); most of these costs are for direct medical and mental health care, but they also include \$0.9 billion in lost work. Research estimates that the costs of IPA represent 1-2% of national GDP in Vietnam, Chile, and Nicaragua (IPA cost studies have only been completed for a handful of countries; Duvvury, Callan, Carney & Raghavendra, 2013; Morrison, Orlando & Biehl, 1999). On a global level, The Copenhagen Consensus estimates the costs of IPA¹ at \$4.4 trillion annually, equal to roughly 5% of global GDP (Fearon & Hoeffler, 2014). IPA is clearly a part of our communities and a drain on them.

Breastfeeding, and its relationship to IPA, is also a social health issue with multilevel implications. Breastfeeding an infant reduces all causes of infant mortality (Chen & Rogan, 2004) and it's estimated that increasing breastfeeding could save the lives of more than 800,000 infants and children under five *every year* in 75 low and middle income countries, making increasing breastfeeding rates one of the top interventions for reducing mortality in this group (Victora et al., 2016). It also benefits mothers by reducing their risks of nine different types of cancer (Steube, 2009), as well as lowering the risk of postpartum hemorrhage and depression (Mezzacappa, 2004; Figueiredo, Dias, Brandao, Canario & Nunes-Costa, 2013). On a community level, it increases IQ and results in lifelong health benefits (Rollins et al., 2016). Nationally, researchers estimate

¹ Note: this figure does not include the costs associated with intimate partner homicide against women (estimated cost \$40b USD or almost 0.5% of global GDP) or sexual assault (which includes sexual assault by a partner, family member/friend or stranger; estimated cost \$67b USD or almost 0.8% of global GDP; Fearon & Hoeffler, 2014).

the US could save up to \$2.2b USD annually in direct medical costs if 90% of US infants were exclusively breastfed for their first six months (Bartick & Rheinhold, 2010). Globally, economic losses due to lower IQs attributable to not breastfeeding cost humanity an estimated \$302b USD annually, equivalent to almost 0.5% of gross national income (Rollins et al., 2016). Additionally, breastfeeding has a much lower carbon footprint compared to breastmilk alternatives (Karlsson, Garnett, Rollins & Rööös, 2019) and increasing breastfeeding rates improves global diet, health, and food systems sustainability (Dadhich, Smith, Iellamo & Suleiman, 2021).

Chapters two and three focus on the intersection of breastfeeding and IPA. In chapter two, *“Intimate Partner Abuse Impact on Breastfeeding Initiation,”* the quantitative relationship between experiencing physical abuse and deciding to breastfeed is examined using data from a nationwide survey with more than 200,000 respondents. Two hypotheses are explored. The first hypothesis is mothers reporting physical abuse will initiate breastfeeding at a lower rate than mothers reporting no physical violence. The second hypothesis in chapter two is that mothers reporting physical abuse at two timepoints will initiate breastfeeding at a lower rate than mothers reporting physical abuse in only one timepoint. In other words, it examines whether mothers with a higher ‘dose’ or exposure to physical abuse initiate breastfeeding at a lower rate than mothers reporting physical abuse in only one time span. Dosage studies are common in the health literature and are used to understand whether the amount of a ‘treatment’ or ‘exposure’ impacts outcomes (e.g., Walter, Feinstein & Wells, 1987). Abuse’s impact on breastfeeding initiation has been studied more frequently in low and

middle-income countries; the literature on abuse's impact on initiation in American mothers is limited (i.e., Wallenborn, Cha & Masho, 2018; Miller-Graff, Ahmed & Paulson, 2018; Holland, Thevenent-Morrison, Mittal, Nelson & Dozier, 2018; Silverman, Decker, Reed & Raj, 2006).

In the third chapter, *"Female Gender Performativity Around Breastfeeding in Abusive Relationships,"* examines the gender performativity through breastfeeding of mothers living with intimate partner abuse (IPA) and highlights the ways in which these mothers use breastfeeding successfully (and unsuccessfully) to achieve what Butler (2004) terms a "livable life." For those who choose to breastfeed, the decision is an important one and recent research suggests mothers who intend to breastfeed and do not meet their breastfeeding goals may face greater risks of postpartum depression (Gregory, Butz, Ghazarian, Gross & Johnson, 2015; Borra, Iacovou & Sevilla, 2015) and feel guilt or doubt about their capabilities as mothers (Jackson, DePascalis, Harrold & Fallon, 2021). This study draws from 13 in-depth, semi-structured qualitative interviews with mothers who lived with IPA while breastfeeding. Content analysis was used to analyze interview transcripts in Nvivo, a qualitative coding and analysis program.

The fourth chapter, *"Organizational Resilience of Intimate Partner Abuse Nonprofits During the COVID-19 Pandemic,"* addresses IPA at an organizational/community level. Though exact definitions differ OR is generally defined as the ability of an organization to cope and adapt in quickly changing conditions (such as human and natural disasters) while maintaining their basic function (Tengblad, 2018; Vogus and Sutcliffe, 2007). Nonprofits matter to communities as they are part of the social-ecological landscape

and, in the US serve as part of the social safety net for the most vulnerable among us. It is crucial to understand drivers of resilience capacity in these organizations, but there are few models of OR in nonprofits (Searing, Wiley & Young, 2021). Using qualitative interviews with a sample of IPA nonprofits, a model of organizational resilience (Tengblad, 2018) is adapted to better serve the nonprofit sector. Resilience in such organizations serves individuals, as well as communities, hopefully making communities more able to cope with change while continuing to serve vulnerable community members.

Additionally, the adapted OR model borrows several concepts from social-ecological resilience (SER; Biggs et al., 2012; Olsson, Folke & Berkes, 2004) to begin to address nonprofit resilience in a social-ecological context. This starts the work of bringing these two disparate literatures together and strengthens the evaluation of adaptation (coping with and reacting to change; Béné, Newsham & Davies, 2013) and resilience (the ability to maintain basic function even during periods of stress or crisis; Walker, Holling, Carpenter & Kinzig, 2004) in these community organizations.

In addition to proposing a modified OR model for nonprofits, chapter four also uses interviews from a sample of 18 managers and frontline staff from eight IPA during the COVID-19 pandemic to illustrate the model.

Collectively, these papers focus on strengthening our responses to mothers and children experiencing abuse. Better understanding of the relationship between abuse and breastfeeding can be a foundation for creating responsive and tailored interventions. Similarly, the adapted model of nonprofit organizational resilience can

help nonprofits understand the components of organizational resilience and begin to plan for the next crisis. The key message from all three studies is that we need stronger supports for mothers and infants and a resilient nonprofit sector able to weather crises while continuing to fulfill their mission. These studies contribute important knowledge and an adapted framework to begin to strengthen these sectors of our communities.

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CHAPTER 2: INTIMATE PARTNER ABUSE IMPACT ON BREASTFEEDING INITIATION

Introduction

Intimate partner abuse (IPA) is common in the United States, impacting upward of one in three women in their lifetimes (Breiding, 2014). It is also disproportionately common among women of childbearing age, with women from 18 to 34 years typically facing the highest rates of IPA (Catalano, 2012; ACOG, 2012). These statistics point to an intersection of IPA and breastfeeding, but the relationship between IPA and breastfeeding is not yet well understood.

It is rare to find data about breastfeeding and IPA in a single dataset, but the Centers for Disease Control's Pregnancy Risk Assessment and Monitoring system (PRAMS) collects annual data from new mothers nationwide. PRAMS covers many topics, but it includes questions about breastfeeding² (such as initiation and duration of breastfeeding) and two questions about a single form of IPA, physical abuse. Two studies (Wallenborn, Cha & Masho, 2018; Silverman, Decker, Reed & Raj, 2006) have used this data from different years (Wallenborn et al., 2004-2014; Silverman et al. 2000-2003) to look at the relationship between IPA and breastfeeding initiation (or a mother's decision to start breastfeeding). Both used logistic regression and found that mothers reporting physical abuse initiate breastfeeding at lower rates than mothers who do not

² The CDC data and this study examine the decision of a mother to provide her breastmilk to her infant. This may be done by direct breastfeeding or pumping and providing breastmilk in a bottle. The data does not distinguish between exclusive breastmilk feeding or partial breastmilk/breastmilk alternative feeding. Breastfeeding mothers are defined as mothers who decided to provide their infant with their breastmilk (for some period of time) and may or may not have also used breastmilk alternatives.

report physical abuse. However, in both studies this effect became nonsignificant when controlling for demographic factors such as age, race/ethnicity, marital status, smoking status, and mother's level of education.

This study examines PRAMS data from 2010 to 2014 and uses subgroup analyses to attempt to understand which factors may be instrumental in changing the nature of this relationship. Subgroup analyses should not be regarded as definitive (Petticrew et al., 2012; Sun, Briel, Walter & Guyatt, 2010), but they can be useful in creating hypotheses for future research. In addition, subgroup analysis can direct attention to differences in relationships across demographic groups; this can be important in health equity or looking for areas in which some demographic groups have differing needs/responses (Petticrew et al., 2012). Subgroup analyses are used here to deepen the analysis and ask new questions that may lead to a better understanding of the relationship between IPA and breastfeeding initiation.

This study also explores the impact of degrees of exposure to physical abuse, using a 'dosage' analysis. This is a common approach in medical studies attempting to gauge the impact of greater or lesser exposure to treatment protocols or pharmaceutical interventions (Walter, Feinstein & Wells, 1987). PRAMS asks mothers whether they experienced physical abuse from their partner in the 12 months prior to their most recent pregnancy and during their pregnancy. Using these as two separate time spans, exposure to physical abuse in one time span is measured as one 'dose' or exposure and compared to mothers who reported experiencing physical abuse in both

time spans (crudely a double 'dose'). The benefits and limitations of this approach are discussed.

First, the literature around the benefits of breastfeeding will be briefly reviewed, followed by a review of why breastfeeding might create unique vulnerabilities for women living with abuse. From there the review will examine the literature around IPA during pregnancy and then turn to factors in mothers' breastfeeding initiation decisions. Finally, the global research around IPA and breastfeeding initiation will be discussed and then the two US studies regarding breastfeeding initiation will be covered in more detail.

Why breastfeeding matters

Breastfeeding benefits for infants. Breastfeeding reduces all causes of infant mortality (Chen & Rogan, 2004), improves health outcomes for mothers and increases IQ for future citizens (Victora et al., 2015 & 2016; Horta, Loret de Mola & Victora, 2015). Studies estimate increasing breastfeeding to recommended levels could save between 595,379 (Walters, Phan & Mathisen, 2019) and 823,000 children under the age of five every year in 75 low and middle income countries (Victora et al., 2016). Breastfeeding also has lifelong health implications for children as humans breastfed as children have lower risks of obesity and type 2 diabetes (Victora et al., 2016). Because of these benefits, increasing breastfeeding rates is a recognized tactic for achieving multiple Sustainability Development Goals (SDGs), including SDG 2 (ending hunger), 3 (increasing health and wellbeing) and 4 (improving quality of education for all).

Breastfeeding benefits for mothers. Breastfeeding also benefits mothers in the postnatal period and years later. Postnatally, breastfeeding reduces the risks of postnatal hemorrhage and post-partum depression (PPD) and cardiovascular disease (Mezzacappa, 2004; Figueiredo, Dias, Brandao, Canario & Nunes-Costa, 2013).

Longer-term, breastfeeding benefits mothers in a variety of ways. Breastfeeding appears to be protective against breast cancer and reduces mother's risks of at least eight other types of cancer (Stuebe, 2009). Increasing breastfeeding rates to 100% worldwide could eliminate an estimated 20,000 (Victora et al., 2016) to 27,000 (Walters, Phan & Mathisen, 2019) deaths from breast cancer annually and up to an additional 70,000 maternal deaths from uterine cancer and type II diabetes (Walters, Phan & Mathisen, 2019).

Why breastfeeding matters for mothers living with abuse

Breastfeeding in mothers living with abuse may have additional importance as abusers often target the mother-child bond as part of their efforts to keep a woman isolated, and without sources of support or self-esteem (Bancroft, Silverman & Ritchie, 2011). Feeling close to an infant and confident as a mother is important to mothers and deciding how to feed an infant is often one of the first major decisions a mother makes for a new child. Indeed, recent research suggests mothers who intend to breastfeed and do not meet their breastfeeding goals may face greater risks of postpartum depression (Gregory, Butz, Ghazarian, Gross & Johnson, 2015; Borra, Iacovou & Sevilla, 2015) and feel guilt or doubt about their capabilities as mothers (Jackson, DePascalis, Harrold & Fallon, 2021).

Breastfeeding is regularly linked to improved mood and stress management for all breastfeeding mothers (Mezzacappa & Katkin, 2002), but it appears it may also have benefits for mothers living with trauma. One study looking at sleep and post-partum depression (PPD) found that exclusively breastfeeding mothers got the most sleep and had lower levels of PPD than mothers that mixed breastfeeding and breastmilk alternatives³ or mothers who exclusively used breastmilk alternatives (Kendall-Tackett, Cong & Hale, 2011). Kendall-Tackett and her co-authors then looked at sleep and PPD for survivors of sexual abuse and found that mothers with a history of sexual abuse who breastfed exclusively had better sleep and lower rates of PPD than survivors who mixed breastfeeding and breastmilk alternatives or exclusively used breastmilk alternatives (Kendall-Tackett, Cong & Hale, 2013). Kendall-Tackett and colleagues theorize that some of the hormones released via breastfeeding (such as prolactin and oxytocin) may be beneficial to survivors of violence (Kendall-Tackett, Cong & Hale, 2013).

While breastfeeding may have unique benefits for mothers living with abuse, it may also create unique vulnerabilities⁴. Pregnancy, childbirth and the postnatal period

³ There is disagreement about how to refer to milk products designed to replace breastmilk. I use “breastmilk alternatives” as opposed to “formula” (a term originated by the breastmilk substitute industry to imply they are ‘formulated’ to be a superior option). I make no judgments on the use of alternatives (and used them myself). I recognize every woman must use her agency within the constraints of her situation to make her own choice. I also recognize that breastmilk has many advantages for infants and mothers and society should better support mothers who wish to breastfeed.

⁴ Why doesn’t she just leave? This is a common question. Many societal norms situate mothers as the default primary caregivers and place much higher expectations and responsibilities on them, as compared to fathers (and other non-biologically related males residing with mothers). Mothers living with IPA have been characterized as neglectful (Lévesque et al., 2021; Buchanan, 2017; Lapierre, 2008; Radford & Hester,

are a time of heightened vulnerability for all mothers where they may face pregnancy discrimination (discrimination in hiring and employment due to pregnancy; Salihu, Myers & August, 2012; Cunningham & Macan, 2007), family responsibilities discrimination (discrimination in hiring and employment because of caregiving responsibilities; Williams & Bornstein, 2006), increased work-family conflicts (Westrupp, Strazdins, Martin, Cooklin, Zubrick & Nicholson, 2016; Grice et al., 2007), pressure from society, family and friends to 'preserve the family' (Rasool, 2016; Hester, Pearson & Harwin, 2007), fear of losing custody or having child welfare agencies involved (Wolf, Ly, Hobart & Kernic, 2003) and increased financial pressures (Qobadi, Collier & Zhang, 2016). Mothers living with abusive partners face all these issues in addition to dealing with abuse and the chaos it causes.

Breastfeeding is often sexualized in US culture and all breastfeeding mothers must negotiate a delicate balance between modesty, infant hunger and their right and need to be in public spaces (Mulready-Ward & Hackett, 2014; Stearns, 1999). Mothers have differing levels of comfort with breastfeeding in public (Hauck, Bradfield & Kuliukas, 2021), and many mothers prefer to keep themselves and their newborns out of public spaces for some amount of time (Davis-Floyd, 2004). As a result, mothers living

2006) and, in some instances, have faced legal penalties for child abuse committed by their partners (Goodmark, 2010). Leaving an abusive relationship is often a process and women who do leave are often in greater danger of from their abuser after they leave (DeKeseredy & Schwartz, 2009; Anderson et al., 2003; Campbell & Kendall-Tackett, 2005).

with abuse may be more isolated during the early breastfeeding phase and more exposed to their abuser.

Additionally, the act of breastfeeding or pumping breastmilk requires some degree of exposure, both at home and in public. Bomsta (2022) found that mothers living with an abusive partner during the breastfeeding phase reported some of their partners tried to control where and how they breastfed, accusing them of exhibitionism if they breastfed in public, and insisting they remove themselves from friends, family (and in one case, older children) while breastfeeding. Abusers in some cases sexualized breastfeeding and/or pumping, getting aroused and making sexual comments in some cases. Mothers said such behavior from their partners made breastfeeding/pumping more difficult, causing increased anxiety and fear (Bomsta, 2022).

IPA and pregnancy

The PRAMS dataset asks about physical abuse in the 12 months prior to a pregnancy and physical abuse during the pregnancy. Researchers globally have studied IPA in pregnancy to understand its impacts for infants and mothers, as well as its prevalence. The literature on both topics is briefly covered below.

IPA during pregnancy is associated with higher risks of PTSD, miscarriage, stillbirth, depression, and substance use in mothers (Hahn et al., 2018). Women living with abuse, even outside the perinatal period, are twice as likely to have an alcohol use disorder (WHO, 2014). Such substance use likely impacts decisions about initiating

breastfeeding⁵ as many mothers still believe breastfeeding and smoking/drugs (prescribed and recreational) should not be combined (Bogen, Davies, Barnhart, Lucero & Moss, 2008). Perinatal abuse is also linked to lower maternal attunement and responsiveness and negative thoughts about parenting and one's ability to be an effective parent (Hahn, Gilmore, Aguayo & Rheingold, 2018).

In the US, two multi-state studies found between 3.7% (Silverman, Decker, Reed & Raj, 2006) to 5.3% (Saltzman, Johnson, Gilbert & Goodwin, 2003) of mothers report experiencing physical abuse during pregnancy (Hahn, Gilmore, Aguayo & Rheingold, 2018). Globally, a review of 86 studies of perinatal violence found it impacts between 1.5% (Sweden) to 66.9% (Kenya) of pregnant women (Mojahed et al., 2021). There are some indications IPA drops, but rarely stops completely, during pregnancy. A retroactive recall study in Bangladesh of more than 400 new mothers found physical abuse fell during pregnancy (52.8% to 35.2%), psychological abuse decreased minimally (67.4% to 65%), and sexual abuse remained relatively unchanged (Islam, Broidy, Mazerolle, Baird & Mazumder, 2021). Physical abuse is not the only type of IPA associated with harm during pregnancy. One study found women reporting psychological abuse (screaming, belittling, etc.) had an increased risk of having a low-birth-weight baby (Yost, Bloom, McIntire & Leveno, 2005).

⁵ In 2001 the American Academy of Pediatrics (AAP, 2001) reversed its long-standing opinion that mothers should not smoke or use nicotine replacement therapy while breastfeeding, as new research showed the benefits of breastmilk outweighed the risks of infant exposure to nicotine through breastmilk (see Anderson, Pochop & Manoguerra, 2003; Sachs et al., 2013).

Additional ways IPA may impact breastfeeding

IPA may also indirectly impact breastfeeding through stress, marital satisfaction, and maternal self-efficacy – creating conditions under which mothers struggle to provide the kind of care they would if they were not in an abusive relationship. Stress has a direct relationship to a mother's ability to produce and secrete breast milk, and low milk supply, or the perception of it, is often cited by mothers as a reason to prematurely discontinue breastfeeding (Lau, 2001). Additionally, breast milk composition in mothers with higher stress levels has been shown to have different fat profiles and less energy density than the breast milk of mothers reporting lower stress profiles (Ziomkiewicz et al., 2021).

Finally, marital satisfaction has been found to be a factor in breastfeeding intention, the precursor to breastfeeding initiation (Lau, 2010; Kong & Lee, 2004). Marital satisfaction tends to be lower in abusive relationships⁶ (Stith, Green, Smith & Ward, 2008).

Decision to initiate

Some mothers decide to breastfeed long before becoming pregnant, while others decide during their pregnancy and some decide shortly after birth (in one study 30%, 55% and 15%, respectively; Wagner et al., 2006). The decision to initiate breastfeeding is complex and unique, but breastfeeding tends to be more common

⁶ Stith and colleagues conducted a metaanalysis, reviewing 32 studies conducted between 1980 and 2005. They found lower marital satisfaction to be associated with a higher likelihood of physical abuse, but causality (does lower marital satisfaction increase risks of physical abuse or does physical abuse lead to lower marital satisfaction) has not yet been established.

among mothers who are married (Kiernan & Pickett, 2006), older, with more access to higher education and higher socio-economic status (Atchan, Foureur & Davis, 2011). Breastfeeding rates are also tied to ethnicity as cultures differ in their beliefs/behaviors around breastfeeding (Riordan & Gill-Hopple, 2001). In the US white and Asian mothers breastfeed at higher rates than African American mothers, though their breastfeeding rates have been rising over the last decade (USDHHS, 2011; Schindler-Ruwisch et al., 2019).

There are many barriers to breastfeeding such as beliefs around substance use (tobacco, alcohol, marijuana, etc.), and the need to return to work and care for the household and other children (Whalen & Cramton, 2010; Hedburg, 2013). Many of these issues have been studied and legal protections have been enacted in some states/localities (Murtagh & Moulton, 2011). Additionally, breastfeeding promotion programs have developed some interventions to help mothers successfully address barriers, but much work remains as breastfeeding-friendly workplaces remain inaccessible for many mothers (Johnson, Kirk & Muzik, 2015).

Role of male partners and others in breastfeeding decisions. Mothers may also take into consideration the opinions of their partner (Arora, McJunkin, Wehrer & Kuhn, 2000), family and healthcare providers; research shows that if mothers perceive these parties to support breastfeeding, they are more likely to initiate breastfeeding (Odom, Li, Scanlon, Perrine & Grummer-Strawn, 2014). Women who were breastfed by their mothers, or whose partner was breastfed as an infant are more likely to initiate breastfeeding (Wagner et al., 2006).

Current research on IPA and breastfeeding initiation

The impact of IPA on breastfeeding initiation is a newer topic of research and question of whether abuse impacts initiation is not settled. Moreover, healthcare professionals, lactation consultants and breastfeeding interventions have yet to address connections between IPA and breastfeeding. A study of 1,200 mothers in Hong Kong found mothers reporting no abuse initiated breastfeeding at a much higher rate (adjusted odds ratio 1.84, CI 1.16, 2.91; OR adjusted for socio-economic, demographic, and obstetric variables) than mothers reporting abuse. Abuse in this study was more widely defined than in the PRAMS data, including psychological and sexual abuse (Lau & Chan, 2007).

Another study controlled for depression, perinatal health issues, physical/sexual/emotional abuse in childhood, IPA, and exposure to breastfeeding education, and failed to find a significant relationship between abuse and breastfeeding initiation (Miller-Graff, Ahmed & Paulson, 2018). The study, of 69 low-income mothers in an American Midwestern city, defined abuse as the experience of one physical assault, sexual coercion or at least 12 incidents of psychological abuse (Miller-Graff, Ahmed & Paulson, 2018).

As is common when multiple studies find differing results, a few research teams have used summary methods to begin to summarize and, hopefully, resolve these disputed findings. One such summary method is a systematic review, a structured review of all relevant research on a topic that meets criteria for scientific rigor (Gopalakrishnan & Ganeshkumar, 2013). Normann and colleagues (2020) examined six

studies around breastfeeding initiation from a variety of countries. Only two of the six studies reviewed found a statistically significant relationship between breastfeeding and IPA that remained once other variables (such as demographics, socio-economic status, etc.) were added to the analysis. They concluded that the relationship between breastfeeding in general and IPA is complex, and no firm conclusions could be drawn from current research (Normann et al., 2020).

A second summary study used a metanalysis (a statistical method used to summarize results of multiple studies around the same research question; Singleton & Strait, 2010; Field, 2013) to examine the findings on IPA and breastfeeding. They assessed 12 observational studies from various countries and results from eight (66%) of them found abuse was a significant predictor of lower rates of breastfeeding initiation (Mezzavilla, Ferreira, Curioni, Lindsay & Hasselmann, 2018).

Two studies have used PRAMS data (Wallenborn, Cha & Masho, 2018; Silverman, Decker, Reed & Raj, 2006) to examine breastfeeding initiation. Both found a significant relationship between physical abuse and breastfeeding initiation in baseline analyses, unadjusted for additional variables. Silverman et al. (2006) then adjusted analyses to control for race, age, maternal education, marital status, and smoking, but they varied the factors they controlled for in some analyses. Wallenborn and colleagues (2018) adjusted their analyses to control for marital status, maternal education, and insurance status. Both studies found a significant relationship between abuse and the decision to breastfeed, but after adding covariates – the relationship became nonsignificant (Wallenborn, Cha & Masho, 2018; Silverman, Decker, Reed & Raj, 2006).

Complexity of research on IPA and breastfeeding initiation

Analysis of the relationship between IPA and breastfeeding is complicated by endogenous relationships among the demographic variables typically utilized to try to explain both breastfeeding and IPA. Many common demographic variables predicting breastfeeding (age, socio-economic status, marital status, education, etc.) are also shown to predict abuse. These complex relationships can intersect; for example, women have a higher likelihood of experiencing abuse during their childbearing years (Catalano, 2012; ACOG, 2012) and a higher likelihood of breastfeeding. Abused women are also more likely to have less access to higher education, and a higher likelihood of living in poverty (Bassuk, Dawson & Huntington, 2006; Allard, Albelda, Colten & Consenza, 1997). Abuse and substance use are also associated, with elevated levels of smoking and substance use in women in abusive relationships (Cheng, Salimi, Terplan & Chisholm, 2015; Crane, Pilver & Weinberger, 2014; Crane, Hawes & Weinberger, 2013; Jun, Rich-Edwards, Boynton-Jarrett & Wright, 2008).

These relationships between variables can result in collinearity, or correlation between variables. In statistical modeling, collinearity between variables makes statistical outcomes untrustworthy and makes it difficult to reliably understand the importance of each predictor variable (Field, 2013).

The systematic review by Normann et al. (2020) also found the controlling variables included in analyses differed widely across studies. They suggest this may impact findings as some variables may be mediating factors (mediation is when the relationship between the dependent variable and the independent variable can partially

be explained by each variable's relationship to a third variable; Field, 2013), rather than confounding factors. They recommended further research to create a shared understand of which variables mediate the relationship between abuse and breastfeeding initiation and which variables are confounding variables. They also pointed to the fact that studies define abuse in a variety of ways – with some using lifetime experience of IPA and others defining abuse as IPA only within the perinatal period (Normann et al., 2020).

The current study

This study seeks to examine the relationship between physical abuse in the year prior to the pregnancy, during the pregnancy and assess its impact on mothers' breastfeeding initiation decisions. There are two hypotheses tested:

H1: Mothers who report physical violence in the year prior to their pregnancy and/or during their pregnancy will initiate breastfeeding at a lower rate than mothers reporting no physical abuse.

Additionally, a 'dose' approach is used to assess whether the amount of exposure to physical abuse impacts breastfeeding initiation rates. Dosage studies are often used in analysis to understand whether the amount of a 'treatment' or 'exposure' makes a difference (Walter, Feinstein & Wells, 1987).

H2: Mothers who report physical violence during two time periods (a proxy measure for amount/severity of physical abuse) will initiate breastfeeding at a lower rate than mothers who reported physical abuse at only one time period.

Materials and methods

Data

Data for this study was collected by the Centers for Disease Control through their nationwide PRAMS survey between 2010 and 2014. PRAMS is a retrospective, cross sectional survey administered by mail and phone by state health departments (Shulman, D'Angelo, Harrison, Smith & Warner, 2018). It uses birth certificate data to select a "representative sample" of mothers who have liveborn infants (Shulman, D'Angelo, Harrison, Smith & Warner, 2018). Mothers are contacted repeatedly by mail and/or phone (Shulman, D'Angelo, Harrison, Smith & Warner, 2018). The survey is designed to reflect the diversity of the US population and is weighted to ensure representation of diverse groups, such as African Americans, Asian Americans, Native Americans, and other minoritized groups. The PRAMS survey also collects extensive demographic data, including age, race/ethnicity, education, number of pregnancies, number of living children, smoking, and drinking patterns, etc.

Most states participate in data collection (except for California, Idaho, and Ohio), but each state must meet response rate thresholds annually to be included in the final nationwide data base; most states contribute between 1000 to 3000 responses depending on budget, births and their individual data priorities (Shulman, D'Angelo, Harrison, Smith & Warner, 2018). The data set for this study includes respondents from 36 states and New York City (Shulman, D'Angelo, Harrison, Smith & Warner, 2018).

Measurement

The PRAMS primary survey asks two dichotomous questions about physical abuse. One question asks about physical violence ‘in the 12 months prior’ to the most recent pregnancy (yes/no; “During the 12 months before you got pregnant with your new baby, did your husband or partner push, hit, slap, kick choke or physically hurt you in any other way?”). The second question asks about physical abuse during the most recent pregnancy (yes/no; “During your most recent pregnancy, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?”). Likewise, PRAMS asks a dichotomous question regarding breastfeeding initiation (yes/no; “Did you ever breastfeed or pump breast milk to feed your new baby, even for a short period of time?”).

The PRAMS survey also provides detailed demographic data, some with many categories. However, having many categories for multiple factors can increase the statistical ‘noise’ in analysis, decreasing the ability to assess relationships. To reduce complexity in the models, demographic factors were collapsed into fewer categories where the analysis did not require/focus on fine categorical distinctions. Maternal education was reduced from five to two categories: 1) high school degree/GED or less education and 2) some college or more (more than 12 years of education). Race/ethnicity was collapsed from 11 categories to three: 1) white mothers, 2) African American mothers and 3) all other identities (including mixed race mothers). Marital status (married or other at time of most recent pregnancy) was retained as a dichotomous factor.

Analyses

All analyses were run in Stata, a well-known statistical software, capable of managing weighted data sets (StataCorp, 2017). Logistic regression was used as it allows researchers to measure the change in a dichotomous variable as other variables change and to determine the direction and strength of the relationship (Singleton & Strait, 2010). Findings are reported using odds ratios (OR), an effect size measure, which calculates the change in the odds of an effect happening resulting from changes in the predictor variables. ORs above 1 indicate greater odds and ORs below 1 indicate lower odds of an outcome happening (Field, 2013). Chi-squared tests were run on all model variables and associated demographics to test for independence.

For H1 (do mothers reporting physical abuse initiate breastfeeding at a lower rate than mothers reporting no physical abuse?), the full data set (n=203,326 after dropping observations with missing data) was utilized. For H1, physical abuse was categorized as a dichotomous variable; mothers reporting no physical abuse at any timepoint, and mothers reporting physical abuse at one or both timepoints. This focused the analysis on the breastfeeding initiation rates between mothers reporting physical abuse, contrasted against mothers reporting no physical abuse. PRAMS provided a data weighting design used in the full data set based on a sampling weight, a nonresponse weight, and a noncoverage weight (Shulman, D'Angelo, Harrison, Smith & Warner, 2018).

For H1 we report odds ratios for three models: an unadjusted or baseline OR, a partially adjusted model (controlling for race/ethnicity and maternal education) and an

adjusted OR (controlling for race/ethnicity, maternal education, and marital status; Kiernan & Pickett, 2006; Atchan, Foureur & Davis, 2011). The three models more clearly show the impacts of adjustment factors compared to the baseline OR.

Subgroup analysis can be used when endogeneity is complicating the reliability of results. In subgroup analysis a subset of observations sharing a certain characteristic of interest is extracted from a larger dataset, effectively controlling for that characteristic. In initial analysis, marital status and race showed significant differences among their subcategories which lead us to use subgroup analyses to attempt to better understand differences in these sub-populations. Subgroup analysis may highlight the story behind some shifts in data which appear to make abuse a nonsignificant factor for some subgroups, but not others. Subgroup analysis is less common and can be controversial if used incorrectly, but paradoxically, can also be important in understanding differences between populations and promoting greater equity for less advantaged groups (Petticrew et al., 2011).

In statistics the main result is assumed to be relevant for all groups, but there are differences in some groups' history and social determinants of health (SDOH) that may cause different attitudes and behaviors, making these groups deviate from the average. Marital status and race are potential areas where differences between groups may be salient in breastfeeding. Marital status has been shown to impact breastfeeding initiation rates (Gibson-Davis & Brooks-Gunn, 2007; Kiernan & Pickett, 2006). Married women are more likely to live in the same household as an abusive partner, whereas unmarried partners may have different living arrangements, perhaps living together

part-time or not at all. Having an abusive partner under the same roof full-time impacts breastfeeding in a variety of ways – such as daily pressure to perform female gender roles (around cleaning, meal preparation, etc.), and increased physical exposure of breasts around an abusive partner, etc. (Bomsta, 2022). Race in the US also defines SDOH for many populations. African American women breastfeed at lower rates than other groups in the US, which has been tied to a variety of factors, including slavery and the use of enslaved African American women as wet nurses (Louis-Jacques et al., 2020) and structural racism in healthcare systems (Prather et al., 2018). Lack of information about breastfeeding, lack of support from mothers/other female relatives who did not breastfeed and barriers to breastfeeding in the workplace are also cited as factors in the lower rates of breastfeeding among African American mothers (Obeng, Emetu & Curtis, 2015).

There are several guidelines for the use of sub-group analysis (Sun, Briel, Walter & Guyatt, 2010), including whether the effects detected are within a study (rather than between different studies), whether the effects are significant, and whether the interactions are congruent with what is predicted in the literature. Sun and colleagues (2010) also say subgroup analyses should be used sparingly; only two are explored here. Finally, they recommend using tests for interaction, in which significant p-values predict a greater likelihood that differences between groups are not due to chance; Sun and colleagues (2010) suggest that p-values below 0.001 should be taken seriously.

For H2 (do mothers reporting physical abuse at two time points initiate breastfeeding at a lower rate than mothers reporting physical abuse at only one time

point?), mothers reporting no physical abuse were dropped from the analysis. The subsequent data set then includes all mothers reporting physical abuse at any time point (n=8,079). Given that the proportions of the groups are much closer (54.2% reporting physical abuse at one time point, 45.8% reporting abuse at both timepoints) as compared to the overall sample (96% of mothers reporting no abuse compared to just 4% reporting abuse), the outcomes for the subset are less likely to be swamped by the power of the size of the non-abused population. Unlike the full dataset, this data subset is not weighted to be nationally representative.

In the H2 analysis, mothers were grouped into two dosage groups: 1) mothers reporting physical abuse at one time point (either before their pregnancy or during it; n=4,376) and 2) mothers reporting physical abuse at both time points (n=3,703). This facilitated our dose analysis to examine whether the amount or ‘dose’ of physical abuse impacted the relationship between breastfeeding and IPA.

Results

Hypothesis 1

There were 203,326 mothers who responded to all questions for variables used in models. Four percent (n=8,079) of these mothers reported physical abuse (see table 2.1). Approximately 1.3% (n=2,645) reported physical abuse in the year prior to their most recent pregnancy, while 0.85% (n=1,731) reported physical violence only during pregnancy; thus 2.2% (n=4,376) of mothers reported physical violence at one time point – prior to or during their pregnancy, but not at both time points. A further 1.8% (n=3,703) indicated they were subject to physical violence in both the year prior to their

pregnancy and during their pregnancy. Physical violence was more common among women under 24 years old both before and during pregnancy. Physical violence prevalence also differed by race/ethnicity, with Native American/Alaska Native women and African American women experiencing higher rates than white, Asian, or Other/Mixed race women.

Table 2.1. Demographics for hypothesis 1 by experience of physical abuse (n=203,326) – PRAMS data 2010-2014

	Total	Mother reporting no physical abuse (%)	Mothers reporting physical abuse (%)
Total	203,326	195,247 (96.0)	8,079 (4.0)
Initiated breastfeeding			
Yes	172,623 (84.9)	166,216 (85.1)	6,407 (79.3)
No	30,703 (15.1)	29,031 (14.9)	1,672 (20.7)
Race			
White	125, 582 (61.8)	121,498 (62.2)	4,084 (50.6)
African American	34,205 (16.8)	32,010 (16.4)	2,195 (27.2)
Other & mixed	43,539 (21.7)	41,739 (21.4)	1,800 (22.3)
Marital status			
Married	122,567 (60.3)	120,357 (61.6)	2,210 (27.4)
Other	80,759 (39.7)	78,890 (38.4)	5,869 (72.6)
Maternal education			
HS diploma/ GED or less	81,178 (39.9)	76,659 (39.3)	4,519 (55.9)
Some college/ college degree	122,148 (60.1)	118,588 (60.7)	3,560 (44.1)

Note: values are presented as n (%). All numbers are weighted.

Logistic regression showed mothers reporting physical abuse before and/or during pregnancy initiated breastfeeding at a lower rate (baseline OR 0.68, CI 0.62 -

0.75) than mothers who reported no physical abuse (table 2.2). This relationship between the experience of physical abuse and lower rates of breastfeeding initiation remained significant when partially adjusted for factors known to impact breastfeeding initiation (race and maternal education level; partial AOR 0.87, CI 0.78 - 0.96), but the relationship became insignificant when also controlling for marital status (AOR 1.02, CI 0.92 - 1.13).

Table 2.2. Baseline and adjusted ORs for breastfeeding initiation in mothers reporting physical abuse before and/or during pregnancy (n=203,326) – PRAMS data 2010-2014

	Baseline OR (95% CI)	Partially Adjusted OR ¹ (95% CI)	Adjusted OR ² (95% CI)
Mothers reporting no physical abuse	1.00	1.00	1.00
Mothers reporting physical abuse before and/or during pregnancy	0.68 (0.62 - 0.75)***	0.87 (0.78 - 0.96)**	1.02 (0.92 - 1.13)*

Note: OR = odds ratio, AOR = adjusted OR, CI = confidence interval; all p-values are from logistic regression models

1 Adjusted for race & maternal education

2 Adjusted for race, maternal education & marital status

*** *P value* ≤ 0.001

** *P value* ≤ 0.05

* *P value* nonsignificant

Curious as to why marital status changed the impact of abuse so strongly that the relationship reversed, a subset analysis was conducted looking at married and unmarried mothers separately (table 2.3). We performed recommended tests for interaction on marital status and p-values were at the level Sun and colleagues (2010) suggested should be taken seriously (<.001). As expected from the breastfeeding

literature, married mothers (n=122,567) initiated breastfeeding at a higher rate (90.4%) than unmarried mothers (n=80,759; 76.6%). However, results for logistic regression differed between the two groups. There was no relationship between abuse and breastfeeding initiation rates among unmarried women, indicating abuse was not a factor in initiation decisions (OR 1.03, CI 0.96 - 1.10). However, the relationship was strong and significant among married women, with abused married women (OR 0.61, CI 0.54 - 0.69) choosing to breastfeed at a rate roughly 40% lower than married women not reporting physical abuse.

Table 2.3. Subset analyses for marital status and its relationship to breastfeeding initiation (n=203,326) – PRAMS data 2010-2014

	Unmarried Mothers Baseline OR ¹ (95% CI)	Married mothers Baseline OR ¹ (95% CI)
Mothers reporting no physical abuse	1.00	1.00
Mothers reporting physical abuse before and/or during pregnancy	1.03 (0.97 - 1.10)*	0.61 (0.54 - 0.69)***

Note: OR = odds ratio, AOR = adjusted OR, CI = confidence interval

1 Unadjusted

*** *P value* <= 0.001

* *P value* insignificant

In our initial analyses the relationship between abuse and breastfeeding initiation in African American women was different than in white and mixed race/other race women. This led to a second subgroup analysis to better understand how race and abuse might interact. We performed recommended tests for interaction on

race/ethnicity and p-values were at the level Sun and colleagues (2010) suggested should be taken seriously ($<.001$). Abuse appears to have an insignificant relationship with breastfeeding initiation in African American women, with abused African American mothers initiating at roughly the same rate as African American mothers reporting no physical abuse. The relationship between breastfeeding initiation and abuse is significant for white mothers (OR 0.57, CI 0.53 - 0.62) and for mixed and other race mothers (OR 0.71, CI 0.62 - 0.83), with both groups of abused mothers initiating breastfeeding at lower rates than their unabused counterparts⁷.

⁷ Running the same analysis by abuse 'dose' (mothers reporting no physical abuse, mothers reporting physical abuse at one timepoint and mothers reporting physical abuse at both time points) shows the same pattern. The relationship between breastfeeding initiation and abuse is insignificant for African American mothers whether they reported physical abuse in one timepoint or in both time periods. For white and mixed/other race mothers the relationship is significant for both 'doses' of physical abuse, with mothers reporting physical abuse initiating breastfeeding at a lower rate than their counterparts who report no physical abuse. Further, those white and mixed/other race mothers reporting a higher 'dose' of physical abuse initiate breastfeeding at lower rates than mothers reporting physical abuse at only one timepoint.

Table 2.4. Subset analyses for race and baseline ORs for breastfeeding initiation in mothers reporting physical abuse before and/or during pregnancy (n=203,326) – PRAMS data 2010-2014

	African American Mothers Baseline OR ¹ (95% CI)	White Mothers Baseline OR ¹ (95% CI)	Mixed Race and Other Race Mothers Baseline OR ¹ (95% CI)
Mothers reporting no physical abuse	1.00	1.00	1.00
Mothers reporting physical abuse before and/or during pregnancy	1.03 (0.93 - 1.14)*	0.57 (0.53 - 0.62)***	0.71 (0.62 - 0.83)***

Note: OR = odds ratio, AOR = adjusted OR, CI = confidence interval

1 Unadjusted

*** *P* value ≤ 0.001

* *P* value insignificant

Hypothesis 2

In hypothesis 2, the relationship between the ‘dose’ of abuse (reported at one time point vs. reported at two timepoints) was explored using a subset which included all mothers reporting physical abuse (table 2.5); mothers reporting physical abuse at one time point (either before or during their pregnancy) were compared to mothers reporting physical abuse at two timepoints (both in the year before their pregnancy and during their pregnancy). Like subgroup analyses above, this data subset is not weighted to be nationally representative.

Table 2.5. Demographics of the hypothesis 2 data subset by experience of physical abuse (n=8,079) – PRAMS data 2010-2014

		Mothers experiencing physical abuse prior to <i>or</i> during pregnancy – one timepoint (%)	Mothers experiencing physical abuse prior to <i>and</i> during pregnancy – both timepoints (%)
Total	8,079	4,376 (54.2)	3,703 (45.8)
Initiated breastfeeding			
Yes	6,407 (79.3)	3,533 (80.7)	2,874 (77.6)
No	1,672 (20.7)	843 (19.3)	829 (22.4)
Race			
White	4,084 (50.6)	2,277 (52.0)	1,807 (48.8)
African American	2,195 (27.2)	1,155 (26.4)	1,040 (28.1)
Other & mixed	1,800 (22.3)	944 (21.6)	856 (23.1)
Marital status			
Married	2,210 (27.4)	1,301 (29.7)	909 (24.5)
Other	5,869 (72.6)	3,075 (70.3)	2,794 (75.5)
Maternal education			
HS diploma/GED or less	4,519 (55.9)	2,308 (52.7)	2,211 (59.7)
Some college/college degree	3,560 (44.1)	2,068 (47.3)	1,492 (40.3)

Note: values are presented as n (%).

Logistic regression (table 2.6) showed mothers experiencing physical abuse at both timepoints were less likely to initiate breastfeeding (baseline OR 0.83, CI 0.74 - 0.92) than mothers reporting physical abuse at only one time point. This difference remained in the partially adjusted model (controlling for race and maternal education; AOR 0.86, CI 0.77 - 0.92) and the adjusted model (controlling for race, maternal

education, and marital status; AOR 0.87, CI 0.78 - 0.97) though this result overlaps the 95% confidence interval.

Table 2.6. Baseline and adjusted ORs for breastfeeding initiation in mothers reporting physical abuse at two timepoints compared to mothers reporting physical abuse at only one timepoint (n=8,079) – PRAMS data 2010-2014

	Baseline OR (95% CI)	Partially Adjusted OR ¹ (95% CI)	Adjusted OR ² (95% CI)
Mothers reporting physical abuse at one time point	1.00	1.00	1.00
Mothers reporting physical abuse at two time points	0.83 (0.74 - 0.92)***	0.86 (0.77 - 0.92)**	0.87 (0.78 - 0.97)**

Note: OR = odds ratio, AOR = adjusted OR, CI = confidence interval

1 Adjusted for race & maternal education

2 Adjusted for race, maternal education & marital status

*** *P value* ≤ 0.001

** *P value* ≤ 0.05

Discussion

This study found a relationship between physical abuse and breastfeeding initiation (H1) in baseline analyses, and confirms previous findings (Wallenborn et al., 2018; Silverman et al., 2006) that analyses adjusted for race, maternal education and marital status are not significant. However, subgroup analyses were then used to explore new relationships that, with future research, may help unravel the complexities around how abuse impacts mothers breastfeeding initiation decisions.

Subgroup analyses are not definitive and are used here to point toward new directions for future research. They provide useful indications that some groups may be differentially impacted by abuse during the breastfeeding phase. When we controlled

for marital status in H1 it rendered the relationship between physical abuse and breastfeeding initiation nonsignificant, but subgroup analyses showed the relationship remained significant for married mothers. We theorize that marriage may change the parameters of a relationship, with married partners typically living together and expected to spend much of their non-working time together. Unmarried mothers may be less entwined with abusers, providing greater separation between their day-to-day life and the physical abuse they report. Unmarried mothers may receive less emotional and financial support from their infant's father, and the financial and emotional pressures of single parenting may present bigger barriers to breastfeeding initiation than physical abuse. These theories are areas for future research.

The second subgroup analysis showed African American mothers reporting physical abuse initiated breastfeeding at roughly the same rate as African American mothers who did not report physical abuse. Among white and other/mixed race mothers the pattern differed; mothers in these groups who reported physical abuse initiated breastfeeding at lower rates than mothers reporting no physical abuse. There are a variety of unique factors that shape African American women's experience of parenting. Motherhood is often venerated within the African American community, with women feeling pressure to have children and define their identity at least partially through mothering (Ceballo, Graham & Hart, 2015; Hill, 2009). Perversely, in the wider American society African American women face many stereotypes about being neglectful mothers (Hill, 2009; Collins, 2021). Breastfeeding in the face of abuse and these harmful myths could be seen as a form of resistance; mothers seeking to prove

they can provide well for their infants even when they face great odds. Several studies support a “compensatory” urge in poor and/or abused mothers, with poor mothers willing to make difficult decisions to be seen as “putting their children first” (McCormack, 2005) and abused mothers striving to be “good mothers” to make up for the abuse their children may be exposed to (Levendosky, Huth-Bocks, Shapiro & Semel, 2003). Given these factors, one could hypothesize that abuse may not be a significant predictor for breastfeeding initiation in abused African American mothers because they are driven more by other factors to initiate breastfeeding to provide the best possible nutrition to their infants. Again, these are hypotheses and areas for future research.

Hypothesis 2 compared mothers reporting physical abuse at only one timepoint with mothers reporting physical abuse both before and during their pregnancy and found in baseline and adjusted models that the ‘dose’ of abuse further lowers breastfeeding initiation in mothers reporting physical abuse at two timepoints. This is the first study to show a relationship between severity of abuse and the decision to breastfeed, but studies in India (Metheny & Stephenson, 2019), Brazil (Hasselman et al., 2016) and Tanzania (Kjerulff Madsen et al., 2019) found lower rates of exclusive breastfeeding among mothers of infants under six months reporting severe abuse. Future research should explore the relationship with abuse ‘dose’ and its impact on mothers’ parenting decisions and options. Breastfeeding in mothers with a longer, more severe, or more complex abuse history may be more impacted by IPA than breastfeeding in mothers reporting less severe abuse.

Additional future directions for research

Several areas for future research emerged out of our subgroup analyses and were highlighted above. We echo Normann et al. (2020) in calling for better research to standardize mediators and confounding variables to allow for more accurate statistical outcomes and for better comparability across studies.

We also suggest that alternative methodologies, such as propensity score matching (PSM) might be helpful in finding more definitive answers around the relationship between abuse and breastfeeding initiation. There are several types of PSM; one takes a group of interest (such as mothers reporting physical abuse) and pairs them with a 'match' based on defined characteristics of interest such as socio-economic status, education, race, age, etc. (Rosenbaum & Rubin, 1983). This acts to control for endogeneity and may provide more insight into this complicated issue (Rosenbaum & Rubin, 1983 & 1985; Harder, Stuart & Anthony, 2010). Additionally, PSM, though not considered as an equivalent to randomized control trials (RCT), may be the best choice when an RCT is not ethically feasible (Lanza, Moore & Butera, 2013).

Finally, abusers seek to weaken the mother-child bond and mother's self-confidence. We sought to examine the relationship between abuse and breastfeeding initiation as we hypothesize breastfeeding might be one of an abuser's first targets as it is one of the first major decisions a mother makes for an infant. However, not all mother can or choose to breastfeed and research should also seek to understand if abusers target mothers who use other infant feeding alternatives. In related qualitative work, some mothers talked about fathers throwing out breastmilk alternatives or refusing to

pay for them. There may be forms of control, coercion and abuse specific to these mothers and future research should include them.

Limitations

Quantifying physical abuse using a timepoint dose allows a macro-level view of the impact of physical abuse on breastfeeding initiation and provides important information. However, it may miss important considerations like number of assaults, severity of assault, history of abuse and presence/absence of additional forms of abuse and coercion. Additionally, physical abuse is subjective. Each mother experiencing physical abuse has a history and a set of values, that shape her experience of physical abuse and her cognition about it. One incident of physical abuse may impact one woman's decisions for years, while another woman with a history of abuse may think of it in the context of many abusive incidents.

Though this data is drawn from a nationwide sample and is a large dataset, it only collected data on mothers' experience of physical abuse. There are many types of abuse – from physical to emotional to sexual. In some abusive relationships, physical abuse is rare or may not be present; sometimes just the threat of violence is sufficient to cause fear in a victim. Several studies have found connections between psychological abuse and breastfeeding outcomes (Islam, Baird, Mazerolle, & Broidy, 2017; Martin-de-las-Heras, Velasco, Luna-del-Castillo, & Khan, 2019). Future research should expand to include other forms of abuse and assess their association to breastfeeding initiation, as well as their impact on developing mothering self-esteem and confidence.

This study, like many of the initial studies into the relationship between abuse and breastfeeding, is quantitative. Such large-scale studies are very important to detect a relationship between variables and to get an idea of the strength of the relationship. However, the numbers are only one part of the story. We also need high-quality qualitative studies to better understand the lives behind the numbers, and there are very few such studies. Such data can also aid advocates and healthcare professionals to better understand daily challenges breastfeeding mothers may face and recognize the many ways in which these mothers seek to create peace for themselves and their children (Bomsta, 2022).

Conclusion

This study confirms findings by other US studies which did not find a significant relationship between physical abuse and the decision to breastfeed. However, using subgroup analysis, we found indications that abuse may be a significant factor in the decision to breastfeed for some mothers living with abuse (married mothers, white and other/mixed race mothers). We also suggest severity of physical abuse may impact mother's decisions to initiate breastfeeding. As subgroup analysis is not definitive (Sun, Briel, Walter & Guyatt, 2010), the findings serve as hypotheses for future studies. Abuse and breastfeeding are complex topics and interrelated in complex ways. Future research must continue to seek new methods and continue to build a comprehensive understanding upon which we can build interventions and supports for mothers who wish to breastfeed and are living with an abusive partner.

APPENDIX

**Human Resources Protection Program letter
regarding approval of CDC data as exempt research.**

**MICHIGAN STATE
UNIVERSITY**

12/11/17

Cris Sullivan
Email: sulliv22@msu.edu

Re: Request for Determination of Human Subject Research
IRB # x17-1655e : "Analysis of CDC PRAMS data regarding Breastfeeding and IPV Correlations"

Dear Dr. Sullivan:

It has been determined that the activity described in the "Request for Determination of Human Subject Research" submitted November 29, 2017 does not meet the definition of

- ☐ "research" as defined by the DHHS.
☒ "human subjects" as defined by the DHHS.

Human Subject

For DHHS, "human subject" means "a living individual about whom an investigator (whether professional or student) conducting research obtains: (1) Data through intervention or interaction with the individual, or (2) Identifiable private information." [45 CFR 46.102(f)].

After reviewing the information you have provided, it has been determined that:

- ☐ Living individuals are not involved
☐ The activity is not "about" the living individual
☒ Will not obtain data through interaction or intervention or private identifiable information

You will be analyzing secondary, de-identified data from a Centers for Disease Control database. You will not be obtaining any further data through an interaction or intervention with human subjects.

Hence, your activity does not involve human subjects.

Therefore, the federal regulations for the protection of human subjects would not apply to your project and you do not need MSU IRB approval to proceed. However, please note that while MSU IRB approval is not required, other federal, state, or local regulations or requirements or ethical or professional standards may still be applicable based on your activity.

If any of these circumstances may change, please contact the IRB as your activity may involve human subjects and require IRB approval.

If you have any further questions, please contact the MSU IRB office at 517-355-2180.

Sincerely,



Bailey McMillan
IRB Administrator

Cc: Heather Bomsta



Office of Regulatory
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Human Research
Protection Programs

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CHAPTER 3: FEMALE GENDER PERFORMATIVITY AROUND BREASTFEEDING IN ABUSIVE RELATIONSHIPS

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Introduction

Women living in abusive relationships who choose to breastfeed their infants may do so for many reasons such as bonding, health benefits for the infant and themselves, and economics. They are also choosing to engage in an activity often perceived to be deeply gender performative. Breastfeeding is physically limited to a body assigned female at birth, or the female partner in a heterosexual couple; male partners can play a supportive role if they choose but cannot physically perform the same function⁸.

The breastfeeding period, when a new child is brought into a family, is a time of transition when family roles may bend and shift to create space for breastfeeding, which may initially be time consuming. The shift into parenthood is also a time of change in gender roles, with women often forced into more feminine roles because of how American society and families within it are structured; one researcher termed motherhood as the ‘most gender-enforcing experience in the lives of many women’ (Fox, 2001). In abusive heterosexual relationships gender roles tend to be more rigid,

⁸ Assuming the male partner is not transgender. Some transmen choose to chestfeed their infants, which can be transformed into a new and different kind of gender performativity. This paper is focused solely on heterosexual couples in which the male partner is not a transgender person.

with abusive male partners using male privilege to assert control and authority over their female partners (Heise, 1998; Stark, 2009; Morris, 2009; Kelly & Westmarland, 2015).

This study examines the gender performativity through breastfeeding of mothers living with intimate partner abuse (IPA) and the ways in which these mothers use breastfeeding successfully (and unsuccessfully) to achieve what Butler (2004) terms a “livable life.” What is ‘livable’ for one mother living with abuse (perhaps a low-level of emotional and physical abuse for herself and her children) might not be ‘livable’ for another mother. Butler’s “livable life” references a subjective standard where each individual has the basic needs for survival, but also some level of stability, joy and social connection needed to achieve more than basic survival.

IPA and male hegemony

Western society is generally accepted to be a patriarchy, with men privileged over women “structurally and ideologically” (Hunnicutt, 2009). These societal level patterns are reflected in individual relationships, with many relationships featuring some aspect of male privilege though not all are violent, suggesting that “degrees of patriarchy” may exist (Hunnicutt, 2009).

IPA affects nearly one in three US women in their lifetime (Breiding, 2014), and takes many forms, including physical assault, sexual assault, control, coercion, economic abuse, isolation, and the use of children to harm a partner (Stark, 2009). The use of male privilege is another form of abuse; a deep belief the man in a heterosexual relationship has the innate right to dominate and control the woman in the relationship (DAIP,

2018). In relationships where physical violence and other types of intimate partner abuse exist, a greater belief in, and adherence to, gender roles frequently occurs (Morris, 2009; Walker, 2016; Heise, 1998). Indeed, belief in traditional gender roles is predictive of higher levels of violence in dating relationships even among teens (Lichter & McCloskey, 2004).

Women have been seen as “bargaining with patriarchy” (Kandiyoti, 1983) in trying to negotiate an existence in patriarchal societies that deny them resources and authority. The patriarchy can also be seen to protect women in some circumstances, at the price of cooperation with patriarchal structures and powers, and women who violate norms of female behavior “may no longer benefit from the ‘privilege’ of male protection” (Hunnicutt, 2009). Women living in violent and coercive relationships walk a finer line in seeking protection not only from abusive macro-level patriarchal structures, but abusive micro-patriarchal currents in their homes (Hunnicutt, 2009; Dobash & Dobash, 1998; Connell, 2013; Kandiyoti, 1988).

Adhering to traditional female gender roles may be one way women in abusive relationships seek protection from violence, but it is important to note women in these relationships hold little power and even highly traditional performance of their feminine role is no guarantee of protection; the power in the relationship – the power to choose to abuse or not – rests, literally, in the hands of the male partner. However, women are not without some choices; even within the context of the patriarchy and an abusive relationship, women may make choices to increase the ‘livability’ of their situation

(Sanyal, 2014) and exercise a kind of ‘burdened agency’ (Lentz, 2018) in strategically making choices of how and when and to what extent to perform their gender roles.

Breastfeeding

From a purely biomedical perspective breastfeeding benefits both infants and mothers in a myriad of ways. Breastfeeding lowers the risk for all causes of infant mortality (Chen & Rogan, 2004) and can reduce a baby girl’s lifetime risk of cancer by up to 25% (Freudenheim et al., 1994). Breastfed babies have stomach linings that are 15 times thicker than non-breastfed babies (Koletzko, Sherman, Corey, Griffiths & Smith, 1989). For mothers, breastfeeding reduces a woman’s risk of more than nine types of cancer (Stuebe, 2009), offers protection from cardio-vascular disease, diabetes, and post-natal depression (Mezzacappa, 2004; CDC, 2021).

Breastfeeding also appears to have benefits for mothers living with trauma. One study looking at sleep and post-partum depression (PPD) found that exclusively breastfeeding mothers got more sleep and had lower levels of PPD than mothers mixing breastfeeding and breast milk alternatives⁹ or mothers who exclusively used breast milk alternatives (Kendall-Tackett, Cong & Hale, 2011). Kendall-Tackett and her co-authors then focused on sexual abuse survivors and found mothers with a history of sexual abuse who breastfed exclusively had better sleep and lower rates of PPD than survivors

⁹ There is disagreement about how to refer to milk products designed to replace breastmilk. I use “breastmilk alternatives” as opposed to “formula” (a term originated by the breastmilk substitute industry to imply they are ‘formulated’ to be a superior option). I make no judgments on the use of alternatives (and used them myself). I recognize every woman and family should make the choice that fits their situation and also that breastmilk has many advantages for infants and mothers and society should better support mothers who wish to breastfeed.

who mixed breastfeeding and breast milk alternatives or exclusively used breast milk alternatives (Kendall-Tackett, Cong & Hale, 2013). Kendall-Tackett and colleagues theorize that some of the hormones released via breastfeeding may be beneficial to survivors of violence (Kendall-Tackett, Cong & Hale, 2013).

Beyond the biomedical perspective, it is important to note that although 83.2% of US mothers initiated breastfeeding in 2015, only 24.9% of mothers breastfed exclusively for the recommended six months (CDC, 2018). For many mothers the breastfeeding phase is a chaotic time filled with competing demands, potentially requiring them to balance a desire to breastfeed with other equally important priorities. There has been little effort to address the many barriers breastfeeding mothers encounter, such as the need to return to work, the lack of access to breastfeeding assistance, and breastfeeding-supportive workplaces (Gonzalez-Nahm, Grossman & Benjamin-Neelon, 2019; Christopher & Krell, 2014; Slusser & Lange, 2002).

Breastfeeding in the US involves confronting many opposed societal messages. On one hand, breastfeeding is viewed as the ‘best’ source of nutrition for an infant (American Academy of Pediatrics, 2012) and a breastfeeding mother therefore performs a culturally heralded task (Sterns, 1999). On the other hand, there are many sexual and societal taboos against breastfeeding (Tomori, Palmquist & Dowling, 2016; Young, 1992; Stearns, 1999) and a tendency to be disgusted at human bodily fluids, including breast milk (Bramwell, 2001). Breastfeeding is often considered a gender performative act garnering women positive regard in the early months of an infant’s life, if the mother breastfeeds privately or at least discreetly, covering any evidence of the act itself

(Stearns, 1999). Done within these limits, breastfeeding is seen as part of performing the “good mother” role and embodying the “good maternal body,” (Stearns, 1999) allowing a mother to provide optimal nutrition to her infant, at the sacrifice of her own body and time, while bonding deeply with her infant and showing conformance to the culture of intensive mothering (Hays, 1996; Lee, 2008).

Indeed, breastfeeding is so strongly tied to ‘good mothering’ that women who use non-breastmilk alternatives may feel like a ‘failure’ or experience guilt and a loss of their sense of themselves as ‘good mothers,’ while others who feel more confident in using non-breastmilk alternatives may still feel the need to justify their decision to employ what is perceived to be a ‘riskier’ feeding method (Lee, 2008).

IPA and mothering

IPA impacts how women mother as abusers often target the mother-child bond to isolate a woman from sources of self-esteem and support, not allowing women to see themselves as ‘good mothers’ (Buchanan, 2019; Peled & Gil, 2011). Women adapt their mothering in a variety of ways, many of which are focused on protecting their children (Buchanan, 2019).

Women who have children while living with abuse are often vilified as ‘bad mothers’ for failing to leave the relationship and move their children to safer circumstances (McDonald-Harker, 2016). This, of course, is a very simplistic stance, not taking into consideration the many barriers women face in leaving an abuser, including financial issues, custody issues and the fact that women are often in greater danger

when they leave a relationship (Long, Harper, Harvey & Ingala-Smith, 2018; Campbell et al., 2003).

IPA and breastfeeding

IPA occurs across women's life spans, from dating violence among youth (Bonomi, Anderson, Nemeth, Barle-Haring, Buettner & Schipper, 2012) and into the elder years (Roberto, McPherson & Brossoie, 2013). Prenatal violence, defined as physical violence toward a pregnant woman, is estimated to affect an estimated 3% to 8% of pregnant women (DeVries et al., 2010). There is no data on how many women who experience IPA are breastfeeding, but IPA is disproportionately common among women of childbearing (and therefore, breastfeeding) age, with women from 18 to 34 years typically facing the highest rates of IPA (Catalano, 2012).

Limited research has been done to examine the conjunction of IPA and breastfeeding, despite rising breastfeeding rates in the US over the past decade. One quantitative study (Wallenborn, Cha & Masho, 2018) using a nationwide sample found women reporting physical violence had an 18% greater risk of discontinuing breastfeeding prior to eight weeks. A similar study from India (Metheny & Stephenson, 2020) showed severe physical violence related to risk of discontinuing breastfeeding prior to six months. Outside of these quantitative studies, few projects have sought the voice of actual breastfeeding mothers living with IPA.

Gender performativity in IPA

In recent decades gender has been recognized as a "routine, methodical and recurring accomplishment" (West & Zimmerman, 1987). "Doing gender" then is the act

of people performing gender-appropriate acts, as defined by the patriarchy (society), that then places these people within the gender binary, thereby reproducing the binary and reinforcing it (West & Zimmerman, 1987).

Even as gender performances act to place people within the patriarchy – in roles of dominance or subservience – there is an element of agency. Humans do perform gender, but not mechanically; they often do so in pursuit of a “livable life” (Butler, 2004). The pressure to conform to a certain gender norm can create friction within a person and at the same time confer some level of protection by placing the performer within the tightly drawn bounds of the gender binary and the patriarchy (Butler, 2004). In this way, a woman in an abusive relationship may dislike being confined to performing her gender through the mastery of household chores and children, but also find some level of protection from violence within the household if she performs the role in such a way that the male partner approves; however, the ultimate choice to confer protection always resides with the male abuser.

Breastfeeding, similarly, may have its challenges for women, but also provide opportunities for gender performance that give women access to positive regard in some circumstances, such as praise from healthcare professionals, family, and friends. Indeed, examining ways – small and large – in which women can empower themselves in the face of abuse is an important issue in social science research into IPA. Chaudhuri and Morash (2019) found that women living with IPA who were more involved with external sources of empowerment (such as women-centered groups) were able to access more support and exercise greater agency within their family.

It is important to note that gender performativity is not done alone, but always in relationship to society and to others (Butler, 2004). Father or partner support of breastfeeding has been found to increase a mother's self-efficacy around breastfeeding and potentially increase her ability to breastfeed past the immediate post-partum period and achieve the recommended six months of exclusive breastfeeding (Mannion, Hobbs, McDonald & Tough, 2013; Tohotoa et al., 2009). The dichotomy in attitudes toward breastfeeding then leaves women to negotiate the intricacies of how and when breastfeeding is sanctioned by society, her partner, their families, healthcare professionals, etc., and when it crosses invisible lines and becomes performatively taboo (Stearns, 1999).

Despite the acknowledged fact that male-female gender roles, and therefore gender performativity, are frequently a part of abusive intimate relationships, there has been little research on gender performativity in this context. To date the analysis of gender performativity in abusive relationships has been confined to examining male gender performativity. Anderson and Umberson (2001) interviewed 33 men recruited through a domestic violence agency and analyzed their discourses about their violence toward their female partners. The men's discourses gendered their violence as rational and necessary, while portraying any female violence toward them as weak, illogical, and ineffectual (Anderson & Umberson, 2001).

The current study

The focus of this project was to explore the intersection of breastfeeding and IPA by directly engaging survivors to discuss their experiences of living with a

violent/coercive partner while breastfeeding. A better understanding of mothers' experiences of breastfeeding while living with abuse, and how they deploy gender roles to negotiate for greater safety for themselves and their infants can help advocates and healthcare providers better understand this phase and, hopefully devise better support systems for mothers who live with abuse.

Semi-structured qualitative interviews were used to engage survivors to explore how IPA changes with breastfeeding, how mothers use breastfeeding to protect themselves and/or their infants, how abusers manipulate breastfeeding to control women and how IPA dynamics affect breastfeeding mothers.

Method

Population

The population of interest for this pilot project was mothers over the age of 18 who spoke English, had a child under one year of age whom they breastfed for some period of time while living in a violent/coercive relationship and who had sought services from a domestic violence program. The breastfeeding period coincides with the earliest years of an infant's life. This is often a busy time for a breastfeeding mother who may be adding breastfeeding to work, caring for other children, and managing a difficult intimate relationship. To minimize memory issues, we sought women whose latest breastfed baby was under one year old. Women could breastfeed the child for any length of time or still be breastfeeding but had to have lived with their abusive/coercive partner for some length of time while breastfeeding. These strict eligibility requirements

limited sample size by excluding women with abusers who were not chosen intimate partners or whose children were more than a year old.

Recruitment

I partnered with seven IPA service agencies in a Midwestern state, after obtaining Institutional Review Board approval for this project in December 2017. Staff from each of the participating IPA agencies agreed to invite eligible clients to hear more about participating in this study. I personally contacted all survivors referred for the study, ensured they were eligible, provided detailed information about the study and walked each participant through an IRB-approved consent statement.

Interviews

A semi-structured interview guide with some general questions was designed to start a conversation and begin to understand the ‘lived experience’ of these women while living with an abusive partner and breastfeeding. Such interviews allow for flexibility – questions are not necessarily asked in a particular order – while maintaining a modicum of control over the topics covered (Leavy & Hesse-Biber, 2006). Feminist scholars frequently employ semi-structured interviews as a format that allows women to tell their story in their way, with fewer interruptions from the researcher (Leavy & Hesse-Biber, 2006). Questions explored the mother’s breastfeeding experience, challenges, her partner’s behaviors toward her and how these behaviors impacted her, her infant and her decisions around breastfeeding and mothering.

This project utilized basic principles of feminist interviewing. The dignity and comfort of the interviewees was put above research goals. Interviews were conducted

in spaces chosen by survivors – including meeting them in their homes. All interviews were conducted in person. Survivors were informed of their right to skip questions they were uncomfortable with (though none chose to) and reminded that they could reply to their level of comfort – providing whatever level of detail they chose. Finally, interviews were paused when survivors needed time to reflect, cry or simply breathe.

Thirteen survivors were interviewed once for an average of 108 minutes and were paid \$40 each. Interview incentives were designed to be high enough to express appreciation for participants' time and expertise, and to defray any costs they might incur as a result of participating, while not being so high as to be coercive.

Data analysis

Qualitative analysis followed principles established by Miles, Huberman, and Saldaña (2014). This methodology falls under the category of thematic content analysis and begins with the writing of notes and memos during the interview process. Interviews were recorded and transcribed to facilitate analysis. I then followed a semi-deductive approach, with codes emerging organically in reading transcripts, but also drawn from my experience conducting all the interviews and from jots and memos I wrote during the interview period. These materials were used to develop an initial set of codes. I coded an initial set of interviews, adding codes as needed. Once I felt I had a more comprehensive set of codes I recoded the entire set of interviews. I then reviewed the codebook looking for areas of redundancy and areas where more detailed, or granular, coding would enhance understanding; I then recoded all interviews a second time. After

coding was complete, I began to look for themes across multiple interviews and identify commonalities.

Results

Demographics

Thirteen mothers were recruited through IPA agencies, ranging in age from 19 to 38, with an average age of 29. These mothers represented a wide range of racial/ethnic backgrounds; African American (n=5, 38%), Latina (n=4, 31%), White (n=3, 23%) and Asian (n=1, 8%). These women had an average of 2.5 children, ranging from four children to just one infant.

In terms of breastfeeding, only three of the mothers experienced breastfeeding for the first time with their most recent child; the majority (77%) of these women had breastfed previous children for some amount of time. Seven mothers were still breastfeeding at the time of the interview (54%). Most mothers mixed breastfeeding and use of breastmilk alternatives at times during the breastfeeding phase, but almost half breastfed exclusively for some period of time.

At the time of the interviews, six mothers had discontinued breastfeeding after breastfeeding for an average of three months (ranging from 1.5 months to eight months). Mothers discontinued breastfeeding for a variety of reasons including resuming a depression medication¹⁰, restarting a smoking habit to help with anxiety, and quitting due to the difficulty of balancing work and needs of older children. Several

¹⁰ Note that some depression medications can be safely taken while breastfeeding, but many doctors and breastfeeding mothers are not aware of this. For more information consult the Infant Risk Website at <http://www.infantrisk.com>.

mothers linked their discontinuation of breastfeeding directly to the abuse and chaos in their lives. Two mothers described situations where the stress of the abuse caused diminished milk supply, leading them to eventually discontinue. Another mother felt her milk supply was insufficient and had breastfed largely at the request of her abusive partner; when they separated – following a physical assault – she discontinued breastfeeding.

Themes

Acquiescing to male privilege to meet male requirements for gender performativity in the hope that adequate performance of the subservient female role will provide protection from violence.

In these abusive, often gender-role-rigid relationships, the women often spoke of gender roles being forced upon them or spoke of performing the role in hope that they could satisfy their partner's need to feel 'like a man' and therefore avoid conflict and violence.

"Normal was me biting my tongue most of the time, not saying anything because... it's just easier to have the stability and calmness, than to have a fight about this. And then when I did say things, they would lead to a fight that was screaming, and, you know, name calling, and stomping around maybe throwing stuff, slamming doors, umm... and then on occasion grabbing, holding down,

forcing, you know, but not like punching or slapping or you know that sort of thing. And that would happen about once a week.” (Kyanite¹¹)

Many of the mothers interviewed here spoke of picking up their traditional female gender roles – including cleaning and cooking and being the primary caregiver for children – very shortly after returning home following the birth of their children. These mothers tried hard to go back to their traditional roles immediately after birth, despite exhaustion, birth injuries and the often initially time-consuming task of breastfeeding a new infant. Many women spoke about how the pressure to resume these domestic gender roles impacted breastfeeding through stress and time pressure. One new mother told of her challenges trying to meet her abusive partner’s expectations in the first days after giving birth:

“On the fifth day of us all being home I was in the bathroom crying because I was bleeding heavily, my breasts were tender and sore, and my stitches had broken. [Abuser] came into the bathroom and told me to shut up and stop acting like a baby, that all women go through this and that I shouldn't cry and to suck it up. He then told me we needed food and sent me off to the supermarket to do the grocery shopping. By the time I got home from shopping my feet and legs had swollen so much I couldn't see my ankles. But I didn't have time to rest as he was tired and wanted dinner made so he could go to bed.” (Opal)

¹¹ Names of participants have been changed to protect their privacy; all participants were randomly assigned names of semi-precious stones and metals – known for their strength and beauty.

Several moms in this small sample did not want to breastfeed – preferring instead to return to work – but experienced pressure from their partner to perform the traditional female role. One mother did not wish to breastfeed, but her partner kept asking about it while she was pregnant, and she acquiesced to his demands until her doctor recommended breastmilk alternatives. Another mother described pressure to breastfeed, with her abusive partner using guilt about her not wanting to breastfeed this child.

“I didn’t wanna breastfeed him ‘cause I just wanted to get back to work. But [the abuser] said no, and that he felt like I didn’t care about my son because I breastfed my other kids, but I didn’t wanna breastfeed him. So, then I ended up just breastfeeding him anyways.” (Garnet)

Some of the abusive partners did help care for other children in the early days when the mothers returned home from birthing their infants. However, the male partners often performed these caretaking roles in performatively male ways – such as buying fast food for children, rather than cooking. “He does do his best to try to care for the kids, like they ate [fast food restaurant name] ... because I wasn’t able to cook.” (Rose Gold) In many cases, the mothers were uncomfortable with these parenting shortcuts and viewed them as acceptable for only a short period of time; mothers felt a need to return to their female gender performances of the “good mother” and provide quality meals and attentive childcare rather than rely on the male parenting performances their partners offered. With limited time, mothers talked of trade-offs

between the time to perform these gendered tasks and time dedicated to breastfeeding and infant care.

Many of the mothers talked about how trying to perform their traditional female gender roles within the household impacted their ability to breastfeed their infants. “I’m more like, ‘Okay, I need to feed you so I can go and get more housework done.’” (Pearl)

Many of these women said their partners approved of their breastfeeding in the sense that it provided superior nutrition to their infants. However, tacit support of breastfeeding did not ensure safety for these women or mean that partners did not attempt to manipulate breastfeeding in other abusive ways.

Many mothers spoke about their partners’ attempts to control them via breastfeeding, especially regarding breastfeeding in public. One man verbally berated his partner over the phone for breastfeeding with a cover on a front porch with only close family members present. This mother initially hung up on his tirade, but later found herself reconsidering his claims that her breastfeeding in public was disrespectful of him.

“But during the process of me checkin’ myself and really processin’ what he had told me and tryin’ to validate his feelins’ - throughout that, you know, I came to a conclusion that, okay, to be a good woman and a good mother and listenin’ to his opinion wit’ his son I can take into consideration his feelins’ about things... You know just tryin’ to give him that fair shot that this is his kid, as well and I am his woman, you know what I mean? Just to try to make things comfortable, respectable, so there ain’t no reason for any nonsense.” (Topaz)

This mother subsequently began breastfeeding privately to meet her partner's expectations and avoid "nonsense."

"He made me feel a way... some type of way about myself... morals, you know what I'm sayin'? ...How are you lookin' at me? So, once I realized that it possibly was, I started to do that. Like goin' in the car, you know what I'm sayin', goin' in the room... a room or somethin' just not right where people at." (Topaz)

For this mother (and others) avoiding breastfeeding around others was an attempt to gain positive male regard from her partner. Breastfeeding in private and curtailing her movements and social interactions when her infant needed to be fed was part of her 'bargain with the patriarchy,' but increased her isolation and unfortunately did not result in protection from her male partner's abuse.

Pumping to please. Most of the mothers in this sample had a breast pump and pumped milk at some point. However, several of the mothers in this sample moved to pumping milk not out of personal preference, but as part of a strategy. Referring to old cultural tropes of a father feeding an infant with a bottle, several moms moved to pumping hoping to involve the father in feeding to improve their safety and the safety of their infants. Moms also mentioned partners being jealous of the time they spent with their infant; they hoped greater involvement of fathers in infant feeding might increase the father's bond to the child, rather than viewing infants as a competitor for the mother's attention.

One abusive partner repeatedly pulled a nursing baby out of a mother's arms and targeted her breasts, squeezing them to the point she found nursing painful. She

strategically thought through her options to protect her child and decided to try pumping milk so the infant could still get breast milk, hoping the infant's feedings might be less interrupted by the abuser.

"[I was thinking] that maybe he could not be so mean and grow attached to the baby if I just pumped, and then I'd let him feed the baby instead of me. And then I wouldn't get hurt. And it worked... for about a month." (Garnet)

For some mothers playing to a somewhat more modern gender role – where mothers provide milk and fathers share in the physical feeding of infants – seemed to work for a period of time, but gradually new problems arose. Several abusers made derisive and negative comments while their partners pumped, while others stared and treated pumping as a sexually arousing activity – which often made mothers uncomfortable. One mother disliked how her partner would corner her when she was attached to the pump and relatively immobile; she took her pump to work and no longer pumped at home.

Several mothers said their partners pushed them to pump, but provided little to no support, leaving them to undertake pumping, childcare, work, etc.

"So, he'd sort of be like, 'Yes, yes, you must pump' but there would be no support. Like I'd be like, 'Can you take care of [baby]?' and he'd be like, 'No, I'm sleep deprived.' So, like so what am I supposed to do? How do I pump with [the baby] on me?" (Ametrine)

Some moms reverted to breastfeeding when pumping was made untenable, some continued to pump (strategically choosing the time and place), while a few gradually switched to non-breastmilk alternatives.

Women's use of breastfeeding to protect themselves and their infants.

Mothers used breastfeeding performatively to protect themselves in a range of ways. Some simply hoped that breastfeeding would provide some level of protection as they worked to embody the 'good mother.' Others actively used breastfeeding to attempt to protect themselves or their infants during volatile situations.

De-escalation. Several mothers used breastfeeding performatively to attempt to step away from their abusive partners when situations seemed to be deteriorating. Abusers did not always grant mothers privacy for nursing, but several mothers, at times, were able to use breastfeeding to gain distance from an abuser. Some mothers admitted to pretending to nurse their infant or coaxing the infant to nurse before the infant itself expressed any interest in nursing. "If [abusive partner] was just being like rude, or if I felt like, umm, uncomfortable I would just leave and go feed [baby]."

(Eudialyte)

Many mothers sought the privacy of another room when using breastfeeding this way, either citing the desire for privacy or the need to get away from distractions (such as other children and TV, etc.).

"Sometimes, you know, if I would say 'Oh, I have to feed [baby's name]' and I would go to feed [baby] and [abusive partner] would try to follow me in there,

and bother me still, and yell at me. So, one day when [abusive partner] was sleepin' I put a lock on the door." (Onyx)

Food stability. Another mother used breastfeeding as a source of security for always having a stable food source for her baby, despite being housing insecure due to abuse. "One of the perks to breastfeeding is... that is no matter where I go, whatever happens, I'm always gonna be able to feed my baby." (Rose Gold)

Physical safety for children and self. Another mother said she often picked up her infant and breastfed him as arguments escalated. This performative use of breastfeeding did not stop the arguments and abuse directed toward her and the children, but she felt safer knowing she had her infant in her arms if she needed to quickly exit the home for safety.

One mother used breastfeeding performatively to avoid situations where her abusive partner might try to traffic her for sex. Her abuser pushed her to pump breastmilk so she could spend more time away from the baby, but she resisted pumping exclusively and primarily breastfed as an excuse to stay home and closer to her infant. After she stopped breastfeeding, she worried that her abuser might try to separate her from the baby and force her back into sex work. "I kind of feared that one of those times going out, since my son wasn't breastfeeding then, that he might possibly drive me... out of town or something and like force me back into that lifestyle." (Jade)

Breastfeeding as a way of embodying the "Good Mother" and achieving a sense of self-esteem amid violence.

Breastfeeding performativity and positive regard from others. IPA often involves isolation from support and an emotional tearing down of the victim. Women in abusive relationships often suffer from low self-esteem (Cascardi & O'Leary, 1992). In these interviews breastfeeding was a source of self-esteem that abusers attempted to target but not always successfully. Women spoke of positive feedback for breastfeeding from doctors, nurses, lactation consultants and WIC (Women, Infants and Children; a US government food and nutrition support program) counselors.

Breastfeeding also sometimes garnered positive reactions from friends and family members. One woman described her abuser's family's fascination with her breastfeeding, saying they wanted to watch her breastfeed and pump; she regarded this as violation of her privacy, but it also put in her a position of generally positive attention. Another participant received positive feedback from her boss for breastfeeding. One mother felt positive about her breastfeeding's impact on her teenage daughter, "she says if she ever has a kid she wants to breastfeed, so I think that that's really positive." (Ruby)

Overcoming breastfeeding challenges enhanced confidence and self-esteem. Breastfeeding presented difficulties for these mothers at different points – difficulties with violent partners, unstable housing, plugged ducts and the need to address other priorities (work, school, care of older children and relatives, etc.). Often troubling comments from abusive partners targeted how moms breastfed, but several mothers said those comments did not hold true to them.

“He convinced me that getting my [degree] was a bad idea, that having kids was a bad idea, that you know that my job choices were a bad idea, that my clothing choices were a bad idea, that I was stupid, that people didn’t like me, that I didn’t... you know, he convinced me of all this stuff, but he could not convince me that breastfeeding was the wrong thing to be doing or that I was doing it incorrectly.” (Kyanite)

Most of these mothers said they had considered discontinuing breastfeeding before reaching their goals, but then found ways to overcome challenges. Despite stress, mothers often expressed a sense of accomplishment for overcoming obstacles.

“I stuck with [breastfeeding] through things that most mothers would not do ... the bruises? I stuck with it. Trying to take care of three kids alone, for three months, juggling court dates and anti-violence classes and all sorts of everything just piled up? I mean life... I stuck with it... It felt like a huge, beautiful victory.” (Onyx)

Impact of IPA on breastfeeding

At the time of the interviews just over half of the mothers (n=7) were still breastfeeding. The mothers who were no longer breastfeeding (n=6) had breastfed their infants for an average of just under four months, two months short of the minimum six months of exclusive breastfeeding recommended by the American Academy of Pediatrics (AAP, 2012) and a year and eight months short of the minimum two years of non-exclusive breastfeeding (supplemented by foods and other liquids after six months) recommended by the World Health Organization (WHO, 2001).

Several mothers who stopped breastfeeding at three to four months cited abuse as the primary factor in their decision to discontinue breastfeeding. They blamed the abuse for stress and felt the stress impacted their milk supply. Two of these mothers cited stress as a factor in returning to the use of supportive medications/substances they felt were not compatible with breastfeeding. Most mothers said they would have breastfed longer if not for the impact their abusive partner had on their breastfeeding via stress.

“I would have breastfed longer if it wasn’t for bein’ in that relationship. Like I said with my oldest son, he breastfed for over a year. I... I would’ve been able to do it for over a year, if it wasn’t for the stress of the relationship.” (Jade)

Mothers who were not successful at meeting their own breastfeeding goals often expressed a sense of anger at their partner’s abuse and the impact it had on their ability to breastfeed, a sense of grief at what they felt was taken from them (the ability to achieve their breastfeeding goals) and a level of guilt about the kind of mothering they had been able to provide their infant.

“It’s hard enough doing what you’re doing, but constantly worrying about how my husband’s gonna react, what he’s gonna do next, when’s it gonna happen, what’s gonna happen... You know, I couldn’t fully enjoy the first year of my babies’ lives and I grieve for that.” (Opal, who quit breastfeeding before she wanted to due to low milk supply which she tied directly to her husband’s abuse.)

Discussion

This study confirms female use of gender roles during the breastfeeding stage. Mothers use breastfeeding to embody the 'good mother,' and to seek positive regard from sources of support including friends, family, and healthcare providers.

Women in abusive relationships use gender roles during the breastfeeding phase to attempt to enact the 'good mother' to improve their safety and the safety of their infants. Prior to this study, only male use of gender roles in abusive relationships had been examined (Anderson & Umberson, 2001).

While attempts to use gender roles around breastfeeding were often unsuccessful in the short run (and universally unsuccessful over a longer time period as all participants had left their abusive partner at the time of their interviews), they do demonstrate agency (Lentz, 2018) on the part of mothers living with abuse. Participants used multiple strategies, including gender performance, to try to accomplish their breastfeeding goals as a means of protecting themselves and their infants.

This study also supports findings that breastfeeding is strongly promoted and seen as a mark of 'good' mothering (Lee, 2008; Hays, 1996). As mothers living with abuse are often labeled as 'bad mothers' for living with abuse (Buchanan, 2019; McDonald-Harker, 2016), it makes sense that many would search for ways to compensate and see themselves as 'good mothers.' I theorize that breastfeeding to many of these mothers was one way of attempting to embody the 'good mother' in the face of their abuser's attempts to tear them down, and in this way is a culturally sanctioned form of resistance. Additionally, providing 'optimal' nutrition for their infants

is another way of signaling positively about their mothering. Most of the mothers in this study assigned a high priority to breastfeeding their infants, despite many conflicting priorities, such as paid work, housework, care for other children and the need to attempt to manage the abuse in their relationships. Many spoke of feeling guilty if they moved wholly to the use of non-breastmilk alternatives or did not achieve their breastfeeding goals – moving away from breastfeeding clearly impacted their sense of themselves as capable mothers.

Two mothers in the sample initially did not wish to breastfeed their most recent infant. They experienced pressure from their male partners and changed their minds; in both cases the male partners used guilt, implying the woman did not care enough about this infant to breastfeed and provide optimal nutrition. This may represent male use of the ‘good mother’ paradigm around breastfeeding and certainly represents male control over a female body.

Abusers also target the mother-child relationship, a source of positive regard and support for mothers. Breastfeeding, culturally and scientifically acknowledged as the ‘gold standard’ of infant feeding, is one thing these mothers can try to do to win respect not only from their abuser, but from family, friends, healthcare providers and (sometimes, in the right circumstances) the public. Programs and providers serving breastfeeding mothers need to understand the potential importance of breastfeeding to a woman’s self-esteem and sense of herself as a competent or ‘good mother.’ Breastfeeding is often seen as a choice, as optional, but for some of these mothers, breastfeeding was important in their self-perceptions, and a lifeline to support and

praise. While breastfeeding should never be used to shame women who cannot or choose not to breastfeed, it should be seen by advocates, healthcare providers and policymakers as an opportunity for positive self-regard, especially among mothers who have experienced abuse or trauma. Advocates who serve women impacted by IPA should also recognize the creativity, determination, and perseverance of these mothers and, in counseling them, seek to help them see how hard they tried to care for their infants, whether they ultimately met their breastfeeding goals or not.

Additionally, this study advances the literature around IPA and breastfeeding by adding qualitative, first-person accounts of mothers who lived with abuse during the breastfeeding period. Recent quantitative studies confirm IPA impacts breastfeeding, but only from hearing mothers' lived experiences can we build a picture of the complex lives these women lead and the many strategies and tools they employ to attempt to build a more 'livable life' (Butler, 2004).

Currently, government programs (WIC and others), hospitals and healthcare providers push women to breastfeed citing the biomedical benefits, but with seemingly little appreciation for the barriers and difficulties many mothers face in the breastfeeding phase (Christopher & Krell, 2014). Breastfeeding promotion and support must consider these lived realities and demonstrate an appreciation for the complexity that is part of breastfeeding for many mothers. Pushing breastfeeding without understanding a mother's individual situation will only increase resistance to seeking help. This study can help to inform policy makers and healthcare providers about a segment of mothers who face greater challenges to successful breastfeeding and can

perhaps help build breastfeeding support and information campaigns that are more responsive to the complexity all mothers face post-partum. Additionally, while all breastfeeding mothers need access to good quality breastfeeding support, strong policies around paid maternity leave and breastfeeding-supportive workplaces, mothers who live in challenging circumstances (such as coping with an abusive partner or living in poverty) need these supports urgently. Indeed, infants born into challenging circumstances need all the advantages our society can provide to give them the best chance to thrive and cope and hopefully develop beyond those initial challenges. Breastfeeding provides optimal nutrition and social development and should be supported by quality programs, not simply a recitation of biomedical advantages.

Strengths

This study seeks to bring the voices of women to the forefront – to add to the quantitative data around breastfeeding and IPA. Organizations serving IPA survivors, healthcare professionals, and policy makers need to better understand the lived experiences of the breastfeeding mothers they serve, the negative impact of abuse and the countervailing strong societal pressures to embody the ‘good mother’ and breastfeed for a minimum of six months.

Limitations

The sample size for this study is small (n=13) and geographically situated in the Midwest of the United States. The study has strong diversity for a small sample, both racial/ethnic diversity and a diversity of breastfeeding durations.

Funds to interview women who speak languages other than English were lacking. Future projects should seek to include these women and layer into the research the impact of these women's identities as non-native English speakers, immigrants, and/or refugees – deepening the intersectional perspective.

The eligibility criteria for this study asked for women who had 'ever breastfed, no matter how long' but may not have reached women who breastfed for only a brief time and who may not self-identify as having breastfed. This study also cannot speak for women who decided not to even attempt breastfeeding out of fear of or concern about repercussions from an abusive partner. More research should be done to examine abuse as a factor in the decision not to breastfeed.

Finally, this article does not examine use of gender roles by men, but there are indications abusive partners in this sample also used gender roles. Several mothers complained that though the children's fathers would attempt to care for their infants at times they often did such a poor job of it or asked so many questions or wouldn't care for the child without the mother present – a variety of tactics to make the man appear to be incapable of providing simple infant care – that most mothers gave up and took on more childcare, got less sleep and were more isolated and stressed. The man's act of incompetence may be a male gender performance; future research should speak to abusive men to understand how they perform gender in the breastfeeding period.

Future research should also seek to expand on this exploratory effort. A community-based sample of mothers might include greater diversity in social class and other demographic aspects. Exploring the intersection of abuse, breastfeeding and

race/ethnicity also deserves attention, as many cultures have different expectations for and attitudes toward breastfeeding mothers; samples of non-English-speaking mothers should be prioritized.

Conclusion

This study confirms that mothers living with IPA are active in seeking ways to stem the violence toward themselves and their children. They strategically and repeatedly use what agency they have within the patriarchy and within their relationships – a burdened agency – to move toward a more livable existence. For mothers of infants, breastfeeding may have provided them with additional gender performative options that they used, successfully and unsuccessfully, in the search for peace, safety and a sense of self-esteem. While their attempts to provide optimal nutrition to their children in the face of violence are laudable, these mothers deserve more than praise for their agency in using gender performativity. These mothers need concrete resources to support their breastfeeding and to make them feel that they have real options outside an abusive relationship. These resources include long-term (not just short-term emergency) housing options, educational programs, high-quality childcare, and breastfeeding-supportive employment opportunities that would allow them to support themselves and their children at a level above the poverty line.

APPENDICES

APPENDIX A:

Initial HRPP approval



November 29, 2017

To: Cris Sullivan
130B Psychology Building

Re: **IRB# 17-1487** Category: **EXPEDITED 6, 7**
Approval Date: November 29, 2017
Expiration Date: November 28, 2018

Title: Breastfeeding & Intimate Partner Violence

The Institutional Review Board has completed their review of your project. I am pleased to advise you that **your project has been approved.**

The committee has found that your research project is appropriate in design, protects the rights and welfare of human subjects, and meets the requirements of MSU's Federal Wide Assurance and the Federal Guidelines (45 CFR 46 and 21 CFR Part 50). The protection of human subjects in research is a partnership between the IRB and the investigators. We look forward to working with you as we both fulfill our responsibilities.

Renewals: IRB approval is valid until the expiration date listed above. If you are continuing your project, you must submit an *Application for Renewal* application at least one month before expiration. If the project is completed, please submit an *Application for Permanent Closure*.

Revisions: The IRB must review any changes in the project, prior to initiation of the change. Please submit an *Application for Revision* to have your changes reviewed. If changes are made at the time of renewal, please include an *Application for Revision* with the renewal application.

Problems: If issues should arise during the conduct of the research, such as unanticipated problems, adverse events, or any problem that may increase the risk to the human subjects, notify the IRB office promptly. Forms are available to report these issues.



Office of Regulatory Affairs
Human Research
Protection Programs

Biomedical & Health
Institutional Review Board
(BIRB)

Community Research
Institutional Review Board
(CRIRB)

Social Science
Behavioral/Education
Institutional Review Board
(SIRB)

Please use the IRB number listed above on any forms submitted which relate to this project, or on any correspondence with the IRB office.

If we can be of further assistance, please contact us at 517-355-2180 or via email at IRB@msu.edu. Thank you for your cooperation.

c: Heather Bomsta

**Initial IRB
Application
Approval**

APPENDIX B:

Modifications approval

MICHIGAN STATE UNIVERSITY

Modification and Continuing Review APPROVAL Pre-2018 Common Rule

June 5, 2019

To: Catherine E Durbin

Re: **MSU Study ID: LEGACY17-1487**
IRB: Social Science / Behavioral / Education Institutional Review Board
Principal Investigator: Catherine E Durbin
Category: Expedited 6, 7
Submission: Modification and Continuing Review MODCR00000698
Submission Approval Date: 6/5/2019
Effective Date: 6/5/2019
Study Expiration Date: 6/4/2020

Title: Breastfeeding & Intimate Partner Violence

This submission has been approved by the Michigan State University (MSU) SIRB. The submission was reviewed by the Institutional Review Board (IRB) through the Non-Committee Review procedure. The IRB has found that this study protects the rights and welfare of human subjects and meets the requirements of MSU's Federal Wide Assurance (FWA00004556) and the federal regulations for the protection of human subjects in research (e.g., pre-2018 45 CFR 46, 28 CFR 46, 21 CFR 50, 56, other applicable regulations).



**Office of
Regulatory
Affairs
Human Research
Protection Program**

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This letter notes approval of changes to the interview protocol and recruitment materials.

How to Access Final Documents

To access the study's final materials, including those approved by the IRB such as consent forms, recruitment materials, and the approved protocol, if applicable, please log into the Click™ Research Compliance System, open the study's workspace, and view the "Documents" tab. To obtain consent form(s) stamped with the IRB watermark, select the "Final" PDF version of your consent form(s) as applicable in the "Documents" tab. Please note that the consent form(s) stamped with the IRB watermark must typically be used.

Continuing Review: IRB approval is valid until the expiration date listed above. If the research continues to involve human subjects, you must submit a Continuing Review request at least one month before expiration.

Modifications: Any proposed change or modification with certain limited exceptions discussed below must be reviewed and approved by the IRB prior to implementation of the change. Please submit a Modification request to have the changes reviewed. If changes are made at the time of continuing review, please submit a Modification and Continuing Review request.

APPENDIX C:

Closure letter



STUDY CLOSURE

March 12, 2020

To: Catherine E Durbin

Re: **MSU Study ID: LEGACY17-1487**
IRB: Social Science / Behavioral / Education Institutional Review Board
Principal Investigator: Catherine E Durbin
Submission: Continuing Review CR00001125

Title: Breastfeeding & Intimate Partner Violence

Thank you for submitting a closure report for this study. The Institutional Review Board (IRB) has accepted the information you have provided and this study has been officially closed.

Closure: Closure indicates that research and/or clinical investigation activities with human subjects are no longer ongoing and have stopped. This means that for this research study, there is no longer IRB approval to obtain data about a living person through interaction or intervention with the individual, to obtain identifiable private information about a living person, and/or to analyze identifiable private information about a living person. **No research and/or clinical investigation involving human subjects, including analysis of identifiable private information, can occur on a study closed by the IRB. If you wish to continue this research and/or clinical investigation with human subjects, you must submit a new initial IRB submission.**



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Record Storage: Data resulting from the study should be stored and protected in a manner to maintain the confidentiality of the subjects and that is consistent with the IRB approved protocol and any relevant information in the consent document, when appropriate. In general, identifiers should be removed once analyses of the identifiable data are complete, unless such information is essential or must be maintained as required by law or other requirements (e.g. FDA, funding agency, contract).

Record Retention Requirement: Investigators are required to retain records relating to the research for at least three years after completion of the research (45 CFR 46.115(b)). Completion of the research occurs when all research and/or clinical investigations involving human subjects is complete and the study has been closed by the IRB. In addition, other regulations or requirements may apply and require retention of these records for a longer period of time or require retention of other specific records (e.g. clinical investigations conducted under an IND, IDE, or abbreviated IDE, contract or funding agreement requirements).

Record Retention Specific to Informed Consent: Documentation of the informed consent of the subjects - either the signed informed consent form or the short form and the written research summary - are records related to conducted research that

APPENDIX D:

Interview protocol

Explain study, answer any questions and read Consent Form.

Begin interview.

- Introductions – My name is Heather and I’ve worked and volunteered in agencies like this one for many years. I study intimate partner violence and I’ve talked to a lot of survivors about their experiences. I’m also a mom of two kids who I breastfed. I didn’t always find breastfeeding easy, and I know every mom has her own goals about breastfeeding and her own challenges and I’m interested in hearing about your story and your challenges.
- So, tell me a little about your baby
 - How old is the baby? How many weeks/months old?
 - How was your pregnancy? How did you feel about the pregnancy? How about your partner? Is there a name or nickname or even a made-up name if you’d like that I can use when we talk about them?
- How did you learn about breastfeeding?
- What were your thoughts about breastfeeding before you had the baby?
 - Probe around reasons for or against, feelings about it, etc.
 - What role, if any, did economics – money – play in your decisions around breastfeeding?
 - If interested in breastfeeding, what were some of the reasons you wanted to breastfeed? (Try to get a feel for level of breastfeeding intention.)
 - I know sometimes sexual assault or childhood abuse can impact thoughts around breastfeeding.
 - Were any of these things an issue for you? You can just tell me yes or no; share as much or as little detail as you like. And, of course, you can also just tell me if you’d like to skip this question.
 - Did your partner or the abuse impact your decision to breastfeed? Did you think about it at all? Did you have any ideas about how your partner might respond to you wanting to breastfeed? Did you think about how to introduce your partner to breastfeeding?
 - How did your partner feel about your decision to breastfeed? Did you talk about it? Did your partner say anything or express any opinions about breastfeeding before the baby was born?
- Tell me a little about your relationship with your partner before you got pregnant... (probe for patterns of violence and coercion – what was ‘normal’ for the participant)
- What about during your pregnancy? Did the relationship change? How?
 - Was the pregnancy planned (probe for reproductive coercion)?

- Did your partner physically abuse you during your pregnancy (pushing, shoving, hitting, throwing you, etc.)? Was there emotional abuse during pregnancy? Psychological abuse (insinuating there could be problems with the baby's health, causing unneeded worry, etc.)?
- How was the birth?
 - When did you start breastfeeding?
 - How did it go for you?
 - Did you get any help with breastfeeding in the hospital? How was that?
 - Was your partner present at these times? What reactions did they have to your breastfeeding?
 - How long were you in the hospital?
- Tell me about your early days at home with the baby...
 - Probe around: how often participant breastfed, where participant breastfed, how participant breastfed (covered, uncovered), how she felt about all of it, what her partner's reactions were and how that impacted participant
 - How much did partner help around the house? How soon did she have to resume all household duties? How did that impact her breastfeeding? Recovery?
 - How old was the baby when the first episode of physical violence occurred (pushing, shoving, etc.)? How long was it before any other form of abuse began (verbal and emotional, psychological, etc.)?
- What changes, if any, did you notice in your partner's treatment of you after you came home with the baby and were in the early days of breastfeeding?
 - Breastfeeding can take a lot of time in the early days. How did your partner react to you spending time with the baby?
 - Did your partner help you while you breastfed? Bring you water? Help prepare food or take care of the house, other children, etc. or did they expect you to do everything and breastfeed, too?
 - What were your sleeping arrangements? How did you handle night feeding?
 - What did your partner do when you breastfed the baby? Leave you alone? Make any comments? Make you feel a certain way? Give you privacy or not give you privacy? How did these reactions impact you and how you felt about breastfeeding?
 - How did your partner interact with the baby? Did they express any interest in feeding the baby?
 - In general, what kind of support did the participant get around breastfeeding? From participant's family? From the family of the person who abused the participant? From friends? (Probe for how isolated participant might have been, other sources of abuse/scorn/resistance to breastfeeding).
 - Did you go out anywhere with the baby and breastfeed outside of your home? What was your partner's reaction to that?

- Did you find yourself staying at home more or avoiding situations where you might have to breastfeed around others because of your partner's reactions?
- Did you experience any abuse during this time? Tell me more about that... (probe for was the violence directed at participant or the baby? Did the violence seemed to be provoked by breastfeeding or occur at times when participant was breastfeeding or needed to breastfeed? Was abuse emotional, physical, sexual? Was abuse directed at participant's breasts? Did bruises or injuries impact breastfeeding post-abuse? How?)
- Did you ever pump or express milk for the baby (milk that might be used to feed the baby while you were away for work or appointments, etc.)? Did your partner ever interfere with (dump, forget to refrigerate/freezer the milk or otherwise cause it to spoil) or dispose of pumped milk? (If yes, probe for reason – was it to keep the woman at home [isolation, control]? What were the reasons given by the partner? Did she try to pump/express milk again [was this a pattern]?)
- How did your mother feed you when you were an infant? Do you know how your mom's mom fed her when she was an infant?
- Breastfeeding rates can differ by culture. Did you ever feel your partner used your culture or family/friend's beliefs about breastfeeding to impact how you felt about breastfeeding? (Probe: used family/friends/cultural beliefs to make her feel embarrassed or 'less than' because of her feeding choices?)
- Did you ever use breastfeeding or pumping as a way to protect yourself or the baby? (Probe: take a break to nurse when an argument was escalating, etc.)
- Breastfeeding can be a delicate balance between a mom and a child – the mom's body responding to signals that the baby gives by nursing. Sometimes things can interrupt that balance and cause issues that can interrupt breastfeeding or make it harder to breastfeed.
 - Ask if participant experienced any of the following and probe for how they treated the issue, how it impacted their nursing, if they sought any help (where and outcome), and partner's reactions and support through these issues:
 - Engorgement
 - Blebs (milk blisters)
 - Cracked or bleeding nipples
 - Plugged ducts
 - Mastitis
 - Other breastfeeding-related challenges
 - Did you ever seek help around breastfeeding issues? (Probe: for what issue(s), who did participant reach out to, what advice/help did participant receive, was she prevented from seeking help, or reluctant to seek help because of the abuse?)
 - How did you handle night-time breastfeeding?

- Did you ever have to postpone feeding the baby due to your partner's interference or lack of support?
 - How would you describe your milk supply?
 - Do you feel like stress impacted your ability to breastfeed your baby in the way you wanted to?
- How did you feel about breastfeeding?
 - Were there things you enjoyed about breastfeeding? What was hard?
 - How did your baby respond to breastfeeding?
- If not currently breastfeeding:
 - Tell me about how you made the decision to stop breastfeeding?
 - What were your thoughts?
 - What were your reasons?
 - Did your relationship impact your decisions? If so, how?
 - How did your partner react to your stopping breastfeeding? How did your relationship change after you stopped breastfeeding? Was it better, worse or the same?
 - How did you feel about this decision at the time?
- Did you achieve your breastfeeding goals? How does that impact how you feel about being a mom?
- Did you ever take pride in your breastfeeding or feel good about it? Why? What made it important to you? What kinds of things did you tell yourself about that? (Probe for empowerment)
- How do you feel about breastfeeding now? Do you think you will consider breastfeeding if you have other babies?
- How do you feel that living with an abusive partner impacted you as a breastfeeding mom? How do you imagine breastfeeding might have been different if you weren't living with an abusive partner?
- Is there anything I didn't ask you about this time in your life – breastfeeding while living with an abusive partner – that I should have? Is there anything else you'd like to share?
- Demographics
 - How old are you?
 - How do you describe your race/ethnicity?
 - How do you describe your baby's race/ethnicity?
 - How many children do you have?
 - How many children did you breastfeed before this child?
- Any questions you have for me?
- Thank you for your time and thank you for sharing your experience with me. I hope your experience can help this organization and others learn more about helping moms with new babies.

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CHAPTER 4: ORGANIZATIONAL RESILIENCE OF INTIMATE PARTNER ABUSE NONPROFITS DURING THE COVID-19 PANDEMIC

Introduction

Organizations sometimes confront sudden, unexpected changes. Such emergencies require adaptation. Those organizations that adapt well can be said to possess organizational resilience (OR) in the face of challenges; those that do not adapt may cease to function altogether (Tengblad, 2018; Trussel, 2002). Despite the size and importance of the US nonprofit sector and their often significant differences from for-profit organizations, we found few nonprofit-specific OR models (Searing, Wiley & Young, 2021; Witmer & Mellinger, 2016). Understanding key strategies of adaptation in these organizations can help them build resilience prior to emergencies and ensure they are more prepared to survive, thrive and, most importantly, continue to serve our communities even in the most challenging of times.

As an increase in intimate partner abuse (IPA) was widely expected during the pandemic (Smith, 2019; Reference Group for Gender in Humanitarian Action, 2015) we worked with a sample of these agencies to learn more about how they were weathering this challenge. One major theme emerged around coping and adaptation. Looking for a nonprofit OR model to help frame our findings, we didn't find a specific nonprofit model that described our sample's experience adequately. We adapted a model from the private sector (Tengblad, 2018) to apply to nonprofits.

We begin by examining OR's roots and existing for-profit OR models, and we discuss some useful concepts from social-ecological resilience (SER) that are less

emphasized in OR and that help provide better insight. We will then move to an introduction of the nonprofit sector and then review the literature relating to IPA and how abuse has been shown to increase during prior pandemics and other crises (such as natural disasters). From there we will introduce our adapted model and illustrate it using a sample of IPA agencies during the COVID-19 pandemic.

Organizational resilience

Often organizations develop within a specific niche with a specific purpose and assume the status quo will simply continue. However, change is a constant in organizational life and though some change is gradual, organizations sometimes face drastic, catastrophic change. Whether an organization can adapt to slowly or quickly changing conditions may determine whether it survives and continues to fulfill its mission.

Though resilience originated within ecology (Holling, 1973; Pimm, 1984; Biggs, Schluter & Schoon, 2015), the concept has also been adopted and adapted in a variety of other disciplines, including business (Tengblad, 2018; Vogus & Sutcliffe, 2007; Linnenluecke, Griffiths & Winn, 2012).

Resilience in a business context. In business, resilience is used in relation to organizations facing change. Many definitions of OR within the business literature are similar, with slight variations. Tengblad (2018) defines OR as the ability to “maintain viability in a changing world that constantly requires adaptation.” Vogus and Sutcliffe (2007) define OR as “maintenance of positive adjustment under challenging conditions

such that the organization emerges from those conditions strengthened and more resourceful.”

Business researchers tend to look at how aspects of OR impact a for-profit organization’s financial and overall health (Tengblad, 2018). Much OR research has focused on ‘high reliability organizations’ which face high-risk challenges in day-to-day operations (airlines, nuclear power plants, etc.) and practice OR as a daily preventive measure to build the skills, processes and resources needed to prevent or manage a major catastrophe (Tengblad, 2018).

Social-ecological resilience. SER evolved from earlier resilience work focusing on ecological systems and how they react to change. Today, SER focuses on integrated natural-human systems and often focuses on how both natural and human systems are dynamic, and how together they respond to change and interact in complex ways given their dynamic nature (Holling, 1973; Walker & Salt, 2012). Walker defined resilience as the “capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks.” (Walker, Holling, Carpenter & Kinzig, 2004).

Beginning to bridge the gap between OR and SER

OR as defined and practiced in a business context lacks several key concepts that can inform OR thinking for nonprofits, and possibly OR in general. Borrowing several concepts from SER might begin to bridge the gap between these two related-but-separate literatures. First, SER is inherently focused on systems, specifically the interaction between environmental systems and human systems (Folke, Biggs,

Norström, Reyers & Rockström, 2016). OR in the business literature seems to focus almost exclusively on a business in the context of human systems (suppliers, customers, markets; e.g., Tengblad, 2018), with little focus on the indirect (community, networks, etc.) or nonfinancial context within which the business exists and interacts. SER includes an expansive concept of organizations at many levels (local, state, national, global) and emphasizes the need to study these interlinkages and information flows with the same level of detail as biologists have studied the dynamic relationships between organisms in natural systems (Olsson, Folke & Berkes, 2004). Some organizational researchers from SER have explored OR in a wider context, such as looking at OR in relation to extreme weather events and natural disasters (Skouloudis, Tsalis, Nikolaou, Evangelinos & Leal Filho, 2020; Cutter et. al., 2008). Appreciating an organization's environment or context may add critical information about future challenges and increase its ability to plan for adaptation. Context for a nonprofit could include the physical environment (natural disasters, climate change, etc.), but it can also include the socio-political environment, for example precarious state funding for certain services or political currents negatively impacting certain groups (such as anti-immigrant sentiment or legislation). Either has the potential to impact an organization or its clients.

Secondly, SER acknowledges not all resilience is good. No benefit accrues if a system was unfavorable prior to an emergency and returns to that state afterward (Béné, Newsham & Davies, 2013). For example, homelessness is a "resilient" issue not easily addressed. Resilience is also complex, with actions that may increase the resilience of some, sustaining/increasing the vulnerability of others or impacting future

resilience (Lauer et al., 2013; Shaw, Scully & Hart, 2014). Some researchers call this 'negative resilience' (Shaw, Scully & Hart, 2014), while others caution that resilience is value-free and requires a focus on addressing existing vulnerability and actively seeking to understand both good and bad aspects of resilience (Béné, Newsham & Davies, 2013).

The 3-D resilience framework (Béné, Newsham & Davies, 2013) breaks adaptive processes into three categories – absorptive coping capacity (coping), adaptive capacity (adaptation) and transformative capacity (transformation). If returning to a previous status quo is the goal, then coping, or the capacity to absorb short-term shocks and continue to function, might be sufficient (Béné, Newsham & Davies, 2013). Coping is a 'resistance' strategy, or resisting change by absorbing a shock (Béné, Newsham, Davies, Ulrichs & Godfrey-Wood, 2014). An example of coping might be an organization cutting costs to absorb pandemic losses. Coping is a common resilience strategy as it is often easy and/or less expensive in the near-term, but in the longer term such strategies can draw down reserves, potentially reducing future capacity for resilience.

When a crisis or challenge to the status quo goes beyond what a system (or organization) can absorb, then adaptation, or the ability to adapt and adjust, becomes salient (Béné, Newsham & Davies, 2013). Adaptation requires different organizational resources, like planning, learning, and sometimes cooperation or collaboration (Béné et al., 2014). Examples of adaptation include streamlining paperwork during an emergency to help more clients more quickly.

Sometimes adaptations, or incremental changes, are not enough to preserve the status quo and a transformation to a new state is the only option. Transformation is the ability to respond to situations by creating a “fundamentally new system when ecological, economic, or social (including political) conditions make the existing system untenable” (Walker, Holling, Carpenter & Kinzig, 2004). Transformation as a part of OR is rare, as organizations seek first to cope and adapt and only transform as a last resort. IBM, for example, transformed from a manufacturing company to a service-driven information technology company when faced with an inability to adapt and remain relevant in manufacturing (van Kralingen, 2010).

Using these three categories can help organizations to better understand where their actions lie on the resilience framework and evaluate how actions impact current and future resilience capabilities. However, coping and adaptation (and less commonly in organizations, transformations) are often used dynamically depending on what a situation calls for at a given point in time and resilience is said to emerge from “trade-offs and synergies” between these capacities (Béné et al., 2014).

Models of organizational resilience

Business researchers have developed several OR models for use with for-profit organizations. Linnenluecke, Griffiths and Winn (2012) built a longitudinal model around organizational adaptation during different phases of emergencies. They explore how an organization may experience different crisis phases differently, perhaps stumbling initially, but recovering quickly and learning from the experience or vice versa. This

model may be useful in examining the overall experience of organizations post-pandemic, but it was not suited for a cross-sectional study during the pandemic.

Vogus and Sutcliffe's model (2007) focuses on organizational capabilities in for-profit organizations and in what state they emerge from challenging conditions. Their model relies on extensive surveying to determine capabilities, and such widespread access was not feasible for the organizations participating in our study during a pandemic.

Tengblad's (2018) for-profit OR framework focuses on three resource areas that impact the ability to adapt: financial, technical, and social resources. First, Tengblad's model highlights the role of financial resources as they impact an organization's ability to exist, procure supplies and invest in needed resources such as staff, training, and technology. His second focus area is technical resources, which includes actual technology – machines and programs to run them – but also the technical knowledge within an organization. The final focus area in Tengblad's model is social resources, or the relationships, internal and external, that help the organization accomplish its work.

Resilience in nonprofits

Nonprofits have employees, must manage their finances, and often have a similar basic structure to for-profit business, but they also differ from for-profits in some important ways. For-profits have a mission to make money and some, secondary to making a profit, also seek to contribute to their communities (corporate social responsibility); nonprofits make money to enable them to better fulfill their social mission – money is an enabler. Nonprofits may even engage in work they do not

intrinsically value, if it helps to fund their mission, which is sometimes a cash-loss generator (James, 1983; Epstein & McFarlan, 2011). Volunteers are non-existent in the for-profit sector, but a mainstay of nonprofits. For these reasons, we felt it was important to seek an OR model that was specific to the nonprofit sector.

Despite the size and importance of the nonprofit sector, we found less OR literature specific to nonprofits. Witmer and Mellinger (2016), in a study of large healthcare nonprofits, posited that OR-focused adaptation in nonprofits is somewhat different than in the for-profit sector. They reported the major keys to adaptation in these nonprofits as fiscal transparency, hope and optimism, servant and transformational leadership, community reciprocity, improvisation, and commitment to mission – but they did not create or develop an OR model (Witmer & Mellinger, 2016). Searing, Wiley & Young (2021) published a nonprofit resiliency framework after we had already adapted a for-profit model. Their model has five focal areas, including financial, human resources, outreach, program and services and management and leadership. Both studies touch on categories similar to our adapted model, but both lack a focus on technical aspects of organizations. Technology use in nonprofits is widely seen to be under-researched (Cortes & Rafter, 2007), but also increasingly important for service delivery, fundraising, grant-seeking, research, outreach, service provision, effective administration, etc. (Hackler & Saxton, 2007). As technology emerged as a strong theme in IPA agency adaptation during the pandemic, we sought a model that explicitly included it.

Nonprofits

In 2004, more than 1.4 million nonprofits were registered in the US, contributing an estimated \$887 billion to the economy and accounting for 5.4% of GDP (McKeever & Pettijohn, 2014). Economic contributions aside, the nonprofit sector's most important role is as a crucial part of the social safety net. During the COVID-19 global pandemic many Americans have utilized nonprofits from community food banks to mental health helplines and many others. Nonprofits typically offer either goods (e.g., food and clothing) and/or services (e.g., counseling). OR in nonprofits is key to maintaining these organizations as an irreplaceable source of support for individuals and their communities in times of crisis.

Research shows that nonprofit funding has suffered due to COVID-19 (Stewart, Kuenzi & Walk, 2021; Maher, Hoang, & Hindery, 2020). The US government offered some nonprofit relief funding, including grants through the Coronavirus Aid, Relief and Economic Security Act (CARES Act) and the Federal Emergency Management Agency (FEMA; Maher, Hoang, & Hindery, 2020). Whether these efforts will prove sufficient will require post-pandemic analysis, though our findings highlight the impact of some of these efforts in the pandemic phase in which our interviews were conducted.

While human-service nonprofits have been challenged by the pandemic, those serving primarily women and children experiencing abuse have been particularly challenged as lockdowns to contain the virus have confined women with their abusive

partners¹². Research shows IPA and violence increases in times of stress, such as pandemics and natural disasters (Stripe, 2020; Women's Aid, 2020; Roesch, Amin, Gupta, García-Moreno, 2020; WHO, 2020; Godin, 2020; Sety, James & Breckenridge, 2014; Bandiera, Buehren, Goldstein, Rasul & Smurra, 2019). Lockdowns, where people are required to stay at home and sharply curtail social interactions, remove many safeguards women use to try to manage abuse and violence directed at themselves and their children (Peled & Gil, 2011). Additionally, the economic impacts of pandemics, including job losses, and disruptions to childcare and schooling, can also limit survivors' options.

Intimate partner abuse

IPA has many forms, from the more commonly known physical and sexual violence, to less publicly known forms such as emotional abuse, control, and coercion (Stark, 2009). The Centers for Disease Control, using 2011 data from a nationwide survey, reports 31% of women in the US have or will experience physical violence (being slapped, pushed, or shoved) from an intimate partner, and an estimated 22% of these women will experience severe physical violence (defined as being hit, kicked, burned, bitten, beaten, or attacked with an object or weapon) in their lifetime (Breiding, 2014).

Too often IPA is perceived as a personal problem, uniquely impacting the 'victim' but with limited impact on others or society at large. Yet IPA nonprofits often help not

12 Men also experience IPA and are served by IPA agencies, but they make up a much smaller percentage of clients for these agencies.

only a woman, but also her children, friends and family and, in some cases, also the perpetrators of abuse and violence through batterer intervention programs.

This intimate crime ripples out from the abuser and the abused and impacts communities as a whole. The National Center for Injury Prevention and Control (2003) estimated the cost of intimate partner rape, physical violence and stalking at more than \$5.8 billion annually; most of these costs are for direct medical and mental health care, but they also include \$0.9 billion in lost work. On a community level, 20% of IPA-related murders involved not the death of the abuse victim, but of a neighbor, friend, family member, bystander or first responder (such as an EMT or police officer; Smith, Fowler & Niolon, 2014). Research continues to show that IPA has many impacts beyond the victim and perpetrator (Willman & Team, 2009; Dalal & Dawad, 2011). Decreases in IPA benefit women and children, but also police, EMTs, hospitals, employers, schools, and the community.

IPA and pandemics. Research points to women being more impacted overall by pandemics as they tend to work in essential roles, be less securely employed, and be caregivers for sick or vulnerable family members (Wenham et al., 2020). Pandemics can also limit women's abilities and resources to leave an abusive situation by limiting their ability to travel, relocate or find alternative housing. Pandemics can limit relatives' or friends' willingness to provide temporary housing and reduce shelter and hotel options. Many US shelters closed or reduced their capacity for some amount of time during the pandemic following public health advice to limit the spread of the virus (Evans, Lindauer & Farrell, 2020).

Numerous studies have documented increases in IPA lasting for months or even years after a crisis (most studies focused on natural disasters rather than pandemics; Sety, James & Breckenridge, 2014).

COVID-19 and IPA nonprofits. Several studies, including a meta-analysis (Piquero et al., 2021), found an increase in domestic violence in the US during the early lockdown phases of the COVID-19 pandemic (Boserup, McKenney & Elkbuli, 2020; Godin, 2020; WHO, 2020). Though some IPA agencies in the US experienced decreased call volumes during some periods of the pandemic, many in the field felt this represented women's lack of access to phones, or lack of safety to reach out for help (Campbell, 2020), rather than a decrease in abuse (Evans, Lindauer & Farrell, 2020).

The current study

Knowing IPA agencies would be under special stress during the pandemic, we wanted to capture their experience and understand how these organizations were coping during this crisis.

Adapting an OR model for nonprofits

Not finding a nonprofit OR that explicitly included technology, we chose to adapt Tengblad's (2018) model as its focus on financial, technical, and social resources is straightforward and centers around the areas of adaptation we felt most relevant to nonprofits. The focus on social resources is particularly pertinent for nonprofits, and we felt the focus on technical resources in resilience was crucial given the increasingly important role of technology in many of today's nonprofits. Additionally, a recent study

(Newby and Branyon, 2021) showed technology was used by a variety of nonprofits during the current pandemic to engage clients virtually.

Our adaptation uses modified versions of Tengblad's categories and adds additional focus areas (see Table 4.1).

1. Financial resources.

Tengblad's financial resilience category looks at an organization's financial balance, profitability, liquidity, business contracts and intangible assets. Nonprofits (including IPA agencies) are generally funded through a mix of government funds (federal and state monies) and community fundraising, with government monies making up the majority of IPA agency budgets. Our adapted model of financial resources has five categories: a. overall financial state; b. staffing levels; c. grants, service contracts and loans; d. fundraising; and e. intangible assets.

The stability of these funding streams greatly impacts the adaptability of nonprofits, either giving them latitude to innovate and make changes or limiting their adaptive capacity. Maintaining strong connections to external funders was found to decrease fiscal stress in nonprofits during the 2008 recession (Lin & Wang, 2016). In 2020, the federal government, states and foundations offered grant monies targeted specifically toward IPA agencies because they anticipated a rise in domestic abuse during pandemic lockdowns (Paarlberg, LePere-Schloop, Walk, Ai, & Ming, 2020). Like most nonprofits, IPA agencies raise or are awarded funds in one year to spend in the next fiscal cycle (meaning funds raised prior to the pandemic were what they were using at the time of this study).

2. Technical resources and organizational processes.

The second piece of Tengblad's model is technical resources, including products and services, production technology and organization of work, logistics and supply chains, information systems and technical knowledge and innovation (Tengblad, 2018). Though Tengblad explicitly includes organization of work in his model, we felt the title "technical resources" did not clearly communicate that how work is done is a part of this focus area. We renamed this category "technical resources and organizational processes" for clarity. Our adapted model of technical resources and organizational processes has four categories: a. technological assets and deployment; b. organization and procedures; c. technical know-how; and d. technical innovation. We focus on how technology can facilitate adaptation to maintain or enhance service provision. However, technology typically lags at nonprofits due to scarce funding for it.

Table 4.1. Adapted model for organizational resilience in nonprofit organizations

Model Category	Sub-category	Description
1. Financial Resources	a. Overall financial state	Changes in organization's current finances compared to pre-crisis levels
	b. Staffing levels	Changes in personnel and staffing numbers/levels
	c. Grants, service contracts & loans	Changes in grants, service contracts and any additional loans
	d. Fundraising	Changes in fundraising levels
	e. Intangible assets	Changes in other factors impacting organization's finances
2. Technical Resources & Organizational Processes	a. Technological assets & deployment	How technology enables/stymies crisis response
	b. Organization & procedures	Changes in how work is done during crisis, compared to pre-crisis
	c. Technical know-how	Technical capability of technical/other staff; process for making technical changes and level of stakeholder involvement
	d. Technical innovation	New technology and new uses of technology
3. Social Resources	a. Followership & relationships with employees	Changes in communication, employee relations, focus on staff safety & support
	b. Relationships with clients	Changes in interactions with clients, roles and responsibilities between staff and clients
	c. Relationships with partners	Changes in relations with organizations nonprofit depends on to accomplish its mission

Table 4.1. (cont'd)

	d. Relationships with funders	Changes in relations with funders (local, state, regional & national level)
	e. Relationships with top management & board	Changes in how top management operate (power sharing, etc.) and function/relations of board
	f. Relationships with volunteers	Changes in use, number & function of volunteers
	g. Relationships with networks or coalitions	Changes in frequency or content of relations with organizations in network or coalition (lobbying, technical assistance, etc.)
	h. Relationships with community	Changes in level of support from community
	i. Relationships with other stakeholders	Other significant organizational relationships impacting crisis response
4. Mission & Values	a. Mission	Shift or change in organizational mission during crisis
	b. Values	What values do nonprofits maintain and what values do they step away from?
5. Environmental & Contextual Factors	a. Geographic location & environment	Dis/advantages based on area and area resources – hampering or helping crisis response
	b. Societal values, norms & movements	Ongoing or concurrent events in society impacting crisis response

3. Social resources.

Tengblad (2018) writes, “To be organizationally resilient, a company must develop mutually trusting relationships with committed coworkers, loyal customers, reliable suppliers/partners, supportive owners and various other stakeholders.”

Tengblad’s model of social resources has five categories: a. followership and

relationships with unions; b. relationships with customers; c. relationships with suppliers and partners; d. relationships with owners and financiers; and e. relationships with other stakeholders. These categories provided a starting point but required significant adaptation and expansion. Nonprofits rely on many relationships to accomplish their missions, and these partners and networks can greatly contribute to – or limit – options for adaptation. Our adapted model of social resources has nine sub-categories: a. followership and relations with employees; b. relationships with clients; c. relationships with partners; d. relationships with funders; e. relationships with volunteers; f. relationships with networks and coalitions; g. relationships with top management and board; h. relationships with community; and i. relationships with other stakeholders.

4. Mission & values.

We added a fourth category to Tengblad's model to capture the importance of mission and values to nonprofits. An organization demonstrating strong adherence to accomplishing its mission despite challenges, like a pandemic, may be able to continue to attract funding, attract more dedicated staff and earn greater respect from clients.

While mission is the driving reason for the existence of a nonprofit, values are important to how a nonprofit accomplishes its mission. Values include things like 'client needs come first' or a strong belief in protecting client confidentiality. Like mission, values can be an important part of staff and client retention; an organization may adapt and even change some values in a crisis, but radically changing significant values is likely to cause stress within the organization and potentially with clients and community partners.

5. Environmental and contextual factors.

Environmental and contextual factors also impact adaptation and ultimately, resilience. This concept comes from ecological systems theory (EST; Bronfenbrenner & Morris, 2007). EST posits layers of relationships and other factors surrounding each individual that can, despite their distance from the individual, still have significant impact at the individual level.

We suggest three primary contextual factors for consideration, but we acknowledge this category might differ significantly depending on the nonprofit organization or sector. These factors cannot be changed quickly and so can help/hamper adaptation. They are: a. geographic location and environment, and b. societal values, norms, and movements.

a. Geographic location and environment. A nonprofit with a strong relationship with a wealthy local company may have a ready source for emergency aid, potentially increasing their financial resilience and positively impacting technical resilience, both of which could positively impact social factors in resilience. Nonprofits in less wealthy communities may not have access to the same resources, resulting in greater resilience challenges. Lin and Wang (2016) found higher levels of fiscal stress in nonprofits located in rural areas.

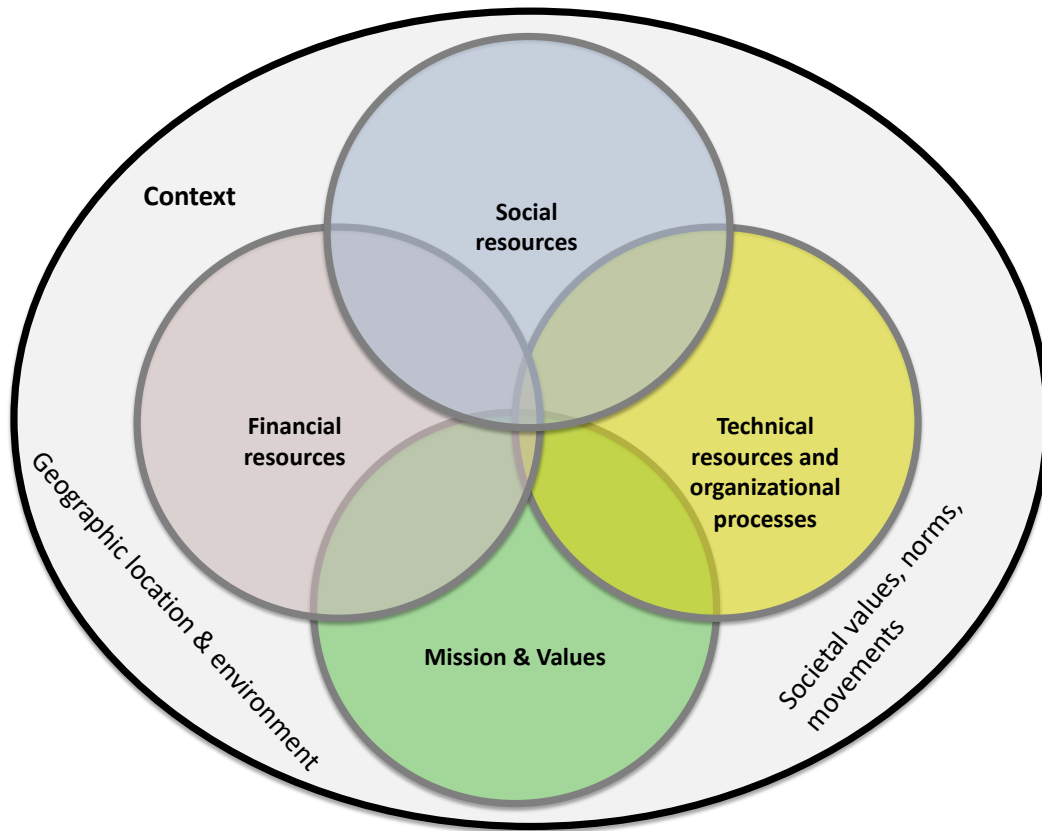
Additionally, nonprofits are tied to the environment around them. A nonprofit located in an area where climate change is dramatically increasing flooding or causing extended droughts will also be impacted by these phenomena, as will the people they serve. Nonprofits situated in communities with high levels of lead in the water also must

address that issue, within their organizations and in how it impacts the people they serve.

b. Societal values, norms, and movements. Nonprofits are situated in communities and buffeted by the same winds of change occurring around them. When community issues arise and community members take sides, nonprofit agencies cannot always remain neutral, and often must adapt and examine their own policies. Many IPA agencies have anti-racist policies in place because the communities they serve have taken steps to begin to address racism.

Additionally, our adapted model shows overlap across categories (see Fig. 1), as we have found adaptation actions may cross categories. For example, adaptations in fundraising may enable technological changes that also improve client service.

Figure 1. Adapted model of organizational resilience for nonprofit organizations



Method

This study was approved by an institutional review board (IRB) under strict safety protocols during a time when most research was stalled due to the pandemic. All recruiting and interviewing were done remotely, by phone.

Recruitment

There are roughly 50 agencies in this Midwestern state (Women's Law, 2022) that serve survivors of abuse, including some on campuses, some run by religious organizations and some focused on abuse in native communities. Our eight participating organizations represent a spectrum of IPA agencies, from smaller, rural programs, to

mid-sized suburban agencies to some of the largest IPA agencies/programs; our sample comprises roughly 16% of all IPA agencies in the state. All participating organizations are registered as 501(c)(3) – and therefore are classified as nonprofits under US tax codes.

We had existing research relationships with all organizations in this case study, making this somewhat of a convenience sample. We wanted manager's perspectives of challenges and their responses, as well as front-line staff opinion about the actual impact of the changes so we interviewed at least one managerial staff and one frontline staff from each participating nonprofit (n=18) located in this Northern Midwestern state. Managers were interviewed and then asked to nominate frontline staff to participate, in a form of snowball sampling.

Sample

All agencies were long-standing and well-established. All operate on a mix of government funding and grants, as well as community support and fundraising. All participating agencies are of sufficient size to have management teams as well as frontline staff. Interviews were conducted between June and October of 2020.

Among participants (n=18) the majority identified as female (n=17, 94%). They averaged 37 years old, ranging from 24 to 62. Most identified as white (n=16, 89%), with one African American (5%) and one mixed race participant (white and Hispanic; 5%). Length of employment with agency ranged widely, from six months to 37 years, with an average of eight years. Participants were promised confidentiality, to ensure they were able to speak freely, so we are unable to provide further individual details such as age and years of service; instead, we have provided pseudonyms and indicated whether

they are frontline staff or managers. Eight participants (44%) were managers and ten (56%) were frontline staff. Managers were defined as people who had other employees working directly for them; some managers had limited direct contact with clients. Frontline workers had direct contact with clients as the major part of their work, though some also had minor responsibilities not involving direct client contact.

Interviews

All participants were interviewed by phone individually by the first author and read a consent statement. Interviews averaged 83 minutes in length with a range of 48 to 166.

Interviews were semi-structured, with an interview guide used to ensure interviews covered all topics. Interviews began with more open-ended, discussion or narrative questions, such as “tell me about how your work has changed since the pandemic started?” From these narrative beginnings, interviews then probed specifically for changes due to the pandemic. The interviewer used time anchors to help interviewees more accurately recall (Fisher & Geiselman, 1992) and contrast past and current work experiences.

Data analysis

Transcriptions were analyzed in Nvivo, a qualitative software. We used thematic content analysis to create codes in line with analysis guidelines recommended by Miles, Huberman, and Saldaña (2014). After an initial round of open coding, codes were organized by theme, condensing some codes, and creating sub-codes to allow for more granular examination of some ideas.

Results

In interviews we frequently found responses to the pandemic that demonstrated coping and adaptation, along with issues that negatively impacted OR. We illustrate our adapted model using our IPA case study.

1. Financial resources

a. Overall financial state. Interviewees reported most federal and state grants and contracts were frozen at pre-pandemic levels or slightly decreased, so budgets remained at pre-pandemic levels at the time interviews were conducted.

b. Staffing. During interviews these organizations reported losing a very small number of employees due to pandemic-related health concerns or child/family care issues. Retention of staff in a crisis is an important factor in maintaining/adapting operations and retaining institutional knowledge.

c. Grants, service contracts and loans. These organizations all reported access to pandemic-related grants for personal protective equipment (PPE), cleaning supplies and technology upgrades. Federal COVID-19 funding allowed IPA agencies to offer hazard pay to employees who still had in-person contact with clients as they were considered essential workers.

Technology grants were crucial in IPA agencies' ability to pivot to remote services to protect clients and staff, while continuing to maintain their basic function. Prior to the pandemic none of the IPA agencies interviewed offered remote services but by the time of interviews all had upgraded their technology (e.g., laptops, telehealth platforms, and software licenses such as upgraded Zoom access).

However, some grant restrictions limited remote counseling because of funders' demands. Such grant restrictions can take decision-making power out of agencies and make them less responsive to local conditions, hampering their ability to adapt. Local decision making can be particularly important in a pandemic as infection rates, individual health concerns and family vulnerabilities differ widely.

Private funders, such as foundations, also contributed to the resilience of their grantees during the pandemic. In response to the needs of communities and nonprofits many private foundations increased giving, relaxed restrictions (allowing more flexibility and local decision making), streamlined and sped up application processes and trusted nonprofits to use funds for important purposes rather than requiring lengthy reports and supervision visits (Putnam-Walkerly, 2021). These changes positively impacted our participating agencies eventually, but initial delays and pre-pandemic processes caused grant headaches, delays in personnel decisions and delays in receiving funds. Some funders put limits on which clients can receive funds (i.e., requiring citizenship, proof of employment or a clean background check), and interviewees indicated this limited advocate and agency flexibility in crises. This is an example of the interconnected nature of resilience, where one organization's adaptations can (but do not always) aid adaptation in connected organizations. Private funders have an opportunity to increase future grantee resilience in less chaotic times by retaining some of the adaptations they have made during the pandemic, allowing nonprofits greater latitude in decision-making, not just in large crises, but also in everyday challenges.

The grant making cycle – the time from when grant applications are solicited to when funds are awarded and dispersed – also can limit IPA adaptation. “The CARES Act money is kind of trickling down. So, we’re hoping that will kind of balance itself out. And thankfully we did have enough of a budget that we could cover those costs.” (Olive, manager).

Some government funding comes in the form of service contracts where agencies agree to perform a service and the contract stipulates payment at a given rate for each service instance. If an agency can no longer perform the service, they do not receive payment. Most agencies reported shutting down some of these programs for several months in the initial stages of the pandemic, with potentially significant financial repercussions. Most reopened after a few months, often creatively adapting programs and delivery methods and using grants to improve PPE and sanitizing. The ability to keep, or reopen, these revenue-generating programs is a significant factor in resilience.

d. Fundraising. Locally raised funds are important to IPA agencies; such funds are often used to support new or innovative programming, or accomplish tasks deemed non-essential by other funders. One such use can be direct assistance payments to clients for housing or other expenses typically not allowable with more restricted monies.

“A lot of times we use our general funds, which are our donations, to provide specific assistance to clients and with that money decreasing, when a client comes to me and says, ‘Can you help me pay my car payment?’ Unfortunately,

no. ... So that's impacted our clients in ways that I didn't foresee when all of this started." (Ash, manager)

The flexibility and discretion associated with locally raised funds is an important adaptation factor for many IPA agencies and can help to cushion other changes in funding. These unrestricted funds can also be saved in some cases, allowing agencies to have slack funds in case of disaster or emergency. Indeed, due to the grant cycle delay several of the agencies in this sample used monies from past fundraising as a placeholder until they received their pandemic-specific grant monies. Even these small pots of money can provide needed slack to aid nonprofits in an emergency.

All organizations reported major disturbances in traditional fundraising practices due to the pandemic. Fundraising involves many activities, but the major events for IPA agencies are often galas and other large public events. All organizations mentioned trying alternative fundraisers, such as virtual or online fundraisers (but most were uncertain how successful these efforts would be). Though some organizations reported decreases in local fundraising, some agencies said they largely maintained their community donation levels or saw some increase. This facet of resilience relies on having deep roots in communities. Such roots may be needed as pandemic effects are likely to linger for months to years, and future funding shortfalls may occur. Often government funding post-disaster shifts to new priorities, whether a full recovery is attained or not. IPA agencies will need strong alternate fundraising plans in place as the pandemic wanes, even as its impacts on survivors and their children continue.

2. Technical resources & organizational processes

a. Technological assets & deployment. The adaptation in IPA services from a technology perspective have been revolutionary, and highlighting these changes is a large part of why we chose Tengblad's model. These agencies went from pure in-person service models pre-pandemic to a purely virtual model at peaks in the US pandemic, to a hybrid model with clients able to choose in-person or virtual services at less intense pandemic periods. This has been a large operational and cultural shift for these agencies that was quickly completed, largely successfully, during a global emergency. It is one of the areas of greatest adaptation for IPA agencies and will impact their service reach and ability to accommodate client needs far into the future.

The shift to telehealth happened within days to weeks of lockdowns in our sample, greatly increasing flexibility with minimal disruption in critical services. Telehealth has not merely been a replacement for in-person services but in some cases has additional benefits for clients.

"Clients are missing far less appointments because it's from the comfort of their own home. They don't have to travel. They don't have to worry about gas money. They don't have to worry about their kids having daycare or contacting the abuser to help them out for an hour with the kids or dropping them off so that they can go to counseling, and they drive all the way out to [city name]. I mean we're not close to a lot of people and so that telehealth has been amazing. I mean absolutely amazing. We're offering [support] groups via telehealth now,

those are super well attended which is different and so our goal is to keep that around forever. I mean it's fantastic." (Hazel, manager)

Telehealth was not seen as a panacea, however. Some participants worried some survivors may have technological barriers (such as wi-fi access or bandwidth limitations) or a lack of technological comfort. Interviewees reported several solutions to bridge the tech gap – giving survivors phones or tablets, finding free wi-fi locations and coaching clients through technical issues.

b. Organization & procedures. These organizations instituted many changes in work scheduling during the pandemic to ensure services could be maintained with limited in-person staff exposure. Only one organization reported a widespread exposure of essential staff to COVID-19 followed by mandatory quarantine, requiring other staff and management to step in to maintain continuity of essential services. One organization paired up essential workers to limit exposure; if one of the pair became infected, both would quarantine, but other paired in-person staff would be unaffected and able to step in to provide coverage. Another organization had essential shelter staff work solo for 30 to 38-hour shifts for weeks to avoid widespread exposure. Such schedule changes were a key response to the pandemic.

During the pandemic most organizations created work-from-home policies outlining privacy and confidentiality requirements, such as closing doors, and using headphones or noise-canceling machines so others could not overhear client conversations. Additional work-from-home changes included greater use of calendars to maintain boundaries between work time and non-work time. Work-from-home policies

helped ensure quality and confidentiality of services even without in-person supervision.

Changes in usage patterns for existing communication technologies enabled isolated staff to maximize communication among staff, an important aspect of adaptation. The technologies have filled an important gap, but most do not see them as a complete replacement for in-person communication.

“We have phones, we have email, we have text, and we have... a chat program within in my office which we just got at the beginning of the pandemic – which has been great – but it’s not the same as running over to your coworker’s office and processing this... traumatic event your client just went through.” (Magnolia, frontline staff)

c. Technical know-how. Many IPA agencies lack dedicated technical staff. In our sample technical know-how largely came from managers and frontline staff organizing on-the-fly problem-solving teams. These organizations also had to find creative ways to accomplish their goals within existing technical packages they could afford and start using immediately. Not having specific technical staff in some cases meant technical decisions were made with wider staff participation.

“We had representation from advocates, from residential... from therapy. [There] was a small team of people who chose the virtual platform that we use and that wasn’t me as a supervisor who was doing it. We had the people who were gonna be using it every day figure out what they wanted and then we went with that.” (Cedar, manager)

d. Technical innovation. Innovation helped these agencies do more than implement shallow technical solutions in place of more vibrant personal interactions. Child counseling, especially with children under the age of five, was consistently reported as difficult. Participants adapted a variety of solutions, such as checking in with kids briefly by video and then engaging more deeply with a parent to provide supportive parental counseling. Other solutions included meeting outside with children, providing art supplies for virtual art therapy and finding creative ways to use online tools to mimic in-person play therapies.

3. Social resources

Lacking the financial and technical resources many resilient for-profit organizations may have, strong relationships and networks are often the bedrock of nonprofits. Although social resources may be more difficult to measure, they may also be the hardest to develop. Money can be raised in a day (with luck and strong fundraising strategies), technical resources can be purchased quickly (though may take longer to integrate and function), but it takes time to change a workplace climate and build relationships.

a. Followership and relationships with employees. In an emergency, frontline workers are often those enacting the mission of the organization, which can suffer if they are disaffected, feel unsupported or unappreciated. Tengblad (2018) therefore defines followership as “work engagement, responsibility, cooperation and trustworthiness” but also sees employees as “co-producers of leadership and co-creators of workplace conditions.”

The participating IPA managers mostly seemed aware of a need to adapt their management to a different, more connected style during the pandemic, but not all agencies managed to create followership among the frontline staff we interviewed.

“We haven’t really grappled with the impact that COVID may have on [employees] in terms of... again, other than saying ‘Take care of yourself. Do what you need to do. We’ll give you the space to do it.’ We haven’t done much proactively on that – I’m not sure what that would be.” (Ebony, manager)

Many managers expressed concern about the mental toll on their employees, with pandemic-related strain at home spilling over into an already stressful and traumatic work sphere. They worried about the potential for burnout. Managers spoke about using a variety of technologies – from texts, to secured communication platforms, to Zoom meetings – to try to ensure employees felt connected to their managers and their co-workers. Some managers created pro-active connection and stress management opportunities, such as book clubs; others were attentive but less creative or pro-active. In at least two agencies, employees created their own social outlets, in one agency forming a team for an outdoor sports league and in another meeting to walk, distanced, in a park.

Negotiating the differences in exposure and work between shelter workers and staff working from home was complicated for many agencies. Staffed 24 hours a day, every day, shelters do not allow for remote work, whereas many other IPA employees could and did work exclusively from home at times during the pandemic. Division between shelter workers and other IPA staff are not uncommon, as shelter workers

tend to have less training, fewer degrees, lower pay (often working just part-time and/or multiple other low-paying jobs) and more difficult hours (weekends, holidays, nights, etc.). Shelter workers in most agencies spoke of pushing management to address their safety concerns, as managers' workspaces are often not co-located with shelters. Shelter workers in some agencies felt top management did not understand the daily exposures and risks they faced.

"I mean, quite frankly I was frustrated. I was mad. And that was why I said, you know, 'This is crazy! ...We want our voice heard. Why are we still meeting with clients [in person]? It doesn't make any sense. ...Why am I expected to meet a client in my small office [when other staff groups have stopped in-person contact]?' " (Willow, frontline staff)

It's doubtful any organization addresses all employee concerns perfectly during an emergency, but we did hear examples of adaptive behaviors often cited in OR literature, like inclusion and support (Tengblad, 2018).

"Our [top manager] had a very strong belief that the person who pushes the broom buys the broom. ...honestly everything that we did – it was with both that administration side and representation from all the different areas." (Cedar, manager)

Whether it came from managers or developed organically from staff members, we heard many examples of mutual support – the recognition that everyone was impacted by the pandemic personally and striving for mutual goals in a workplace with regular exposure to trauma. One agency gave staff members small token gifts, while

another created an award system with candy and notes to recognize employees. Many interviewees talked about supervisors or coworkers who took time and effort to support each other.

“I think that was really important because like, we all do great things in our jobs, but sometimes it’s not recognized, and I think with COVID and the stress ...feels really important to recognize what people are doing.” (Beech, frontline staff)

b. Relationships with clients. The ability to create strong therapeutic working relationships with clients is important for all nonprofits, but of particular concern in IPA agencies who work with traumatized populations. Good rapport with clients has traditionally been a value among IPA agencies, and the agencies we spoke with maintained a strong focus on rapport building, finding new ways to connect with abuse survivors (including expanded use of text, email, phone, and video conferencing).

Several participants reported working outside their normal schedules to meet client needs; working from home eliminated commute time and, in some cases, benefitted advocates with family care responsibilities who were more able to work after children were asleep. Shifting work schedules to meet client needs, while also respecting staff boundaries and personal demands was a resilient response in a crisis.

c. Relationships with partners. IPA agencies were buoyed by the response of some of their partner organizations and stymied by others. IPA agencies typically work closely with police and courts, as well as schools, landlords, and hospitals on immediate issues and the longer-term goal of ending abuse. Agencies tried to continue these inter-

agency efforts during the pandemic but often found community partners struggled to engage. “We had a meeting... no one came.” (Cedar, manager)

We specifically heard a lot about negative impacts to IPA resilience due to pandemic-related issues in police, courts, and housing-related entities.

i. Police. Based on research on IPA in previous disasters and pandemics, an increase in IPA was widely expected during pandemic lockdowns and in the general stress of the pandemic outside of formal lockdown periods (Wenham et al., 2020).

“I’m sure with COVID there’s probably less police out sometimes... maybe (working from) home, home quarantining... or COVID itself. ...We’ve heard that they’re short staffed for a lot of reasons so that definitely impacts us.”

(Magnolia, frontline staff)

Some agencies in our sample reported little change in their relationships with police agencies, but others found significant changes. Several agencies reported difficulty engaging with police in ongoing and long-term prevention work due to pandemic challenges. Some agencies reported a decrease in arrests for IPA and an increase in the speed of release for perpetrators who were taken into custody as law enforcement struggled to contain COVID-19 in jails. Once an offender is arrested, IPA agencies often call or visit their victims in person to offer services and support; the shortened time window complicated agency operations.

“There was a perpetrator who was ...gone on arrival. [Police] found him and said he said ‘Yeah, but I’m coughing and I’m waiting to get a COVID test back.’ So, they didn’t arrest him! Even though he had a warrant out! They didn’t arrest

him! ‘Cause they knew that he wouldn’t be accepted into the jail, so they basically just kind of booked him and set a court date, let him out.” (Cedar, manager)

ii. Courts. Courts in the region shut down during the initial stages of the pandemic resulting in distress for many survivors trying to get divorces, protection orders or prosecute their partners or ex-partners for abuse. They eventually reopened but with limitations and a steep backlog of cases. “[The courts are] just kind of stalled, right? And so, there’s just this purgatory that a lot of survivors are living in.” (Laurel, frontline staff)

Court shutdowns and slowdowns delayed cases. Many courts focused their limited capacity on more serious cases, meaning people with significant issues, classified by the court as misdemeanors, were delayed.

“[The court pandemic response] is elongating everything and it’s affording their abusers more opportunities to continue to try to sabotage, like the divorce process for a couple of my clients. Just giving them the opportunity to continue to play ...power cards on my clients and it’s stressful because [abusers] will.”

(Acacia, frontline staff)

iii. Housing-related entities. Housing advocacy work was greatly impacted by the pandemic as state housing agencies could be difficult to contact and some landlords were unwilling to risk exposure to show properties. During early lockdown periods this caused housing delays for IPA clients, potentially forcing these clients and their children

to stay longer in emergency shelters (an experience many families find stressful) or living with their abusive partner.

Other agencies reported that strong pre-pandemic relationships with local landlords helped them overcome these issues, a strong sign of how well-developed relationships positively impacted an agency's resilience.

"The landlord would be like 'Oh yeah, I trust you so... I'll open [the property] up. You guys close it up. I'll be there at that time. I'll see you walk in. I'll wave and I'll leave.' And I'm like, 'this is fantastic. I'm loving this, yeah!' So, we have some great landlords that we're working with." (Olive, manager)

d. Relationships with funders. Funders have been mostly a source for financial resources that supported agency coping and adaptation, but also the cause of challenges. Grant makers were rushing to release funds to pandemic-impacted organizations and in the haste, interviewees reported occasional confusion. No one reported adverse effects beyond frustration, but this is an area with potential implications for resilience.

e. Relationships with top management and board. Our sample included top managers, but not executive directors, whose time may not have allowed for research in a crisis. In general, there were frequent references to management and multi-disciplinary teams being used within most agencies. Such inclusive decision-making (Biggs et al., 2012) can empower, increase communication, and result in greater resilience. Several managers mentioned board members being more active in fundraising and outreach to the community – both roles that can increase resilience.

f. Relationships with volunteers. IPA agencies receive funds for volunteer hours, a way of rewarding organizations that are well-integrated into their communities. Volunteers are common and an essential part of many IPA agencies, performing a wide variety of tasks including maintenance, answering phones, providing childcare and interacting with clients. Most agencies severely restricted volunteers for everyone's safety during the pandemic, losing volunteer work hours and reimbursements, which negatively impacted organizational resilience. In a sign of post-pandemic resilience, several interviewees talked about how to keep volunteers engaged during the pandemic to ensure a robust volunteer pool once conditions allow for reopening.

g. Relationships with networks and coalitions. IPA agencies belong to state coalitions and often are part of national networks of practitioners. These network partners provided technical assistance to individual agencies and allowed top management to reach out to other agencies for best practice ideas, aiding in coping and adaptation during this pandemic. Several interviewees indicated these offerings were helpful but wished network partners had been more active in facilitating communication between agencies at all levels (Biggs et al., 2012), instead of only at the executive director level. Activating communication at all levels could empower all employees and potentially increase overall agency resilience capacity.

h. Relationship with community. Our study only interviewed IPA agency staff and we heard many examples of communities rallying to help, providing funding, and offering volunteer services. Ideally, this category should also be assessed from the perspective of community members.

i. Relationships with other stakeholders. While we do not have a concrete example in this sample, we do believe other types of nonprofits may have important relationships not covered in the above categories that could impact resilience.

4. Mission & values

a. Mission. IPA agencies have always had a dual mission – a short-term focus on supporting survivors of abuse and a longer-term mission to end intimate partner abuse. While we did not detect large shifts in overall mission the pandemic seems to have, at times, caused agencies to focus on near-term survival and immediate client and staff needs, while focus on their longer-term mission waned in the most extreme phases of the pandemic.

Community education and outreach is another facet of longer-term efforts to end IPA. Interviews indicate most agencies continued community education efforts after an initial period of disruption but had to change tactics to more virtual modes.

b. Values. IPA agencies have traditionally had strong values around client empowerment and confidentiality. We found some change in these areas, but perhaps in ways that will ultimately increase resilience.

i. Empowerment. IPA agencies aim to restore power to survivors of abuse who have often had their ability to choose taken from them. Empowerment was still a value during the pandemic, but different agencies made different decisions on how to operationalize it. Some agencies required shelter residents to wear masks outside of their personal room(s), while other agencies merely requested residents mask in common areas. No agency turned out clients for refusing to wear masks but trying to

strike a balance between a long-held value and new circumstances, some agencies reported housing clients in hotels if they had been exposed to COVID-19 or refused to comply with public health recommendations.

ii. Confidentiality. Prior to the pandemic client confidentiality was maintained by training staff and through many discussions and much paperwork with clients. With the pandemic, agencies moved from controlling and taking responsibility for confidentiality, to educating and entrusting clients to maintain their own confidentiality. With telehealth, advocates were no longer in complete control; clients needed to decide where, how and when to communicate. This change is in line with the empowerment philosophy present in most IPA agencies; ultimately, more fully informed, actively participating clients may more evenly distribute the responsibility for confidentiality and reshape it in ways that clients deem important.

iii. Focus on client vs. staff. Pre-pandemic, many agencies focused on clients, spending little energy on staff wellbeing. Though balance between the two was changing in some agencies, the pandemic further increased the value of staff wellbeing in some agencies.

“So, making sure that we are still serving our survivors to the best of our ability, but yet still keeping our staff safe. Because if [staff] are not safe, then we’re still not helping our survivors, right? So, it’s kind of that balancing act.” (Olive, manager)

This more balanced approach could help reduce staff turnover and potentially create agencies that are stronger and more resilient.

5. Contextual factors

Our model (see Fig. 1) acknowledges organizations are often dealing with complex issues in addition to emergencies. We found evidence that some participating organizations were impacted by their geographic location and by social movements occurring simultaneously with the pandemic.

a. Geographic location & environment. Some of the participating IPA agencies were in communities with more economic power. Agencies located in less well-off communities, especially rural areas without a dominant employer, had more challenges in maintaining funding levels. One agency experienced a natural disaster in their community during the pandemic period, complicating their work.

b. Social values, norms and movements. Amid the pandemic, the US experienced one of its largest social movements following the videotaped murder of an African American, George Floyd, by a white police officer. The Black Lives Matter (BLM) movement impacted IPA agency relationships with clients, staff, communities, and police. Many agencies spoke about working to address concerns raised by the BLM movement during the pandemic, which required additional resources (time, effort, thought, etc.). Issues like BLM and the strong anti-immigrant policies enacted at the federal level added to the resilience challenge for IPA agencies.

In our case study, we found one additional factor impacting organizational resilience: time. Resilience in longer-lasting emergencies may have different dimensions than resilience in shorter-term disasters. Longer-term disasters, such as pandemics, may cause fatigue or may spur new and deeper kinds of adaptation and resilience.

“I think in the beginning... most of my frontline staff was like ‘Oh, it’s gonna be a few weeks. It’s gonna be a month max. It’s not a big deal we’ll get through it.’ ... as the time kept going, they started realizing, ‘no, this might be more longer term.’ And I think they started adapting relatively well to it, I feel like.” (Olive, manager)

Discussion

Ensuring nonprofits adapt in crises is crucial to ensuring many societal needs continue to be met even in emergencies. OR of nonprofits is a building block of community resilience. We believe evaluating resilience in nonprofits can increase preparedness in the sector and, by extension, the communities they serve.

In our sample of IPA agencies having an OR model adapted for nonprofits might have highlighted the technical weaknesses in the pre-pandemic IPA sector. Nonprofits often struggle to afford new technologies, and funders often require extensive proof of concept before supporting such investments. An OR evaluation could have highlighted how improved technology could expand service to more clients such as those with transportation issues and enable greater staff mobility in crises.

“When this [pandemic] hit and they were forced to [address technology gaps] I was a little frustrated! Like we’ve been askin’ for this! We could’ve had this in place if, if we could’ve gotten what we had asked for a long time ago. So, there was just a little disappointment in that.” (Laurel, frontline staff)

Likewise, an evaluation of social resources might have shown the extreme focus on client needs in some agencies needed to be balanced by more attention to employee burnout and turnover. Such an examination might also have pointed out inflexible work

schedules and non-existent work-from-home policies as incongruent with the direction many for-profit organizations (competitors for employees) were moving. In short, proactive evaluation of agency adaptability could result in a nonprofit sector with more resources in place to handle an emergency, like a pandemic. Without an awareness of these existing resilience issues, IPA agencies had more issues to solve to adapt, and many required several weeks to months to reach pre-pandemic service capacity.

In addition to using the adapted OR model, we also recommend organizations evaluate their adaptation actions using Béné's resilience framework to determine if the actions represent absorptive coping, adaptation, or transformation (Béné, Newsham & Davies, 2013). We saw examples of coping – such as 30-hour shifts to limit staff exposures – which exacted a high cost on staff and were not sustainable long-term. We also saw examples of adaptation in the shift to utilizing technology to provide virtual services to clients and interact with other community partners during the pandemic. Categorizing actions may help organizations see if they are over-using one tactic (for example seeking to absorb change while ignoring opportunities to adapt) and create opportunities to discuss change and ensure they clearly understand the resources being used and their costs to current and future resilience capacity.

Transformations are rare in OR and as our interviews took place in the beginning and middle stages of the COVID-19 pandemic we are unable to assess whether the IPA system will experience any lasting transformations.

We see the increased use of technology as a vehicle to provide virtual services to clients as one of the greatest success stories in IPA adaptation to the COVID-19

pandemic. This is not an isolated trend; many types of nonprofits have shifted to technology to serve clients virtually (Newby & Branyon, 2021). This shift has the potential to change service paradigms in these organizations and perhaps, over a longer time span, transform how we address IPA.

“I think that’s actually one of the positives of the pandemic is we’re actually having to do some things a little differently and finding out that they might actually work better. It’s stressful for all, but boy we can find some... some rainbows over here through this pandemic.” (Olive, manager)

Most of our participants hoped to continue offering both virtual and in-person services post-pandemic and we applaud this commitment to maintaining a wider access to services. If nonprofits were to abandon virtual services and return to offering only in-person services, we feel this would represent a return to an unfavorable situation in which some clients (unable to access transportation or childcare) might once again lack access to services. Returning to a pure in-person service model would constitute resilience of a negative nature and decrease the service potential of the IPA agencies in our sample.

Nonprofits already use a variety of evaluation and planning models to look at their operations and pinpoint areas for improvement. Evaluating OR could be undertaken as part of other organizational reviews, or as part of a top management team’s annual strategy/review process. We hope nonprofits can build upon this adapted model to create evaluation tools focused on adaptation and ultimately, resilience. Such

tools should include a comprehensive resilience review, as well as yearly checks to ensure adaptation and resilience aren't a one-time topic, but an ongoing effort.

Strengths

By looking across eight different organizations we were able to examine a wider variety of organizations and OR behaviors than might have been seen in a more in-depth, single organization case study. We used a convenience sample and snowball sampling within the participant organizations, allowing us to collect data during an emergency from both managerial and frontline perspectives.

Limitations

This was a small study of nonprofit IPA staff and managers in the Northern Midwest of the United States conducted during a global pandemic. It may not be representative of how other IPA nonprofits, or nonprofits in general responded to the pandemic; a representative, nationwide sample may have found different results.

We utilized snowball sampling within organizations, with original contacts sometimes choosing both managerial and frontline staff for interviews. Some managers said they chose staff who were outspoken, but others may have chosen staff they felt would be supportive of the organization's pandemic management. However participants were chosen, all interviews were conducted individually and confidentially, ensuring frontline staff and managers could express their own views without fearing retribution. A more random sample might have had different results.

We opted for a multi-agency sample, requiring just two staff per agency. This resulted in a wider sample, but also limited in-depth comparison. Studying one to two

organizations in depth was not feasible as most IPA organizations were occupied managing operations in a pandemic.

Directions for future research

OR in nonprofits deserves more attention as these organizations are often a vibrant sector of communities serving populations and causes un- or under served by other sectors. We sought to adapt a model to capture unique aspects of nonprofit OR. The role of resource buffers, or ‘slack resources,’ (typically financial in nature) is often seen as a key factor in OR, but nonprofits, especially small and mid-sized nonprofits, often operate without significant financial slack, instead existing in an atmosphere of constrained resources. How these nonprofits manage to show resilience in financially constrained situations (if indeed they truly do) deserves more recognition and research. SER emphasizes redundancy (multiple pathways in a system) and diversity (variety, balance, and uniqueness) as key components of resilience in social-ecological systems, and these may be useful concepts to include in OR thinking about buffers. Nonprofits are unlikely to have the same financial buffers as for-profit organizations, but thinking holistically they could focus on building the diversity of resources (in-house staff, community resources, partners, networks, etc.) and the many different paths (such as switching from in-person to virtual in a pandemic) they might access to maintain function in an emergency.

IPA nonprofits are most often small to mid-sized organizations by budget. Nonprofit OR literature, what little there is, tends to focus on large nonprofit health organizations, such as hospital systems. Researchers should examine OR in small to mid-

size nonprofits to understand differences in strategy and tactics due to scale. Nonprofits of all sizes serve important roles in communities, and the role of small and mid-size nonprofits is outsized in many areas where large-scale nonprofits don't exist, such as in many underserved urban areas, as well as suburban and rural areas.

Multi-level analysis should also be part of future research efforts. OR on the agency level is constructed at least partially from the resilience of the individuals who make up the organization, especially from the perspective of positive psychological capital. Post-pandemic studies of OR in this sector should not neglect individual experience of trauma and its impact on IPA agency staff and organizations. Staff knowledge, dedication and compassion was rated as a top strength for shelters in one survey and 'lack of staff' rated as a top weakness facing many IPA organizations (Roberts, Robertiello & Bender, 2007). Understanding how to retain talented staff in stressful times, such as pandemics, is crucial. Similarly, community resilience depends on the resilience of many organizations (Paarlberg, LePere-Schloop, Walk, Ai, & Ming, 2020). A better understanding of resilience across community systems might contribute insights into what community resources organizations should look to in emergencies, and also how they can contribute to their community's resilience within their mission and perhaps, by thinking larger. OR in this sense would benefit from incorporating more of SER's systems thinking (Olsson, Folke & Berkes, 2004) and going beyond a tight focus only on a single organization.

Finally, time is an important dimension in any analysis of OR. The COVID-19 pandemic is likely to directly impact the US for two or more years. OR in short-term

shocks – such as a fire, or tornado – is likely to be different for a much longer-term shock, such as a global pandemic. OR is studied as pre-emergency preparation, immediately-after-the-fact and as a longer-term post-shock recovery and future preparation process. SER's holistic system orientation emphasizes the notion of complex adaptative systems, requiring an acceptance of uncertainty and change and the need for continuous learning (Biggs et al., 2012). Some OR literature speaks of the constant nature of change and adaptation in organizations (often in relation to high-reliability organizations, such as airlines and nuclear energy facilities; Tengblad, 2018), but OR is seen by some as only necessary in response to large, discrete emergencies. IPA agencies and other nonprofits might benefit from incorporating SER concepts around the constant nature of change and adaptation, making them more prepared for “everyday emergencies” as well as larger-scale events.

This study focused on OR during a shock, but research into post-pandemic learning and outcomes is another area worthy of study. This may be particularly relevant as many studies have documented increases in IPA in the months, and even years, following a disaster (Sety, James & Breckenridge, 2014); IPA agencies may feel aftershocks from the pandemic long after the immediate crisis is resolved.

APPENDICES

APPENDIX A:

Approval letter

MICHIGAN STATE UNIVERSITY

EXEMPT DETERMINATION Revised Common Rule

June 5, 2020

To: Soma Chaudhuri

Re: **MSU Study ID:** STUDY00004633
Principal Investigator: Soma Chaudhuri
Category: Exempt 2(ii)
Exempt Determination Date: 6/5/2020
Limited IRB Review: Not Required.

Title: COVID-19 impact on Intimate Partner Violence Agencies in US and India

This study has been determined to be exempt under 45 CFR 46.104(d) 2(ii).



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Temporary institutional restrictions are in place until further notice for human subject research conducted by MSU employees or agents. All MSU human research activities conducted by MSU employees or agents that take place in Michigan and cannot be done at home or place of residence with no inter-personal interaction with participants and others like research staff must stop unless the project is a clinical trial activity, that if discontinued, would negatively impact the patient's care, or is urgently related to the COVID-19 pandemic. Ongoing clinical trial activity, which if discontinued, would negatively impact the patient's care may continue with already enrolled participants. New enrollment in clinical trials conducted in Michigan is not permitted without additional institutional approval.

For MSU human research activities that take place outside of Michigan, unless there is the potential for direct therapeutic benefit to the participant (drug or device), any in-person participant interaction must immediately pause. This applies to both exempt and non-exempt research studies.

For all human research studies, research procedures involving no direct in-person interactions with participants may continue (e.g. data analysis, online surveys, telephone interviews) in otherwise permissible venues, so long as State and local requirements are met.

Please note that the situation is rapidly evolving and may further change. Visit <http://hrrp.msu.edu/COVID-19/index.html> for the latest information and updates, including the restrictions and their duration as the situation evolves.

Principal Investigator (PI) Responsibilities: The PI assumes the responsibilities for the protection of human subjects in this study as outlined in Human Research Protection Program (HRPP) Manual Section 8-1, Exemptions.

APPENDIX B:

Interview protocol

For all interviewees ask their title, role in organization and number of years employed with their organization.

For executive directors/managing staff:

1. How has the COVID-19 pandemic impacted your organization?
 - a. Probes:
 - i. How is the organization impacted financially?
 - ii. How has demand for services been impacted? Higher? Lower?
How are you managing the changes in service demand?
 - iii. How are your shelter policies/operations impacted?
 - iv. How are legal/court issues impacted?
 - v. Have relationships with police and other first responders changed?
 - vi. How has frontline advocacy changed?
 - vii. How has the role of volunteers been impacted?
2. Were there any guiding principles you used as a manager during this time?
3. How did you think about differing risks diff groups of staff faced?
4. Going into this pandemic did your organization have a disaster plan?
 - a. If yes, how effective has it been in guiding your decisions?
 - b. If no, do you think your organization will be using this experience to develop a disaster plan/policy?
5. As your organization serves its clients what resources are you calling on more during the pandemic?
6. What resources are in critical shortage? How does this impact your organization and those your serve?
7. Have your relationships with other service providers been impacted? For instance, police, EMTs, court officers, etc.?
8. During this lockdown, has your organization received additional support from:
 - a. State government? National government? International sources?
 - b. Department of Health and Human Services (state or national)?
 - c. Local county health department?
 - d. Other source
 - e. How effective, or not, has this support been?
 - f. What support would you find useful from these sources?
9. (For those organizations that have children's programs) What is your organization doing to serve children?
10. (For those organizations that have Batterer Intervention programs) What is your organization doing with batter intervention programs? How (or are) you providing services to perpetrators?

11. If the pandemic continues through the remainder of this year (as many predict) what are the top issues/questions your organization faces? (Financial, staff, survivor-related, etc.)
12. When the pandemic ends eventually – are there any new practices that your organization might retain or keep in place? If so, what?

For frontline staff/advocates:

1. A lot has changed over the past few months. How has your work changed due to the pandemic?
2. How do you feel about your work now compared to late last year, before anyone knew about the pandemic?
3. Are you working more/fewer hours? Demand for services up or down?
4. Are you taking any safety precautions that you normally wouldn't?
 - a. Are these precautions your choice?
 - b. What, if any, precautions is your organization requiring?
 - c. Have you been involved in discussions around staff safety?
 - d. Overall, how do you feel about how your organization has responded through the crisis?
 - e. Is there anything you wish had happened differently?
 - f. How has your work over the last month impacted your family?
 - i. If they have children: how are you managing childcare responsibilities in your family?
5. Are you working more from a distance (working from home, over the phone, via video)?
 - a. If so, how? What works well and what doesn't work?
 - b. If you were asked to talk to an advocate in a country where the pandemic has just started – what would you tell them to help them prepare?
 - c. How has the shift to more virtual/distant work impacted your relationships with clients?
6. Have you changed what you're doing for self-care/stress management?
 - a. Would you say your stress levels are the same as last November (before the pandemic)? Higher? Lower?
7. What is different in what you're hearing from clients?
 - a. What do your clients say about COVID-19?
 - b. What are the most pressing issues for clients today? Is this different, or not, than pre-pandemic?
 - c. What child-related concerns are you hearing from your clients?
 - d. What resources have been most helpful to use with clients today? What do you wish you had more of?
 - e. Where do you see your community's resources being most stretched? What services are in high demand?
 - f. Has safety planning with clients changed? If so, how?
 - g. How are abusers using the pandemic?

8. Have you had any interactions with court officers, police, EMTs, social workers or other social services during this pandemic? Have these interactions changed? How?
9. If the pandemic continues through the remainder of this year (as many predict) how do you think this will impact the clients you work with? What are your top concerns?

Wrap-up data:

1. What is your age?
2. How do you identify your gender?
3. How do you identify yourself in regard to race/ethnicity?

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