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Assessing The Impact of an Innovative Response to Intimate Partner Violence Related Strangulation

Process Evaluation

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BFD: Burleson Fire Department

BPD: Burleson Police Department

CAD: Computer Aided Dispatch

CI: Coding Instrument

DA: Danger Assessment

EA: Evaluability Assessment

EMP: Emergency Medical Personnel

EPO: Emergency Protective Order

FV: Family Violence

FVP: Family Violence Packet

IACP: International Association of Chiefs of Police

IPV: Intimate Partner Violence

IPVRS: Intimate Partner Violence-Related Strangulation

IRB: Institutional Review Board

NIJ: National Institute of Justice

OE: Outcome Evaluation

OSP: One Safe Place

PDF: Portable Document File

PE: Process Evaluation

PI: Principal Investigator

RMS: Records Management System

SANE: Sexual Assault Nurse Examiner

SPSS: IBM SPSS Statistical Software

STF: Strangulation Task Force

VA: Victim's Assistance

VIF: Variance Inflation Factor

Assessing The Impact of an Innovative Response to Intimate Partner Violence Related Strangulation

EXECUTIVE SUMMARY

Strangulation is experienced by many IPV victims and represents extreme control over the victim by the perpetrator (McKay, 2023; Petreca et al., 2023; Stansfield & Williams, 2021). However, little is known about the prevalence of strangulation within IPV incidents due to the lack of literature in the area (Glass et al., 2008; Thomas et al., 2014). Of the available studies, it is estimated that for women with a history of IPV, the number who experience non-fatal strangulation is at least 10%, and could be as high as 68%, depending on the location and study sample (Campbell et al., 2007; Garza et al., 2021; Glass et al., 2008; Zilkens et al., 2016). Of those experiencing strangulation, only about 10% actually report the strangulation to law enforcement (Bates, 2008; Cole, 2004; Funk & Schuppel, 2003).

The prevalence and rate of injury from intimate-partner violence-related strangulation (IPVRS) is largely unknown because victimization is routinely underreported and only approximately 29% of victims receive medical intervention following strangulation (Cole, 2004; De Boos, 2019; Wilbur et al., 2001). IPVRS is especially difficult to detect and treat for a variety of reasons. Little is known about the injuries that result from strangulation (Sheridan & Nash, 2007). Injuries from intimate partner violence, and strangulation in particular, may not be visible to first responders (Oehme et al., 2016; Pritchard et al., 2018). In fact, many strangulation victims show no visible signs or symptoms because asphyxiation by strangulation takes relatively little pressure to the neck (Bates, 2008; Faugno et al., 2013; Pritchard et al., 2018; Strack & McClane, 1998b). Victims who report strangulation frequently present with what appears to be minor or non-visible, external injuries that may go unrecognized by first

responders who do not have specialized knowledge regarding the unsuspecting signs and harmful consequences of strangulation. In fact, strangulation victims often suffer from considerably more serious, internal injuries that have long-lasting health outcomes, including increased mortality (De Boos, 2019; Gwinn et al., 2014; Wilbur et al., 2001). According to Harning (2015), the initial strangulation signs or symptoms that victims present to medical and law enforcement responders is not a reliable predictor of the medical outcome. Indeed, strangulation signs and symptoms are often subtle and unnoticed, or underappreciated, by first responders, medical personnel and victims themselves (De Boos, 2019; Harning, 2015; Strack, Gwinn, Hawley, et al., 2014).

These statistics are concerning as studies indicate that victims of IPVRS, have an increased risk of homicide and are almost seven and a half times more likely to die at a later time from their abusers (Block 2004; Campbell et al. 2003; Glass et al. 2008; Strack, Gwinn, Fineman, Green, Smock, and Riviello 2014). In addition to the increased risk of lethality for IPV victims, studies and anecdotal evidence indicate that men who strangle their partners are also more likely to assault and kill law enforcement officers (Gwinn et al. 2014; Johnson 2011; Stone 2015).

Due to the possibility of adverse medical outcomes and the potential lethality of strangulation, it is important to build capacity among first responders to: recognize the signs and symptoms of IPVRS, understand delayed medical complications, provide appropriate treatment and transport, and properly document signs/symptoms for potential prosecution (Harning, 2015). Early detection of strangulation and appropriate medical intervention can provide critical information for first responders to prioritize service decisions, improve victim

medical outcomes, and enhance IPVRS evidence collection (Gwinn et al., 2014; Reckdenwald et al., 2022; Strack & McClane, 1998b).

In 2018, the City of Burleson enacted the "*Effective Response to Strangulation"* ordinance (hereinafter Ordinance) that mandates specific first responder protocols in cases of potential family violence related strangulation. Developed by a group of community stakeholders including the Burleson City Council, Police and Fire Departments, community service providers, and emergency medical staff, the Ordinance outlines clear actions by all parties to improve the detection and treatment of strangulation victims. The Ordinance includes: (1) a defined protocol for addressing strangulation, (2) training for first responders (police, fire, and EMS/paramedics), (3) newly designed assessment instruments to improve the identification of IPV asphyxiation, and (4) specific intervention strategies for strangulation across multiple agencies.

Purpose of the Process Evaluation

Process evaluation is a useful practice as part of an overall program evaluation for understanding the development and implementation of a model, policy, or intervention. New initiatives such the Burleson Strangulation Ordinance (Ordinance) also benefit from participation in process evaluation activities to document and refine program principles, goals, objectives, and expected outcomes (Rossi et al., 2004; Wholey et al., 2010). In this way, an assessment of an intervention's process is a necessary component of a program evaluation (Miller & Miller, 2015) because it speaks directly to whether or not a program has been "delivered as intended" (Breitenstein et al., 2010) and the ways program delivery can be enhanced, refined, and improved. A process evaluation collects data about program or intervention implementation (and any impediments), management, daily operations, and

fidelity to inform recommendations for improvement (Kaufman-Levy & Poulin, 2003) and to contextualize outcome evaluation findings (Dane & Schneider, 1998; Duwe & Clark, 2015).

A full program evaluation of Ordinance progressed across three research phases: (1) an evaluability assessment, (2) a process evaluation, and (3) an outcome evaluation. The purpose of the process evaluation was to evaluate: (1) the implementation of the strategy and (2) fidelity to the Ordinance and strangulation protocol. The central research questions driving the process evaluation included:

- **Research Question 1:** Is the strangulation protocol being implemented, operated, and managed as designed?
- **Research Question 2**: What challenges have agencies faced collecting and sharing data on IPV strangulation?
- **Research Question 3**: Is there a quality assurance and fidelity monitoring system in place to assess the operation of the Intervention?
- **Research Question 4**: Is there sufficient agency financial, administrative, and technical support for the Intervention?
- **Research Question 5**: Has staff received adequate training related to the Intervention?
- **Research Question 6**: Is there support for the initiative from other stakeholder organizations in Strangulation Taskforce (e.g., MedStar and One Safe Place)?
- **Research Question 7**: Are there formal or informal agreements with collaborating agencies to assist with the Intervention?

The process evaluation used a mixed methodological research strategy to examine evaluation readiness, the design of the Ordinance and strangulation protocol, and program fidelity. An interim process report was previously completed in July of 2022 that explored Burleson first responder views regarding an array of process evaluation topics that included their experiences and role with the Ordinance, perceptions about implementation practices, Ordinance tools and procedures, and individual perceptions of fidelity to Ordinance requirements. Because this survey was conducted early in the process evaluation phase of the research, a separate interim report was generated to summarize the results of the Process

Evaluation survey to help inform leadership about any implementation concerns or glaring fidelity problems as identified by the first responders who participated in the survey. The overall effectiveness of the Ordinance and achievements of specific outcomes is the focus of the outcome evaluation (Phase III).

Key Findings

In brief, the Ordinance and strangulation protocol were adequately designed for implementing a coordinated response to IPVRS, training and educating first responders, and developing processes to enable emergency medical screenings for victims. Surveys of Burleson first responders and qualitative findings taken from interviews of strangulation task force members and first responders indicated strong support for the initiative and disclosure of implementation problems were rare. Key components for implementation were achieved (e.g., development of specialized forms, training, inter-agency cooperation) and implementation processes were positively evaluated by Burleson first responders in surveys and stakeholder interviews.

Program fidelity was systematically assessed across five predetermined indicators that were taken directly from the Ordinance and examined using a diverse array of data. Results indicated general adherence to the goals and objectives of the Ordinance and strangulation protocol with room for improvement across several indicators. For example, while Burleson medical first responders were almost always on-scene when requested, they were only requested to be on-scene in 62% of protocol eligible IPV strangulation cases. There were also additional fidelity problems related to the documentation of the presence of medical first responders in police reports and making/documenting referrals to appropriate support agencies. The findings of

the process evaluation revealed that while not at 100% fidelity the Burleson strangulation intervention was robust enough for to move forward with an outcome evaluation (Phase III).

CHAPTER I: INTRODUCTION

Strangulation is experienced by many IPV victims and represents extreme control over the victim by the perpetrator (McKay, 2023; Petreca et al., 2023; Stansfield & Williams, 2021). However, little is known about the prevalence of strangulation within IPV incidents due to the lack of literature in the area (Glass et al., 2008; Thomas et al., 2014). Of the available studies, it is estimated that for women with a history of IPV, the number who experience non-fatal strangulation is at least 10%, and could be as high as 68%, depending on the location and study sample (Campbell et al., 2007; Garza et al., 2021; Glass et al., 2008; Zilkens et al., 2016). Of those, only about 10% actually reported the strangulation to law enforcement (Bates, 2008; Cole, 2004; Funk & Schuppel, 2003).

The prevalence and rate of injury from intimate-partner violence-related strangulation (IPVRS) is largely unknown because victimization is routinely underreported and only approximately 29% of victims receive medical intervention following strangulation (Cole, 2004; De Boos, 2019; Wilbur et al., 2001). IPVRS is especially difficult to detect and treat for a variety of reasons. Little is known about the injuries that result from strangulation (Sheridan & Nash, 2007). Injuries from intimate partner violence, and strangulation in particular, may not be visible to first responders (Oehme et al., 2016; Pritchard et al., 2018). In fact, many strangulation victims show no visible signs or symptoms because asphyxiation by strangulation takes relatively little pressure to the neck (Bates, 2008; Faugno et al., 2013; Pritchard et al., 2018; Strack & McClane, 1998b). Victims who report strangulation frequently present with what appears to be minor or non-visible, external injuries that may go unrecognized by first

responders who do not have specialized knowledge regarding the unsuspecting signs and harmful consequences of strangulation. In fact, strangulation victims often suffer from considerably more serious, internal injuries that have long-lasting health outcomes, including increased mortality (De Boos, 2019; Gwinn et al., 2014; Wilbur et al., 2001). According to Harning (2015), the initial strangulation victim presentation to medical and law enforcement responders is not a reliable predictor of the medical outcome. Strangulation signs and symptoms are often subtle and unnoticed, or underappreciated, by first responders, medical personnel and victims themselves (De Boos, 2019; Harning, 2015; Strack, Gwinn, Hawley, et al., 2014).

In strangulation, loss of consciousness can occur within 10 seconds from a pressure of only 11 pounds per square inch, and brain damage and brain death can occur within three to five minutes at this pressure (Bates, 2008; Sorenson et al., 2014). IPV offenders who strangle victims often do not intend to kill the victim, but do so to extend the cycle of power and control (Gwinn et al., 2014; Pritchard et al., 2018; Strack, Gwinn, Fineman, et al., 2014; Strack, Gwinn, Hawley, et al., 2014; Strack & Gwinn, 2011; Thomas et al., 2014). Although the offender may not initially intend to kill the victims, strangulation can quickly escalate to homicide (Block, 2004; Campbell et al., 2003; Glass et al., 2008). In fact, studies indicate that victims of intimate partner violence strangulation (IPVRS) have an increased risk of homicide and are almost seven and a half times more likely to die at a later time from their abusers (Block 2004; Campbell et al. 2003; Glass et al. 2008; Strack, Gwinn, Fineman, Green, Smock, and Riviello 2014). In addition to the increased risk of lethality for IPV victims, studies and anecdotal evidence indicate that men who strangle their partners are also more likely to assault and kill law enforcement officers (Gwinn et al. 2014; Johnson 2011; Stone 2015).

Due to the possibility of adverse medical outcomes and the potential lethality of strangulation, it is important to build capacity among first responders to: recognize the signs and symptoms of IPVRS, understand delayed medical complications, provide appropriate treatment and transport, and properly document signs/symptoms for potential prosecution (Harning, 2015). Early detection of strangulation and appropriate medical intervention can provide critical information for first responders to prioritize service decisions, improve victim medical outcomes, and enhance IPVRS evidence collection (Gwinn et al., 2014; Reckdenwald et al., 2022; Strack & McClane, 1998b).

In 2018, the City of Burleson enacted the "*Effective Response to Strangulation"* ordinance (hereinafter Ordinance) that mandates specific first responder protocols in cases of potential family violence related strangulation. Developed by a group of community stakeholders including the Burleson City Council, Police and Fire Departments, community service providers (One Safe Place), and emergency medical staff, the Ordinance outlines clear actions by all parties to improve the detection and treatment of strangulation victims. The Ordinance includes: (1) a defined protocol for addressing strangulation, (2) training for first responders (police, fire, and EMS/paramedics), (3) newly designed assessment instruments to improve the identification of IPV asphyxiation, and (4) specific intervention strategies for strangulation across multiple agencies. To determine the effectiveness of the initiative (hereinafter referred to as Ordinance or strangulation protocol), the National Institute of Justice (NIJ) provided support for a full program evaluation that progressed across three research phases: (1) an evaluability assessment, (2) a process evaluation, and (3) an outcome evaluation.

CHAPTER II: OVERVIEW OF THE BURLESON ORDINANCE, STRANGULATION PROTOCOL & IMPLEMENTATION

Ordinance Background

Events at the national, state, and local levels have brought increasing attention to the problem of intimate partner violence related strangulation (IPVRS). In 2009, the State of Texas amended the Penal Code to increase penalties in family violence cases involving impeding breath (Texas Penal Code §22.01, n.d.). As a result, impeding breath and/ or circulation during an IPV incident was elevated to a third-degree felony punishable by two to ten years in prison for a first offense.[1] In 2014, the International Association of Chiefs of Police (IACP) addressed the seriousness of strangulation in IPV incidents through a resolution stating:

> This resolution supports statutes and legislation that hold perpetrators accountable for the potentially lethal strangulation assaults. It also supports policy and training content guidelines, documentation forms and processes, and multi- disciplinary partnerships for law enforcement that specifically address the occurrence, signs, symptoms, effective investigation, and the increased lethality of the power and control dynamics of strangulation assaults in cases of domestic and sexual violence. (2014, p. 3)

Burleson stakeholders became aware of the resolution (International Association of Chiefs of Police, 2014) addressing IPVRS (see Appendix A) and the dangers of strangulation through the work of the Training Institute on Strangulation Prevention. Recognizing that IPVRS was an increasing danger to victims, and a more formal response was warranted, strangulation was formally addressed at the community level in the Burleson Public Safety Committee Meeting on August 14, 2017. During this meeting, stakeholders formed a multi-jurisdictional

[1] (B) "…the offense is committed by intentionally, knowingly, or recklessly impeding the normal breathing or circulation of the blood of the person by applying pressure to the person's throat or neck or by blocking the person's nose or mouth." In some instances, strangulation may still be charged as a misdemeanor or an aggravated assault, depending on the facts and circumstances of the offense (Texas Penal Code §22.01).

Strangulation Task Force (STF) to address IPVRS. In keeping with the multidisciplinary spirit of the IACP resolution, the STF involved representatives from Police, Fire, MedStar Mobile Healthcare (MedStar)[2], former City of Burleson Mayor - Ken Shetter, and the Johnson County and Tarrant County District Attorney's Offices. The STF opted for the use of an Ordinance to address IPVRS and after several revisions the final version of the "*Effective Response to Strangulation*" ordinance was approved by the Burleson City Council on January 22, 2018, and then signed and enacted on February 19, 2018 (see Appendix B).

Overview of the Ordinance

In Sec. 54-181 of the Ordinance (Effective Response to Strangulation CSO#781-02-2018, 2018) strangulation is defined as "…impeding the normal breathing or circulation of the blood of the person by applying pressure to the person's throat or neck or by blocking the person's nose or mouth" and includes the following provisions:

- A defined protocol that mandates the use of a comprehensive screening instrument.
- A defined protocol directing that when the act of strangulation is alleged or suspected, Burleson police must summon emergency medical personnel (Burleson Fire Department or MedStar) to respond to the scene of the victim for medical evaluation and treatment.
- Training for first responders (police, fire, and emergency medical personnel).
- Newly designed assessment instruments to improve the identification of strangulation.
- Specific intervention strategies for strangulation across multiple agencies.

Strangulation Task Force (STF)

The Ordinance also directs the chief of police to designate a strangulation task force (STF) consisting of members from law enforcement, emergency medical personnel, medical

[2] The Ordinance and strangulation protocol only applies to BPD and BFD because MedStar personnel are not employees of the City of Burleson. For this reason, BFD handles the strangulation protocol with support from MedStar as needed. BFD and MedStar already work collaboratively to provide patient care across a wide spectrum of crime incidents that involve injury.

community personnel, advocate representatives, and any other members deemed appropriate by the Burleson chief of police. Following the passage of the Ordinance, the STF assisted in the development and implementation of checklists, questionnaires, and an education training program for peace officers, emergency medical personnel, and other first responders encountering strangulation scenarios (Effective Response to Strangulation CSO#781-02-2018, 2018).

Strangulation Protocol

In Section 54-182 of the Ordinance (Effective Response to Strangulation CSO#781-02-2018, 2018) a specific strangulation protocol must be followed by first responders:

(a) When the act of strangulation is alleged or suspected within the city, the peace officer will summon emergency medical personnel to the scene to evaluate and render aid to the victim.
(b) The peace officer will document emergency medical personnel's presence and role in the police report by including their name, identification number, employment agency and unit number.
(c) Peace officers shall provide the victim referral information to the appropriate support agency for assistance and document the referral in their police report.
(d) Peace officers will thoroughly document the suspect's behavior, actions, and any comments made during the act of strangulation.
(e) When the act of strangulation is alleged or suspected within the city, peace officers shall utilize a checklist approved by the chief of police to help evaluate the situation and provide aid to the victim.
(f) When the act of strangulation is alleged or suspected within the city, emergency medical personnel shall conduct a medical evaluation and assessment to help evaluate the situation and provide aid to the victim.

Overview of BPD Strangulation Response

When BPD responds to a family violence incident,[3] the first-responding officer secures the scene, identifies incident participants, and looks for cues that may indicate that strangulation

[3] In Texas, family violence is inclusive of domestic violence, intimate partner violence, and dating violence (Texas Department of Public Safety, 2018, p. 40).

was present. Once strangulation is alleged or suspected, the strangulation protocol dictates that officers complete a sequence of specialized strangulation questions that are embedded in a family violence packet (FVP) that officers complete for most family violence crimes. These questions include:

- Has the suspect strangled or choked you in the past?
- Were you able to see the suspect while you were being choked?
- What was used to strangle/choke you?
- Did the suspect say anything before/during/ or after strangling you?
- Why did the suspect stop strangling you?
- Was medical personnel called to the scene (Fire or Ambulance)?

In addition, BPD is required to notify and request BFD to make scene so that they can medically assess the strangulation victim and render aid if appropriate.

Overview of BFD Strangulation Response

Response to an IPVRS call by BFD is typically initiated by a request from BPD unless there was another medical emergency at the time of the initial call that necessitates their presence. For this reason, BFD is unable to complete their portion of the strangulation protocol without BPD recognizing strangulation occurred and then requesting a medical response. Once on-scene, BFD medical personnel complete a standardized 21 item injury assessment (visible and non-visible) using the BFD Strangulation Protocol Worksheet (hereinafter BFD Worksheet) that was designed and implemented after the passage of the Ordinance. BFD Worksheet information (see Appendix C) is then entered via an iPad/tablet in the field and the data is uploaded into the electronic patient care report system. Depending on the situation and condition of the strangulation victim, BFD will recommend transport by MedStar for additional hospital screening and treatment or encourage follow up with a medical provider. At the request of the

police department, worksheet information and the run report are provided to support the investigation and eventual prosecution of the crime.

Ordinance Non-Compliance

A key element of the Ordinance is how it addresses non-compliance whereby violators can be punished through administrative means (by the city manager or the city manager's designee). The imposition of a penalty for Ordinance non-compliance is not a criminal conviction but the penalty provided in the Ordinance is cumulative of other remedies provided by state law (Effective Response to Strangulation CSO#781-02-2018, 2018).

Logic Model

The Ordinance is a theory of change and serves as the foundation of Burleson's strangulation response (and this process evaluation report). One of the recommendations from the evaluability assessment (see below for an overview of the evaluability assessment recommendations) was that the STF stakeholders formalize a logic model that would map out their goals, objectives, activities, outputs, and expected outcomes of the Ordinance intervention. This process began on January 31, 2020, when stakeholders began a process to formalize a logic model as a group and then refine the logic model by sharing drafts and updates among STF members. Once an initial draft was completed, it was submitted to the research team for review and comment. The research team provided minor recommendations, and these were approved by the stakeholders July 12, 2021. The final logic model is attached as Appendix D.

The logic model was divided into six central sections: the problem, goals and objectives to address the problem, specific activities needed to accomplish goals, outputs and outcomes to assess progress. Each of which are discussed below.

Logic Model: Articulating the Problem

The stakeholder logic model focused on strangulation as the main problem. Eight strangulation subproblems were further identified by the stakeholders and included the following:

- **Subproblem 1:** Strangulation leads to: (a) progressive violence leading up to and including IPV homicide, and (b) police assaults.
- **Subproblem 2:** Lack of awareness about strangulation for victims and first responders.
- **Subproblem 3:** Missed indications of strangulation by first responders.
- **Subproblem 4:** Lack of victim and first responder awareness of current resources available.
- **Subproblem 5:** First responder fidelity to Ordinance.
- **Subproblem 6:** Lack of medical assessment and/or treatment for strangulation victims.
- **Subproblem 7:** Victim unwillingness to adhere to medical advice related to IPV strangulation incidents (AMA).
- **Subproblem 8:** Repeat strangulation victimization.

To address strangulation generally, and the articulated subproblems more specifically, required the STF to set achievable goals and objectives.

Logic Model: Goals and Objectives

The stakeholder logic model includes the following goals to address the problems and subproblems:

- **Goal 1:** Raise awareness about strangulation with first responders.
- **Goal 2:** Improve first responder knowledge about strangulation and ordinance.
- **Goal 3:** Improve first responder detection of strangulation.
- **Goal 4:** Standardize first responder responses to strangulation.
- **Goal 5:** Improve outcomes and enhance victim safety for strangulation victims by: (a) preventing future strangulation victimization; (b) providing medical assessment and

treatment; (c) providing and documenting referrals for assistance; and (d) expanding victim assistance (VA) capacity and services.

- **Goal 6:** Improve first responder safety.
- **Goal 7:** Obtain ordinance fidelity.

Stakeholders identified ten objectives that matched back to the articulated goals. These include:

- **Objective 1:** Change and/or create policies and standardize procedures to support the ordinance (Goal 4, Goal 5, Goal 7)
- **Objective 2:** Improve quality and content of strangulation training (Goal 1, Goal 2)
- **Objective 3:** Train/re-train first responders on medical consequences and lethality/danger of strangulation and ordinance requirements (Goal 1, Goal 2, Goal 3)
- **Objective 4:** First responder utilization of checklists/assessments in all eligible cases (Goal 3, Goal 4)
- **Objective 5:** Provide medical assessment/treatment to eligible strangulation victims (Goal 5b)
- **Objective 6:** Provide and document referrals for strangulation victims to appropriate support agencies (Goal 5c)
- **Objective 7:** Provide strangulation victims with follow-up services (Goal 5d)
- **Objective 8:** Track repeat strangulation related victimization (Goal 5a, Goal 5d)
- **Objective 9:** Improve first responder safety through strangulation training and education, tracking of assaults against public servants, and dispatch notification flags (Goal 6)
- **Objective 10:** Monitor fidelity and correct non-compliance (Goal 7)

Logic Model: Linking Goals, Activities, Outputs and Outcomes

Next, for each objective, a set of activities, outputs, and outcomes were established by the STF. Each of the ten objectives are described below as standalone subsections. While there is overlap between the stated research questions and the content of the logic model, not all aspects of it were examined in the evaluation results.[4] The information is included here as part of documenting the program and its broader aspirational outcomes.

Objective 1. This objective directs stakeholders to change and/or create policies and standardize procedures to support the ordinance (Goal 4, Goal 5, Goal 7). This objective led to outputs involving: the development and/or change of BPD general orders, the strangulation evaluation checklist, FVP, BFD strangulation worksheet, as well as programming ImageTrend with that new BFD worksheet. The expected short-term outcomes for Objective one were: (a) an increase victim engagement in the criminal justice system (including participation with investigation and prosecution), (b) a decrease in IPVRS homicides, and (c) a decrease in repeat strangulation victimization.

Objective 2. This objective represents the stakeholders' desire to improve the quality and content of their strangulation training (Goal 1, Goal 2). To accomplish this, stakeholders redesigned and implemented a revised strangulation training. The expected short-term outcome includes improved first responder knowledge and awareness of medical consequences, strangulation dangers, and ordinance requirements.

Objective 3. This objective directs stakeholders to train and re-train first responders on the medical consequences and lethality/danger of strangulation, as well as cover Ordinance

[4] The logic model was developed well after the grant proposal was written and funded by NIJ. The process evaluation adheres to the grant proposal. There is sufficient overlap between the proposal and logic model for the process evaluation.

requirements (Goal 1, Goal 2, Goal 3). This objective is accomplished by administering the revised training to all Burleson first responders. Similar to objective two, the expected short-term outcome includes improved first responder knowledge and awareness of medical consequences, strangulation dangers, and ordinance requirements.

Objective 4. The objective mandates first responder use of checklists/assessments in all eligible strangulation cases (Goal 3, Goal 4). Outputs on this objective included: BPD administration of strangulation-related checklists in all eligible cases and BPD summoning of BFD to all strangulation incidents and documenting their presence. The expected short-term outcomes include increased detection of strangulation incidents and increased medical services or aid delivered to strangulation victims.

Objective 5. This objective addressed the provision of medical assessment/treatment to eligible strangulation victims (Goal 5b) and was supported by BFD providing medical assessment, response, and patient care for all strangulation victims. Outputs include the completion of strangulation worksheets by BFD personnel in all eligible cases, and the assessment and/or treatment of all strangulation victims by BFD. The expected short-term outcome was increased medical services or aid delivered to strangulation victims.

Objective 6. This objective directed stakeholders to provide and document referrals for strangulation victims to appropriate support agencies (Goal 5c). Outputs to support this objective include documentation of victim referrals in reports or the FVP for all strangulation incidents. The expected short-term outcome included increased communication with victims and victim utilization of service referrals.

Objective 7. The objective states that stakeholders should provide strangulation victims with follow-up services (Goal 5d). This objective was supported by the hiring and training of a

new victim's assistance employee/volunteer, and following up with strangulation victims via phone, email, or in person. Other outputs included seeking external grant funding, the number of full-time equivalent (FTE)s utilized to increase service capacity, and the recorded number of victims receiving follow-up from victim's assistance personnel. The expected outcomes include: increasing the capacity of BPD victim services and increased victim engagement in the criminal justice system, a decrease in IPVRS homicides, and a decrease in repeat strangulation victimization.

Objective 8. This objective seeks to track repeat IPVRS victimization (Goal 5a, Goal 5d) through development of a system to track victim services, victim engagement, and repeat IPVRS using data from victim's assistance and crime analysis. Outputs include the presence of repeat IPVRS tracked by victim's assistance and verified with the crime analyst spreadsheets. The expected outcomes of this objective include increased victim engagement in the criminal justice system, a decrease in IPVRS homicides, and a decrease in repeat IPVRS.

Objective 9. This objective aspires to improve first responder safety through strangulation training and education, tracking assaults against public servants, and the addition of dispatch notification flags (Goal 6). Activities to support this objective include tracking first responder assaults by suspects with strangulation history and creating a dispatch flag to denote residences involved in prior strangulation incidents. Outputs include the presence of a mechanism that tracks assaults on public servants and the number of strangulation flags noting prior strangulation created by dispatch. The expected outcome is an increase in flag notifications and a decrease in assaults on first responders by suspects with prior strangulation history.

Objective 10. The final logic model objective directs stakeholders to monitor ordinance fidelity and correct non-compliance (Goal 7). This objective is supported by the development of

a fidelity monitoring process using layered reviews for fidelity detection and correction as well as the documentation of non-compliance. Outputs include the presence of fidelity monitoring and results of that monitoring. The expected outcome is more cases in compliance and fewer instances of fidelity problems. Once at full fidelity, the expectation is the achievement of all previously stated outcomes.

Ordinance Implementation, Timeline, and Key Events

As Burleson began to implement the Ordinance, several accomplishments occurred that are summarized below as part of an implementation blueprint of key accomplishments (see Table 1). These include when general orders were changed to institutionalize provisions of the Ordinance, the date of Ordinance passage, and the completion date for all BPD personnel of the Initial Strangulation Training. More specifically, BPD Domestic Violence Policy 06-006 was amended to accommodate the Ordinance protocol effective January 4, 2021. The Initial Strangulation Training was held in five separate training sessions beginning February 13, 2018. Most BPD personnel were trained by the end of February 2018, and all BFD personnel were trained by March 5, 2018. After email communications with appropriate stakeholders, it was determined that the research team would use March 6, 2018, as the official Intervention launch date for fidelity assessment purposes because most BPD and BFD personnel were aware of the new protocol and appropriately trained by March 5, 2018; and therefore, obligated to implement the protocol beginning March 6, 2018.

Table 1. *Implementation Timeline*

Date	Event
2017	
Aug 14, 2017	STF formally formed at the Burleson Safety Committee meeting
Aug 18, 2017	Burleson Strangulation Ordinance drafted
2018	
Jan 5, 2018	Initial Strangulation Ordinance Training developed
Jan 10, 2018	Strangulation flag added to RMS.
Jan 22, 2018	Burleson City Council approves Initial Strangulation Ordinance
Feb 13, 2018	BPD and BFD Initial Strangulation Ordinance Training Session 1
Feb 14, 2018	BPD and BFD Initial Strangulation Ordinance Training Session 2
Feb 15, 2018	BPD and BFD Initial Strangulation Ordinance Training Session 3
Feb 19, 2018	Burleson Strangulation Ordinance signed and enacted
Feb 28, 2018	BPD and BFD Initial Strangulation Ordinance Training Session 4
Mar 5, 2018	Notification to BPD that most BFD personnel are trained on Ordinance
Apr 13, 2018	BPD and BFD Strangulation Ordinance Training Session 5
	BPD final Ordinance initial training held
Sep 24, 2018	IPVRSS Stakeholder Meeting held
Nov 19, 2018	Known fidelity dispatch issue documented
2019	
Jan 3, 2019	Initiation of stakeholder emails about strangulation 7-Day Policy
Jun 4, 2019	BFD Policy Directive EMS-19-02 issued, results in Strangulation 7-Day Policy Change
Jun 7, 2019	Communications Supervisor sends email about 7-Day Policy to stakeholders
Jun 10, 2019	7-Day Policy protocol change
Sep 24, 2019	BPD *Use Clarification* memo about FVP issued
2020	
Jan 2020	Current FVP in use and distributed to police personnel.
Jan 16, 2020	BPD *Revised Strangulation Training Lesson Plan* completed
Jan 31, 2020	Stakeholder logic model meeting held at request of Stakeholders
Oct 6, 2020	BFD begins Revised Strangulation Training (Target Solutions)
Oct 26, 2020	BPD deploys Revised Strangulation Training (PowerDMS)
Dec 10, 2020	BPD reports personnel complete Revised Strangulation Training
2021	
Jan 4, 2021	The BPD *Administrative Policy and Procedures Number 06-006 Domestic Violence* revised
Mar 17, 2021	BFD reports personnel complete Revised Strangulation Training

Two additional components were added to the strangulation protocol. These include a strangulation flag in RMS and the 7-Day Policy. Neither of these were articulated or mandated by the Ordinance; however, both support goals and objectives from the logic model. The sections that follow explain both in more detail.

RMS Strangulation Flag Implementation

During the semi-structured interviews, the stakeholders reported to the research team that they had added a flag in the CAD system to denote residences with a prior strangulation history. This new flag provided a mechanism for officers to be notified when responding to an address where a prior strangulation incident had occurred. This change was in place in mid-January 2018, well before the initiation of the Ordinance.

Strangulation 7-Day Policy Change

When the Ordinance was initially implemented, emergency medical personnel (EMP) response was required for all incidents of strangulation, even if the strangulation in question had occurred months or years ago. As the Ordinance approached its first-year anniversary, the stakeholders discussed if there was any benefit to implementing the strangulation protocol and requiring EMS response for old or previous strangulations. During stakeholder interviews, the research team learned that the key members of the Strangulation Task Force (e.g., BPD, BFD) began email correspondence on this issue around January 3, 2019. In this correspondence, the partners considered how "recent" a strangulation event must be to trigger implementation of the Ordinance generally, and an EMS response more specifically.

These discussions were initiated by BFD as there had been calls for service involving strangulation events that had occurred several weeks past and in one instance, a call where the strangulation had occurred approximately nine months prior. BFD voiced concerns that their presence at the scene in those types of instances was not beneficial for acute assessment and patient care. Internal documents and interviews across several participants indicated that BFD's Medical Director was consulted on this matter and he relayed *"…the victim does not need EMS response if the complaint for strangulation occurred greater than seven days past and has no*

medical complaints." If at any time, however, the police officer on-scene feels there is a medical complaint, they should request an EMS response regardless of when the strangulation occurred.

Following these discussions, BFD's policy directive (EMS-19-02) was issued on June 4, 2019. Burleson police officers were notified of the policy change on June 10, 2019, via a BPD protocol procedure memo requiring signature acknowledgment. The protocol procedure memo stated that the directive affected BPD Domestic Violence Policy 06-006 section III subsection three – k, l, m, n, and o. The memo also stated that BPD personnel were not expected to initiate an EMS response if the strangulation occurred more than seven days prior to the date of the report, and the victim had no medical complaint. All BPD personnel were notified of this directive through Power DMS and had to indicate by signature that they had been notified. Given the significance of this change for assessing fidelity, researchers tracked which policy was in effect at the time of the strangulation incident (i.e., pre or post 7-Day Policy Change).

CHAPTER III: METHODOLOGY

Research Site & Collaborating Organizations

The process evaluation focuses on the Burleson Police and Fire Departments—the two first responder agencies tasked with implementing Ordinance requirements. Burleson is located near Fort Worth, Texas. As shown in Table 2, Burleson has grown steadily since 2016, with a current population of 58,771 with an average median average income of $79,692 over the study period. In 2020, most of the Burleson population was White (77%), followed by Hispanic/Latinos (19%), and Blacks (4%). These demographics were relatively steady through the duration of the study (ACS, 2024). During the study period, the City of Burleson employed an average of 61.8 police officers and 46.6 fire fighters. The service jurisdiction for both agencies covers approximately 30 square miles (Burleson Fire Department, 2024; Burleson

Police Department, 2024; U.S. Census Bureau, 2024). Burleson is somewhat unique because it traverses two counties—Johnson County and a small pocket of Tarrant County that is roughly 2.27 square miles and constitutes roughly 7.7% of the city (City of Burleson GIS Division - Information Technology Department personal communication, May 8, 2024).

Other collaborating agencies involved in the STF included MedStar Health Services and One Safe Place (OSP). Because employees of MedStar and OSP are not city employees, neither agency is governed by the Ordinance; however, both agencies provide important system supports that were relevant to the study. MedStar is an administrative governmental agency formed through the creation of an Interlocal Government Cooperating Agreement between Fort Worth and the thirteen other member cities in North Central Texas. MedStar was the main emergency and non-emergency ambulance provider for Burleson during the study time frame and maintains accreditation from the Commission on Accreditation of Ambulance Services (MedStar, 2024).

One Safe Place (OSP), is a Family Justice Center in Fort Worth that provides coordinated and centralized family violence services across 23 partners (One Safe Place, 2024). OSP serves a diverse population of clients from across Tarrant and Johnson counties and uses an array of assessments to determine the presence of strangulation amongst their clients that are relevant for consideration as it allowed the research team to identify how many Burleson victims were not seeking police intervention for IPVRS in Burleson and for those who did, whether aspects of the protocol were followed.

Table 2. *City of Burleson Demographics*

	Burleson and Control Site Comparisons During Study Period				
	2016	**2017**	**2018**	**2019**	**2020**
# Sworn Officers					
Burleson	61	60	62	61	65
# Fire Fighters/EMTs					
Burleson	40	47	48	49	49
Family Violence Incidents[5]					
Burleson	248	224	255	285	314
Violent Crime					
Burleson	84	94	133	84	110
Property Crime					
Burleson	843	919	776	843	788
Population					
Burleson	45,166	46,531	47,612	48,743	51,167
Race/Ethnicity					
Burleson	White: 82% Black: 4% Hisp.: 14%	White: 82% Black: 4% Hisp.: 15%	White: 80% Black: 4% Hisp.: 17%	White: 79% Black: 4% Hisp.: 18%	White: 77% Black: 4% Hisp.: 19%
Education					
Burleson					
High School+	88%	90%	91%	91%	91%
Bachelor's Degree+	23%	23%	24%	24%	26%
Median Age in Years					
Burleson	35.4	35.7	36.2	36.5	36.7
Median Average Income					
Burleson	$68,758	$72,305	$72,335	$79,407	$85,655
City Square Miles					
Burleson	26.1	26.9	27.7	28.6	30.0

Note: Data from the Burleson and Control Site Fire Departments, (Texas Department of Public Safety, 2024; U.S. Census Bureau, 2024; U.S. Department of Justice Federal Bureau of Investigation, 2024a, 2024b).

Evaluation Plan Overview

To determine the effectiveness of the Ordinance, the National Institute of Justice (NIJ) provided support for a full program evaluation that progressed across three research phases: (1) an evaluability assessment; (2) a process evaluation and (3) an outcome evaluation. While this report focuses exclusively on the process evaluation it is important to first provide a brief overview of the evaluability assessment methodology and key findings for context.

[5] These statistics were taken from the Texas Department of Public Safety so that reporting was standardized from the same source for the two research sites involved in the subsequent outcome evaluation. These statistics also represent *all forms of family violence* and are not exclusive to IPV.

Evaluability Assessment Overview and Key Findings

The previously completed evaluability assessment (EA) reviewed the evaluation and research readiness of the Burleson intervention (i.e., Ordinance and Strangulation Protocol) and Control Sites. First, the Ordinance and strangulation protocol were well underway during the EA phase of the research project because the intervention was implemented prior to applying for and receiving the NIJ grant. Ideally researchers are involved in the planning stages of an intervention to help inform policy, practice, training, and record keeping in ways that are conducive to future evaluation (Davis 2013; Van Voorhis and Brown 2019). However, fielding an EA during an active project does afford researchers the opportunity to "see" the Intervention in progress and provide feedback on strengths and growth areas before further research (Peersman, et al., 2015).

The goals of the EA were to:

(1) Establish whether the planned process (Phase II) and outcome evaluation (Phase III) should proceed based on: (a) the adequacy of the Intervention design (e.g., is it plausible and does it have utility?), (b) monitoring and accountability (e.g., the ability of stakeholders to maintain and monitor fidelity of the Intervention); and (c) institutional capacity to support the evaluation (e.g., resources, staff availability).
(2) Determine if modifications to the evaluation methodology are required and develop strategies to accomplish evaluation goals.
(3) Make suggestions regarding the improvement of the current Intervention design prior to the implementation of Phase II – Process Evaluation.

To accomplish the goals of the EA, the research team designed and executed a two-pronged methodology based on: (1) extant document and policy review; and (2) site visits and semi-structured interviews with stakeholders representing key partner agencies associated with the strangulation protocol or the Control Site (i.e., police, fire, OSP, MedStar). Additional information about EA methodology is available in the Evaluability Assessment Report.

In the EA findings and recommendations, the research team suggested that stakeholders formalize a logic model that would map out the goals, objectives, activities, outputs, and expected outcomes for the Ordinance. On January 31, 2020, stakeholders began a process to formalize a logic model and this was eventually approved by the STF on July 12, 2021. The final logic model is attached as Appendix D and was previously discussed as part of documenting the Ordinance and strangulation protocol.

The research team used three central areas to guide decisions about proceeding with the process and outcome evaluations: plausibility, utility, and feasibility. In brief, *plausibility* examines the adequacy of the Intervention design and the likelihood that the Intervention will produce an impact, *utility* examines the likelihood that an outcome evaluation will be useful to stakeholders, and *feasibility* examines if it is possible to measure outcomes and impact in the future (Peersman, et al., 2015). Decision support consists of three possible outcomes for each of these central areas: (1) proceed with process and impact evaluations; (2) proceed with process and impact evaluations but address critical issues; and (3) not proceed with the process and impact evaluations.

Evaluability Findings and Conclusions. Based on extensive review of extant materials (e.g., forms, documents, instruments), examination of potential data sources, and interviews with 29 stakeholders from Burleson, Control Site, OSP, and MedStar, the research team made the following decisions with regards to plausibility, utility, and feasibility:

- *Plausibility:* Proceed with process and outcome evaluations but address critical issues.
- *Utility:* Proceed with both process and outcome evaluations.
- *Feasibility:* Proceed with process and outcome evaluation but address critical issues.

The first critical issue noted above included the need for the Burleson STF to develop a logic model and the second critical issue was related to deficiencies in the strangulation training that

would necessitate retraining first responders in Burleson. The third critical issue concerned a change made to the strangulation protocol regarding the timing of the strangulation outcry and the need for a medical response (see discussion in previous section). The fourth critical issue concerned the establishment of fidelity monitoring of the strangulation protocol by both BPD and BFD. The final critical issue was related to the discovery of contamination at the original Control Site[6] and the need to replace them with a more suitable city. Each of these critical issues were addressed prior to the initiation of the process evaluation.

Process Evaluation Methodological Overview

While overall the evaluation study timeframe was from January 1, 2016, to December 31, 2020, the process evaluation examines the official post-ordinance period that began March 6, 2018, through the end of the study timeframe December 31, 2020. The central purpose of the process evaluation is to examine the development of the Ordinance, implementation, management, modifications, and fidelity to the strangulation protocol. Research questions for the process evaluation questions included:

(1) Is the initiative being implemented, operated, and managed as designed?
(2) What challenges have agencies faced collecting and sharing data on IPV Strangulation?
(3) Is there a quality assurance and fidelity monitoring system in place to assess the operation of the initiative?
(4) Is there sufficient agency financial, administrative, and technical support for the initiative?
(5) Has staff received adequate training?
(6) Is there support for the initiative from other organizations?
(7) Are there formal or informal agreements with collaborating agencies to assist with the Protocol?

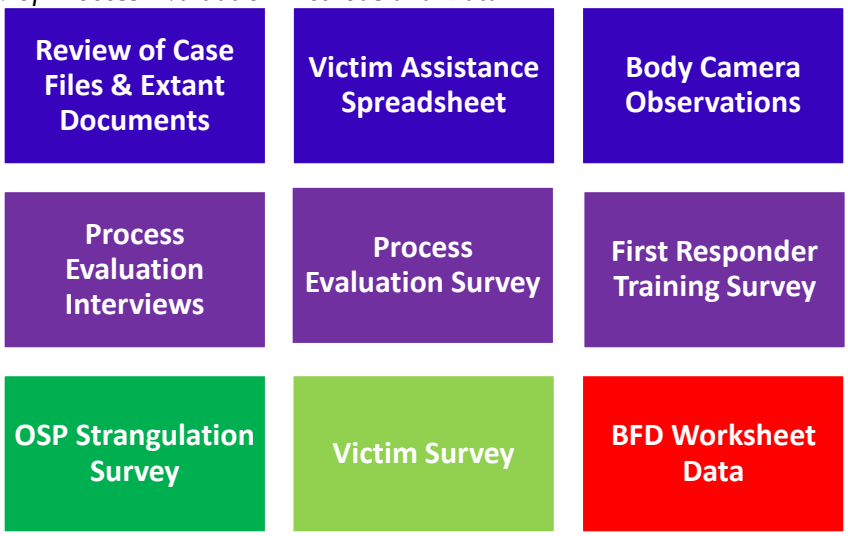
[6] This is explained in greater detail in the EA report, but the original Control Site, Control Site A, began to implement a new response to IPV that while not strangulation specific it created concerns about the suitability of the site and about our ability to determine causality of the Intervention in Burleson when using a contaminated control site.

While all research questions are important, a critical part of program evaluation is the assessment of program fidelity defined as the assessment of the extent to which a program is actually implemented as designed (Esbensen, 2005). Examining fidelity also explains *why* innovations succeed or fail and identifies what may have changed in the original intervention and how those changes may impact outcomes (Dusenbury et al., 2003).

Fidelity and the other research questions for the process evaluation were addressed with both qualitative and quantitative methods and produced a diverse array of data from multiple partners (see Figure 1 below). These agencies included the Burleson Police Department, Burleson Fire Department, MedStar and OSP. The research team used a triangulated approach and conducted semi-structured interviews, reviewed 25 extant documents, fielded multiple surveys, reviewed police case files and fire department worksheet data, and conducted observations of body camera footage to learn more about fidelity problems. The use of triangulation allowed for the contextualization of research findings in the process evaluation and informed the development of data collection instruments for the outcome evaluation.

[Figure on next page]

Figure 1. *Overview of Process Evaluation Methods and Data*



Prior to the initiation of data collection, IRB permissions were secured, and researchers received CJIIS credentials through BPD. During initial site visits to BPD, researchers also participated in several hours of RMS training so that case files could be accessed, and study data could be accurately collected in the most expeditious manner possible. Unless otherwise noted, data from partial year 2018 through 2020[7] was used in the process evaluation. The PE's analytic strategy was also multi-faceted and involved both qualitative and quantitative data. For quantitative data, univariate, bivariate analyses (i.e., Chi-Square, Fisher's Exact Test, *t*-Tests), and multivariate analyses, and logistic regression were all used depending on the research question, data source, and sample size. For qualitative data, this involved thematic analysis of interview transcripts, archival analysis of extant documents, and observations of body camera footage.

The organization of the remainder of the methodology chapter begins with a review of the procedures associated with collection of the qualitative data followed by a review of the

[7] The original study design included 2021. After receiving approval from NIJ on September 26, 2022, the study timeframe was condensed by removing 2021 due to a substantial change in domestic violence responses at the control site.

project's quantitative data collection procedures.

Qualitative Data Collection

The research design called for several types of qualitative data collection that included semi-structured interviews with stakeholders as well as observation of body camera footage across different subsets of the subject population.

Semi-Structured Interviews

At the beginning of the PE, the research team conducted semi-structured interviews from August 5-7, 2020, with a purposive sample of key personnel from BPD and BFD involved in implementing the Ordinance, these included: members of the Strangulation Task Force (STF), first responders actively working IPVRS incidents, and those who manage direct response personnel (n = 20). All participants invited to the process evaluation interviews agreed to participate and consented to a recorded interview. The average BPD (n = 10) interview lasted 1 hour 2 minutes, and the average BFD (n = 10) interview, lasted 47 minutes. The interviews covered a range of topics including the history of the ordinance, financial support, staffing support, implementation, managing the Protocol, challenges in sharing information and data between agencies, collaborating with stakeholders, changes to the strangulation protocol, and fidelity to the Ordinance.

Analytic Strategy. Following the completion of all interviews, audio recordings were transcribed by one team member and verified by another. Once verified, the transcripts were qualitatively analyzed to help identify major themes for the process evaluation generally and to inform the subsequent development of a PE survey for all Burleson first responders This

survey was administered December 2021 to February 2022 and results were reported in the Interim Process Evaluation Report.

Analysis of Extant Documents

During several formal site visits between (August 2020 to December 2021), the research team reviewed key extant documents that were related to the creation, design, and implementation of the Ordinance. For example, ordinance drafts, meeting notes, general orders, forms, training materials, and important correspondence related to the Protocol (e.g., the recency of the strangulation and timing of required medical response). Each of these sources was logged and reviewed for content. Some materials could only be reviewed in the police department and could not be taken off-site. Table 3 provides a list of documents, forms, assessment instruments, historic reports, and key email correspondence reviewed during the process evaluation. The review of these documents and other records was invaluable for the team to learn more about the history of the passage of the Ordinance as well implementation procedures, challenges faced, or major changes made during the duration of the project.

[Table on next page]

Table 3. *Extant Documents*

Stakeholder	Documents Reviewed
Burleson Police Department (BPD)	• Ordinance Drafts • Signed Ordinance • Strangulation Task Force Contact List • Notes about Burleson Ordinance planning, composing and implementation • Email correspondence between stakeholders • Email correspondence regarding strangulation occurring greater than 7-days and protocol change • IACP IPV Strangulation Resolution, Response Policy, and Training Guidelines • IACP Non-Lethal Strangulation Checklist • IACP Stalking Sex Assault DV PO Violation Checklists • Senate Bill 40 • General Orders • Initial Strangulation Training Materials and Training Lesson Plan • Initial Strangulation Training Records • Revised Strangulation Training Materials and Lesson Plan • Revised Strangulation Training Records • Family Violence Packet (Versions A, B & C) • Strangulation Evaluation List from Family Violence Packet • Strangulation Protocol Specific Questions • Voluntary Statement Forms for Victims, Suspects and Witnesses • Application for Emergency Protective Order • Patient Release Form • Affidavit of Non Prosecution • CID Referral Form • Johnson County Discovery Log • Tarrant County's Discovery Log • Crime Analysts Reports • 2018 BPD Annual Crime Report by Month • BPD 2018 Crime Data Summary • BPD 2019 Crime Data Summary • BPD 2016-2018 Crime Data Summary • Victim Assistance Spreadsheets and Quarterly Reports • Victim Assistance Family Violence Letter and Resource Referrals • TDCJ Victim Services Division Pamphlet
Burleson Fire Department (BFD)	• BFD Strangulation Protocol Worksheet • Initial Strangulation Training Materials • Initial Strangulation Training Records • Revised Strangulation Training Materials and Lesson Plan • Revised Strangulation Training Records
MedStar Mobile Healthcare (MedStar)	• Emergency Medical Dispatch Response Determinants List • International Classification of Disease (ICD 10) Sample Code List of Primary and Secondary Clinical Impressions
One Safe Place (OSP)	• Intake Form (if client is from Burleson) • Strangulation question from the Danger Assessment • Strangulation Survey question asking if law enforcement addressed strangulation • Strangulation Survey question asking if client sought medical attention

Victim Survey

Voluntary participation in a self-report survey was solicited from a sample of potential participants (n = 121) drawn from the population of individuals who had been victimized in a FV incident involving an intimate partner that was formally reported to BPD in 2020. The purpose of the victim survey was to collect information about survivor experiences following a formal report of IPV to assess the police response, characteristics of the strangulation event, if on-scene medical was requested (and other medical outcomes), and police adherence to the Strangulation Ordinance requirements post-ordinance. These topics address process evaluation research question 1 – is the initiative being implemented, operated, and managed as designed? Initially, the survey was intended to provide a source of quantitative data; however, poor response rates necessitate a qualitative approach for interpretation of survey responses (see subsequent discussion below).

Sample. Voluntary participation in the self-report survey was solicited from a sample of potential participants (n = 121) drawn from the population of individuals who had been victimized in a family violence incident involving an intimate partner that was formally reported to BPD in 2020 (post-ordinance). IPV survivors who reported any intimate partner FV to police during this timeframe were included in the sample to capture those instances when strangulation may have occurred, but police did not detect, document, and/or respond to it.

Creation of the sample for each survey involved a multi-staged process which began onsite at BPD. First, the population of flagged FV offenses in the record management system (RMS) was generated from three lists drawn by the BPD crime analyst for the entire project period, January 1, 2016, to December 31, 2020. These three incident lists included: (1) all cases flagged as FV in RMS, (2) all cases flagged as strangulation in RMS, and (3) all cases involving

the designation of an official impede breath incident in RMS. These three incident lists were not mutually exclusive and so were reviewed to remove duplicate victims (e.g., an Impede Breath case involving an intimate partner dyad could have been documented in all three lists). From here, several criteria were used to develop the sample once the sampling frame was completed. Only IPV-involved, FV flagged incidents that involved an adult victim 18 or older and were reported to BPD from January 1, 2020, to December 31, 2020, were relevant for the 2020 survey. Moreover, per BPD command staff, any FV case that also involved a sexual assault reported during the incident repose was excluded from the sampling frame.

Researchers also culled the population of incidents reported during this time frame to exclude all cases not involving intimate partner dyads based on the victim/suspect relationship code in RMS. An intimate partner dyad was defined as two adults in a current or former intimate relationship. Researchers retained incidents with codes that reflected a current or former intimate relationship (e.g., spouse, ex-spouse, cohabiting, girlfriend/boyfriend, same-sex couple, etc.). Cases where the victim and suspect were related by blood (e.g., parent/child, stepparent, grandparent, siblings, relatives) and those not related by blood but in a family unit (e.g., stepparent/stepchild, stepsiblings, etc.) were excluded from the sample. In incidents where a relationship code was missing or the nature of the relationship could not be easily discerned (e.g., acquaintance, otherwise unknown, etc.), researchers reviewed additional information in RMS for each incident to determine inclusion/exclusion in the sample.

The unit of analysis for this facet of the evaluation was the individual who experienced victimization, but to avoid inviting participation and/or administering the survey to a single victim multiple times, all cases were screened and those with known repeat victim information were excluded. This means that an individual may have been involved in multiple FV incidents

during the study period, but to prevent duplication, only a single incident involving that individual victim was retained in the survey sample.

Once the initial sample of potential survey participants was developed, it was necessary to manually navigate RMS to locate email contact information for each potential participant.[8] This information was typically located in scanned victim witness statements. A preliminary participant list with contact information was compared to a spreadsheet managed by Victim Assistance (VA) to document service delivery. This was to verify that cases were not erroneously excluded from the survey participant sample list, and to cross-reference and remove any remaining duplication. The VA coordinator also validated and/or supplemented email contact information from VA files, independent of RMS content.[9]

Survey Creation. The victim survey instrument and corresponding recruitment protocol was created in consultation with leadership from a local family justice center, One Safe Place (OSP)[10] to ensure the use of victim-centered and trauma-informed practices. Researchers also piloted the instrument with OSP's Voices Committee—an advisory group comprised IPV survivors, who provided input and feedback on the research protocol and survey instrument to ensure the use of survivor-centered and trauma-informed language and practices.

Several steps were included in the IRB-approved protocol to protect the confidentiality and safety of potential survey participants. First, each potential survey participant was assigned a

[8] While victim email contact information can be collected and retained in RMS via scanned documents, this data is not available to export into a spreadsheet.
[9] Given the sensitive nature of the study content and the desire to signal endorsement of the study, police leadership directed VA personnel to initiate contact with each individual in the sample to officially inform them of the partnership with Tarleton and to expect a contact from researchers unless they wanted to opt out immediately. This notification process began January 2022 and was concluded in February 2022. After all potential participants had been contacted and given an opportunity to respond and decline participation by VA personnel, a final list of email addresses was provided to researchers to solicit participation in the survey.
[10] One Safe Place (OSP) is a Family Justice Center, is a multi-agency network consisting of 23 partner agencies providing coordinated services to IPV victims in Tarrant Country (One Safe Place, 2024).

random ID number that was not linked to the BPD incident number from which their respective sample eligibility was drawn. Second, the survey instrument did not collect demographic data from participants or request any identifying information regarding their FV report to BPD. Third, an emergency escape button was included in the online survey and offered at each stage during the survey so that participants could safely exit the online platform at any point without a digital footprint.

Survey Recruitment. The IRB-approved survey recruitment and administration protocol also reflected trauma-informed practices. Potential participants were recruited electronically in four waves. First, researchers solicited voluntary and confidential participation through the distribution of an electronic invitation for the web-based survey that was hosted on a secure, online survey platform. The IRB-approved email script described the survey's purpose and its general content and contained the survey URL with instructions for potential participants to access and complete the survey. To facilitate accurate tracking of participants, emails were individually distributed from a generic Tarleton State University email address[11] devoted to the project that did not signal anything specific about family violence. Each email invitation contained the participant's unique ID number, and that ID number was used to track potential participants to ensure that follow-up contact reminders were only distributed to those individuals who had not already accessed and/or submitted the survey.

Response Rate. Initial electronic invitations were sent to $n = 122$ potential participants with valid email addresses on February 4, 2022. Three subsequent reminder emails were sent to individuals who had not accessed the survey to facilitate increased participant response (e.g., Dillman et al., 2014). Follow-up electronic contact took place in three waves: 9 days (February

[11] The survey email address was password protected and only accessible by members of the research team.

13, 2022), 5 days (February 18, 2022), and 6 days (February 24, 2022) following the initial electronic invitation. Out of the total 122 email invitations for the 2020 post-ordinance survey, 12 participants accessed the survey URL and opened the online survey; 11 participants provided substantive responses to at lea.t one item on the instrument for a response rate of 9.0%.

Analytic Strategy. A quantitative survey with 11 participant responses creates analysis challenges and does not permit the use of inferential statistics. As a result, the analytic strategy for examining these responses includes a qualitative and descriptive approach on a series of outcome evaluation-relevant items regarding the participant's strangulation and their interaction with Burleson Police and Burleson Fire (when appropriate) during the incident response. Given the limited sample, count data will be summarized and occasionally valid percentages when possible. Additionally, quotes from victims were also included to add a qualitative context to the results. Findings associated with victim survey data are presented in the fidelity section of Chapter IV.

Observations of Body Camera Footage

To learn more about when the Ordinance was improperly implemented and why fidelity problems existed, a sample of post-ordinance IPVRS incidents were selected for body camera footage review. Originally, the research design called for a series of ride-alongs, but this strategy was not viable during the COVID-19 pandemic. Body camera footage was selected as an alternative strategy, and this allowed researchers to: (1) pre-identify IPVRS cases and (2) focus specifically on those cases with a fidelity problem. This was a superior approach to a ride along where officers may or may not respond to an IPVRS incident, and researchers may or may not observe a fidelity concern. While this was a superior strategy, viewing body camera footage is labor intensive for several reasons. Viewing one incident is not a 1:1 activity where one incident

produces just one footage file. Essentially, one IPVRS incident can produce multiple hours of footage because typically several officers are involved, a supervisor is on-scene, and there is a transition footage from the dash camera in the vehicle to body camera – all of which need to be reviewed for a complete understanding of the event from start to finish from multiple vantage points.

IPVRS Body Camera Sampling Strategy. An examination of fidelity issues requires restricting the sample to the post-ordinance period (March 6, 2018 - December 31, 2020, $n = 213$ cases). In addition, among the list of 213 post-ordinance IPVRS incidents, it was also important to consider those incidents that were deemed "protocol eligible"[12] ($n = 155$ cases). Due to changes in the way the Ordinance was applied (i.e., the new 7-Day Policy), eligibility had to be assessed relative to the date of the incident and what version of the Ordinance/protocol was in place (i.e., pre-7-Day Policy or post 7-Day Policy). From a fidelity standpoint, this distinction is critical because depending on *when the incident was reported,* a slightly different eligibility criteria was applied by first responders. For example, if the incident was reported between March 6, 2018, and June 10, 2019, then the more liberal version of the Ordinance (pre 7-Day Policy) was in effect and *any* strangulation disclosure current or old (weeks/months/years ago) required a response. If the incident was reported on or after June 11, 2019, then the new conservative version of the Ordinance (7-Day Policy) was in effect and only those with "current" strangulation made a medical response necessary. This means the research team had to painstakingly assess every single IPVRS incident and its eligibility for inclusion in all process

[12] The post 7-Day Policy change language indicates that strangulations occurring more than seven days after the incident report date and without medical complaints, are not applicable to the Ordinance protocol. Protocol eligibility was assessed by identifying the incident report date and, when the case file mentioned strangulation, noting the timing of the disclosed strangulation event. The latter was captured through officer narratives, victim and witness statements, and/or content recorded by the responding officer on the family violence packet—which included direct disclosures of strangulation, as well as behavioral descriptions of the strangulation, and any description of injury (or "medical complaint").

evaluation analyses based on the incident date relative to the policy in place at that time. If the incident occurred prior to the 7-Day Policy, all cases were eligible. But if the IPVRS incident occurred after the 7-Day Policy was in effect and involved an "old" strangulation, then it was no longer eligible for a medical response. "Old" strangulations were determined by the STF to be beyond seven days of the incident. In other words, the only strangulation incidents protocol eligible in the post 7-Day Policy timeframe were those that were "current" (defined as occurring within 7 days). After this filtering process, the final sample retained for fidelity assessment included a total of 155 protocol-eligible IPVRS incidents (n = 81, 52.3% pre 7-Day Policy and n = 74, 47.7% post 7-Day Policy). This filtering process is explained in greater detail in the presentation of case file results in Chapter IV (see also Figure 3 for a visual depiction).

After the determination of protocol eligibility, cases were screened further to determine if they were cleared by arrest. While an arrest is not a criterion of the Ordinance, an arrest did determine whether the footage was retained by the police department and available to the research team. Among the n = 155 protocol eligible incidents, n = 121 were cleared by arrest. Next, consideration was given to whether the case had been flagged for fidelity by the research team. This was an important criterion because viewing body camera cases for problematic cases allows for important lessons to be learned and then shared about what went wrong. To assess fidelity, researchers examined Burleson first responders' performance on four key elements of the Ordinance that were coded and scored as part of the case file analyses. These indicators included:

- **Fidelity 1**—BPD officers administered a Family Violence Packet to victims of family violence (No = 0, Yes = 1).

- **Fidelity 2**—When strangulation was alleged or suspected, questions were administered by BPD officers to victims of family violence using the specialized strangulation evaluation checklist in the Family Violence Packet (No = 0, Yes = 1).
- **Fidelity 3**—When strangulation was alleged or suspected, BPD requested BFD/emergency medical personnel to evaluate and render aid to the victim when the strangulation occurred in the last 7 days or if the victim had a medical complaint. (No = 0, Yes = 1).
- **Fidelity 5**—Once on-scene, BFD conducted a medical evaluation and assessment (worksheet/checklist) to evaluate the situation and provide medical aid to the victim (No = 0, Yes = 1).

Other features of fidelity were not utilized in this selection process. For example, the item *"When BPD and/or MedStar arrived on-scene, BPD documented emergency medical personnel's presence and role in case file"* was not used as selection criteria for the body camera sample because a substantial majority of IPVRS cases were deficient on this item. Moreover, what officers document on paper is not something easily viewed on body camera footage. In addition, fidelity related to *"BPD documented referrals to appropriate support agencies"* was also not used for similar reasons.

From here, an additive scale (*BC_Fidelity*) was made to determine fidelity severity. This scale was computed by adding the five key fidelity indicators together (i.e., F1_BC, F2_BC, F3_BC, and F5_BC) for a possible range of 0 to 4 with 4 representing full fidelity on these items and scores of 0-3 indicating a fidelity problem. Once this fidelity scale was created, only those IPVRS cases with a fidelity score of 0-3 were retained in the sampling frame, while those with a fidelity score of 4 had no identified problems with fidelity and were removed (n = 51). This left

70 cases for further examination. Researchers then reviewed notes about each case to determine if any extenuating circumstances may have helped explain the fidelity problem, or preclude the case for further inclusion (e.g., victim refused the FVP, victim at the hospital, etc.). A few cases were removed during this review.

Following this process, a list of $n = 68$ cases was sent to BPD to determine if body camera footage was available prior to initiating random sampling. Eight of these cases did not have available footage, and one case had been expunged ($n = 9$). These cases were removed, leaving 59 cases to sample from. A random sample was then generated by using the "Rand ()" function in Excel and then selected 25% of cases or $n = 15$. The list of these 15 cases was sent to BPD for processing so that all available video footage for each case was compiled for subsequent viewing by a researcher.

Observations of Body Camera Footage and Analytic Strategy. One researcher reviewed all available body camera and dash camera footage for all 15 IPVRS incidents. Each IPVRS incident had an average of 3.4 video files for viewing. The timeframe to view one case ranged from 1 to 8 hours. The researcher viewed each available video and kept written field notes.[13] During viewing sessions, the researcher was able to pause footage as needed to obtain clarity for note taking. Notes were reviewed several times to identify a list of reasons fidelity failures occurred during the Burleson response to the IPVRS incident. These themes are presented in the findings chapter.

[13] Initially the same coding instrument (CI) that was used for case file coding was piloted as a potential data collection interment to be used while viewing footage. After pilot testing, this was not a viable strategy because the researcher spent more time checking boxes on a form than truly observing the incident holistically. More importantly, much of the information being checked was already captured through the coding instrument used during the case file coding process. The goal here was not to document a step-by-step accounting of "what happened during the event" but to learn WHY there was a fidelity problem that could not be captured in the coding of the case file data.

Quantitative Data Collection—BPD Case Files and BFD Strangulation Worksheets

To collect incident level data on the population of IPVRS incidents reported to police from March 8, 2018, to December 31, 2020, in Burleson, researchers collaborated with the BPD crime analyst. Cases that met at least one of the following criteria were included in the initial incident list: (1) the case was identified as family violence (FV) in the Records Management System (RMS) *and* involved an intimate partner victim-suspect dyad (IPV);[14] (2) the offense was listed as *Impede Breath*[15] on the incident report in RMS; and/or (3) the case was flagged as strangulation in RMS.[16] Incidents were excluded from the study under the following circumstances: (1) the case was not identified as family violence in RMS; (2) RMS did not list a relationship between the victim and the suspect, or if the relationship was unclear (e.g., relationship unknown, acquaintance, otherwise known);[17] (3) the case was unfounded; and/or (4) the alleged or suspected strangulation occurred in a jurisdiction other than Burleson.[18] There

[14] Relationship codes in the police partner's RMS system that represent IPV included: BG (boyfriend); GF (girlfriend); CS (common law spouse); SE (spouse); XS (ex-spouse); and HR (homosexual relationship).
[15] Impeding the breath of another or impede breath is defend under Texas law in Section 22.01 - Assault(a) A person commits an offense if the person:(1) intentionally, knowingly, or recklessly causes bodily injury to another, including the person's spouse;(2) intentionally or knowingly threatens another with imminent bodily injury, including the person's spouse; or(3) intentionally or knowingly causes physical contact with another when the person knows or should reasonably believe that the other will regard the contact as offensive or provocative.(b) An offense under Subsection (a)(1) is a Class A misdemeanor, except that the offense is a felony of the third degree if the offense is committed against:(1) a person the actor knows is a public servant while the public servant is lawfully discharging an official duty, or in retaliation or on account of an exercise of official power or performance of an official duty as a public servant;(2) a person whose relationship to or association with the defendant is described by Section 71.0021(b), 71.003, or 71.005, Family Code, if:(A) it is shown on the trial of the offense that the defendant has been previously convicted of an offense under this chapter, Chapter 19, or Section 20.03, 20.04, 21.11, or 25.11 against a person whose relationship to or association with the defendant is described by Section 71.0021(b), 71.003, or 71.005, Family Code; or **(B) the offense is committed by intentionally, knowingly, or recklessly impeding the normal breathing or circulation of the blood of the person by applying pressure to the person's throat or neck or by blocking the person's nose or mouth**.
[16] The RMS strangulation flag did not exist at the Control Site and was only used in the post-ordinance timeframe for the Burleson site.
[17] Relationship codes that did not constitute intimate partners or where the nature of the relationship was unclear include ST (stranger), RU (relationship unknown), FR (friend), AQ (acquaintance), and OK (otherwise known). Cases with missing relationship codes were also excluded from inclusion in the study.
[18] Occasionally, a crime incident was reported to the Burleson Police Department where officers documented in the incident report that the crime did not physically occur in their service jurisdiction. It is not uncommon for crime victims to seek help from an agency as a form of safe haven from an offender (i.e., crime happened earlier in the day

were 54 incidents where impede breath was listed on the incident report and/or where strangulation was flagged by RMS but did not specifically involve an intimate partner victim and suspect dyad. These non-IPV cases were outside the scope of the study and were not included in the process evaluation. After applying these study criteria, the final post-ordinance population of IPV-involved, family violence (FV) incidents included 528 cases to be screened for strangulation.

Identification of IPV Strangulation Sample During Screening of Police Case File Data

Incidents in the initial case lists were exhaustively screened to determine if the incident involved an *alleged or suspected strangulation* and therefore was eligible for inclusion in the study. Strangulation was identified in one of multiple ways: (1) official indicators in RMS (i.e., impede breath offense, impede breath charge, RMS strangulation flag, Burleson FVP strangulation indicators), or (2) through content in the case file narrative documents indicative of strangulation. PIs read all contents of incident in the electronic RMS file (i.e., officer narratives and supplements, witness/suspect statements, family violence packet, CAD notes) for reference to or descriptions of alleged or suspected strangulation. Explicit use of the term "strangulation" in the case file was not necessary for designation of IPVRS and inclusion in the study because survivors and others often reference strangulation as "choking," or "chokeholds" "headlocks" "neck hold" and similar terminology to refer to pressure applied to the neck in some manner.[19]

somewhere else, but they seek help later), or for some to confuse which police department to make a non-emergency report to—particularly in an area with several police agencies in close proximity (i.e., incidents reported directly to the agency and not through the 911 system).

[19] This designation is consistent with the national Training Institute on Strangulation Prevention's operationalization of strangulation whereby any pressure to the neck that blocks airflow, blood flow, or both qualifies as strangulation (Training Institute on Strangulation Prevention, 2019). This designation is also consistent with the Ordinance definition of strangulation that indicates: *"Strangulation means impeding the normal breathing or circulation of the blood of the person by applying pressure to the person's throat or neck or by blocking the person's nose or mouth"* (Effective Response to Strangulation CSO#781-02-2018, 2018).

Cases were also carefully scanned for victim injury consistent with the signs and symptoms of strangulation (see Garza et al., 2021 for a similar methodological approach).

After completion of this screening process, of the original 528 IPV family violence incidents, some 59.7% (n = 315) were identified as *not* involving strangulation and leaving n = 213 IPVRS strangulation incidents (40.3%) for formalized coding of these cases to support for the process evaluation. Of note, the percentage of identified IPVRS cases in Burleson fell directly within the published range of IPV cases involving strangulation. It is estimated that the number of women who experience non-fatal strangulation is at least 10%, and could be as high as 68%, for women with a history of IPV depending on the location and study sample (Campbell et al., 2007; Garza et al., 2021; Glass et al., 2008; Zilkens et al., 2016).

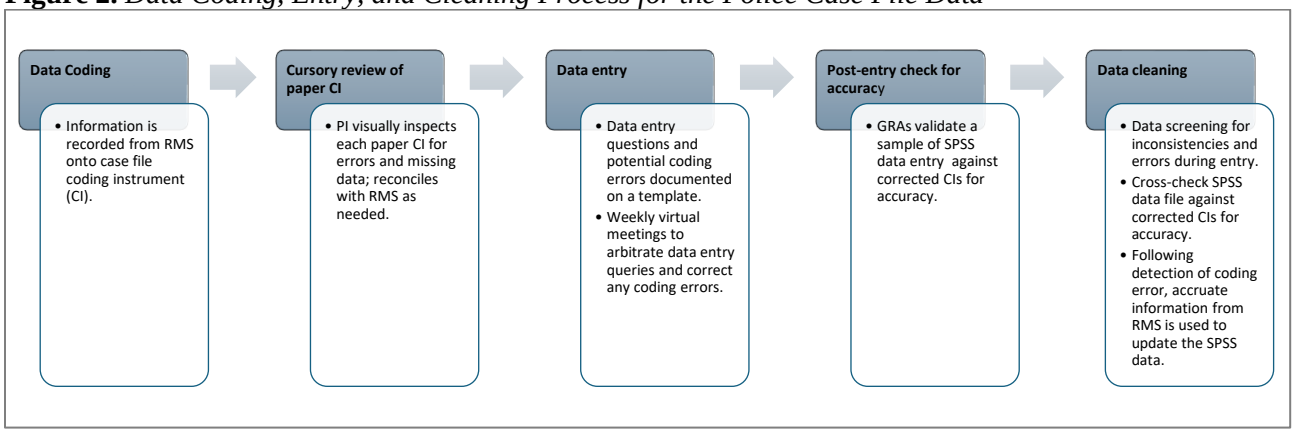
Coding and Collection of Police Case File Data

Data on each of the n = 213 identified IPVRS cases for the post-ordinance period were collected from the electronic case file in RMS using a coding instrument, created by the study PIs. Early in the study, PIs piloted the instrument and revisions were made accordingly—refinement of the instrument was iterative. Coders carefully reviewed and coded available information about each IPVRS case in RMS (described above), including incident characteristics, details about the strangulation, victim and suspect information, and fidelity to key provisions of the Ordinance.

Data were systematically collected with built-in redundancy and quality-control (QC) verification procedures to minimize error. Figure 2 below diagrams the case file data collection process. Data coding and entry involved the PIs, graduate research assistants, a detailed codebook, and weekly virtual meetings. First, case file details were extracted from RMS for each incident and redacted information was recorded on the paper coding instrument (CI). Depending

on the length and complexity of each case, this initial data coding ranged from approximately 60 minutes to several hours per incident. The first QC data check involved a cursory review of the CI for each case. This included a visual inspection and reconciliation of the CI for any obvious errors, inconsistencies, and missing data. During this first QC check, if needed, incident details were verified in RMS. Next, data were entered from the CI into SPSS 29.0. The PIs also held recurring weekly virtual meetings with the GRAs to answer data entry queries and address any data coding errors that were detected during the data entry process. Prior to data cleaning and analysis, SPSS data were systematically verified a third time in a QC process where a randomly selected number of cases in the dataset were validated against the corrected CI. To prioritize data entry for the process evaluation, post-ordinance cases were coded and entered first, followed by pre-ordinance cases in Burleson.

Figure 2. *Data Coding, Entry, and Cleaning Process for the Police Case File Data*



When all data had been coded, entered, and cross-checked, separate submaster data files were created and maintained for data cleaning of the pre-and post-ordinance case files. Case file data in the submaster data files were: (1) cross-validated and screened again for coding or data entry errors or inconsistencies, and (2) checked against CIs for accuracy verification. When

coding inconsistencies were discovered in the SPSS dataset or on the CI, cases were set aside for correction with systematic RMS verification.

Measurement and Operationalization of Variables from Police Case Files

The CI contained items relevant for both process and outcome evaluations. This section focuses on variables captured from RMS for use in the process evaluation. The first set of variables described here includes the five dependent variables that measure Ordinance fidelity followed by a description of the independent variables in the multivariate analyses.

Fidelity Indicators. As previously summarized in Chapter II, the Strangulation Ordinance contained several key provisions[20] related to the new strangulation response protocol. Five binary measures were used to assess these provisions. These five measures were captured from the case file data using objective and observable data from an exhaustive review of the electronic case file information in RMS, CAD notes, and the fire department's strangulation worksheet data. These five items included: (1) BPD's administration of a family violence packet; (2) BPD's administration of the specialized strangulation evaluation checklist (in the FVP); (3) whether BPD *requested* emergency medical personnel's presence to evaluate and render aid to the suspected strangulation victim; (4) the presence of BFD worksheet data as evidence of BFD's completed medical evaluation and assessment for the strangulation victim; and (5) BPD's documentation of victim referral information to the appropriate support agency for assistance in

[20] To summarize, these items include: (a) When the act of strangulation is alleged or suspected within the city, the peace officer will summon emergency medical personnel to the scene to evaluate and render aid to the victim. (b) The peace officer will document emergency medical personnel 's presence and role in the police report by including their name, identification number, employment agency and unit number. (c) Peace officers shall provide the victim referral information to the appropriate support agency for assistance and document the referral in their police report. (d) Peace officers will thoroughly document the suspect's behavior, actions, and any comments made during the act of strangulation. (e) When the act of strangulation is alleged or suspected within the city, peace officers shall utilize a checklist approved by the Chief of Police to help evaluate the situation and provide aid to the victim. (f) When the act of strangulation is alleged or suspected within the city, emergency medical personnel shall conduct a medical evaluation and assessment to help evaluate the situation and provide aid to the victim.

the police incident report. Each of the five indicators is described in greater in the subsections that follow.

Administration of a Family Violence Packet (FVP). While the Ordinance did not explicitly require administration of the FVP, it was required by BPD in all family violence cases. Moreover, the FVP has provided an important strangulation detection tool for responding officers because many victims disclose strangulation only after being prompted[21] by first responders. The FVP includes several mechanisms to facilitate a strangulation disclosure during the incident response (e.g., the danger assessment queries whether the suspect has ever tried to "choke" or "strangle" the victim, description of incident items includes strangling/choking). Most importantly, the FVP was necessary for administration of the Ordinance-mandated specialized strangulation evaluation checklist (the next fidelity item in the following section). The FVP also provides a means for officers to document other Ordinance provisions related to medical personnel on-scene, victim service referrals, characteristics/severity of the strangulation incident, and suspect behavior.

To capture when a protocol-eligible strangulation offense included the administration of the FVP by BPD (No = 0, Yes = 1), the research team searched the RMS case file for a scanned FVP and then redacted information from it for data collection and analysis. Information was recorded from the FVP so that each if present this coded accordingly. On occasion, when an officer noted the completion of a FVP in their narrative but was not in RMS or was missing for

[21] It may take more than one prompt for a victim to disclose strangulation for several reasons that range from trauma from the incident, the physiological effects of the strangulation, and the phrasing and timing of the prompt itself. For example, if asked about strangulation as part of a long list of items and/or in a list that is asked in a quick tempo the victim may be distracted and say no but if they are asked were you choked or strangulation in another context some may indicate yes. We observed such occurrences several times in the case file coding.

other reasons, the research team worked with BPD Records to locate a hard copy and in several instances, a missing FVP was located.

Administration of Specialized Strangulation Evaluation Questions. This checklist was required by the Ordinance and documented suspect behavior, previous history of strangulation between the victim/suspect dyad, characteristics of and methods used during the strangulation, and any communication by the intimate partner perpetrator during the act of the strangulation. To capture administration of BPD's specialized strangulation questions for protocol-eligible offenses (No = 0, Yes = 1), the FVP in RMS was reviewed to identify if specialized questions were asked by the responding officer and if there was any mention of this in the officer narrative. As noted, officers who did not complete a FVP were unable to administer and document that the specialized strangulation questions were asked, which was mandated in the Ordinance. A case was coded as compliant with this component of the Strangulation Ordinance if at least one item on the specialized strangulation question sequence was marked by the responding officer or if an officer engaged in the specialized strangulation sequence in some way.

BPD's Request for Emergency Medical Personnel's Presence to Evaluate and Render Aid to the Suspected Strangulation Victim. A careful review of RMS, the FVP (if available), and CAD notes captured a request by BPD first responders for medical personnel (e.g., BFD and/or MedStar) to evaluate and render aid to the alleged or suspected strangulation victim in protocol-eligible incidents (No = 0, Yes = 1). Any available documentation that indicated a request for emergency medical personnel's presence satisfied the Ordinance requirement.[22] It is important to

[22] The Ordinance states: *"Emergency Medical Personnel. Emergency Medical Personnel means a firefighter, emergency medical technician, or emergency care attendant that provides first response to requests for emergency medical services and provides immediate on-scene care to ill or injured persons, while acting in his or her official capacity, and is employed by or contracted by the city or a separate governmental entity that has entered into an inter-local agreement with the city to provide such services."*

note that the presence of medical personnel on-scene during the incident response was not sufficient for compliance to this requirement of the Ordinance. On-scene medical personnel must have been requested by BPD specifically to evaluate and render aid to the strangulation victim.

BFD Worksheet Data as Evidence of BFD's Completed Medical Evaluation and Assessment for the Strangulation Victim. There is no explicit reference to BFD's strangulation worksheet in the Ordinance; completion of the strangulation worksheet was how BFD elected to implement their Ordinance obligation[23] to conduct a medical evaluation for victims of alleged or suspected strangulation. To capture this, worksheet data provided directly from BFD were manually reviewed and matched to an RMS incident report number. Police and Fire do not share incident numbers and so data across agencies could not be merged automatically. An incident was coded as compliant to the Ordinance requirement if BFD's data indicated the presence of a worksheet administered to a strangulation victim (No = 0, Yes = 1).

BFD's compliance to the Ordinance requirement for medically evaluating the strangulation victim must be contextualized in terms of those cases where they were notified that a case involved alleged or suspected strangulation. If BFD were not requested/dispatched to an incident, then they would not be able to medically evaluate the victim. BFD were *not requested* on-scene by BPD in 90.7% of the cases without strangulation worksheet data (n = 59 out of 65 incidents without BFD worksheet data), prohibiting BFD from medically evaluating the strangulation victim in these incidents. BPD requested BFD's on-scene medical response in only 61% (n = 96) of the total 155 protocol-eligible cases; and BFD had worksheet data that documented a medical evaluation of victims in 93.6% (n = 90) of these cases. An assessment of

[23] The Ordinance states: *"When the act of strangulation is alleged or suspected within the city, emergency medical personnel shall conduct a* ***medical evaluation and assessment*** *to help evaluate the situation and provide aid to the victim."*

BFD's Ordinance compliance from only incidents in which BFD were requested/dispatched, revealed worksheet data missing from 6 possible incidents. It is also important to note that the unit of analysis in BFD's data is the victim (or patient). This means that incidents involving more than one victim/patient are included in the data analysis to fully capture patient-level information, discussed in later sections.

Documentation of Victim Referral Information. The Burleson Strangulation Ordinance required that officers provide the strangulation victim with referral information to the appropriate support agency for assistance and that officers document the referral in their police report. This provision was met if the officer documented a referral in the FVP, the officer narrative, or any supplemental report.

Other. Officers were also required to *"document emergency medical personnel 's presence and role in the police report by including their name, identification number, employment agency and unit number."* Documentation of all three facets noted in the ordinance was inconsistent and infrequent. As a result, reliable and consistent quantitative assessment was not feasible. Qualitatively, this infrequent documentation included only partial information (no name but an ID#; a name but no ID#; a unit number but no name or ID#, etc.). A literal application of the Ordinance requirements revealed significant fidelity compliance issues with this requirement to document the provision of service referral information. Using a less stringent application of the Ordinance requirement (i.e., accepting any type of documentation albeit vague), review of the case files still found significant fidelity problems on this item.

A series of variables served as independent variables in the bivariate and multivariate regression analyses are reviewed in Chapter IV. These include the following thematic areas:

strangulation case characteristics, victim and suspect characteristics, and general case characteristics.

Strangulation Case Characteristics. *Strangulation Ordinance* was a binary item that measured if the incident was reported during the initial period following Ordinance implementation/training completion (between March 6, 2018, and June 10, 2019) or after the *7-Day Policy Change*, effective June 11, 2019 (Post-Ordinance = 0, Post 7-Day Policy = 1). *Ordinance Elapsed Days* was calculated as a numeric value, in days, and captured the time elapsed from March 6, 2018, to the incident report date in RMS for each incident.

When the responding officer formally identified the offense as *Impede Breath* (Assault Fam/House Mem Impede Breath/Circulation – PC 22.01(B)(2)(B) [F3]) on the crime incident report in RMS, this was captured as an official determination of strangulation and labeled *Impede Breath* (No = 0, Yes = 1). Impede breath is a violent crime recognized as a felony in Texas and this designation may indicate the strangulation incident had a greater amount of evidence to support this classification making it more likely to have fewer fidelity concerns. This is not an unreasonable expectation because violent crimes can produce higher clearance rates (e.g., property crime versus crimes against persons; Avdija & Akgul, 2021). Note that all cases coded "yes" for *Impede Breath"* also qualified as *Strangulation* as described in the next section.

An incident was coded as involving *Strangulation* (No = 0, Yes = 1) based on a series of indicators.[24] First, as described above, if an incident was formally identified as *Impede Breath* in RMS, it was coded as *Strangulation*. Second, the RMS system also included a strangulation flag that (when operating properly) signals an incident as strangulation if: (1) the incident involved

[24] The "strangulation" item described here was more inclusive and did not rely solely on the police's official determination of "impede breath" or the police's official determination of strangulation from the RMS flags/other official indicators because these capture police perceptions of an incident and we used information from the total event and multiple perspectives across the entire case file.

impede breath, and (2) if law enforcement personnel thought the incident involved strangulation but there may not have been enough evidence to formally charge impede breath. Incidents characterized by this strangulation flag in RMS were also coded as *Strangulation* in the post-ordinance data. Third, intimate partner-involved FV cases that were *not* officially identified in RMS as strangulation were also reviewed in detail by the PIs to identify if any information contained in the electronic RMS file (i.e., officer narratives and supplements, witness/suspect statements, family violence packet, CAD notes) or strangulation worksheet data from the fire department indicated alleged or suspected strangulation; or when a victim's injury was consistent with the signs and symptoms of strangulation (see Garza et al., 2021) for a similar methodological approach). Explicit use of the term "strangulation" in the case file was not necessary for this designation as victims and other individuals often reference strangulation as "choking," or "chokeholds" "headlocks" "neck hold" and other terminology to indicate that pressure was applied to the neck in some manner.[25]

Due to the policy change previously discussed in Chapter II, the timing of the strangulation event needed to be captured to properly assess fidelity. This was contingent on the report date for the incident. All incidents involving strangulation that were reported to police prior to the *7-Day Policy Change* (between March 6, 2018, and June 10, 2019) required medical response regardless of when the strangulation occurred. In these incidents, the timing of strangulation was captured as *not applicable* because all strangulation incidents were protocol-eligible for fidelity assessment. For incidents reported after the *7-Day Policy Change* (on or after

[25] This designation is consistent with the national Training Institute on Strangulation Prevention's operationalization of strangulation whereby any pressure to the neck that blocks airflow, blood flow, or both qualifies as strangulation. This designation is also consistent with the Ordinance definition of strangulation: *"Strangulation means impeding the normal breathing or circulation of the blood of the person by applying pressure to the person's throat or neck or by blocking the person's nose or mouth."*

June 11, 2019), however, the timing of the alleged/suspected strangulation (relative to the incident report date) directly affected protocol-eligibility. Therefore, *Current Strangulation* was defined as strangulation that occurred *within* 7-days of the incident report date. *Old Strangulation* was defined as strangulation that occurred *more than* 7-days before the incident report date (this would not trigger the Ordinance under the revised 7-Day Policy). In some instances, there was no written record of the timing of the alleged strangulation that had been disclosed to police during the incident response. This could have been because the victim did not provide this information, or this information was not documented by police anywhere in the case file. In these cases, the timing of the strangulation was captured as *Unknown*.

A small subsample of IPV strangulation incidents involved a strangulation disclosure from an individual other than the person who police identified as the IPV victim (as recorded in RMS). *Strangled Other* captured those incidents where an individual other than the RMS-labeled victim disclosed strangulation during the incident response (No = 0, Yes = 1). A "*Strangled Other*" could include a witness, an involved other, a different non-IPV victim, or the RMS-identified suspect.

Other Case Characteristics. In line with an established body of police case processing research on decision making in gender violence offenses (e.g., intimate partner violence, sexual assault), it is reasonable to expect that additional factors could make it more/less likely the Ordinance would be implemented with fidelity. For example, having a supervisor present during the incident response, or more officers on-scene who were familiar with the Ordinance requirements may have increased the likelihood of proper implementation. Police presence during the incident response was accounted for in two ways and was detected from the totality of the electronic case file in RMS: (1) *Supervisor On-Scene* was measured as a binary variable (No

= 0, Yes = 1) to identify the presence of a supervisor during the incident response, and (2) the *Number of Officers On-Scene* was captured as a numeric count of the total number of officers involved in the incident response.

The presence of a witness may have also increased disclosure of alleged or suspected strangulation and/or may have enhanced the evidence available to officers. Research on police investigations has established that case clearance is improved when first responders take victim and witness statements (Eck, 1992; Eck & Rossmo, 2019; Greenwoord et al., 1977). The actions of first responders, when combined with the presence of a witness, can enhance case solvability (Eck & Rossmo, 2019), in part because a witness can corroborate a victim's allegation and therefore, enhance police perceptions of case credibility. Related to the Strangulation Ordinance, presence of a witness may also increase fidelity outcomes. *Witness* was measured as a binary variable (No = 0, Yes = 1) that accounted the presence of an adult witness during the incident based on an official designations in RMS that a witness was present and/or when content in the electronic case file indicated there was a witness involved in the incident.[26]

Finally, the county in which the incident occurred was captured for each incident. There have been significant differences across the two counties represented in the case file data in terms of how county prosecutors have responded to family violence offenses as well as demographic differences with Tarrant County characterized as more urban and Johnson County characterized as more rural.[27] *County* was captured from the location of the incident listed in RMS (Johnson County = 1, Tarrant County = 2).

[26] This is a researcher derived variable. Occasionally a witness would be involved in an incident but not marked as a witness in RMS. If researchers saw a discussion about a witness in officer narratives or supplements, or there was a written statement from a victim indicating a witness was present, or there was a witness statement in the case file, this was marked in the CI as a witness was present.

[27] Given the differences across two counties under the Burleson Police Department's jurisdiction, the outcome evaluation will exclude cases in Tarrant County for consistent comparisons to the Control Site, which is in Johnson County.

Victim and Suspect Characteristics. To better understand strangulation incidents and the individuals who were involved and identify if these demographic characteristics influenced the likelihood of a fidelity problem, six items were captured. Three variables represented demographic characteristics of the intimate partner victim in each incident, recorded directly from RMS. *Victim Age* was a continuous variable that reflected the age of the victim at the time of the incident report. *Victim Sex* was a categorical variable (Male = 0, Female = 1, Unknown = 2).[28] *Victim Race* was also a categorical variable (White = 0, Black/African American = 1, Asian = 2, Other = 3), and was further aggregated as a binary variable to retain cell counts in subsequent statistical analyses (White = 0, Non-White = 1).

The same three items captured the demographic characteristics of the intimate partner suspect in each incident, recorded directly from RMS. *Suspect Age* was a continuous variable that reflected the age of the suspect at the time of the incident report. *Suspect Sex* was a categorical variable (Male = 0, Female = 1). *Suspect Race* was also a categorical variable (White = 0, Black/African American = 1, Asian = 2, Other = 3) and was used to construct a binary item (White = 0, Non-White = 1). With information from RMS, one binary variable was created to account for the *Victim-Suspect Dyad Sex Composition* (All Other Sex Dyads = 0, Male Suspect/Female Victim = 1).

Analytic Strategy for Analysis of Police Case File and BFD Worksheet Data

The analysis of this data presents results across several stages of process-related analyses in Chapter IV. The analysis proceeded in three stages. First, univariate statistics in the form of frequency distributions and descriptive statistics of cases involving strangulation (n = 213) were

[28] RMS defined "sex" as "male" or "female." This information was collected directly from RMS and recorded on the CI. Additionally, RMS listed victim sex as "unknown" for two incidents contained in the full sample, and this information was recorded verbatim during data collection.

reported and then again for the protocol-eligible subsample (n =155). The mean, standard deviation, and range are reported for ordinal and interval variables. Second, a series of appropriate statistical tests were performed. Bivariate statistics were estimated for each of the fidelity assessment outcomes and this included chi-square tests of independence and Fisher's Exact Test (all tests - two-tailed). The analysis concludes with a series of multivariate logistic regression models to account for the effect of numerous incident characteristics on each Ordinance item to assess fidelity compliance (No = 0, Yes = 1). Logistic regression is an appropriate statistical approach for use with a binary dependent variable (Tabachnick & Fidell, 2007), and can accommodate as few as five events per predictor variable (Courvoisier et al., 2011; Vittinghoff & McCulloch, 2007). Prior to estimating the logistic regression models, multicollinearity diagnostics were evaluated; tolerances ranged from .700 to .968 and VIFs (variance inflation factor) ranged from 1.033 to 1.428, indicating multicollinearity was not a problem (Belsley et al., 1980). The analysis of results will primarily focus on statistically significant findings. Qualitative analyses were also used to provide additional insight about individual cases as needed.

Victim Assistance and Fidelity Monitoring Data

One of the recommendations of the evaluability assessment was to improve fidelity monitoring at BPD. In addition to traditional supervision offered by patrol sergeants and independent periodic fidelity monitoring conducted by the administrative sergeant, the victim assistance coordinator was tasked with additional fidelity monitoring to capture insight and information from IPVRS victims. Additionally, this activity also allowed for additional triangulation of data sources for the process evaluation (Greene & McClintock, 1985).

Victim's Assistance (VA) data consisted of a series of variables involving incident, victim, suspect, and VA services (e.g., assistance with the crime victim compensation program) from existing client tracking sheets supplemented by archival notes collected while communicating with and offering support/assistance to victims. Researchers and VA personnel met (in-person and virtually) over the course of several months beginning in October 2020 to create a detailed codebook and a standardized data collection protocol regarding VA cases and select services.

Once the codebook was finalized, VA personnel entered study information into separate Excel spreadsheets designated by quarter and year. These separate Excel files were later merged and redacted to protect victim information and then imported into SPSS 28.0 for screening, cleaning, and analyses that occurred offsite. Following the merging process, data were screened again for inconsistencies and cleaned for errors. To preserve the conceptual independence of variables captured by VA, researchers had regular contact with VA personnel to discuss and clarify issues that arose during data the screening and cleaning process.[29]

Initially, the VA data included all cases involving any family violence (FV) incident involving an intimate partner dyad that were reported to the BPD during the entire study period (January 1, 2016, to December 31, 2020). For the process evaluation, and to remain consistent with the case file data and NIJ study methodology, VA incidents were included in the process evaluation analyses if they met the NIJ study criteria (i.e., involved strangulation) *and* if they

[29] For example, this would include asking for more specific information about how a variable was captured, or if information was missing. Screening did not involve cross-checking in RMS independent of communication with VA personnel.

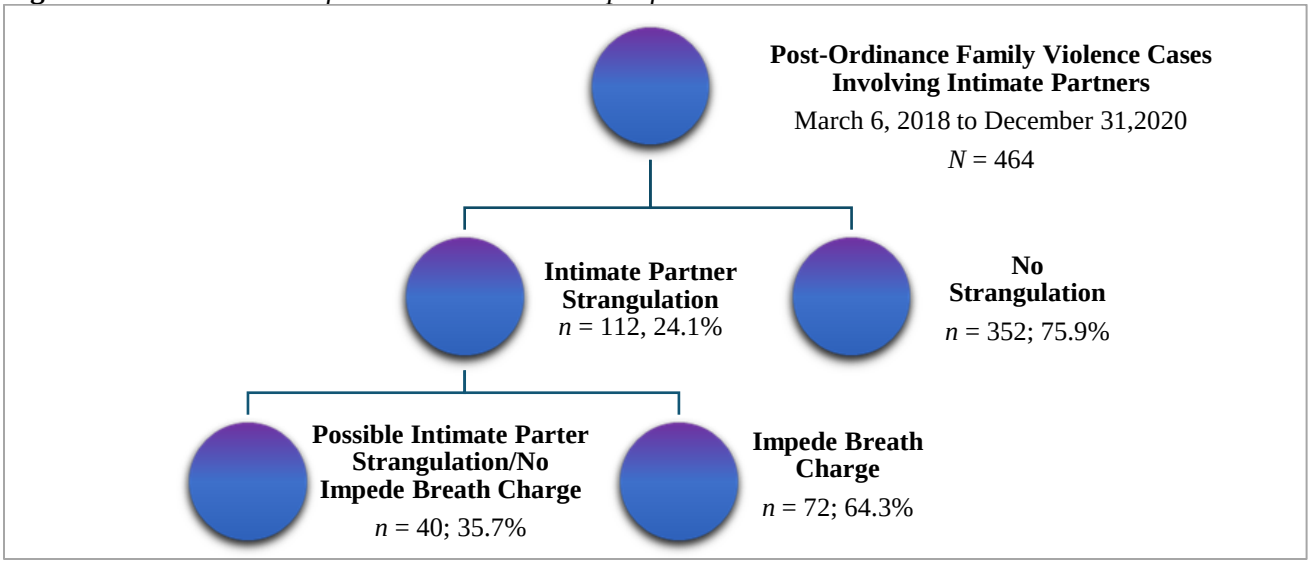
were reported during the post-ordinance period from March 6, 2018, to December 31, 2020, for a total of n = 464 cases.[30]

Suspected or Alleged Strangulation. Figure 3 details the 464 intimate partner-involved family violence (IPV) incidents tracked in the VA spreadsheet. Figure 3 also shows the disaggregation process used to identify strangulation cases in this data during the post-ordinance timeframe. Because the process evaluation was primarily concerned with fidelity to the ordinance, it was necessary to further disaggregate VA data to discern if the incident involved strangulation among intimate partners.

Strangulation was captured by VA staff in two ways: (1) either a case was formally identified in RMS as an "impede breath" incident or (2) through a visual inspection of case documents (including officer narratives and victim, witness, and/or suspect statements) that were indicative of "possible strangulation." Considering both of these indicators together there were a total of n = 112 (24%) identified strangulation cases among the total sample of 464 IPV family violence incidents. Among this subsample of n = 112 post-ordinance IPVRS incidents, nearly two-thirds (n = 72; 64.3%) were formally identified as impede breath, and 35.7% (n = 40) contained descriptive content in the case file indicative of possible strangulation as determined by VA personnel.

[30] Data for case file analysis (described in a different section of the report) involved a sample of incidents that met the following criteria: (1) the case was flagged as family violence in the BPD Records Management System (RMS) and involved an intimate partner dyad; (2) impede breath was listed as the crime on the incident report; and/or (3) the case was flagged as strangulation in RMS. Conversely, cases were excluded from the study sample if: (1) the case was not flagged as family violence in RMS; (2) there was no listed victim/offender relationship status in RMS allowing the research team to discern if the incident was IPV (e.g., IPV incidents include designations such as married, ex-spouse, girlfriend/boyfriend, etc.); (3) the listed victim/offender relationship had a relationship status that did not fit the definition of IPV (e.g., parent/child, grandparent, stepparent, sibling, relative). Any relationship status in RMS that was unclear (e.g., relationship unknown, acquaintance, otherwise known) was removed from the sample. Finally, if the case was unfounded, it was also excluded from the sample. Given these inclusion/exclusion criteria, the case file sample is not identical to the original tracking spreadsheets used by VA for their own purposes. For example, VA provides services to a wide array of victims regardless of how cases are flagged in RMS. Because of this, 132 post-ordinance cases were removed from the VA fidelity analysis to match the study methodology used for the analysis of incident and case file data in RMS.

Figure 3. *Characteristics of Victim Assistance Sample for Intimate Partner Violence Cases*



Victim Assistance and Fidelity Monitoring. In addition to screening for strangulation in the spreadsheet, VA personnel also independently identified incidents for which Strangulation Ordinance implementation fidelity may have been an issue.[31] Results from this monitoring process are reported in Chapter IV.

One Safe Place and Ordinance Fidelity

Local law enforcement officers across north Texas make referrals to victim service providers such as One Safe Place (OSP), a large family justice center in the Fort Worth Metroplex that services clients across the region. To understand the extent to which Burleson IPVRS survivors engaged local law enforcement services, and to learn more about how survivors experienced the Ordinance, OSP client data were obtained to reflect the post-ordinance

[31] The strangulation and fidelity screening process for VA was like the process that the research team used to identify strangulation cases and fidelity problems in the case file analyses. For example, both VA and the researchers independently flagged cases without FVPs or problematic administration of the specialized strangulation questions. The research team also conducted a detailed review of officer narratives, supplementals, and statements from witnesses, victims, and suspects to: (1) identify cases with missed strangulation incidents where the Ordinance was *not* initiated, (2) identify when BFD was not activated in cases where strangulation was suspected or alleged, and (3) if BFD administered the strangulation worksheet, etc. For this reason, the research team identified more fidelity problems than VA.

timeframe (March 6, 2018 - December 31, 2020). Of particular interest, were OSP clients from Burleson who reported they: (1) experienced IPVRS and (2) involved law enforcement in their strangulation incident. Of those that did, it was important to discern if law enforcement spoke to them about the strangulation and if medical options were sought or received after their interaction with law enforcement.

OSP Client Sample. Researchers obtained de-identified data from One Safe Place's[32] Efforts to Outcome (ETO) database for Burleson clients for the post-ordinance timeframe. Client data for specific items relevant to the study were requested and received in several separate individual Excel files for each year. These items included the date of the client's visit, their city, their response to the strangulation/choking item on the evidence-based Danger Assessment (DA)[33] *"Does he ever try to choke/strangle you or cut off your breathing*?*"* and client responses to select items from the OSP designed strangulation survey given to clients that reported strangulation. These files were subsequently matched, merged, and uploaded into SPSS 29.0. OSP serves clients across the region and therefore, it was necessary to work with OSP staff to identify clients associated with Burleson. The resulting sample consisted of $n = 46$ clients in the post-ordinance period.

OSP Data and Variables. Ordinance status (post-Ordinance) was determined by the date that client visited OSP relative to the passage and implementation of the Burleson strangulation ordinance. A dichotomous variable was created which classified clients with visits between March 6, 2018, and December 31, 2020, as post-ordinance (1,0).

[32] One Safe Place (OSP) is a Family Justice Center, is a multi-agency network consisting of 23 partner agencies providing coordinated services to IPV victims in Tarrant County (One Safe Place, 2024).
[33] The Danger Assessment helps establish the level of danger a victim is in and their risk of being killed by their intimate partner (Campbell et al., 2003).

Two variables examined BPD's fidelity to the Ordinance and were derived from client responses to two questions on the OSP Strangulation Survey. The relevant survey questions examined: (1) if there was law enforcement involvement in the strangulation incident; and (2) whether the client sought and received medical attention. *Law Enforcement Involved* was determined by client responses to a question that asked, "*Was law enforcement involved? If so, did they ask or talk to you about the strangulation/choking*?" Answer choices included and were coded as follows:

- *Yes* law enforcement was involved, *yes* they spoke about the strangulation/choking (2)
- *Yes* law enforcement was involved, *no* they did not speak about the strangulation/choking (1)
- *No* law enforcement was not involved (0)

Medical was determined by *"Did you seek medical attention?"* This was an open-ended question, and clients were also probed by the victim advocate to determine if they *received* medical attention, what type, etc. Due to the way the question was designed and the manner of administration, client responses varied. While a standardized question and response set would have been preferrable, the open-ended responses provided by OSP clients were reviewed and then coded into the following categories: (No = 0, Yes = 1, Yes - but not for strangulation = 2).

It is important to recognize that for clients to have the opportunity to answer these questions, they must first have been given a danger assessment, reported strangulation on the danger assessment, and then administered the strangulation survey that contains these questions. For unknown reasons, some clients were not administered the danger assessment (n = 26 Burleson clients) and two who reported strangulation on it were not given the strangulation survey. The loss of this information was unfortunate as the number of clients studied in the analysis of OSP data was already small.

Analytic Strategy for OSP Data. Because of the small sample size there are serious limitations on what the analytic strategy can accomplish, limiting the analysis to univariate analysis. Reported results include count data (raw numeric counts). Of interest for the analysis is the number of strangled clients in Burleson who reported on the OSP strangulation survey that law enforcement was involved, that their strangulation was discussed, and whether they sought or received medical services. Due to the limitations with the sample and question construction on the OSP survey instrument, extreme caution should be exercised when reviewing associated findings later in the report.

CHAPTER IV: FINDINGS

Overview of Process Evaluation Approach and Organization of Results

Findings are organized by research question. Most results for the process evaluation were derived from police case file data and BFD's strangulation worksheet data. Other sources of data (e.g., victim assistance, OSP, interviews) are also discussed.

Research Question 1: Is the initiative being implemented, operated, and managed as designed?

To assess research question one and program fidelity, the research team relied on several sources that included: review of police case files and family violence packets, BFD strangulation worksheet data, victim assistance spreadsheet and flagged fidelity cases, OSP data regarding strangulation and medical care for Burleson clients, and body camera observations of a sample of cases flagged for fidelity by the research team during IPVRS case file coding.

BPD Case File Descriptive Results

Table 4 below presents descriptive statistics for the post-ordinance case file data related to the process evaluation of the Strangulation Ordinance. The first column in Table 4 presents' information on the subsample of suspected or alleged strangulation incidents (n = 213) and the protocol-eligible cases (n = 155) appear in column 2 (see subsection below on protocol eligibility below for how this was determined). Thirty-five percent of the 213 strangulation incidents were formally classified in RMS as *Impede Breath* (n = 75). Most strangulation incidents were reported on or after June 11, 2019, when the *7-Day Policy Change* went into effect (n = 128, 60.1%). This means the timing of the strangulation event disclosed to police during the incident response had a direct impact on whether police were mandated to invoke the strangulation protocol outlined in the Ordinance.[34] The majority of strangulation incidents were reported in Johnson County (n = 187, 87.8%) and the number of *Officers On-Scene* during the incident response for the subsample of strangulation incidents ranged from 1 to 22, with a mean of 2.75 (SD = 1.90). Law enforcement *Supervisors* were on-scene in 37.6% (n = 80) of these 213 cases and 28.6% (n = 61) of all strangulation incidents had a *Witness*. Most *Victims* in this subsample were female (n = 182, 85.4%), who averaged 34.56 years old (SD = 11.22 range = 15 to 76) and were predominantly White (n = 188, 88.3%). Strangulation incident *Suspects* were predominantly White (n = 185, 86.9%), averaged 36.60 years old (SD = 12.20, range = 15 to 79), and were more often male (n = 178, 83.6%). Most strangulation incidents involved a *Male Suspect/Female Victim Dyad* (n = 176, 82.6%).

[34] Strangulation timing was captured only when a strangulation was disclosed to police during the post 7-Day Policy period (on or after June 11, 2019). If a strangulation disclosure occurred during an incident response for a report made *before* the 7-Day Policy change, the timing of the strangulation was irrelevant—police were mandated by the Ordinance to initiate the protocol regardless of timing.

Protocol-Eligible Strangulation Incidents.[35] To further refine the sample of post-ordinance, IPV-related strangulation incidents for inclusion in a series of analyses assessing Ordinance fidelity, only strangulation cases with characteristics meeting the time parameters of the Ordinance were retained in the Column 2 of Table 4 (n = 155) and in the remainder of the fidelity analyses. Protocol-eligibility was determined based on the incident report date and the timing of the strangulation that was reported during the police response relative to Ordinance parameters that changed during the study duration. Figure 4 below demonstrates the process used to determine the protocol-eligible strangulation case sample.

As shown at the top of the figure, researchers screened 528 intimate partner FV incidents to identify IPVRS for study inclusion. After this initial process there were 213 identified cases that involved strangulation (40.3%) and 315 that (59.6%). This process is illustrated in the second row of the figure. Next, the 213 strangulation cases were differentiated by the policy status of the Ordinance, n = 85 were early ordinance cases/pre 7-Day Policy (i.e., March 6, 2018-June 10, 2019), and n = 128 were post 7-Day Policy cases (i.e., cases reported on or after June 11, 2019-December 31, 2020). This process is demonstrated in the third row of the figure.

In the first group of strangulation incidents—those pre 7-Day Policy/Protocol Eligible cases (n = 85, 39.9%), the timing of the strangulation was irrelevant because *any* alleged or suspected strangulation triggered the Ordinance response protocol. For this reason, a strangulation timing variable was not necessary for these cases. The second group of strangulation incidents—those *Post 7-Day Policy* cases (n = 128, 60.1%), were incidents reported after the 7-Day Policy change. For these cases, the timing of the strangulation was decisive for whether a case was protocol eligible. The research team captured the timing of the

[35] Include IPV dyad and protocol eligible cases. Excludes seven cases where BPD could not initiate the Ordinance protocol for a justifiable reason.

strangulation and screened out cases that were not within this 7-day window. More specifically, among post 7-Day Policy incidents, only those events with an alleged or suspected strangulation event that occurred in the 7-day window from the date of the incident report triggered the Ordinance protocol and were included in the protocol-eligible subsample.[36] Initially, 77 (60.1%) of the 128 cases that occurred after the 7-Day Policy changed were eligible using this selection criteria for protocol eligibility. Twenty-five cases (19.5%) were not eligible because the timing of the strangulation was beyond the 7-day window and determined as "old" while 26 (20.3%) cases had "unknown timing" making it impossible to determine if it was protocol eligible or not.[37] This process is illustrated in the fourth row of Figure 4.

Following inspection of protocol-eligible cases, seven cases were excluded from subsequent analyses because they involved a strangulation outcry where the circumstances of the incident prevented police and fire personnel from initiating the protocol or components of the protocol.[38] Four of these incidents occurred during the pre 7-Day Policy period and were removed (from 85 cases to 81 cases) and three incidents occurred during the post 7-Day Policy period and were removed (77 to 74). The removal of these seven cases resulted in revised protocol eligible designations displayed by the green circles in Figure 4. After excluding these

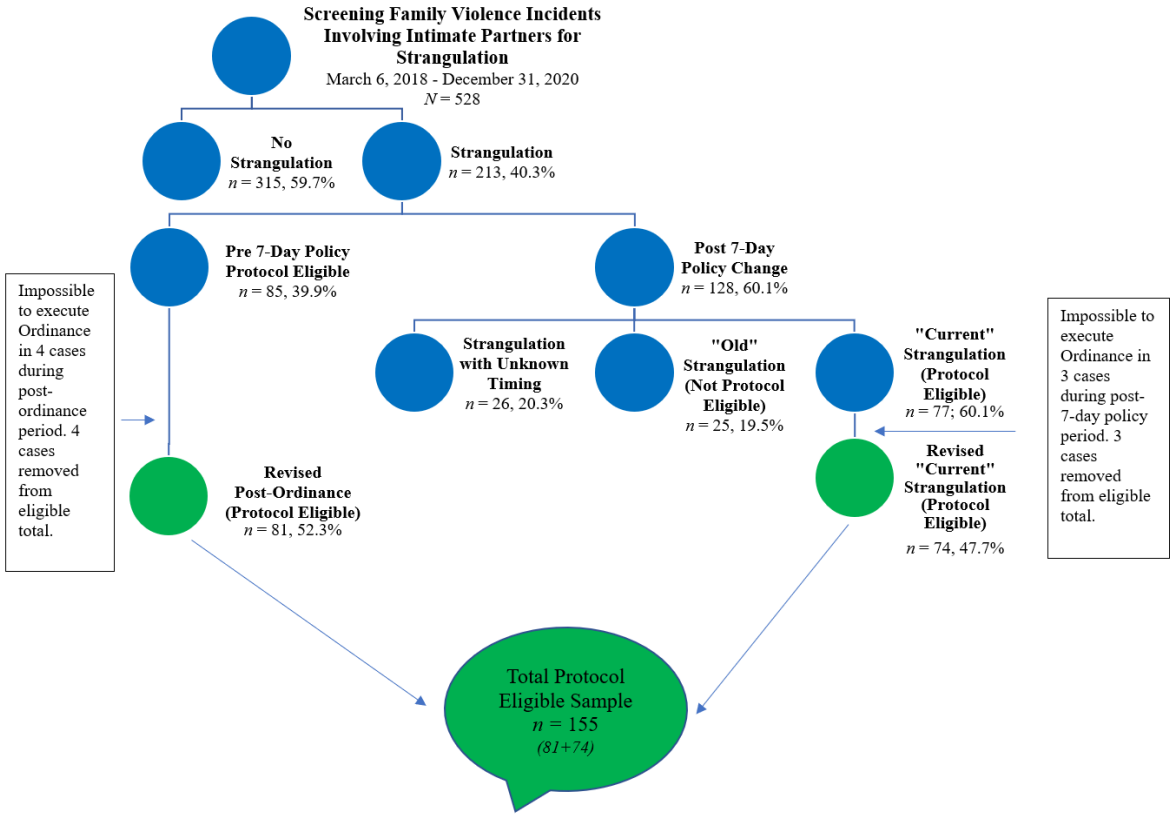
[36] The post 7-Day Policy change language indicates that strangulations occurring more than seven days after the incident report date, and without medical complaints, are not applicable to the Ordinance protocol. Protocol eligibility was assessed by identifying the incident report date and, when the case file mentioned strangulation, noting the timing of the disclosed strangulation event. The latter was captured through officer narratives, victim and witness statements, and/or content recorded by the responding officer on the family violence packet—which included direct disclosures of strangulation, as well as behavioral descriptions of the strangulation and any description of injury (or "medical complaint").

[37] While this analysis focuses on protocol eligibility, it is important to note that the protocol was implemented in some cases that fell outside of this definition because officers sometimes used a more liberal approach when strangulation timing was unclear, or close to the 7-day cut off, or for other reasons.

[38] One case involved a child victim and case processing was led by another agency, two incidents were reported after the victim had arrived at the local hospital, one incident involved a third-party report, and detectives were unable to contact/locate the victim, and one incident involved a strangled suspect who was never on-scene and the police were unable to locate. Two cases included documentation by the responding officer that the strangulation victim refused to engage with BPD. Rather than removing cases listwise so that each variable had a different *n*, all 7 cases were excluded from analysis.

seven cases, the final sample retained for fidelity assessment included a total of 155 protocol-eligible, IPV-related, FV incidents (n = 81, 52.3% pre 7-Day Policy and n = 74, 47.7% post 7-Day Policy). Figure 4 illustrates the selection of FV incidents for the process evaluation.

Figure 4. *Process to Determine Sample of Protocol-Eligible Strangulation Incidents*



Descriptive statistics for the sample of protocol-eligible, IPV-related strangulation incidents are presented in column 2 of Table 4. Results demonstrated that just over half of these incidents were reported during the initial Ordinance period *prior* to the *7-Day Policy Change* (n = 81, 52.3%). Fourteen cases involved other individuals who were a part of the incident and disclosed strangulation during the police response (9.0%), and less than half of the protocol-eligible sample in Table 4 were formally classified as *Impede Breath* in RMS (n = 69, 44.5%). Most of the protocol-eligible strangulation incidents were reported in Johnson County (n = 138, 89.0%).

Table 4. *Descriptive Statistics for the Post-Ordinance Case File Data*

	All Strangulation *n* = 213				Protocol-Eligible Cases *n* = 155			
Strangulation Case Characteristics	***n***	***%***	***M***	***SD***	***n***	***%***	***M***	***SD***
7-Day Policy Change								
Pre	85	39.9%			81	52.3%		
Post	128	60.1%			74	47.7%		
Days Elapsed			533.61	293.34			463.21	292.00
Strangulation								
Yes	213	100%			155	100%		
No	--	--			--	--		
Impede Breath								
Yes	75	35.2%			69	44.5%		
No	138	64.8%			86	55.5%		
Strangled Other								
Yes	17	8.0%			14	9.0%		
No	196	92.0%			141	91.0%		
Strangulation Time								
Unknown	26	12.2%			--	--		
Old (> 7 days)	25	11.7%			--	--		
Current (< 7 days)	77	36.2%			74	47.7%		
Not Applicable	85	39.9%			81	52.3%		

Note. When alleged or suspected strangulation was part of the incident for which a report was generated during the post-ordinance period but before the 7-Day Policy change, the timing of the strangulation was not applicable and therefore, is not reported.

Table 5 demonstrates that the number of *Officers On-Scene* for these offenses ranged from 1 to 22 (*M* = 2.92, *SD* = 2.10) and 41.9% of cases in this sample involved a *Supervisor On-Scene* (*n* = 65). Moreover, nearly one-third of protocol-eligible strangulation offenses reported a *Witness* (*n* = 50, 32.3%). Table shows that in terms of *Victim* demographic characteristics, 87.1% were female (*n* = 135) and the majority were White (*n* = 135, 87.1%), with a mean age of 33.34 (*SD* = 10.14, range = 15 to 76). *Suspects* averaged 34.79 years old (*SD* = 10.71, range = 17 to 78) and were predominantly White (*n* = 134, 86.5%) and male (*n* = 130, 83.9%). Most protocol-eligible strangulation incidents involved a *Male Suspect/Female Victim Dyad* (*n* = 130, 83.9%).

Table 5. *Descriptive Statistics for the Post-Ordinance Case File Data Case and Victim Characteristics*

	All Strangulation *n* = 213				Protocol-Eligible Cases *n* = 155			
Other Case Characteristics	***n***	***%***	***M***	***SD***	***n***	***%***	***M***	***SD***
County								
Johnson County	187	87.8%			138	89.0%		
Tarrant County	26	12.2%			17	11.0%		
Officers On-Scene			2.75	1.90			2.92	2.10
Supervisor On-Scene								
Yes	80	37.6%			65	41.9%		
No	133	62.4%			90	58.1%		
Witness								
Yes	61	28.6%			50	32.3%		
No	152	71.4%			105	67.7%		
Victim Characteristics								
Victim Age			34.56	11.22			33.34	10.14
Victim Sex								
Male	31	14.6%			20	12.9%		
Female	182	85.4%			135	87.1%		

Note. One incident in the full sample necessitated a SWAT police response and involved 22 officers on-scene. In some instances, Victim Sex was listed as unknown, but no cases in this sample had unknown as a designation

Table 6. *Descriptive Statistics for the Post-Ordinance Case File Data – Suspect Characteristics*

	All Strangulation *n* = 213				Protocol-Eligible Cases *n* = 155			
Suspect Characteristics	***n***	***%***	***M***	***SD***	***n***	***%***	***M***	***SD***
Victim Race								
White	188	88.3%			135	87.1%		
Black	22	10.3%			17	11.0%		
Asian	3	1.4%			3	1.9%		
Suspect Age			36.60	12.20			34.79	10.71
Suspect Sex								
Male	178	83.6%			130	83.9%		
Female	35	16.4%			25	16.1%		
Unknown	--	--			--	--		
Suspect Race								
White	185	86.9%			134	86.5%		
Black	26	12.2%			21	13.5%		
Asian	2	0.9%			--	--		
IPV Dyad Sex Composition								
Male Suspect/Female Victim	176	82.6%			130	83.9%		
Same Sex Dyad	8	3.8%			5	3.2%		
Female Suspect/Male Victim	29	13.6%			20	12.9%		

Note. One case was missing suspect demographic information in RMS. Descriptive statistics related to suspect demographic information report the valid percentage, which excludes missing data on this one case. Three cases had missing data in RMS for either the victim or the suspect and so the sex composition of the dyad could not be calculated. Descriptive statistics reports the valid percent, which excludes missing data on these three cases.

Fidelity Compliance Assessment Results

As previously summarized in the methodology, Chapter III, the Ordinance contains several key provisions[39] related to the new strangulation protocol. Fidelity to each of these Ordinance provisions was assessed using five binary measures captured from the case file data using objective and observable data drawn from an exhaustive review of the electronic case file information in RMS, CAD notes, and the fire department's strangulation worksheet data. As a reminder these items included:

(1) The administration of a Family Violence Packet (FVP) (No = 0, Yes = 1).
(2) The use of a specialized strangulation evaluation checklist in the FVP (No = 0, Yes = 1).
(3) Whether BPD *requested* BFD/emergency medical personnel's presence to evaluate and render aid to the suspected strangulation victim (No = 0, Yes = 1).
(4) The presence of BFD worksheet data as evidence that a medical evaluation and assessment was *completed* by BFD for the strangulation victim (No = 0, Yes = 1).
(5) Documentation of victim referral information to the appropriate support agency for assistance in the police report (No = 0, Yes = 1).

An assessment of fidelity compliance to the Strangulation Ordinance examines the subsample of 155 IPV-related protocol-eligible strangulation incidents. Table 7 below presents a descriptive overview of fidelity compliance on the five indicators listed above. A detailed discussion regarding fidelity compliance for each of the five Ordinance provisions appears in the following sections. The central finding gleaned from the content in Table 7 suggests that the Burleson response in the most of IPV-related strangulation cases formally reported to BPD

[39] To summarize, these items include: (a) When the act of strangulation is alleged or suspected within the city, the peace officer will summon emergency medical personnel to the scene to evaluate and render aid to the victim. (b) The peace officer will document emergency medical personnel 's presence and role in the police report by including their name, identification number, employment agency and unit number. (c) Peace officers shall provide the victim referral information to the appropriate support agency for assistance and document the referral in their police report. (d) Peace officers will thoroughly document the suspect's behavior, actions, and any comments made during the act of strangulation. (e) When the act of strangulation is alleged or suspected within the city, peace officers shall utilize a checklist approved by the Chief of Police to help evaluate the situation and provide aid to the victim. (f) When the act of strangulation is alleged or suspected within the city, emergency medical personnel shall conduct a medical evaluation and assessment to help evaluate the situation and provide aid to the victim.

during the post-ordinance period were compliant to most provisions outlined in the Strangulation Ordinance. While these results are promising, the principal objective in a process evaluation is the identification and subsequent investigation of any fidelity problems to better understand the context and circumstances surrounding non-compliance. As a result, remaining analyses largely focus on cases where *fidelity was not achieved* by Burleson stakeholders.

As Table 7 below demonstrates, there is a cumulative effect of non-compliance to each fidelity item, where non-compliance on one fidelity item may adversely impact compliance to the subsequent Ordinance requirement. It appears that this has occurred here—the percentage of cases with Ordinance compliance has decreased at each subsequent Ordinance requirement. This is demonstrated below in Figure 5.

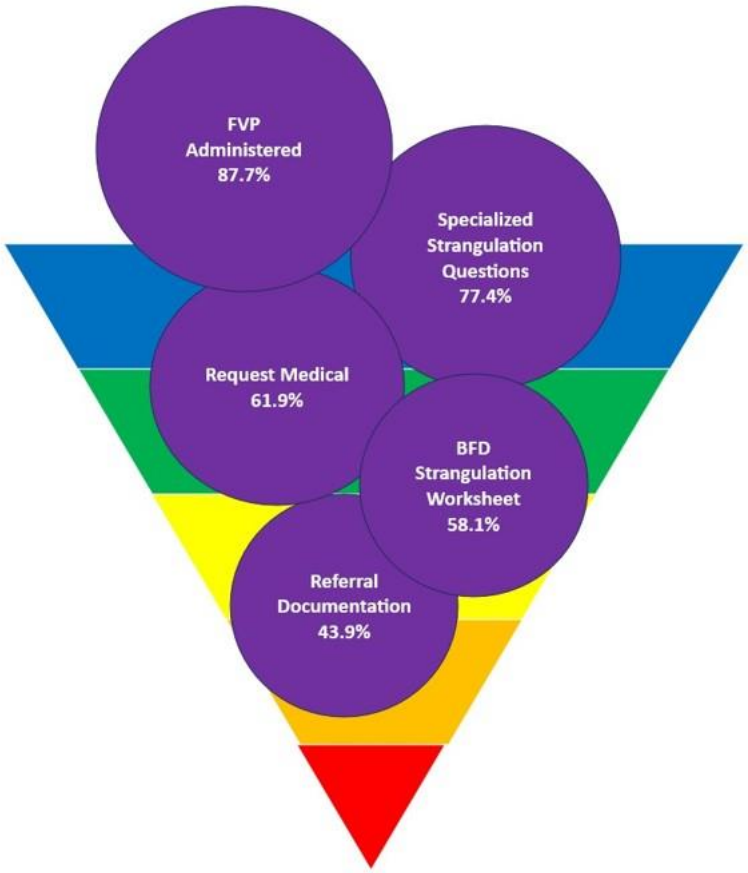
Table 7. *Frequency Distribution of Fidelity Compliance on Ordinance Requirements*

	Fidelity Compliance *n* = 155			
	No		**Yes**	
	n	**%**	***n***	**%**
Ordinance Requirements for Fidelity Compliance				
Administration of Family Violence Packet	19	12.3%	136	87.7%
Use of Specialized Strangulation Questions	35	22.6%	120	77.4%
BPD Requested Medical Personnel for Strangulation Victim	59	38.1%	96	61.9%
BFD Administers Strangulation Worksheet	65	41.9%	90	58.1%
Documentation of Police Referrals to Support Agency	87	56.1%	68	43.9%

As illustrated in Figure 5, 87.7% (n = 136) of protocol-eligible cases had the FVP, but among cases without the FVP (n = 19, 12.3%), administration of the required strangulation questions is not possible; thus, compliance decreases from 87.7% of cases with the FVP to 77.4% where the specialized questions were administered. Moreover, when the specialized strangulation questions are not administered, police miss an important opportunity to collect information about the strangulation event and this makes it less likely that police will request medical personnel to assess/treat the victim during the incident response. This reduction is evident in Table 7 above, where the percentage of compliant cases where the specialized

questions were administered decreases from 77.4% (n = 120) to 61.9% (n = 96) in cases where BPD requested a medical response.

Figure 5. *Demonstration of Declining Fidelity Compliance*



To summarize, when medical personnel have not been requested/dispatched to the scene, then it is not possible for BFD to administer the strangulation worksheet as part of their assessment and evaluation of the victim. Caution must be exercised when interpreting fidelity compliance results for BFD. Specifically, Table 7 demonstrates compliance (58.1%, n = 90) of cases and noncompliance (41.9%, n = 65) of cases as related to the Ordinance requirement for BFD. These low values *do not reflect an inadequate response by BFD* but indicate that their presence was not requested by BPD when it should have been. This will be discussed in greater detail in the subsection related to the BFD strangulation worksheet.

This resource was prepared by the author(s) using Federal funds provided by the U.S. Department of Justice. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Fidelity: Administration of Family Violence Packet. Nineteen incidents (12.3%) of 155 total protocol-eligible strangulation incidents did *not* include the FVP. In these 19 cases flagged for non-compliance, seven (36.8%) were reported in the first year following the passage of the Ordinance (March 6, 2018 - March 6, 2019). Among these seven cases reported in the first year, two occurred in the first 6 months following the passage of the Ordinance (March 6, 2018 – September 6, 2018). The remainder of cases (n = 12, 63.1%) flagged for non-compliance of this fidelity item were reported to police after the first year of the Ordinance's implementation.

Table 8 below presents descriptive statistics for these 19 cases and reveals that just over one-third were reported before the *7-Day Policy Change* (n = 7, 36.8%), one (5.3%) case was officially identified as an impede breath incident in RMS, and 11 cases (57.9%) described a strangulation outcry by someone other than the primary victim (e.g., a strangled suspect, witness, involved other). While there may have been a FVP for the IPV victim in the case, police did not always administer the FVP for other individuals who disclosed strangulation during the incident response (the "*Strangled Other*"). In two (10.5%) of these 19 incidents, the responding officer documented the strangulation victim's refusal to provide information for the FVP. Most non-compliant cases without a FVP were reported in Johnson County (n = 16, 84.2%), just under half of these incidents involved a *Supervisor* (n = 9, 47.4%), and 57.9% (n = 11) had a *Witness*.

[Table on next page]

Table 8. *Descriptive Statistics of Protocol-Eligible Incidents without the FVP*

	Fidelity Non-Compliance – FVP Administration *n* = 19				
	n	**%**	***M***	***SD***	***Range***
Ordinance Days Elapsed			562.32	292.17	67 - 933
Reported Before 7-Day Policy Change	7	36.8%			
Identified as Strangulation in RMS	1	5.3%			
Strangled Other	11	57.9%			
FVP Victim Refusal Documented	2	10.5%			
County - Johnson County	16	84.2%			
Number of Officers On-Scene			2.79	1.48	1 - 7
Number of Supervisor On-Scene	9	47.4%			
Witness	11	57.9%			
Male Suspect/Female Victim Dyad	11	57.9%			
Victim Race - White	18	90.0%			
Victim Age			31.58	11.32	19 – 54
Suspect Race- White	17	89.5%			
Suspect Age			31.95	10.63	18 – 69

Next, a series of bivariate analyses examined the role of case characteristics and victim demographic information on administration of the FVP and results are presented below in Table 9. There were statistically significant differences across fidelity compliance groups (No = 0, Yes = 1), and included cases formally identified as *Impede Breath*, involving a *Strangled Other*, with a *Witness* on-scene, and involving a *Male Suspect/Female Victim Dyad*. The analysis will focus on these specific findings.

Among the 69 cases formally identified as *Impede Breath* in the protocol-eligible sample, 98.6% (*n* = 68) were compliant with this Ordinance requirement and included a FVP, compared to one incident that was not designated as an *Impede Breath* incident (1.4%) and was flagged for missing FVP data [Fisher's Exact Test, $p < .001$]. More than 78% of the 14 incidents with a *Strangled Other* were flagged for fidelity (*n* = 11, 78.6%) compared to three (21.4%) out of 14 cases involving a *Strangled Other* that were fidelity compliant [Fisher's Exact Test, $p < .001$]. Among the 50 protocol-eligible strangulation incidents with a *Witness*, the majority (*n* = 39,

78%) included administration of the FVP, compared to 22% of incidents (n = 11 out of 50) with witnesses that were missing a FVP [$\chi^2_{(1)} = 6.513$, $p = .011$, two-sided]. Finally, there were

Table 9. *Bivariate Analyses of Variables Correlated with Fidelity Compliance for Administration of the FVP.*

	Administration of Family Violence Packet ***N* = 155**					
	No ***n* = 19**		**Yes** ***n* = 136**		**Total**	**Test Statistic**
Variables	***n***	**%**	***n***	**%**		
7-Day Policy Change						$\chi^2_{(1)} = 2.063$
Pre Policy Change	7	8.6%	74	91.4%	81	
Post Policy Change	12	16.2%	62	83.8%	74	
Impede Breath						Fisher's Exact Test
Impede Breath Incident	1	1.4%	68	98.6%	69	$p = < .001$
Not Impede Breath Incident	18	20.9%	68	79.1%	86	
Strangled Other						Fisher's Exact Test
Yes	11	78.6%	3	21.4%	14	$p = < .001$
No	8	5.7%	133	94.3%	141	
County						Fisher's Exact Test
Johnson County	16	11.6%	122	88.4%	138	$p = .001$
Tarrant County	3	17.6%	14	82.4%	17	
Supervisor On-Scene						$\chi^2_{(1)} = 0.262$
Yes	9	13.8%	56	86.2%	65	
No	10	11.1%	80	88.9%	90	
Witness						$\chi^2_{(1)} = 6.513$*
Yes	11	22.0%	39	78.0%	50	
No	8	7.6%	97	92.4%	105	
Male Suspect/Female Victim Dyad						$\chi^2_{(1)} = 10.801$***
Yes	11	8.5%	119	91.5%	130	
No	8	32.0%	17	68.0%	25	
Victim Race						Fisher's Exact Test
White	17	12.6%	118	87.4%	135	$p = 1.00$
Non-White	2	10.0%	18	90.0%	20	
	n	***M* (*SD*)**	***n***	***M* (*SD*)**	**Total**	**Test Statistic**
Ordinance Days Elapsed	19	562.32 (292.17)	136	449.36 (290.35)	155	$t_{(153)} = 1.587$
Number of Officers On-Scene	19	2.79 (1.48)	136	2.93 (2.17)	155	$t_{(153)} = -.280$
Victim Age	19	31.58	136	33.59	155	$t_{(153)} = -.808$

Note. Row percentages are reported. Means and standard deviations are reported for continuous variables. Fisher's Exact Test does not produce a test statistic; p value is reported. *$p < .05$. **$p < .01$. ***$p < .001$

significant differences among the 131 protocol-eligible incidents involving a *Male Suspect/Female Victim Dyad*, where 91.5% (n = 119) of these cases were fidelity complaint,

compared to 8.5% (n = 11) of incidents with a *Male Suspect/Female Victim Dyad* that were missing a FVP [$\chi^2_{(1)} = 10.801$, $p = .001$, two-sided].

Table 10 presents qualitative patterns that emerged following a review of cases flagged for fidelity among the sample of protocol eligible IPV-related strangulation offenses where a FVP was not administered during an incident with alleged or suspected strangulation (n = 19). As stated above, more than half of these cases involved a disclosure of strangulation by someone other than the primary IPV victim as defined in RMS (n = 11). A close look at the eight cases without a FVP that did *not* involve a "*Strangled Other*" produced additional insights not captured in the bivariate models. Two of the eight cases had references in the officer narrative that a FVP had been completed, but the PDF attachment was not in RMS. In another instance, the Fort Worth Police Department's FVP was attached which does not include key components of the Ordinance.[40] The remaining five cases did not have observable patterns of possible reasons that the FVP was overlooked by Burleson responding officers.

The circumstances surrounding these five cases indicate fidelity concerns because protocol should have been followed by responding officers and was not. In all five of the incidents which should have triggered the strangulation protocol, there were explicit references to "strangulation" and/or "choking" in the officer narrative. For example, in one incident report the officer noted:

> At one point she advised he "had the shit beat out of her" and asked Officers if we could see strangulation marks on her neck. Officers asked if she was choked tonight [sic] and [the victim] advised she was. Medstar was contacted to come and evaluate [the victim] due to the allegation of her

[40] The use of the FWPD FVP is problematic because it does not contain the specialized strangulation questions or the opportunity to document the involved medical personnel as required by the Ordinance. Understandably, officers may have wanted to avoid traumatizing the victim by asking to complete a FVP that is 95% identical to the one used in Burleson.

being strangled. When asked who strangled her, she advised it was [the suspect]. [The victim] advised he had grabbed her from behind choked her.

While a medical response was initiated, neither the FVP nor the specialized strangulation questions were administered. This resulted in a missed opportunity for police to document critical information about the incident and details surrounding the strangulation.

Table 10. *Qualitative Patterns in Protocol-Eligible Incidents without the FVP*

Qualitative Patterns	*n*
No FVP	19
Strangled Other	11
The strangulation outcry came from someone other than the primary victim[41]	
Victim	8
Among cases where *Strangled Other* is no, multiple reasons for fidelity concern exist and not all are mutually exclusive.	
Fidelity Concern Explanations	
Among the 8 cases where a strangled other was not involved, there were multiple reasons that the FVP was not administered (responses not mutually exclusive, numbers will not add to 8).	
• The strangulation victim refused the FVP and related documents	1
• Incident narrative references administration of a FVP, but no FVP found in RMS	2
• Case file attachments included the Fort Worth Police Department's FVP	1
Explicit circumstances that should have triggered the full protocol. Examples of the explicit circumstances include (responses not mutually exclusive):	5
• Narrative references "strangulation/strangle," "choking/choke, choke hold"	5
• Medical was called to the scene[42]	4
• Victim had visible injury	1
• Victim reported strangulation symptoms	1

Note. Thematic Fidelity Concern Explanations categories are not mutually exclusive.

In another protocol-eligible incident reported *prior* to the 7-Day Policy Change, the officer wrote, "*[the victim] stated in the past assaults (sic) he has hit her and choked her prior to*

[41] This means an individual other than the victim identified by police and reflected in RMS.
[42] Two of these four cases involved an on-scene medical response for reasons other than the victim's strangulation. In one instance, medical was summoned for the suspect (though the victim was assessed for strangulation), and in the other incident, MedStar responded on-scene to assess/treat a victim's head injury, but BFD were not on-scene and the victim in this incident was not assessed for strangulation.

this incident." An additional incident report stated, *"[the suspect] also assaulted her and choked her during this incident*." In this case, a medical response was requested, and emergency medical personnel (EMP) were dispatched to the incident, but this response was initiated for reasons other than strangulation. However, while BFD was on-scene, the victim in this case was assessed for strangulation.

Although police still requested an emergency medical response in four of the five cases described above, in two of these instances, the victim's strangulation was not the primary reason for the medical request. While the other strangulation victim was treated for a head injury, they were *not assessed* for strangulation. In the single case where medical was *not* requested, the incident report included an explicit reference to a child victim who was put into a "*choke hold*," although there was no documentation of the initiation of the strangulation protocol. Finally, in two of the five incidents where victims were not medically assessed, an officer referenced prior drug use (e.g., marijuana, heroin) by the victim, and in one case, the strangulation victim was arrested for a drug offense.

FVP Fidelity Summary. The findings from this section demonstrate that most strangulation incidents included the administration of the FVP. A relatively small percent of the total protocol-eligible strangulation incidents (n = 19, 12.3% of 155 total) did *not* include the FVP. Most cases that were non-compliant on this fidelity indicator were reported to BPD after the first year of implementation (n = 12, 63.2%). Of note, factors associated with an increased likelihood of administration of the FVP include the designation of the case in RMS as *Impede Breath*, the presence of a *Witness*, and when the IPV dyad involved a *Male Suspect/Female Victim*. Conversely, strangulation cases where the strangulation disclosure was from an individual other than the RMS-designated victim (*Strangled Other*) were less likely to have the

FVP compared to incidents involving a strangulation disclosure from the individual police identified as the IPV *Victim*.

Administration of Burleson Specialized Strangulation Questions. Of the 155 protocol-eligible incidents, approximately one-quarter did not include evidence that the Burleson specialized strangulation questions were not administered to the strangulation victim (*n* = 35, 22.6%), compared to 77.4% (*n* = 120) of incidents with evidence that the responding officer noted a response to the specialized strangulation items. In the 35 cases flagged for this fidelity indicator, 13 cases (37.1%) occurred in the first year of implementation (March 6, 2018 - March 6, 2019). Among these cases in the first year, 4 occurred in the first 6 months of the ordinance (March 6, 2018 – September 6, 2018). The remainder of cases (*n* = 22, 62.8%) were flagged for fidelity after the first year of implementation.

Table 11 below presents additional descriptive statistics regarding these 35 noncompliant cases and reveals that just under half were reported before the *7-Day Policy Change* (*n* = 16, 45.7%), only two of these incidents were formally classified as *Impede Breath* in RMS (5.7%), and more than one-third (*n* = 12, 34.3%) involved a strangulation disclosure from someone other than the RMS-identified victim (e.g., a strangled suspect, witness, involved other). In four incidents (11.4%), the officer provided written documentation that the victim explicitly refused to answer the specialized strangulation question sequence. Most cases were reported in Johnson County (*n* = 31, 88.6%), less than half of the 36 incidents involved a *Witness* (*n* = 15, 42.9%), and just over one-third had a BPD *Supervisor On-Scene* (*n* = 13, 37.1%).

Table 11. *Descriptive Statistics for Fidelity Non-Compliant Incidents where Burleson Specialized Strangulation Questions Were Not Administered*

	Fidelity Non-Compliance - Burleson Specialized Strangulation Questions Not Administered *n* = 35				
	n	**%**	***M***	***SD***	***Range***
Ordinance Days Elapsed			546.11	290.55	67 – 1004
Reported Before 7-Day Policy Change	16	45.7%			
Identified as Strangulation in RMS	2	5.7%			
Strangled Other	12	34.3%			
FVP Victim Refusal Documented	4	11.4%			
County - Johnson County	31	88.6%			
Number of Officers On-Scene			2.77	1.42	1 – 7
Number of Supervisor On-Scene	13	37.1%			
Witness	15	42.9%			
Male Suspect/Female Victim Dyad	25	71.4%			
Victim Race - White	31	88.6%			
Victim Age			34.46	13.72	19 – 76
Suspect Race- White	31	88.6%			
Suspect Age			36.06	12.93	18 – 67

Bivariate analyses examined the role of case characteristics and victim demographic information on administration of the Burleson specialized strangulation questions. These results are presented in Table 12. A series of chi-square tests revealed significant differences across fidelity compliant and non-compliant cases pertaining to three variables: cases formally classified as *Impede Breath* in RMS, cases involving a *Strangled Other,* and cases with a *Male Suspect/Female Victim Dyad*. Specifically, police adhered to Ordinance requirements regarding the specialized strangulation questions in 97.1% (n = 67) of the 69 incidents formally identified as *Impede Breath* [Fisher's Exact Test, p <.001]. Twelve of the 14 cases involving a *Strangled Other* (85.7%) were flagged for fidelity, compared with only 2 of these 14 total incidents (14.3%) that were fidelity compliant [Fisher's Exact Test, p < .001]. Finally, the most cases involving a *Male Suspect/Female Victim Dyad* were fidelity compliant (n = 105 of 130 cases, 80.8%), compared to less than one-fifth of cases with a *Male Suspect/Female Victim Dyad* that were flagged for fidelity (n = 25, 19.2%), [$\chi^2_{(1)} = 5.174$, $p = .023$].

Table 12. *Bivariate Analyses of Variables Correlated with Fidelity Compliance for Administration of Burleson Specialized Strangulation Questions*

	Administration of Burleson Specialized Strangulation Questions *n* = 155					
	No *n* = 35		Yes *n* = 120		Total	Test Statistic
Variables	***n***	**%**	***n***	**%**		
7-Day Policy Change						$\chi^2_{(1)} = .776$
Pre Policy Change	16	19.8%	65	80.2%	81	
Post Policy Change	19	25.7%	55	74.3%	74	
Impede Breath						Fisher's Exact Test
Impede Breath Incident	2	2.9%	67	97.1%	69	$p = <.001$
Not an Impede Breath Incident	33	38.4%	53	61.6%	86	
Strangled Other						Fisher's Exact Test
Yes	12	85.7%	2	14.3%	14	$p = <.001$
No	23	16.3%	118	83.7%	141	
County						Fisher's Exact Test
Johnson County	31	22.5%	107	77.5%	138	$p = 1.00$
Tarrant County	4	23.5%	13	76.5%	17	
Supervisor On-Scene						$\chi^2_{(1)} = 0.426$
Yes	13	20.0%	52	80.0%	65	
No	22	24.4%	68	75.6%	90	
Witness						$\chi^2_{(1)} = 2.324$
Yes	15	30.0%	35	70.0%	50	
No	20	19.0%	85	81.0%	105	
Male Suspect/Female Victim Dyad						$\chi^2_{(1)} = 5.174$*
Yes	25	19.2%	105	80.8%	130	
No	10	40.0%	15	60.0%	25	
Victim Race						Fisher's Exact Test
White	31	23.0%	104	77.0%	135	$p = 1.00$
Non-White	4	20.0%	16	80.0%	20	
	n	***M* (*SD*)**	***n***	***M* (*SD*)**	**Total**	**Test Statistic**
Ordinance Days Elapsed	35	546.11 (290.549)	120	439.025 (289.151)	155	$t_{(153)} = 1.926$
Number of Officers On-Scene	35	2.77 (1.42)	120	2.26	155	$t_{(153)} = -0.463$
Victim Age	35	34.6 (13.75)	120	33.02 (8.87)	155	$t_{(153)} = 0.739$

Note. Row percentages are reported. Means and standard deviations are reported for continuous variables. Fisher's Exact Test does not produce a test statistic; *p* value is reported. *$p < .05$. **$p < .01$. ***

Table 13 presents the results of the multivariate binary logistic regression model predicting administration of the Burleson specialized strangulation questions in the FVP. The regression model was statistically significant and provided a good fit to the data, accounting for approximately 42% of the variance in the dependent variable as evidenced by the Nagelkerke R^2.

Two variables emerged as significant predictors of fidelity compliance: *Strangled Other* and *Impede Breath*. If an incident involved a strangulation outcry from a *Strangled Other*, the odds that the specialized questions were administered according to the Ordinance protocol decreased by 94%. In contrast, incidents that were formally classified as an *Impede Breath* offense in the RMS incident report were 14.3 times more likely to be fidelity compliant for administration of the Burleson specialized strangulation questions compared to those incidents that were not officially designated as an *Impede Breath* incident.

Table 13. *Multivariate Binary Logistic Regression Model Predicting Fidelity Compliance on Administration of Burleson Specialized Strangulation Questions*

		***n* = 155**	
Incident Characteristics	***b***	**S.E.**	**Exp (β)**
7-Day Policy Change	-0.333	0.47	0.717
Pre Policy Change			
Post Policy Change			
Strangled Other	-2.804	0.942	0.061*
Impede Breath Offense	2.663	0.772	14.3377*
Witness	-0.062	0.525	0.940
Number of BPD Officers On-Scene	0.116	0.178	1.122
BPD Supervisor On-Scene	-0.031	0.530	0.969
Male Suspect/Female Victim Dyad	-0.277	0.720	0.758
Constant	.990	0.81	2.69
Nagelkerke R^2	0.42		
Cox & Snell R^2	0.277		

Note: For all binary variables, No = 0, Yes = 1; *$p < .05$. **$p < .01$. ***

Special Strangulation Questions Fidelity Summary. Among the 155 protocol-eligible strangulation cases, 23% (n = 35) did not include evidence that the specialized strangulation questions were administered to the victim. Most cases with problems on this fidelity indicator were reported after the first year of implementation (n = 22 or 62.8%). Like the findings presented in the prior section on administration of the FVP, when the strangulation outcry involved an individual other than the RMS-identified victim, non-compliance on administration

of the specialized strangulation questions was more likely. Specifically, the findings presented in this section have illustrated that the odds that the specialized questions were administered according to the Ordinance protocol decreased by 94% when the incident involved a "*Strangled Other*." Conversely, if the event was classified as *Impede Breath*, officers were 14.33 times more likely to administer the specialized questions.

BPD Requested Medical Personnel to Evaluate/Render Aid to Strangulation Victim. In the 155 protocol-eligible strangulation cases, more than one-third (*n* = 59, 38.1%) did not include a medical response request by BPD for alleged or suspected strangulation. In these 59 cases, 31 (52.5%) were in the first year (March 6, 2018 - March 6, 2019). Among these cases, 19 occurred in the first 6 months of the ordinance (March 6, 2018 – September 6, 2018). The remainder of cases (*n* = 45, 76.3) flagged for fidelity occurred after the first year of implementation.

Table 14 presents additional descriptive statistics regarding these 59 non-compliant cases and reveals that just over half were reported prior to the *7-Day Policy Change* (*n* = 38, 64.4%) and the majority were reported in Johnson County (*n* = 51, 86.4%). Less than one-fifth were formally identified as *Impede Breath* in RMS (*n* = 11, 18.6%) and 13.6% (*n* = 8) involved a strangulation disclosure from a *Strangled Other*. More than one-quarter of incidents involved a *Supervisor On-Scene* (*n* = 17, 28.8%) and 27.1% (*n* = 16) had a *Witness*. Only five incidents (8.5%) included documentation that the victim refused to answer questions in the FVP. A majority of these 59 fidelity non-compliant incidents involved a *Male Suspect and Female Victim Dyad* (*n* = 49, 83.1%). Most *Victims* (*n* = 52, 88.1%) and *Suspects* (*n* = 50, 84.7%) were White and averaged 32 and 33 years old, respectively.

Table 14. *Descriptive Statistics for Fidelity Non-Compliant Incidents Where Medical Personnel were Not Requested to Assess/Treat the Strangulation Victim*

	Fidelity Non-Compliance - Medical Personnel were not Requested to Assess/Treat the Strangulation Victim ***n* = 59**				
	n	**%**	***M***	***SD***	***Range***
Ordinance Days Elapsed			403.66	292.64	28 – 1004
Reported Before 7-Day Policy Change	38	64.4%			
Identified as Strangulation in RMS	11	18.6%			
Strangled Other	8	13.6%			
FVP Victim Refusal Documented	5	8.5%			
County - Johnson County	51	86.4%			
Number of Officers On-Scene			2.20	1.06	1 – 6
Number of Supervisor On-Scene	17	28.8%			
Witness	16	27.1%			
Male Suspect/Female Victim Dyad	49	83.1%			
Victim Race - White	52	88.1%			
Victim Age			32.29	11.16	15 – 76
Suspect Race- White	50	84.7%			
Suspect Age			33.44	11.17	17 – 63

Bivariate analyses examined the role of case characteristics and victim demographic information on fidelity compliance to the Ordinance requirement that BPD request medical personnel to assess and treat the strangulation victim. Several significant findings emerged, and Table 10 below presents these results. An independent samples *t*-test revealed statistically significant differences in the mean number of days elapsed from the date of Ordinance implementation (March 6, 2018), where mean number of days was significantly lower among non-compliant cases (M =403.66*, SD* = 292.64) compared to cases that were compliant (M = 499.80*, SD* = 287.01) with the Ordinance [$t_{(121.024)} = -2.01$, $p = .046$, two-sided]. This finding is supported by the results of a chi-square test demonstrating statistically significant differences on fidelity compliance among cases reported *prior* to the 7-Day Policy Change compared to cases reported post-7-Day Policy Change. As Table 10 demonstrates, police adhered to the Ordinance requirements to request medical personnel in response to strangulation in 72% (n = 53 of the 74

cases reported after the 7-Day Policy Change compared to only 28% (n = 21 of 74) of cases reported during this same time that were not fidelity compliant [$\chi^2_{(1)} = 5.635$, $p = .018$].

Table 15 below also shows statistically significant differences for fidelity compliance among cases formally identified as *Impede Breath* and cases that involved a *Supervisor On-Scene*. Specifically, among the 69 cases formally identified as *Impede Breath*, 84.1% (n = 58) were fidelity compliant compared to 15.9% (n = 11) *Impede Breath* offenses flagged for fidelity for non-compliance [$\chi^2_{(1)} = 25.81$, $p < .001$]. Moreover, among the incidents involving a *Supervisor On-Scene*, nearly three-quarters were fidelity compliant (n = 48 of 65, 73.8%) compared to only 17 (26.2%) of the 65 total cases with a *Supervisor On-Scene* were flagged for fidelity for the failure to request medical personnel to assess/treat the victim [$\chi^2_{(1)} = 6.73$, $p = .009$]. Finally, an independent samples t-test revealed significant differences on the mean number of *Officers On-Scene* between fidelity compliant and non-compliant cases; the mean number of *Supervisor On-Scene* was greater among fidelity compliant incidents (M = 3.35, SD = 2.43) compared to cases flagged for failure to request medical personnel to assess/treat the victim (M = 2.20, SD = 1.06), [$t_{(140.942)} = -4.049$, $p < .001$, two-sided].

[Table on next page]

Table 15. *Bivariate Analyses of Variables Correlated with Fidelity Compliance for BPD's Medical Personnel Request to Assess/Treat Strangulation Victim*

	BPD Requested Medical Personnel to Assess/Treat Strangulation Victim *N* = 155					
	No *n* = 59		Yes *n* = 96			
Variables	***n***	**%**	***n***	**%**	**Total**	**Test statistic**
7-Day Policy Change						$\chi^2_{(1)} = 5.635$*
Pre Policy Change	38	46.9%	43	53.1%	81	
Post Policy Change	21	28.4%	53	71.6%	74	
Impede Breath						$\chi^2_{(1)} = 25.816$***
Impede Breath Incident	11	15.9%	58	84.1%	69	
Not Impede Breath Incident	48	55.8%	38	44.2%	86	
Strangled Other						$\chi^2_{(1)} = 2.376$
Yes	8	57.1%	6	42.9%	14	
No	51	36.2%	90	63.8%	141	
County						$\chi^2_{(1)} = 0.655$
Johnson County	51	37.0%	87	63.0%	138	
Tarrant County	8	47.1%	9	52.9%	17	
Supervisor On-Scene						$\chi^2_{(1)} = 6.736$*
Yes	17	26.2%	48	73.8%	65	
No	42	46.7%	48	53.3%	90	
Witness						$\chi^2_{(1)} = 1.151$
Yes	16	32.0%	34	68.0%	50	
No	43	41.0%	62	59.0%	105	
Male Suspect/Female Victim Dyad						$\chi^2_{(1)} = 0.047$
Yes	49	37.7%	81	62.3%	130	
No	10	40.0%	15	60.0%	25	
Victim Race						$\chi^2_{(1)} = 0.091$
White	52	38.5%	83	61.5%	135	
Non-White	7	35.0%	13	65.0%	20	
	n	***M* (*SD*)**	***n***	***M* (*SD*)**	**Total**	**Test Statistic**
Ordinance Days Elapsed	59	403.66 (292.64)	96	500.39 (285.57)	155	$t_{(121.024)} = -2.001$*
Number of Officers On-Scene	59	2.20 (1.06)	96	3.35 (2.43)	155	$t_{(140.942)} = -4.049$***
Victim Age	59	32.29 (11.16)	96	33.99 (9.46)	155	$t_{(153)} = -1.015$

Note. Row percentages are reported. Means and standard deviations are reported for continuous variables. Fisher's Exact Test does not produce a test statistic; *p* value is reported. *$p < .05$. **$p < .01$. ***$p < .001$

As shown below in Table 16 below, a multivariate binary logistic regression model was estimated to account for the effect of incident characteristics on fidelity compliance regarding BPD's request of medical personnel to assess/treat the strangulation victim (No = 0, Yes = 1).

Table 16 presents the full results of the multivariate binary logistic regression model predicting fidelity compliance on BPD's request for medical personnel to assess/treat the strangulation victim. The regression model was statistically significant and provided a good fit to the data, accounting for 44% of the variance in the dependent variable as evidenced by the Nagelkerke R^2. Three variables were significant predictors of fidelity compliance: *7-Day Policy Change, Impede Breath* incident*,* and *Number of BPD Officers On-Scene.* Incidents reported after the 7-Day Policy change were 2.7 times more likely to involve BPD's request for medical personnel to assess/treat the strangulation victim compared to incidents reported before the 7-Day Policy change. Moreover, incidents that were formally classified as *Impede Breath* in the incident report were 10.2 times more likely to involve BPD's request for medical personnel to assess/treat the strangulation victim compared to those incidents that were not officially designated as *Impede Breath*. Finally, there was a significant positive relationship between the *Number of BPD Officers On-Scene* and fidelity compliance in requesting medical personnel, where each officer on the scene increased the odds of fidelity compliance by 2.1 times. In contrast to the bivariate tests, having a *Supervisor On-Scene* was not a significant factor in this model.

[Table on next page]

Table 16. *Multivariate Binary Logistic Regression Model Predicting Fidelity Compliance on BPD's Request for Medical Personnel to Assess/Treat the Strangulation Victim*

		***N* = 155**	
Incident Characteristics	***b***	**S.E.**	**Exp (β)**
7-Day Policy Change	1.002	0.426	2.723*
Pre Policy Change			
Post Policy Change			
Strangled Other	-1.108	0.753	0.330
Impede Breath Offense	2.322	0.486	10.194***
Witness	0.603	0.466	1.828
Number of BPD Officers On-Scene	0.739	0.200	2.094***
BPD Supervisor On-Scene	0.022	0.465	1.022
Male Suspect/Female Victim Dyad	-0.731	0.583	0.481
Constant	-2.259	0.758	0.104
Nagelkerke R^2	0.436*		
Cox & Snell R^2	0.321		

Note: For all binary variables, No = 0, Yes = 1; *$p < .05$. **$p < .01$. ***$p < .001$

BPD Summons Medical Fidelity Summary. Among the 155 protocol-eligible strangulation cases, more than one-third (n = 59, 38.1%) did not include a medical request by BPD when strangulation was alleged or suspected. Among 59 cases flagged for this fidelity indicator, 31 occurred in the first year (March 6, 2018 - March 6, 2019). Three factors significantly increased compliance with this outcome: the case occurred after the *7-Day Policy Change*; the case was formally classified as impede breath in RMS and having more officers on-scene.

The Presence of BFD Worksheet Data on Strangulation Victim. A review of fidelity compliance to the Ordinance requirement regarding Burleson Fire Department's medical assessment of the strangulation victim was captured from a review of BFD worksheet data. In 155 of the protocol-eligible strangulation cases, 41.9% (n = 65) did not include BFD worksheet data for the strangulation victim. In the 65 cases flagged for fidelity on this indicator, 36 (55.4%) were in the first year (March 6, 2018 - March 6, 2019). Among these cases in the first year, 24 occurred in the first 6 months of the ordinance (March 6, 2018 – September 6, 2018). The

remainder of cases flagged for fidelity (*n* = 29, 44.6%) occurred after the first year of implementation.

As demonstrated by Table 16 above, BFD *did not have* the opportunity to administer a worksheet to at least 59 strangulation victims because BPD did not request a medical response to render aid to strangulation victims to begin with, making it impossible for BFD to execute their Ordinance duties. But in cases where medical was requested (*n* = 96), BFD only administered the strangulation worksheet to 90 of the 96 victims resulting in six victims without a worksheet completed. Coding notes indicate that in these six cases, all occurred in the early stages of the Ordinance (i.e., in 2018) and there seemed to be confusion among some officers about how to implement the request for medical response (i.e., request BFD, MedStar or both). For example, BPD might call MedStar to evaluate and render aid but not BFD, or MedStar waived off BFD when BPD requested their assistance, or BFD was called, but victims were assessed for other injuries other than strangulation.

Table 17 below presents additional descriptive statistics of protocol-eligible strangulation incidents without BFD worksheet data for the suspected strangulation victim. Two-thirds of fidelity non-compliant incidents were reported prior to the *7-Day Policy Change* (*n* = 43, 66.2%) Just over one-fifth of these 65 fidelity non-compliant incidents were formally identified as *Impede Breath* (*n* = 14, 21.5%) and approximately 12% (*n* = 8, 12.3%) involved a strangulation disclosure from someone other than the IPV victim. Five incidents (7.7%) included documentation that the strangulation victim refused to answer questions in the FVP. Most of these incidents were reported in Johnson County (*n* = 57, 87.7%) and more than one-quarter of the 65 incidents involved a *Supervisor On-Scene* (*n* = 23, 35.4%). Some 26.2% (*n* = 17) of these incidents had a *Witness* to the incident. A majority of the 65 fidelity non-compliant incidents

involved a *Male Suspect and Female Victim Dyad* (*n* = 53, 81.5%). Most victims (*n* = 58, 89.2%) and suspects (*n* = 56, 86.2%) were White and averaged 32 and 33 years old, respectively.

Table 17. *Descriptive Statistics for Fidelity Non-Compliant Incidents without BFD Worksheet Data for the Strangulation Victim*

	Fidelity Non-Compliance - No BFD Worksheet Data for the Strangulation Victim *N* = 65				
	n	**%**	***M***	***SD***	***Range***
Ordinance Days Elapsed			381.31	291.67	11 – 1004
Reported Before 7-Day Policy Change	43	66.2%			
Identified as Strangulation in RMS	14	21.5%			
Strangled Other	8	12.3%			
FVP Victim Refusal Documented	5	7.7%			
County - Johnson County	57	87.7%			
Number of Officers On-Scene			2.32	1.12	1 – 6
Number of Supervisor On-Scene	23	35.4%			
Witness	17	26.2%			
Male Suspect/Female Victim Dyad	53	81.5%			
Victim Race - White	58	89.2%			
Victim Age			32.74	11.03	15 – 76
Suspect Race- White		86.2%			
Suspect Age			33.78	10.94	17 – 63

Bivariate analyses examined the role of case characteristics and victim demographic information on compliance fidelity to the Ordinance requirement that BFD assess the strangulation victim. The results are presented in Table 18.

[Table on next page]

Table 18. *Bivariate Analyses of Variables Correlated with Fidelity Compliance for Administration of BFD Strangulation Worksheet*

	BFD Administered Worksheet for Strangulation Victim ***N* = 155**					
	No ***n* = 65**		**Yes** ***n* = 90**			
Variables	***n***	**%**	***n***	**%**	**Total**	**Test Statistic**
7-Day Policy Change						$\chi^2_{(1)} = 8.664$*
Pre Policy Change	43	53.1%	38	46.9%	81	
Post Policy Change	22	29.7%	52	70.3%	74	
Impede Breath						$\chi^2_{(1)} = 23.929$***
Impede Breath Incident	14	20.3%	55	79.7%	69	
Not Impede Breath Incident	51	59.3%	35	40.7%	86	
Strangled Other						$\chi^2_{(1)} = 1.462$
Yes	8	57.1%	6	42.9%	14	
No	57	40.4%	84	59.6%	141	
County						$\chi^2_{(1)} = 0.206$
Johnson County	57	41.3%	81	58.7%	138	
Tarrant County	8	47.1%	9	52.9%	17	
Supervisor On-Scene						$\chi^2_{(1)} = 1.973$
Yes	23	35.4%	42	64.6%	65	
No	42	46.7%	48	53.3%	90	
Witness						$\chi^2_{(1)} = 1.909$
Yes	17	34.0%	33	66.0%	50	
No	48	45.7%	57	54.3%	105	
Male Suspect/Female Victim Dyad						$\chi^2_{(1)} = 0.450$
Yes	53	40.8%	77	59.2%	130	
No	12	48.0%	13	52.0%	25	
Victim Race						$\chi^2_{(1)} = 0.454$
White	58	43.0%	77	57.0%	135	
Non-White	7	35.0%	13	65.0%	20	
	n	***M* (*SD*)**	***n***	***M* (*SD*)**	**Total**	**Test Statistic**
Ordinance Days Elapsed	65	381.31 (291.67)	90	522.36 (279.15)	155	$t_{(134.392)} = -3.025$*
Number of Officers On-Scene	65	2.32 (1.12)	90	3.34 (2.50)	155	$t_{(131.214)} = -3.429$*
Victim Age	65	32.74 (11.03)	90	33.78 (9.48)	155	$t_{(153)} = -0.629$

Note. Row percentages are reported. Means and standard deviations are reported for continuous variables. Fisher's Exact Test does not produce a test statistic; *p* value is reported. *$p < .05$. **$p < .01$. ***$p < .001$

An independent samples *t*-test revealed significant differences on several variables across the fidelity compliant vs. non-compliant groups. The mean number of days was significantly different in incidents with BFD Strangulation Worksheet data compared to those without worksheet data [$t_{(153)} = -3.046$, $p = .003$, two-sided]. In cases where BFD did not administer the

Strangulation Worksheet, the incident was reported after Ordinance implementation and BPD training at an average of 381.31 days (*SD* = 291.67). In contrast, cases with BFD Worksheet data for the strangulation victim were at an average of 522.36 days (*SD* = 279.15).

Police adhered to Ordinance requirements in almost three-quarters (*n* = 52, 70.3%) of 74 cases reported after the *7-Day Policy Change*, compared to compliance in only 29.7% (*n* = 22) of cases reported during this same time that did not have BFD worksheet data and were not fidelity compliant [$\chi^2_{(1)} = 8.664$, $p = .003$]. There were statistically significant differences on fidelity compliance across protocol-eligible strangulation cases classified as *Impede Breath* in RMS. Specifically, among the 69 cases classified by police as *Impede Breath*, the majority were fidelity compliant and included BFD strangulation worksheet data (*n* = 55, 79.7%) compared to only 14 of 69 (20.3%) *Impede Breath* incidents that did not have FD worksheet data [$\chi^2_{(1)} = 23.92$, $p < .001$].

Another variable that emerged as significantly different across the fidelity compliant and non-compliant groups of strangulation incidents was the *Number of Officers On-Scene*. In particular, there were significantly more officers on-scene in fidelity-compliant incidents where BFD worksheet data was collected for the strangulation victim (*M* = 3.34, *SD* = 2.50) compared to incidents where FD data was not collected (*M* = 2.32, *SD* = 1.12) indicating that an increased police presence was correlated with implementation of the Ordinance protocol [$t_{(131.21)} = -3.429$, $p < .001$].

Next, a multivariate binary logistic regression model was estimated to account for the effect of incident characteristics on fidelity compliance (No = 0, Yes = 1) related to BFD's administration of the strangulation worksheet to the strangulation victim. Table 19 presents the results of the multivariate binary logistic regression model predicting fidelity compliance on

administration of BFD's strangulation worksheet. The regression model was statistically significant and accounted for 40% of the variance in the dependent variable, as evidenced by the Nagelkerke R^2. Three variables were significant predictors of fidelity compliance: *7-Day Policy Change,* and *Impede Breath* designation in RMS, and the *Number of Officers On-Scene* during the incident response. An incident reported after the *7-Day Policy Change* was 3.2 times more likely to include BFD strangulation worksheet data compared to incidents that were reported before the *7-Day Policy Change*. Even more, when the strangulation was formally classified by police as *Impede Breath* in RMS, the case was 8.8 times more likely to include BFD strangulation worksheet data assessing the strangulation victim as compared to strangulation incidents that were not formally designated by police as *Impede Breath.* Finally, there was a significant positive relationship between the number of officers on-scene and compliance fidelity where each officer on the scene increased the odds that BFD personnel collected worksheet data on the strangulation victim by 1.9 times.

Table 19. *Multivariate Binary Logistic Regression Model Predicting Fidelity Compliance on Administration of BFD's Strangulation Worksheet*

		***n* = 155**	
	b	**S.E.**	**Exp (β)**
Incident Characteristics			
7-Day Policy Change	1.170	0.410	3.221*
Pre Policy Change			
Post Policy Change			
Strangled Other	-0.783	0.729	0.457
Impede Breath Offense	2.175	0.458	8.801***
Witness	0.828	0.455	2.289
Number of BPD Officers On-Scene	0.619	0.178	1.858***
BPD Supervisor On-Scene	-0.524	0.455	0.592
Male Suspect/Female Victim Dyad	-0.507	0.563	0.602
Constant	-2.305	0.716	0.100
Nagelkerke R^2	0.400*		
Cox & Snell R^2	.297		

Note: For all binary variables, No = 0, Yes = 1. *$p < .05$. **$p < .01$. ***$p < .001$

Fidelity and Administration of BFD Worksheet Questions. The analyses in the next two subsections below focus on the BFD worksheet data collected for the victims/patients involved in strangulation incidents where BFD was requested by BPD and dispatched to the scene to conduct a medical evaluation. First, it is important to recall that the unit of analysis in BFD's data is the victim (or patient). This means that crime incidents involving more than one strangulation victim/patient were included in the data analysis to fully capture patient-level information. FD worksheet data were collected for 93 victims/patients involved in 90 police incidents. Tables 20-21 below presents univariate statistics on each of the 93 individuals who were assessed by BFD using the 21-item strangulation worksheet during the post-ordinance period. Tables 20-21 also show which worksheet items had missing data, and how many times these items were missing.

[Table on next page]

Table 20. *Descriptive Statistics for BFD Worksheet*

Strangulation Worksheet Item	*n*	%	Strangulation Worksheet Item	*n*	%
Loss of Consciousness			*Dizziness or a Fainting/Light-Headed Feeling*		
No	90	96.8%	No	77	82.8%
Yes	3	3.2%	Yes	14	15.1%
Missing	--	--	Missing	2	2.2%
Complaint of Neck Pain			*Headache, Head "Rush," or Ears Ringing*		
No	54	58.1%	No	65	69.9%
Yes	39	41.9%	Yes	25	26.9%
Missing	--	--	Missing	3	3.2%
Raspy Voice, Hoarse Voice, Cough, Inability to Speak			*Nausea or Vomiting*		
No	83	89.2%	No	83	89.2%
Yes	10	10.8%	Yes	9	9.7%
Missing	--	--	Missing	1	1.1%
Involuntary Urination or Defecation			*Experiencing Pain (rate 1 to 10)*		
No	89	95.7%	Missing	1	1.15%
Yes	1	1.1%	*Mean* = 2.79, *SD* = 2.67		
Missing	3	3.2%	*Range* 0 - 9		
How Long Patient was Unconscious			*Difficulty Breathing, Unable to Breath, Hyperventilation*		
N/A	91	96.8%	No	82	88.2%
Unknown	2	22%	Yes	10	10.8%
Missing	1	1.1%	Missing	1	1.1%
Change in Mental Status			*Existing/Old Injuries*		
No	90	96.8%	No	87	93.5%
Yes	2	2.2%	Yes	4	4.3%
Missing	1	1.1%	Missing	2	2.2%

Table 21. *Additional Descriptive Statistics for BFD Worksheet*

Strangulation Worksheet Item	*n*	%	Strangulation Worksheet Item	*n*	%
Petechiae			*Hemorrhaging or Bruising*		
No	85	91.4%	No	74	79.6%
Yes	6	6.5%	Yes	18	19.4%
Missing	2	2.2%	Missing	1	1.1%
Swollen Tongue or Swollen Lips			*Pulled/Missing Hair or Bumps on the Head*		
No	88	94.6%	No	87	93.5%
Yes	4	4.3%	Yes	4	4.3%
Missing	1	1.1%	Missing	2	2.2%
Bloody Nose or Broken Nose			*Scratch Marks, Scrapes, or Abrasions*		
No	91	97.8%	No	57	61.3%
Yes	1	1.1%	Yes	35	37.6%
Missing	1	1.1%	Missing	1	1.1%
Skull Fracture or Concussion			*Swelling of the Neck or Face*		
No	90	96.8%	No	83	89.2%
Yes	1	1.1%	Yes	9	9.7%
Missing	2	2.2%	Missing	1	1.1%
Fingernail Impressions					
No	85	91.4%			
Yes	7	7.5%			
Missing	1	1.1%			

While Tables 20-21 above provided a summary of results of the nature and extent of strangulation signs and symptoms, Figures 6 and 7 below visually demonstrate the percentage of BFD patients in protocol eligible cases where BFD reported they had non-visible signs and symptoms. Neck pain (41.9%) and headaches were most common (26.9%).

Figure 6. *Percentage of BFD Patients with a Non-Visible Injury*

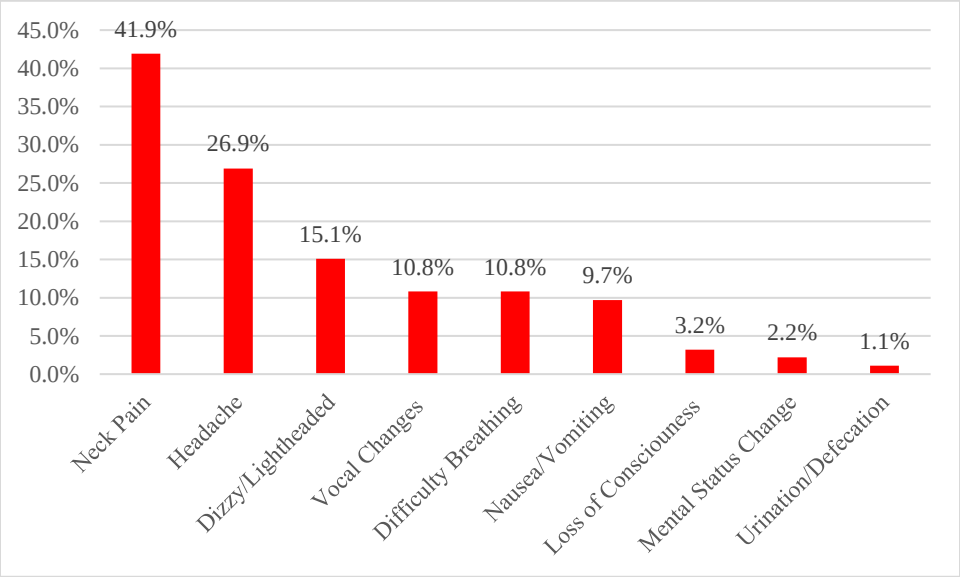


Figure 7 illustrates the percentage of BFD patients in protocol eligible cases who reported to BFD or BFD observed that they had visible injuries. The most common visible signs and symptoms of injury documented by BFD were *Scratches/Scrapes* (37.6%) and *Bruising* (19.4%). As shown in the Table and Figures above, most BFD patients/victims did not report experiencing more than one symptom and many reported experiencing none of the listed signs and symptoms on the BFD worksheet. This is not an unusual finding because the literature has clearly demonstrated that most strangulation victims do not show visual evidence of strangulation (De Boos, 2019; Gwinn et al., 2014; Wilbur et al., 2001). Next, researchers examined how thorough BFD was in the administration of the strangulation worksheet to each of the 93 strangulation victims. Compliance was determined if there were *fewer* than 5 of the 21 BFD Strangulation Worksheet items with missing data on the 21-item worksheet. Out of 93 worksheets examined,

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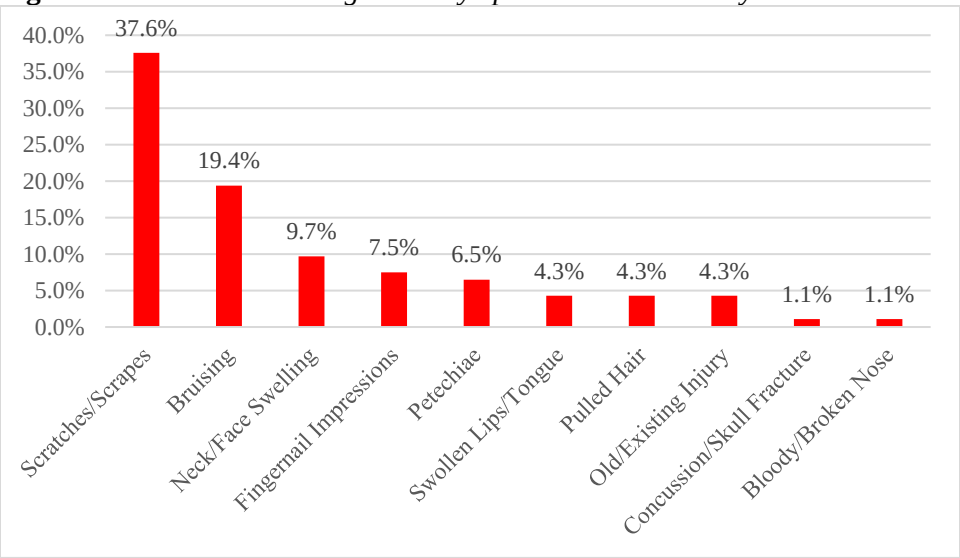
90 scored as compliant. Next, the analysis turned to determining if there were any trends on items with missing data.

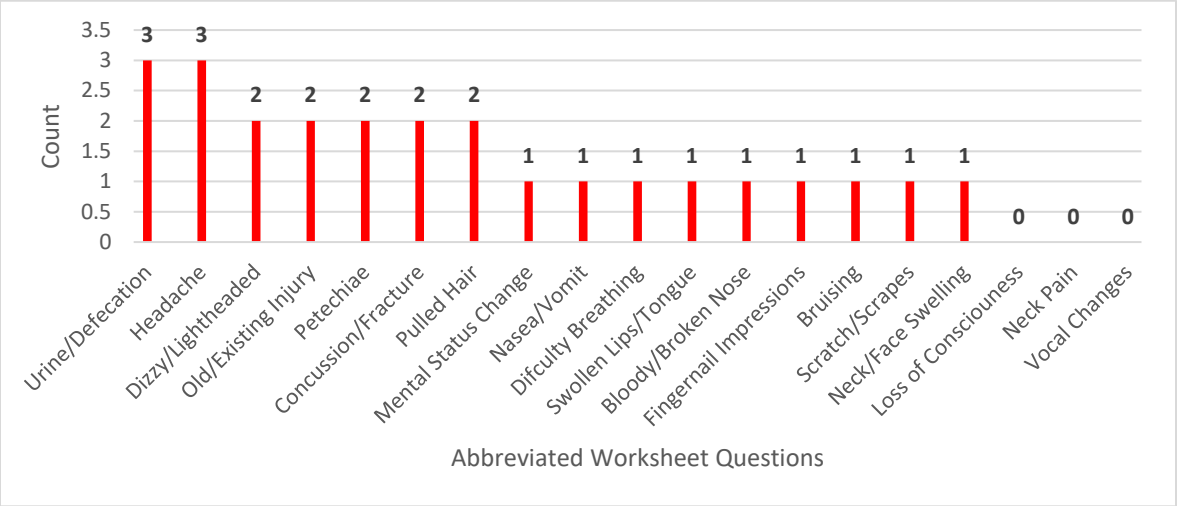
Figure 7. *Common Visible Signs and Symptoms Documented by BPD*



Missing Data by BFD Strangulation Worksheet Item. To better understand which specific strangulation worksheet item had missing data, a series of additional descriptive analyses were conducted on the frequency of responses for each worksheet indicator using data provided from BFD. Across the total sample of patients with worksheet data, (n = 93), missing data were present on 18 of the 21 strangulation worksheet items (85.7%) and the frequency of missingness (i.e., the number of times this item was missing in the data) across worksheet items ranged from 1 to 3).

[Figure on next page]

Figure 8. *Fidelity: BFD Strangulation Worksheet Items with Missing Data*



Missing Data by Patient. To identify the extent of missingness across the sample of 93 patients, a variable was created to capture when a single patient had any missing data on the strangulation worksheet items (No = 0, Yes = 1). The frequency of any missing data in the worksheet (i.e., one or more items) occurred in 11.8% (n = 11) of the sample of patients. Next, a scale was created to capture the frequency of missing worksheet data for each patient. Across the 11 individuals with missing worksheet item(s), the majority (n = 7, 63.6%) were missing data on just a single item from the strangulation worksheet (M = 2.45, SD = 2.77, range = 1 to 10).

BFD Fidelity Summary. In the 155 protocol-eligible strangulation cases, 41.9% (n = 65) did not include BFD Strangulation Worksheets. Among the 65 cases flagged for fidelity, most (n = 36, 55.4%) occurred in the first year (March 6, 2018 - March 6, 2019). It is important to emphasize that *most of this fidelity non-compliance is tied directly to BPD not requesting the presence of BFD personnel* for evaluation of strangulation victims to begin with and should not adversely reflect on BFD. Three factors increased compliance with the administration of the BFD worksheet: the case occurred after the *7-Day Policy Change*, the case was classified as *Impede Breath* in RMS, and having more officers on-scene. With respect to *how the*

strangulation worksheet was administered across the entire protocol eligible sample, (*n* = 93), missing data were present on 18 of the 21 strangulation worksheet items and the frequency of missingness across worksheet items ranged from 1 to 3 for 11.8% (*n* = 11) in the sample of patients. Among the worksheet items, urination/defecation, headache, and dizziness/lightheadedness were more often missing than other items.

BPD's Documentation of Service Referral. In 155 protocol-eligible strangulation incidents, more than half were non-compliant (*n* = 87, 56.1%), meaning police failed to document the provision of service referral information to victims of strangulation. This is compared to 68 cases (43.9%) with this officer documentation. Among 87 cases flagged on this fidelity indicator, 33 (38%) occurred in the first year (March 6, 2018 - March 6, 2019). Among those cases, 19 occurred in the first 6 months of the ordinance (March 6, 2018 – September 6, 2018). The remainder of cases (*n* = 54, 62%) flagged for fidelity occurred after the first year of implementation.

Table 22 below presents additional descriptive statistics on fidelity cases that did *not* include documentation of victim referrals and shows that just under half of these cases occurred before the *7-Day Policy Change* (*n* = 40, 46%) and were classified as *Impede Breath* in RMS (*n* = 42, 48.3%). Thirteen of the total 87 incidents (14.9%) involved a *Strangled Other* and just over one-third of cases involved a *Witness* (*n* = 32, 36.8%). Most incidents were reported in Johnson County (*n* = 76, 87.4%) and almost half had a supervisor on-scene (*n* = 43, 49.4%). Most incidents involved a *Male Suspect/Female Victim Dyad* (*n* = 69, 79.3%). In nearly 83% of cases, both the victim (*n* = 72) and suspect (*n* = 72) were White and averaged 32.48 (*SD* = 8.16) and 34.57 (*SD* = 9.23) years-old, respectively.

Table 22. *Descriptive Statistics for Fidelity Non-Compliant Incidents without BPD Documentation of Victim Service Referral*

	Fidelity Non-Compliance - BPD did *not* Document Victim Service Referral *n* = 87				
	n	**%**	***M***	***SD***	***Range***
Ordinance Days Elapsed			490.28	288.42	11 – 1004
Reported Before 7-Day Policy Change	40	46.0%			
Identified as Strangulation in RMS	42	48.3%			
Strangled Other	13	14.9%			
FVP Victim Refusal Documented	4	4.7%			
County - Johnson County	76	87.4%			
Number of Officers On-Scene			3.18	2.50	1 – 22
Number of Supervisor On-Scene	43	49.4%			
Witness	32	36.8%			
Male Suspect/Female Victim Dyad	69	79.3%			
Victim Race - White	72	82.8%			
Victim Age			32.48	8.16	19 – 54
Suspect Race- White		82.8%			
Suspect Age			34.57	9.23	18 – 60

Bivariate statistics were used to test for differences across the fidelity compliant and non-compliant groups and several statistically significant findings emerged. Bivariate results are presented below in Table 23. Statistically significant differences emerged across the fidelity groups on two variables: when the incident had a *Supervisor On-Scene* and involved a *Strangled Other* during the response.

First, 92.9% (n = 13) of the 14 total cases involving a *Strangled Other* were flagged for fidelity because the case file did not contain officer documentation of service referral information, compared to only 7.1% (n = 1) of the 14 cases involving a *Strangled Other* that were fidelity compliant and contained this officer documentation [Fisher's Exact Test, p = .004]. Counterintuitively, among 65 cases with a *Supervisor On-Scene*, a greater proportion were *not* fidelity compliant (n = 43, 66.2%) with the requirement that BPD document the provision of service referral information, compared to 33.8% (n = 22) of supervisor-involved incidents that

were missing this documentation [$\chi^2_{(1)} = 4.569$, $p = .033$].

Table 23. *Bivariate Analyses of Variables Correlated with Fidelity Compliance for BPD's Documentation of Victim Service Referral*

	BPD's Documentation of Victim Service Referral ***N* = 155**					
	No ***n* = 87**		**Yes** ***n* = 68**		**Total**	**Test statistic**
Variables	***n***	**%**	***n***	**%**		
7-Day Policy Change						$\chi^2_{(1)} = 3.136$
Pre Policy Change	40	49.4%	41	50.6%	81	
Post Policy Change	47	63.5%	27	36.5%	74	
Impede Breath						$\chi^2_{(1)} = 1.135$
Impede Breath Incident	42	60.9%	27	39.1%	69	
Not Impede Breath Incident	45	52.3%	41	47.4%	86	
Strangled Other						Fisher's Exact
Yes	13	92.9%	1	7.1%	14	Test, $p = .004$
No	74	52.5%	67	47.5%	141	
County						$\chi^2_{(1)} = 0.570$
Johnson County	76	55.1%	62	44.9%	138	
Tarrant County	11	64.7%	6	35.3%	17	
Supervisor On-Scene						$\chi^2_{(1)} = 4.569$*
Yes	43	66.2%	22	33.8%	65	
No	44	48.9%	46	51.1%	90	
Witness						$\chi^2_{(1)} = 1.857$
Yes	32	64.0%	18	36.0%	50	
No	55	52.4%	50	47.6%	105	
Male Suspect/Female Victim Dyad						$\chi^2_{(1)} = 3.049$
Yes	69	53.1%	61	46.9%	130	
No	18	72.0%	7	28.0%	25	
Victim Race						$\chi^2_{(1)} = 3.321$
White	72	53.3%	63	46.7%	135	
Non-White	15	75.0%	5	25.0%	20	
	n	***M* (*SD*)**	***n***	***M* (*SD*)**	**Total**	**Test Statistic**
Ordinance Days Elapsed	87	490.28 (288.42)	69	428.57 (295.05)		$t_{(153)} = 1.308$
Number of Officers On-Scene	87	3.18 (2.50)	68	2.57 (1.36)		$t_{(153)} = 1.813$
Victim Age	87	32.48 (8.16)	68	34.44 (12.19)		$t_{(153)} = -1.195$

*$p < .05$. **$p < .01$. ***$p < .001$

A binary logistic regression model was estimated to identify predictors of fidelity compliance regarding officer documentation of victim service referral information. Results are presented below in Table 24. The regression model was statistically significant and accounted for

18% of the variance in the dependent variable, as evidenced by the Nagelkerke R^2. Only one variable was a significant predictor of fidelity compliance on this outcome. Specifically, when an incident involved a strangulation outcry from a *Strangled Other,* officers were 91% less likely to document victim service referral information in the case file versus those that did not involve a strangled other. Put differently, cases that involved a strangled other were associated with a 91% decrease in the odds of fidelity compliance on this indicator.

Table 24. *Multivariate Binary Logistic Regression Model Predicting Fidelity Compliance on Officer Documentation of Victim Service Referral Information*

		***N* = 155**	
	b	**S.E.**	**Exp (β)**
Incident Characteristics			
7-Day Policy Change Pre Policy Change = 0 Post Policy Change = 1	-0.477	0.352	0.620
Strangled Other	-2.365	1.105	0.094*
Impede Breath Offense	-0.597	0.357	0.551
Witness	-0.253	0.388	0.776
Number of BPD Officers On-Scene	0.131	0.119	0.878
BPD Supervisor On-Scene	-0.460	0.382	0.631
Male Suspect/Female Victim Dyad	0.519	0.544	1.681
Constant	0.581	0.595	1.788
Nagelkerke R^2	0.179*		
Cox & Snell R^2	0.135		

Note: For all binary variables, No = 0, Yes = 1. *$p < .05$. **$p < .01$. ***$p < .001$

Victim Service Fidelity Summary. Among the 155-protocol eligible strangulation incidents, more than half were non-compliant (n = 87, 56.1%). Most of the fidelity problems in these 87 cases occurred *after* the first year of implementation (n = 54, 62%). Results further indicate that the lack of documentation was especially problematic among cases that involved a strangulation outcry from someone other than the RMS identified IPV victim. More specifically, officers were 91% less likely to document victim service referral information in the case file versus those that did not involve a *Strangled Other*.

Fidelity Analysis: One Safe Place

Local law enforcement across north Texas provide referrals to victim service providers such as One Safe Place (OSP), a large family justice center in the Fort Worth Metroplex that serves survivors across the region. To understand how survivors experienced law enforcement responses to strangulation (and the Ordinance for Burleson clients), de-identified client data were obtained from OSP that reflected the post-ordinance timeframe, March 6, 2018 - 2020. Of particular interest were Burleson clients who reported that they experienced IPV strangulation and involved law enforcement in their strangulation incident to discern if law enforcement spoke to them about the strangulation, and if medical options were sought or received.

As demonstrated in Figure 9, OSP served 46 clients from Burleson during the post-ordinance period. Of these clients, 23 reported experiencing strangulation on the Danger Assessment. Of the 23 clients reporting strangulation, 21 were administered OSP's strangulation survey. The secondary data obtained from the OSP strangulation survey contained two important items for this study—law enforcement spoke to the client about the strangulation and if the client received or sought medical services. Nine Burleson clients reported law enforcement involvement and six of them indicated law enforcement asked about their strangulation. A small number reported seeking or receiving medical (n = 4 post). An overview of the process and descriptive results are summarized below in Figure 9.

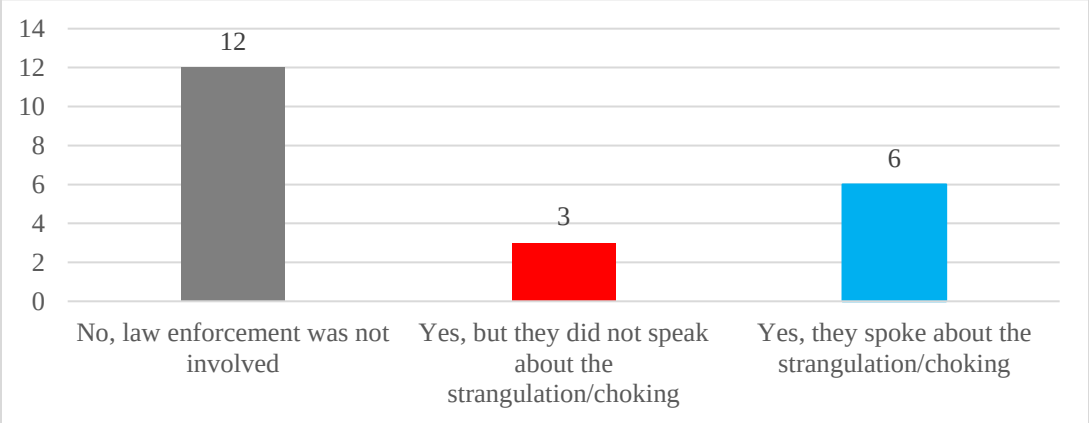
[Figure on next page]

Figure 9. *Strangulation Victim Engagement and Experiences: Burleson Clients*

***n* = 46**	•46 Burleson clients seen during the post-ordinance timeframe (3/06/18 - 12/31/20)
***n* = 23**	•23 Burleson clients with strangulation on Danger Assessment
***n* = 21**	•21 Burleson clients completing OSP Strangulation Survey
***n* = 9**	•9 Burleson clients reporting law enforcement involvement in their strangulation incident
***n* = 6**	•6 Burleson clients reporting law enforcement asked them about the strangulation
***n* = 4**	•4 Burleson clients reporting they sought or received medical

Next, comparisons were made to examine if OSP clients from Burleson engaged with Burleson police, as well as whether they received or sought medical. As shown in Figure 10, the majority of OSP clients from Burleson (n = 12) reported that they *did not involve law enforcement* in their strangulation incident. For the 9 clients that did involve law enforcement, three clients reported strangulation was not discussed. While this is a small handful of clients, these instances represent missed opportunities for intervention and suggest a fidelity problem.

Figure 10. *Frequency of Law Enforcement Involvement in OSP Client Strangulation Cases Where Strangulation was Discussed.*



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Next, researchers examined Burleson clients who: (1) reported strangulation in their Danger Assessment, (2) completed the OSP Strangulation Survey, and (3) indicated on the survey that there was law enforcement involvement where the officer spoke to them about the strangulation. After applying these selection criteria, the medical outcome item was reviewed for the post-ordinance periods. Of the six post-ordinance clients where law enforcement was involved and spoke to the victim about their strangulation, four indicated seeking or receiving medical, 1 reported no, and 1 was missing on this item. While most of the clients in this subsample reported receiving/seeking medical one client did not, so full fidelity was not achieved. Due to the small sample (n = 6), no further analyses were conducted.

Fidelity Analysis: Victim Survey

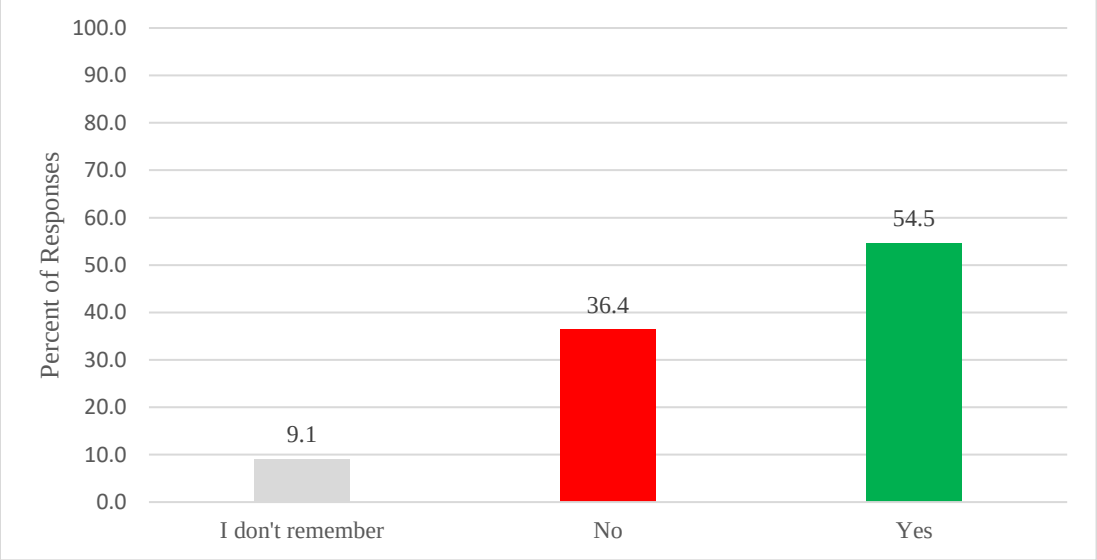
Victim surveys were initially designed and administered to provide quantitative data for multivariate analyses. However, due to small sample size, the presentation of victim survey results used more of a qualitative approach with a mixture of descriptive findings blended with illustrative quotes to reinforce key points.

Strangulation Screening and Detection. To capture participant willingness to speak with the Burleson Police during the incident response in 2020, a binary item presented early in the survey asked if the participant was "*willing to speak with police about the incident that occurred in 2020*" and all 11 participants responded affirmatively (No = 0, Yes = 1). To capture the nature of the interaction between BPD and the participant during the incident response, one survey item asked, "*when talking with BPD about the incident that occurred in 2020, did they ask if you were strangled or choked by an intimate partner*?"[43] Responses were binary (No = 0, Yes = 1). Six participants (54.5%) reported that police asked about "*strangulation or choking by*

[43] It is important to note that this survey data was used to triangulate data collected from other sources.

an intimate partner" during the incident response, compared with four participants who said they were not asked[44] (36.4%) and one person who could not recall if they were asked (9.1%). The four respondents who indicated that they had not been screened for strangulation by BPD represent a fidelity concern because department policy requires that all victims of family violence should have been administered a family violence packet (FVP) that includes prompts about strangulation to discern if a current incident necessitated an Ordinance response. While these survey participants may not have experienced strangulation during the IPV assault for which they contacted BPD, the FVP screening process is an important part of the Strangulation Protocol. Figure 11 presents the frequency of responses for this item among the 11 survey participants.

Figure 11. *Burleson Police Screened for Strangulation During 2020 Incident Responses (n = 11)*



Strangulation Disclosure. To capture strangulation, one survey item was presented to participants and asked if "*the incident in 2020 involved strangulation or choking by an intimate partner?*" (No = 0, Yes = 1). Three of the total 11 participants reported strangulation (27.3%)

[44] These four survey participants did not indicate that they were later strangled.

compared with 8 participants who reported no strangulation in the 2020 incident (72.7%).[45] When asked how Burleson Police learned about the strangulation that occurred during the 2020 incident, one of the three participants who reported strangulation also indicated that they disclosed this strangulation to BPD during the incident response (33.3%); and two of these three participants reported being asked questions about strangulation (66.7%).

Fidelity Assessment. A series of survey items captured the participant's recollection of the BPD incident response to strangulation, specifically. The following section focuses on the responses from the three participants who reported an IPV-related strangulation incident, because these individuals comprise the "protocol-eligible" subsample of participants in the 2020 survey data.

Seven questions were presented to assess BPD administration of the specialized strangulation evaluation checklist and asked the participant: (1) if BPD asked whether the participant "*was able to see the individual while [they] were being strangled or choked,*" (2) if BPD asked "*what the individual used to strangle/choke/impede [their]breath,*" (3) what was used by the intimate partner to perpetrate the attack, (4) if BPD asked "*if the individual…said anything before, during, or after strangling or choking [them],*" (5) what the perpetrator said before, during or after the attack, and (6) if BPD asked whether "*the individual stopped strangling or choking [them] for a specific reason.*" In the seventh question, participants were also asked why the perpetrator stopped the attack and encouraged to provide an open-ended response.

[45] To account for the possibility that an individual may have had more than one FV incident in 2020 and/or more than one strangulation-involved FV incident in 2020 that was reported to BPD, the survey instrument included one screening item at the beginning of the survey that directed them to recall either "*the most recent incident involving strangulation or choking by an intimate partner in 2020*" (coded 1) or "*the most recent family violence incident involving an intimate partner in 2020*" (coded 0). Three of the 11 participants selected an incident involving "*strangulation*" and these were the same three participants in the total sample of 11 who also reported strangulation on this item.

Table 25 presents the frequency of responses for the six quantitative survey items. Two of the three participants (66.7%) reported being able to recall that BPD asked follow-up questions about the strangulation and specifically, these two participants reported being able to remember seeing the perpetrator while they were being strangled. All three participants indicated that "hands" were used by an intimate partner to perpetrate the strangulation. None of the participants could recall being asked by police if the perpetrator spoke or said anything during the strangulation attack. One of the participants (33.3%) could recall being asked by BPD why the perpetrator stopped the attack.

[Table on next page]

Table 25. *Frequency Distribution of Participant Responses Capturing Specialized Strangulation Items*

	Reported Strangulation *n* = 3	
Survey Item	***n***	**%**
"Did BPD ask If you were able to see the individual while you were being strangled/choked?		
No	--	--
Yes	2	66.7%
I don't remember	1	33.3%
"Did BPD ask what the individual used to strangle/choke/impede your breath?"		
No	--	--
Yes	2	66.7%
I don't remember	1	33.3%
What the perpetrator used to strangle, choke, impede your breath?		
Hands	3	100%
"If the individual…said anything before, during or after strangling/choking you?"		
No	--	--
Yes	--	--
I don't remember	3	100%
What the perpetrator said before, during, or after the attack?		
I don't remember	3	100%
"Did BPD ask if the individual stopped strangling/choking you for a specific reason?"		
No	--	--
Yes	1	33.3%
I don't remember	2	66.7%

When asked why the perpetrator stopped strangling them, two of the three survivors offered reasons and the third selected the fixed response category, "the individual stopped strangling me, but I don't know why." In one case, Participant 214 reported that a child walked into the room and offered, *"I fought with everything I had in me to stop him and our child was witnessing everything and screaming at him to stop, once I was able to get out of his hold, I ran out the front door."* In another incident, Participant 128 reported, "*I grabbed the individual for their private parts (sic)."*

Information Regarding Risks of Intimate Partner Violence and Strangulation. While the Ordinance does not mandate that first responders provide victims with information regarding risks of IPV-related strangulation, education was an aspirational informal goal set by Burleson stakeholders. For this reason, a series of items were presented to participants that captured details

regarding the information that Burleson first responders may have provided to them about the risks and dangers of intimate partner violence strangulation. Content was organized around four substantive risks (1) "*negative physical and mental health consequences that could appear immediately or days after the assault*," (2) that the perpetrator will "*engage in this type of intimate partner violence again*" (3) that the perpetrator will "*engage in strangulation again,*" and (4) that the perpetrator "*may try to kill you in the future*." Response options for these four items included "yes," "no," and "I don't remember." The following sections report responses to questions surrounding these four content domains from the three participants who disclosed strangulation.

Risk of Negative Consequences. One of the 3 participants (33.3%) reported being informed of the risk of negative physical and mental health consequences that could appear immediately or hours/days after the assault and this participant reported learning this information from Burleson Police, Burleson Fire, and MedStar first responders. The remaining participants reported not learning of this risk (n = 1, 33.3%) or not remembering if this information was offered (n = 1, 33.3%).

Risk of Repeat IPV. When asked if participants were informed of the risk that the perpetrator will engage in this type of IPV again, the same one individual (33.3%) out of the 3 participants responded affirmatively, identifying only Burleson Police first responders as providing this information. The remaining participants reported not learning of this risk (n = 1, 33.3%) or not remembering if this information was offered by first responders (n = 1, 33.3%).

Risk of Repeat Strangulation. Participants were asked to recall if they were informed of the risk that the perpetrator will engage in strangulation again. All three participants reported not

being able to remember if any Burleson first responder had provided information regarding the risk of repeat strangulation.

Risk of Fatality. When asked if participants were informed of the risk that the perpetrator "*may try to kill you in the future*," the same one individual who reported receiving risk-related information from Burleson first responders on negative consequences and repeat IPV, also responded affirmatively (33.3%) and indicated that this information was offered only by BPD. The remaining two participants (66.7%) reported they did not remember being informed of this risk.

Emergency Medical Response. To capture the incident emergency medical response, four items were presented to participants. Participants were asked to recall if emergency medical personnel (e.g., Burleson Fire, MedStar Ambulance) were "*on the scene of the incident that took place in 2020.*" Two of the three participants (66.7%) reported that emergency vehicles were on-scene. One participant reported that both Burleson Fire Department (BFD) and Medstar were on-scene and one participant reported that only MedStar were on-scene during the incident response. Next, participants were asked if emergency medical personnel asked questions about "*strangulation or choking*" related to this incident. One of the three participants responded affirmatively and subsequently indicated that medical personnel asked about all relevant symptoms listed in the survey. The second reported not being able to recall if they were asked any questions regarding strangulation or choking by emergency medical personnel. Because BFD is required to be on-scene as part of the Burleson response to strangulation and to field specific questions, these participant responses suggest potential fidelity concerns. It is not possible to state this with any certainty because the exact date of the strangulation incident was

unknown, which prohibited researchers from determining if it fell in the post *7-Day Policy* timeframe required in the Strangulation Protocol.

Suggestions for Improved Response to IPV. All 11 survey participants were asked to provide open-ended feedback regarding the ways BPD can improve their overall response to family violence involving an intimate partner. Just under half of the total participants (n = 5, 45.4%) provided a response to this item and responses ranged considerably in their qualitative content. One individual (Participant 129, offered positive feedback regarding the incident response but offered suggestions for improvements with Victims Assistance personnel, stating: "*Burleson p.d. was very efficient and proactive concerning my case. Victims assistance (sic) could have helped more by showing me there were resources to help hide my address and phone number from public record and that there were also resources that would have helped me move*." Another participant echoed this positive sentiment and in doing so, noting the importance of a victim-centered response:

> *Nothing in my situation. They handled it great. They handled it perfectly. I asked them not to show up with lights and sirens and not to handcuff the other person in front of our young children and they did as requested*. (Participant 212)

Not all participants were positive about their experiences. One individual (Participant 227) raised a concern and stated, "*Realize that the men shouldn't be labeled the aggressor right away. In my case I restrained myself and had to let her be aggressive against me*." One participant suggested increased communication about case progression and noted "*keep victims more informed of disposition of the case (sic)" (*Participant 152). Another participant reported a negative interaction with the responding officer and suggested the need to improve the criminal justice response to intimate partner violence: "*The initial responding officer was cold and*

seemed causal about the situation. They could use some in depth training on family violence and take it seriously. The detective who took the case was helpful and more empathetic. It would be great if they state of Texas and police took these things seriously and took action quicker rather than giving the abuser second chances" (Participant 103).

Suggestions for Improved Response to Strangulation. Participants were also asked to provide open-ended feedback regarding the ways BPD can improve their overall response to intimate partner violence-related strangulation. Five participants (45.4%) provided a response to this item, three of whom had disclosed strangulation in the screening item at the beginning of the survey. It is important to note that these five participants were different from the five individuals described above who offered open-ended feedback regarding BPD responses to FV among intimate partners. Participant content on this item related to strangulation ranged considerably. Among the three strangulation survivors, one person appeared to be satisfied with the Burleson response to strangulation, but did explicitly note the need to re-enact the incident during the police response:

> *Honestly, nothing. They were there within minutes and immediately started assessing the entire situation by separating both parties and interviewing everyone who witnessed including minors, neighbors and assessing my medical injuries. Once, I was medically cleared, I had to recount everything to the best of my knowledge and gave multiple statements to the police officers, including reenacting the events that had occurred.* (Participant 214)

Another of these three strangulation survivor participants suggested, "*Better cooperation with social services especially when the children are involved*" (Participant 128) and the third strangulation survivor participant detailed ways to increase the thoroughness of the investigation:

> *Call more individuals who were present in the incident, research history of violence with the individual regardless of whether it involves a significant other or not, review photographs, call individuals who viewed photographs or were present at the time of the photographing, etc.* (Participant 203).

Two additional participants provided additional qualitative feedback. One individual communicated dissatisfaction and said that Burleson Police could improve their response to strangulation with "*complete restructuring of how to engage victims especially male (sic)*" (Participant 113). While another participant praised the police response:

> "*I think the Burleson Police Department did everything to escape and they provided me with very helpful resource (they helped me with ligal (sic) aid, also they brought clothes for us). I feel myself under the protection and safe, everything because of the Burleson Police Department. I very grateful to them for help which I got from them (sic)*." (Participant 204)

Victim Survey Summary. Collectively, the limited participant responses present mixed findings, with some feedback suggesting room for improvement and highlighting potential fidelity concerns in the BPD strangulation response; Other participant responses in this sample of three individuals indicated adherence to the Strangulation Protocol as mandated by the Ordinance. The sparse sample of survivors limited any meaningful statistical analysis. Moreover, conclusions derived from the descriptive characteristics and feedback offered by this sample of survey participants described here cannot be generalized to the larger population of IPV survivors who reported a FV offense to BPD in 2020.

Fidelity Analysis: Body Camera Results

A random sample of 15 protocol eligible post-ordinance IPVRS incidents with fidelity problems was drawn to examine body camera footage to learn why fidelity problems occur and what can be done to improve and avoid these problems in the future. This selection process was previously discussed in Chapter III. After reviewing all available body camera footage for each case, several themes emerged that explain the origin of the fidelity problem and other problematic areas. These themes will be organized across those that are affiliated with BPD and those that are salient for BFD.

Burleson Police Department. There were several fidelity concerns observed among BPD personnel. These included issues with the Family Violence Packet, the administration of specialized strangulation questions, changing the wording of questions or rushing through them, missed detection, failed medical requests, and failed recognition of "*Strangled Others*."

Family Violence Packet (FVP). Observations of body camera footage revealed problems with the Family Violence Packet (FVP) administration. At times, officers forgot to administer the FVP, which prevented the administration of the specialized strangulation questions and going through the rest of the strangulation protocol. The FVP is designed to detect strangulation and to remind officers to summon a medical response as they work through the packet. Some officers rushed through the FVP generally, and the strangulation questions more specifically, and in doing so missed important strangulation disclosures and details from the victim. This led to improper documentation of victim responses or skipping critical questions. Some officers just did not do it for reasons unknown to the observer and in one case, the officer completed the FVP without having administered it to the victim or reviewing it with the victim. There were also several

instances where the officer made assumptions or inferred responses without directly asking the victim.

Changing Wording of Strangulation Questions. A particularly problematic approach to FVP administration occurred when officers changed the wording of strangulation questions or offered hedged comments that changed the meaning of the question from its original content. Because one series of questions on the FVP is the Danger Assessment, a standardized and evidence based data collection tool, adhering to the original question about strangulation is particularly important. There were also inconsistencies in how some officers chose to administer the specialized strangulation questions. If a victim indicated "no" to the question on the Danger Assessment (DA) that asks, *"Does the suspect ever try to choke/strangle you or cut off your breathing?"* then some stopped asking questions about strangulation entirely and skipped the specialized questions mandated by the Ordinance. While it may seem intuitive that there is no reason to ask any further questions if the answer to the DA is no, this diverges from the strangulation protocol established by the Ordinance. Additionally, after viewing the body camera footage, victims appear to impute different meaning to the word "ever" in the question (*Does the suspect* ***ever*** *try to choke/strangle*…). For some, "ever" would include the current incident while to others it meant only strangulations prior to the current incident. Officers also had different interpretations of what the question's intent was when asked. To be consistent with the strangulation protocol, officers should still ask the specialized strangulation questions, regardless of the answers on the DA. Victims are often in a state of shock, so asking about strangulation more than once is advisable.

Strangulation Detection. It is recognized that the detection of strangulation can be challenging; however, some officers made dismissive comments to strangulation victims about

not having “visible injuries” even though it is well known (and a topic of their training) that in most cases victims do not show any obvious visible injuries (De Boos, 2019; Gwinn et al., 2014; Harning, 2015; Strack, Gwinn, Hawley, et al., 2014; Wilbur et al., 2001). Among victims disclosing strangulation, but displaying injuries unrelated to the strangulation, these injuries became the exclusive focus of the officer and became a missed opportunity to make inquiries about nonvisible signs and symptoms that could have been present but were missed.

Some officers also exclusively focused on whether a victim could breathe or not (i.e., was breath impeded) but did not consider pressure to the neck that *blocks circulation* as strangulation. However, the Texas statute accounts for circulation in its definition of strangulation [“…impeding the normal breathing or circulation of the blood of the person by applying pressure to the person's throat or neck or by blocking the person's nose or mouth” (Effective Response to Strangulation CSO#781-02-2018, 2018)], and the Training Institute on Strangulation Prevention considers any pressure to the neck that blocks circulations as strangulation. This is problematic because some strangulation victims with blocked circulation did not consistently receive the strangulation protocol. While not all cases may rise to receiving an impede breath designation or charge on the incident report, these cases are still considered alleged or suspected strangulation and the Ordinance requirements clearly state that the strangulation protocol should have been initiated.

Medical Requests. In some of the body camera footage, officers called MedStar but not BFD. This may have been the practice before the Ordinance, and habits can be difficult to break, but while the ‘spirit’ of the Ordinance may have been met, BFD did not have a chance to field its portion of the Ordinance protocol. These mishaps occurred in the earlier cases. In other IPVRS incidents, emergency medical personnel (EMP) were just not called, even though the victim met

eligibility criteria to initiate the Ordinance protocol. In a few of these instances, the officer(s) called a supervisor for clarification and were told that they did not need to call for medical. It is unclear why this was happening. Finally, in one instance EMP were not called because the strangulation was deemed as "old" and did not warrant a response even though this incident occurred *before t*he passage of the 7-Day Policy when the timing of the strangulation was irrelevant.

Strangled Other. A common fidelity problem observed in the case file data related to "*Strangled Others*" was affirmed in the review of the body camera footage. Other involved parties in IPV incidents who experience strangulation (i.e., the *Strangled Other*) are either missed altogether or their strangulation was outright ignored for reasons unknown. In some instances, the suspect was under arrest, but it is not unusual for injured arrestees to first receive medical assessment/treatment, so this should not generally prevent the application of the Ordinance to their strangulation. The Ordinance mandates a response to *all* strangled individuals, and this includes suspects, witnesses, and involved others. Of interest in many of these *Strangled Other* cases, the strangled suspect was a female who also alleged they were the victim and not the primary aggressor.

Burleson Fire Department and MedStar. There were fewer fidelity concerns in the observed footage for BFD and MedStar but those that were present were equally as concerning as BPD's fidelity problems. It is worth reminding the reader that MedStar, while a member of the STF, has no obligation to Ordinance requirements because they are not city employees.

Rushing and Question Skipping. Some of the main fidelity issues observed included BFD rushing through the strangulation worksheet and in some cases, skipping required worksheet questions due to the hurrying. Skipped questions resulted in an incomplete execution

of the Ordinance protocol and missed opportunities to detect problems with the strangled patient. To further complicate matters, there were also several instances where all the fire fighters from the truck would stand around the victim while they were being assessed by their BFD colleague and/or questioned by the officer. In a few cases victims were asked questions by BFD and BPD personnel simultaneously which led to victim confusion and resulted in their responses being somewhat nullified. Administering questions in rapid fire fashion and crowding the victim is not a trauma informed or victim centered practice.

Improper Assessment. In other cases, rather than closely inspecting the victim for signs and symptoms of strangulation, some BFD EMTs/Paramedics asked the victim if they had any of the injuries on the worksheet list. This practice leads to inaccuracies in tracking signs and symptoms of strangulation. While a conversation is part of the assessment it should not be the only aspect of it. For example, one victim was asked if they had petechiae, relying on the victim understanding what petechiae are, rather than the EMT or paramedic looking at their scalp, behind their ears, and under their eyelids – places most victims would not typically look. This also resulted in a missed opportunity to document physical evidence of strangulation. Given that some of the signs and symptoms of strangulation include confusion, memory loss, and changes in mental status, asking an IPVRS victim to conduct their own medical self-assessment related to the presence of petechiae is problematic.

In some of the other cases observed, both BFD and MedStar asked the strangulation victim if they wanted to go to the hospital without any explanation of *why* a strangulation victim should do so. In a few cases, MedStar first responders appeared impatient, and others merely repeated suggested AMA paperwork be signed by victims, rather than educating them about potential adverse health consequences related to strangulation. While this AMA pressure

occurred in some instances, it is important to note that there were other cases where MedStar professionals patiently spoke with the victim about complications from strangulation.

There were a few instances where BFD personnel would defer to police personnel about whether a person alleging strangulation needed a medical assessment or not. In one case, the strangled individual was a suspect who had been strangled by a witness. The witness admitted to the strangulation as an attempt to stop the assault. The strangled suspect showed evidence of urination which may, or may not, have been related to the strangulation, but they were never questioned by a medical professional to determine why. BFD was not aware of the urination because they never assessed the person after BPD told BFD it was not necessary, and BFD accepted this without question. As a result, the strangled individual went without an assessment.

Summary of Fidelity Problems. In most cases observed in the body camera footage, fidelity problems could have been avoided by officers and BFD first responders taking their time to administer the FVP and avoiding rushing though the Protocol. Additionally, first responders should not assume they know what a victim's answer to a question will be and should administer all strangulation questions and protocols as designed. BFD and BPD should also avoid simultaneously administering their Ordinance responsibilities. This practice leads to confusion, inaccurate information, and is not trauma informed. Both BPD and BFD could improve their Ordinance responses by applying the strangulation protocol to any strangled person at the incident regardless of their status. In other cases, problems could be avoided by BPD not interfering with BFD's Ordinance responsibilities. While in some situations, this may be necessary for safety reasons, this was not the case in any of the situations observed.

Research Question 2: What challenges have agencies faced collecting and sharing data on IPV Strangulation?

During the process evaluation interviews, participants were asked to comment about any problems with collecting and sharing data on IPV strangulation. In general, participants did not have a lot of "problems" to share. This was consistent with findings observed in the Interim Process Evaluation Report where features of "interagency confusion" were explored among Burleson first responders (n = 88) who participated in the process evaluation survey (see Interim Process Evaluation Report). In the Interim Report, more than three-quarters of participants indicated that they had experienced no area of confusion between BPD and BFD and their respective roles implementing the Ordinance. Other areas of the process evaluation survey revealed that Burleson first responders generally reported strong support for the establishment of the Ordinance, assessed the implementation of the Ordinance positively, and 94% indicated that the Ordinance was implemented as designed. While these are separate topics that take us beyond the question at hand, it is worthwhile to observe that these positive assessments might have been unlikely had there been pervasive problems collecting and sharing data among partner agencies.

BFD Challenges

When issues were noted, BFD mentioned occasional glitches with the tablets used for the administration of the strangulation worksheet where information was not recorded, or the tablet froze. There were also occasions where BFD was not dispatched to a strangulation incident because MedStar arrived first and indicated they were not needed and/or dispatch "toned out" BFD. If BFD is not sent on-scene, they are subsequently unable to conduct the medical assessment and collect worksheet data. Upon further investigation it was discovered that some dispatchers were unclear about the strangulation protocol. This challenge was rectified with

additional communication with the dispatchers. There were also instances of miscommunication between BFD and BPD. As one BFD participant explained,

> *Another thing that we've learned is that, sometimes the police officers and the firefighters don't really communicate well…the police officer say, "Hey, I need an EMS out here,' and EMS shows up and Fire shows up, but they don't know that its specifically for strangulation. They may think it's for some kind of an assault. You know? And so, since this is very specific about strangulation, one of the things that we learned was that any time our guys are on any type of domestic call, assault call, anything like that…I've now coached them that they need to be asking those questions too whenever they're doing their patient assessment because the police officer may not come right out and say, 'Hey this is a strangulation incident.' So, we found some that I think PD didn't even know about through that, while we were doing our patient assessment. They're like, 'Oh, hey, they also were strangled in the middle of this.' So that's been interesting to learn through, through this process as well.* (Participant 352184)

BPD Challenges

The few issues that were raised by BPD delt with the Family Violence Packet (FVP). The FVP, albeit long, was designed to simplify and standardize data collection across officers. Indeed, the use of the specialized strangulation questions operated as a form of a checklist. As BPD Participant 535123 put it, "*…And we also have the strangulation checklist so that's the first option of saying… here's the checklist, make sure you don't forget this…"* Other BPD participants commented on experiencing occasional difficulties with administering the FVP (and required strangulation questions) to victims who did not want to talk to officers or answer questions from the FVP. BPD Participant 837171 explained,

> *I know we had some problems early on with the family violence packet, especially if we got there, and we had a victim that was unwilling to cooperate or give us anything. And they're like, honest, I mean they just wouldn't tell you anything. And it's real hard to work with those. And so with that, there's not much information you can get on there. And I think eventually they said, "well just fill out the packet, the best you can." So, that's kind of where we were on that.*

For this reason, missing data from the FVP and strangulation questions that were due to the victim's refusal to participate were accounted for in the research assessment of fidelity—provided that the officer documented this in their report or on the form.

Research Question 3: Is there a quality assurance and fidelity monitoring system in place to assess the operation of the initiative?

One of the key findings of the evaluability assessment was for BPD and BFD to establish fidelity monitoring of the Ordinance and strangulation protocol. While supervisors at both sites are responsible for monitoring daily issues with fidelity, system level supports are also required to standardize monitoring practices and to improve the overall delivery of the strangulation protocol. BFD already had a system level process in place to oversee fire services known as the "quality assurance and quality improvement" (QAQI) process. BFD's Ordinance responsibilities (i.e., BFD Worksheet data) were added to this existing system. At the time of the Evaluability Assessment, BPD did not have a system in place, but this was rectified during the Process Evaluation. Each of these fidelity and quality assurance initiatives are reviewed in the following two subsections.

Burleson Fire Quality Assurance and Quality Improvement (QAQI) – Fidelity Monitoring

BFD utilizes a Quality Assurance and Quality Improvement (QAQI) process as a form of checks and balances for service delivery and a means of self-assessment. The QAQI process was consistently referenced throughout the stakeholder interviews as the primary method relied upon to insure adherence to the Ordinance provisions. Initially the inclusion of the FD strangulation response and FD worksheet in the report software was described as an "evolving process" but it was fully incorporated into the QAQI process during the Process Evaluation.

While first line supervisors review reports from their subordinates, there is an additional detailed QAQI process that unfolds after the supervisor marks the cases as reviewed. BFD lieutenants review documentation about service calls performed each day to verify that responses and reporting criteria are properly conducted by involved personnel (e.g., patient documentation,

narratives, and in cases of strangulation, the Worksheet). The BFD reporting system assigns a score at the bottom of the report out of 100. Reports not receiving a complete score are further reviewed. If there is a procedural problem with the response and/or a lack of appropriate documentation, then the report is sent back via FD email to the appropriate individual to either elaborate or make a correction. This action makes clear what needs to be fixed and resubmitted.

Beyond proper documentation of incidents, the QAQI also considers the *quality* of the service response. For example, this might include if the BFD Strangulation Worksheet was completed in a strangulation incident, and if it was, that it was completed properly without any skipped items. Or if a patient was "against medical advice" or AMA, the case is further reviewed to make certain that the risks associated with refusing transport were explicitly discussed with the patient. BFD participant 114376 explains,

> *I'm over the QAQI portion and so kind of my duties is to read over every EMS chart that we run and make sure the quality is there and that we did ask the right questions. We did advocate for transport, the worksheet was complete thoroughly, and if I don't feel that it is, I send it back to that person and say, "hey you might have done this" or "you should have asked this" or whatever it may have been and I think that is one way they, they do learn.*

As a final quality assurance check, after the QAQI process is complete, all strangulation calls are reviewed at the battalion chief level, or higher.

BFD personnel also mentioned that there are external checks and balances in place as well because BPD will eventually request "run reports" from BFD to capture their documentation of the event such as the patients injuries, and other signs and symptoms detected by the FD during their medical assessment. One participant explains,

> *But the other thing is that if, if PDs, when they start an investigation, they are going to request our report, and so if that reports not, if that strangulation worksheet doesn't exist, and they request it, then, then our admins going to go, hey guys, what the? what happened here? And actually, I've been through that. And it's a long story. PD was working it as a strangulation, we didn't catch it, I mean, the patient never said anything about strangulation to us, so we didn't do it.*

> *And then the next day, they requested the chart, and Chiefs were not happy obviously.* (Participant 5193)

Generally, BFD personnel supported the stringent QAQI review process understanding that it has the potential to save lives as is the case with IPVRS. One BFD participant noted that,

> *Another thing that we learned, was that it was extremely important for our guys to not assume any of those questions. So, what we learned early on through our QAQI process was that if it didn't look like someone had urinated or defecated on themselves then they may just assume that and not want to ask a question that was you know, pretty personal or embarrassing for the patient. And so, we had a particular incident where the police department had arrived before us, kind of had figured out what was going on, they allowed the patient to change clothes because the patient was embarrassed because they had urinated on themselves. My guys got there and assumed that the patient wasn't incontinent and answered the question that way and then, I don't remember exactly how it got caught, but at some point, it got caught, and then that information was pushed up to me. So, we sent out communication to everyone, "hey guys, you have to make sure that you ask these questions even though they are extremely personal and you know, they're not fun to ask someone, but you know, we've, we've learned from that situation…* (Participant 352184)

In summary, BFD has a sufficient fidelity monitoring system in place that is thorough and provides constructive feedback in a timely manner. Results from the research team's assessment of BFD's fidelity to the Ordinance were summarized in the previous section for research question one and will not be repeated here.

BPD Victim Assistance - Fidelity Monitoring

Prior to the process evaluation, BPD had no formalized system for fidelity monitoring of the Ordinance other than traditional supervision provided by senior officers. Following the evaluability assessment, BPD decided that fidelity monitoring would be conducted by Victim Assistance (VA) given their contact with victims and knowledge of what transpired in their case. This system was implemented, and VA personnel diligently reviewed all cases in the post-ordinance timeframe for fidelity problems. This information was shared with the research team and findings from these efforts are reported here.

VA personnel independently identified incidents for which Strangulation Ordinance implementation fidelity may have been an issue.[46] Among the sample of post-ordinance strangulation IPV incidents (n = 112), VA flagged 28 cases (25.0%) for possible fidelity concerns. These 28 cases were visually screened by researchers to ensure VA fidelity flags were directly applicable to Strangulation Ordinance requirements and NIJ study parameters. This screening process revealed 13 cases were flagged by VA for a range of issues outside the parameters of the Strangulation Ordinance. For example, there were numerous cases where an offense involved IPV, but the incident report did not reflect a FV offense (e.g., assault causes bodily injury incidents versus assault causes bodily injury family member incidents), when the first page of the FVP was retained in the RMS scanned documents indicating it was not provided to the victim, or when the officer did not request an EPO for EPO eligible cases. While these are compelling issues that may represent broader case processing and other policy implications, they are not explicitly related to the Ordinance and were excluded as fidelity problems from this analysis.

A final sample of 15 incidents (13.4% of the 112 protocol-eligible cases)[47] included concerns surrounding accurate implementation of the Strangulation Ordinance requirements. All 15 cases had issues associated with the FVP; the FVP was missing from RMS or VA noted a problem associated with the way the FVP was completed by officers (e.g., missing pages/content about strangulation). Collectively, all cases with Ordinance fidelity issues were flagged by VA

[46] The strangulation and fidelity screening process for VA was similar to the process that the research team used to identify strangulation cases and fidelity problems in the case file analysis. For example, both VA and the researchers independently flagged cases without FVPs or problematic administration of the specialized strangulation questions. The research team also conducted a detailed review of officer narratives, supplementals, and statements from witnesses, victims, and suspects to: (1) identify cases with missed strangulation incidents where the Ordinance was *not* initiated, (2) identify when BFD was not activated in cases where strangulation was suspected or alleged, and (3) if BFD administered the strangulation worksheet, etc. For this reason, the research team identified more fidelity problems than VA.

[47] In the post-ordinance FV sample involving IPV victim/suspect dyads.

because the FVP and/or supplemental strangulation questions were not administered,[48] as outlined in the Ordinance. It is noteworthy that, among these flagged cases, all 15 (100%) were reported to BPD in 2018. This suggests that the fidelity problems flagged by VA for protocol-eligible cases all occurred during the early Ordinance implementation period. This finding reiterates existing implementation science and evaluation literature that suggests early mistakes are not uncommon during the implementation of a new program (Circo et al., 2021; Fixsen et al., 2005).

To summarize, BPD has a sufficient fidelity monitoring system in place that is thorough, but it is unclear how fidelity problems documented by VA are resolved. The presence of this new monitoring process is promising given the absence of it in the Evaluability Assessment. Results from the research team's assessment of BPD's fidelity to the Ordinance were summarized in the previous section for research question one and will not be repeated here.

Research Question 4: Is there sufficient agency financial, administrative and technical support for the initiative?

When implementing a new program or initiative resources are always an important consideration. For this reason, in the stakeholder interviews, both BPD and BFD stakeholders were asked about resources sufficiency across financial, administrative, and technical areas.

BPD and Resource Support

Several resource needs were discussed with BPD stakeholders in relation to implementing and maintaining Ordinance requirements. Central issues discussed included

[48] It is possible that in some of these flagged cases, a FVP was administered but never scanned into RMS by records. Both VA and the research team made inquiries with BPD records to see if a FVP existed for the case file but was not scanned into RMS. In some of these cases, the FVP was discovered and corrected; in the absence of a scanned (or hard copy) FVP/specialized strangulation questions document, the case remained flagged for fidelity.

staffing/time and training costs. Other than initial training costs to send some personnel to training offered by the Training Institute on Strangulation Prevention, most BPD personnel seemed to agree that limited resources were needed to implement and maintain their responsibilities under the Ordinance. Participant 730261 expressed some initial reticence about the total cost of training key personnel to support a large scale initiative like the Ordinance, but then viewed it as an investment in the long term:

> *$1,500 bucks a person to go through the class. 16 or whatever…we probably sent five, from here, plus two prosecutors. So, you're talking 10 grand. But then we take that and we took the material and then built our own training from that, which is similar to what I gave you. It's basically been pushed out again, saying, Hey, here's the highlights, that's what we're looking for. That's cheaper. You got to send some people through, but you got to have several. And you need several higher…admin going through it to recognize that this is important."*

BPD stakeholders indicated that the Ordinance did not generally pose any financial burden arguing that, *"Okay, so there's no, you're going to respond, no matter what. Yeah, I mean maybe you whatever the cost of printing the paper to make the checklist, you know, but you could put that online so that could be on your phone or whatever. Yeah, I don't see this as a financial burden at all."*

Most BPD stakeholders did not see an immediate need to increase the number of patrol officers or detectives because of the Ordinance. Participant 730261 explained, "*It didn't change the number of family violence offenses, it changed a number of family violence offense levels. So, it took your 350 a year family violence offenses, and identified 40 of them as felonies that normally would have just been Class A misdemeanor."* While additional sworn positions were viewed as unnecessary to support the Ordinance, BPD participant 046009 acknowledged there was a demonstrated need to broaden support services in victim assistance, *"And so I'll go back*

and say this on the Victim's Assistance. That used to be a 20-hour week part time position. And we were not going to be able to keep up with that."

There were some discussions of a future line in the Criminal Investigations Division (CID) to support a specialist investigator in the future. BPD participant 2981289 made the following argument, *"The reality is…so your numbers go up, there are aspects of tasks that needs to be done on the backend, right? So, we have here run reports, have to get medical records…So, so yes, there is an increase in your workload automatically with it. And so, what agencies would have to do is look at their total number of family violence cases….prior to the ordinance, this is number of strangulation…post… so you could generally say there's this much increase…and you may find some that should have been prior too…"*

BFD and Resource Support

Like BPD, personnel from BFD indicated they had adequate resources to implement the Ordinance and the consensus was that the resources required to execute it were modest to negligible. Several types of resources were discussed, staffing/time, truck deployment, software/technological costs. For example, no new fire fighters were hired to handle the new requirements of the Ordinance. As Participant 5193 describes, *"Admin, possibly, a slight increase in work. It adds an extra couple of minutes to our assessment. It's negligible."* Participant 073151 acknowledged a slight change, but did not see the change as overly significant, *"It does take a truck out of service. I mean, even if MedStar is there we still have to go, even though we are not needed for patient care stuff, we still have to go. I mean, it does take a truck out of service for, but other than that."*

For BFD, implementing the Ordinance did require that their existing patient care software be adapted to accommodate inclusion of the new BFD worksheet. Fortunately, this was

something the existing software could accommodate without any additional cost. Participant 098149 clarifies: *"Yeah, I mean, I don't think that there's a whole lot of cost behind it at all, other than us putting a tab in the computer and, and, printing some paperwork, actually not even paperwork. We, I mean we took a class, but, to me that's, that's what we're going to be doing anyways so I don't see any costs hardly at all."*

In summary, participant 099373 explained the sentiment held most by BFD participants, *"I think the ordinance is asking us to be medical professionals and do our job and do a proper, thorough assessment of the victim and then document it correctly. So, yes, I think we do have the resources that we need…"*

Summary of Agency Supports

Generally speaking, BPD and BFD stakeholders were in agreement that the Ordinance does not require significant resources and could be implemented with fairly low resource burden.

Research Question 5: Have staff received adequate training?

To determine if staff had received adequate training the research team drew from stakeholder interviews and reviewed training curricula and training records for the initial and re-training initiatives. In addition, researchers collected feedback from first responders who participated in a post-training survey following each agency's retraining initiative. An examination of how effective the training was for improving officer knowledge will be explored in the Outcome Evaluation Report.

Initial Strangulation Training

In anticipation of the passage of the Ordinance, training curricula were developed by BPD and BFD as early as January 5, 2018. A slide show and accompanying lesson plan for the

training was developed and entitled "*Strangulation Ordinance*." The lesson plan stated three short learning objectives (original wording):

1. The student will learn research that backs the necessity for the ordinance.
2. The student will learn the purpose of the ordinance.
3. The student will learn the protocol for a call for service that includes strangulation.

This in-person training was delivered to BPD as a one-hour overview on the following topics: (1) background and need for the Ordinance, (2) the purpose of the Ordinance, (3) involved stakeholders, (4) information highlights from the academic literature including the lethality of strangulation; (5) IACP Resolution; (6) changes in RMS (i.e., strangulation flag); and (7) the specific expectations for responding to strangulation incidents for each agency (i.e., the strangulation protocol). BPD also included PowerPoint slides differentiating the Ordinance responsibilities of patrol and detectives and BFD incorporated slides regarding the BFD worksheet.

All front-line BFD personnel who respond to emergency medical service calls received training. BFD training delivery occurred either in-person in a group setting or individually as part of their onboarding process. The content of BFD's training was modeled after the BPD training with emphasis on BFD specific documentation requirements (i.e., strangulation worksheet). It should be noted that OSP and MedStar personnel were not required by the Ordinance to receive training because they are not employed by the City of Burleson.

The early development of the initial training curriculum allowed for the implementation of the training to begin immediately following the passage of the Ordinance on February 18, 2018. Once the Ordinance was passed, both BPD and BFD had 60 days to fully implement the Ordinance. Part of this implementation required that all Burleson first responders be trained by April 19, 2018. Inspection of training records reconciled against hiring rosters revealed that both

BPD and BFD began training employees as early as February 13, 2018, and all training activities were completed for current employees by April 13, 2018, prior to the close of the 60-day deadline as required by the Ordinance (See Table 26 below).

Table 26. *Stakeholder Initial Trainings*

Strangulation Training	Dates	#BPD Trained	#BFD Trained
Initial	Feb 13, 2018 – Apr 13, 2018	70	54

Neither BPD nor BFD did a pre or post-test to assess impact of the initial strangulation training and the initial training was conducted prior to the funded research project.

Strangulation Retraining Initiative

Following the completion of the Evaluability Assessment Phase of the broader study, it was recommended that both agencies enhance the existing curriculum and retrain all Burleson first responders. More specifically the EA Report recommended the following:

> Our analysis of the existing training demonstrates strengths in establishing awareness of how to implement the Ordinance, but insufficiencies in building understanding of the dangers of strangulation and best practices for identification of signs and symptoms of it. Given the recent passage of Texas SB 971 requiring additional training on strangulation for law enforcement, we recommend retraining BPD and BFD personnel on the basics of strangulation to include a refresher on the requirements of the Ordinance (Texas Senate Bill 971, 2019). In addition, the Training Institute on Strangulation Prevention (TISP) provides Investigating Strangulation training for first responders. This training covers topics such as: the dangers of strangulation, signs and symptoms of strangulation, injury assessment, determining facts and severity of the incident, subsequent actions to take, and victim support. Other strangulation training can be accomplished online, or by bringing TISP trainers into the department. TISP offers Basic Strangulation Training, one and two-day strangulation trainings, as well as an Advanced Four Day Training for Communities Seeking to Implement Best Practices. In addition, TISP offers Medical Training, Judicial Training, and webinars on strangulation. If bringing in TISP is not affordable, or timely, then it might be advisable to consider utilizing OSP to conduct training because they have existing expertise in this area. (EA Report, p. 31)

Based on these EA recommendations, both BPD and BFD updated their training materials and launched a retraining initiative. BPD implemented changes to their initial curriculum as documented in a lesson plan entitled, "*Protocol for Recognizing and Investigating*

Strangulation" dated January 16, 2020. According to the lesson plan, this two-hour training targeted all sworn Burleson Police Department Personnel and was deployed online through Power DMS (due to the COVID-19 pandemic). This training included a refresher on the requirements of the Ordinance, as well as additional information on the detection of strangulation. To assist with strangulation detection, material was included from the Advanced Strangulation Course from the Training Institute on Strangulation Prevention. The resultant update included 15 detailed learning objectives in sharp contrast to the initial training curriculum that had just three. These learning objectives are included here in their original wording:

1. Ability to understand the guidelines set forth in Senate Bill 971 regarding the investigation of strangulation.
2. Instruction on City of Burleson Ordinance Article XI- Effective Response to Strangulation.
3. Understanding of the protocol established in Section 54- 182 of the City of Burleson code of ordinances.
4. Exposure to the statistics related to strangulation death.
5. Understanding of physical indicators of strangulation.
6. Understanding of the Non-physical indicators of strangulation.
7. Knowledge of the IACP recommendations regarding strangulation investigation.
8. Review of Texas Penal Code Chapter 22.0 I
9. Discussion regarding the common terms associated with strangulation.
10. Instruction of the anatomy of the neck and its structures.
11. Discussion on medical procedures for diagnosing strangulation injuries.
12. Instruction on the force needed and time required for strangulation injuries.
13. Discussion about brain structure and its response to oxygen deprivation.
14. Instruction on effective interview techniques for strangulation victims.
15. Instruction of effective reporting and investigative procedures related to strangulation.

BPD began the retraining initiative on October 26 of 2020 and according to the training logs examined by researchers, most officers completed training by December 10, 2020. BFD began planning for their revised strangulation training around the same time as BPD, but the

COVID-19 pandemic delayed their training deployment.[49] BFD was able to complete the retraining initiative and utilized the revised BPD training materials discussed above. That training was deployed online through TargetSolutions on October 26, 2020. All BFD personnel had completed revised strangulation training by March 17, 2021. Training records for BPD and BFD were examined as part of the extant document review. Table 27 summarizes the retraining initiative.

Table 27. *Stakeholder Retraining Initiative*

Strangulation Training	Dates	#BPD Trained	#BFD Trained
Revised	BPD – Oct 26, 2020 – Dec 10, 2020 BFD – Oct 6, 2020 – Mar 17, 2021	71	48

Evaluation of Retraining Initiative

The research team administered pre/post training surveys to Burleson first responders to observe changes in strangulation knowledge for the outcome evaluation. However, first responders also had the opportunity to evaluate the re-training initiative in the post-training survey and the results are shared here as they are salient for the process evaluation. Those who completed the training are uniquely positioned to determine if such training is "adequate."

Table 28 presents an overview of how the training was received by Burleson first responders. A majority assessed the training as "good" (50.7%, $n = 35$) or "very good" (31.9%, $n = 22$). Burleson first responders evaluated training instruction as "good" (56.5%, $n = 29$) or very good (24.6%, $n = 17$). Relatively few respondents found the training merely acceptable, and none found the training to be poor or of very poor quality.

[49] Due to the COVID-19 pandemic, the Burleson Fire Department (BFD) became Burleson's public health authority; meaning that they were responsible for: providing health guidance, contract tracing, a drive-through COVID-19 testing facility, as well as providing data to city leadership related to COVID-19 cases in the community. In addition, they also became a provider of COVID-19 vaccines which further depleted BFD's resources.

Burleson respondents were then asked if there were any aspects of the Ordinance training that could be improved. Table 29 tabulates these responses. Most of the Burleson first responders did not indicate that any of the content could be improved; however, there were two areas where some improvements could be made. These areas include: "Interviewing strangulation victims" (54.2%, *n* = 13) and "Strangulation investigation" (33.3%., *n* = 8).

Table 28. *Frequency Percentages on Training Quality for Content and Instruction*

	Don't Know	Very Poor	Poor	Acceptable	Good	Very Good
Content	--	--	--	17.4% (*n* = 12)	50.7% (*n* = 35)	31.9% (*n* = 22)
Instruction	--	--	--	18.8% (*n* = 13)	56.5% (*n* = 39)	24.6% (*n* = 17)

Note. All Burleson (*n* = 69).

Summary. The revised curriculum used for the retraining initiative was more detailed and rigorous in comparison to the initial training for Burleson first responders. Agencies were able to document their retraining efforts with training rosters or time stamped email acknowledgements that training was completed. The training was also evaluated positively by the Burleson first responders. For these reasons, the training was deemed adequate.

[Table follows next page]

Table 29. *Improvements to the Burleson Ordinance and Strangulation Ordinance Training*

	%No	%Yes
Rationale for Establishing Strangulation Ordinance	75.0% (*n* = 18)	25.0% (*n* = 6)
Content of Strangulation Ordinance	83.3% (*n* = 20)	16.7% (*n* = 4)
Research on Strangulation Consequences and the Need for First Responder Training	75.0% (*n* = 18)	25.0% (*n* = 6)
Role of Police Department in Implementing the Strangulation Ordinance	83.3% (*n* = 20)	16.7% (*n* = 4)
Role of Fire Department in Implementing the Strangulation Ordinance	75.0% (*n* = 18)	25.0% (*n* = 6)
Dangers of Strangulation for the Victim	79.2% (*n* = 19)	20.8% (*n* = 5)
Role of Strangulation Trauma and its Effect on the Brain	83.3% (*n* = 20)	16.7% (*n* = 4)
Medical Dangers Associated with Strangulation	79.2% (*n* = 19)	20.8% (*n* = 5)
Dangers of Strangulation to First Responders	70.8% (*n* = 17)	29.2% (*n* = 7)
Visible Signs of Assault or Strangulation	75.0% (*n* = 18)	25.0% (*n* = 6)
Non-Visible Signs of Assault or Strangulation	70.8% (*n* = 17)	29.2% (*n* = 7)
Strangulation Investigation	66.7% (*n* = 16)	33.3% (*n* = 8)
Interviewing Strangulation Victims	45.8% (*n* = 11)	54.2% (*n* = 13)
Strangulation Incident Documentation	79.2% (*n* = 19)	20.8% (*n* = 5)

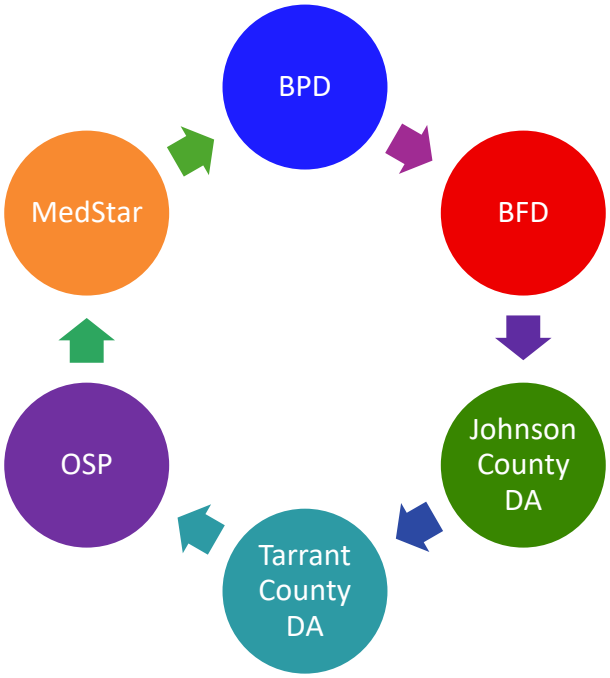
Note: All Burleson (*n* = 24). There are a substantial number of missing responses in these training questions.

Research Question 6: Is there support for the initiative from other organizations?

The Process Evaluation considered whether there was support from other organizations beyond BPD and BFD. In short, the answer is yes. Early in the design of the Ordinance design phase, a Strangulation Task Force (STF) was created and consisted of representatives from Burleson Police, Burleson Fire, MedStar, and the Johnson County, and Tarrant County District Attorney's Offices. Other collaborating agencies included One Safe Place (OSP) and MedStar. OSP, a Family Justice Center, is a multi-agency network consisting of 23 partner agencies

providing coordinated services to intimate partner violence victims in Tarrant Country (One Safe Place, 2024). At the time of the study's initiation, MedStar provided mobile healthcare and emergency services to fifteen cities within Tarrant County including Burleson. (MedStar Mobile Healthcare, 2019). Figure 12 displays the STF member agencies.

Figure 12. *Strangulation Task Force Members*



On August 14, 2017, during a Burleson Public Safety Committee Meeting, these agencies recognized that: (1) IPVRS posed increasing danger to victims and (2) a more formal and community level response was warranted. For this reason, these stakeholders formed a multi-jurisdictional Strangulation Task Force (STF) to specifically address IPVRS. The use of an Ordinance to address IPVRS was first proposed at this meeting. Four days later a draft of the Ordinance was submitted to the STF on August 18, 2017, and revisions were added by the district attorneys on September 26, 2017. After several draft revisions by other stakeholders, the Burleson City Council passed and approved the Ordinance on February 19, 2018.

While the STF has not meet regularly since the passage of the Ordinance, individual members of the STF were available to review and comment on draft materials designed to implement the new Ordinance (e.g., specialized strangulation questions and signs and symptoms worksheet). Furthermore, during both evaluability and process evaluation interviews, several stakeholders indicated a willingness to provide additional support as needed. A MedStar participant indicated a commitment to supporting the initiative generally and the required data collection BFD would be responsible for, *"…more to the process, understanding the data collection system… assuring that our team was being responsive to the requests from X and getting things done in a reasonable time frame… there was some input into the data that was being collected*…" It was also apparent from process evaluation interviews that Burleson first responders felt they could rely on the STF and other service providers in the community. Participant 298189 explains, *"I think we have enough external support as well, through, [sic] you name it One Safe Place and the Child Advocacy Centers, and I mean, it's, if we can't provide services in-house, we can get them externally. And so yes, I think we're good there. "*

Research Question 7: Are there formal or informal agreements with collaborating agencies to assist with the Protocol?

It was evident that both formal and informal agreements exist to support the Burleson Ordinance and execution of the strangulation protocol. One of the strengths of adopting an Ordinance is that it specifies the key agencies involved and formularizes collaboration between these agencies by clearly stating the duties and obligations for each agency to follow (and consequences for failure to do so). The Ordinance also helps prevent creative interpretation of how to implement key provisions and it circumvents any adverse consequences due to leadership changes in participating agencies. The Ordinance does not rely on individual discretion or on any

one person to survive. For example, if someone retires, the Ordinance does not disappear because it is engrained in the municipal code, and first responders understand they are governed by it. As one BPD leader explained *"…it evolved into me going to Council and passing an ordinance, in essence that's against myself...as funny as that sounds…but when we find strangulation as an element of an offense, we're required to make notification…"*

While the Ordinance provided firm expectations for BPD and BFD, it did not apply to MedStar. During the study, the City of Burleson had a formal contractual partnership with MedStar to provide mobile healthcare and emergency services in the community. After the Ordinance was passed, informal discussions occurred among MedStar leaders (and first responders on the front line) of how to coordinate medical response and patient care so that BFD could implement its mandated response to strangulation. In the past, these agencies often waived each other off because it was not always necessary to have BFD on-scene for patient care when MedStar was present, and it was not always necessary for MedStar to respond. The Ordinance changed how BPD and BFD responded to strangulation incidents, and MedStar was briefed about this change. The involved entities informally agreed for medical first responders to work the scene in a way that would allow BFD EMTs/paramedics to execute their Ordinance responsibilities. While there were a few mishaps where BFD was inadvertently waived off, this was eventually corrected over time as first responders became more familiar with the Ordinance.

The relationship between OSP and the City of Burleson was generally informal but was strengthened by the fact that the former Burleson mayor also happened to be the President of One Safe Place. The Victim Assistance Coordinator, patrol officers, and detectives referred victims to obtain their services. To summarize, there were both formal and informal agreements

present between involved stakeholders to support the requirements of the Ordinance and execution of the strangulation protocol.

Aspirational Goals, Objectives, and Assessment of Outputs

The STF established several aspirations goals and objectives as part of the logic model they created on January 31, 2020 and finalized on July 12, 2021. Some of these went beyond the mandated objectives of the Ordinance and fell outside the NIJ Evaluation Project while others directly overlapped with Ordinance requirements. Table 30 provides summary information about these central objectives, corresponding outputs, and if they were accomplished by Ordinance stakeholders. Outcomes will be examined in the outcome evaluation report.

Outputs may or may not lead to expected outcomes, but they are important indicators of accomplishment in a process evaluation. More specifically, outputs allow for an assessment of did the intervention/program "do what it said it would do?" The stakeholders accomplished all of their planning and early implementation objectives (1-3) but need improvement across most of the remaining objectives until achievement of full fidelity. Full fidelity did not occur because there was a cumulative effect of non-compliance to each fidelity item, where non-compliance on one fidelity item adversely impacted compliance to a subsequent Ordinance requirement. It appears that this has occurred here—the percentage of cases with Ordinance compliance has decreased at each subsequent Ordinance requirement. This was visually demonstrated in Figure 5 in the beginning of this report. Once BPD is at full fidelity for requesting medical in all IPVRS protocol eligible cases, the rest of the observed "deficiencies" should all be remediated because BFD cannot engage in its part of the Ordinance without BPD first requesting their presence.

Table 30. *Summary Assessment of Ordinance Objectives and Outputs*

Objective	Output	Status	Notes
1. Change and/or create policies and standardize procedures to support the Ordinance (G4, G5, G7).	1. # or presence of changed policies/procedures and new forms/worksheets developed for Ordinance.	Accomplished	BPD/BFD changed general orders/policies. BPD updated FVP with specialized strangulation questions. BFD updated policies and created Strangulation Worksheet.
2. Improve quality and content of strangulation training (G1-G2).	2. Presence of initial and revised strangulation training curricula.	Accomplished	Training curricula for initial and revised strangulation showed additions to content and improved quality.
3. Train/re-train first responders on medical consequences and lethality/danger of strangulation and ordinance requirements (G1-G3).	3. 100% of first responders trained.	Accomplished	Training records were reconciled against employment rosters.
4. First responder utilization of checklists/assessments in all eligible cases (G3-G4).	4. 100% of BPD officers complete strangulation evaluation checklists in eligible cases.	Needs Improvement	77.4% utilization of strangulation evaluation checklist questions in eligible IPVRS incidents (n = 120/155).
5. Provide medical assessment/treatment to eligible strangulation victims (G5b).	5. 100% of eligible strangulation incidents result in BFD dispatch to scene. 6. 100% of BFD personnel complete strangulation worksheets in eligible cases.	Needs Improvement	Dispatch of BFD occurred in 62% of eligible IPVRS incidents (n = 96/155). Not a fidelity problem for BFD, this is a result of BPD not requesting when they should have done so.
	7. 100% of strangulation victims assessed/treated by BFD.		Worksheet/assessments completed in 58% of eligible IPVRS incidents (n = 90/155). Not a fidelity problem for BFD, this is a result of BPD not requesting when they should have done so. Among cases where medical was requested by BPD, BFD complete assessments/worksheets in 93.7% of the incidents.

Table 30. *Summary Assessment of Ordinance Objectives and Outputs (Continued)*

Objective	Output	Status	Notes
6. Provide and document referrals for strangulation victims to appropriate support agencies (G5c) 7. Provide strangulation victims with follow-up services (G5d).	8. 100% of BPD personnel provide and document referrals to VA/appropriate support agencies.	Needs Improvement	BPD documentation of victim referrals occurred in 43.9% IPVRS protocol cases (n = 68/155).
	9. # of grants written and received for VA to expand service capacity.		BPD wrote and received one grant from the Council of Governments (COGS) to support victim assistance activities.
	10. VA FTEs utilized to increase service capacity.		One additional part-time employee was hired.
	11. # of victims receiving follow-up from VA.		Not tracked by NIJ grant as this was not a mandated Ordinance activity.
8. Track repeat strangulation related victimization (G5a, d)	12. Presence of repeat victimization tracked in VA spreadsheet and/or by crime analyst.	In Progress	VA developed a spreadsheet to track repeat victimization for IPVRS. Data analysis derived from this spreadsheet will be reported in the outcome evaluation.
	13. # of repeat victimizations detected.		

Table 30. *Summary Assessment of Ordinance Objectives and Outputs (Continued)*

Objective	Output	Status	Notes
9. Improve first responder safety through strangulation training and education, tracking of assaults against public servants, and dispatch notification flags (G6).	14. Presence of mechanism to track assaults on first responders by suspects with strangulation history.	In Progress.	Established a strangulation flag in RMS regarding locations with previous strangulation. RMS has additional flags about dangerous suspects, those who resist arrest, etc. The flag only reflects what officers recognize and track.
	15. # of assaults on first responders with strangulation history identified.	No assaults were identified in post-ordinance period.	
	16. # of strangulation flags noting prior strangulation.	Needs improvement.	
10. Monitor fidelity and correct non-compliance (G7).	17. Presence of fidelity tracking in VA spreadsheets and supplemental files.	VA tracking spreadsheet established for BPD fidelity monitoring.	Unclear how VA identified fidelity problems resolved by BPD.
	18. Presence of mechanism that tracks correction of fidelity noncompliance.	15 IPVRS incidents with Ordinance related fidelity problems.	Most identified fidelity issues were from early in the Ordinance implementation.
	19. 100% first responder compliance with the Ordinance.	BFD to continue w/existing QA/QI system.	
		Fidelity across all indicators needs improvement.	

CHAPTER VI: DISCUSSION

Summary and Discussion of Findings

In summary, the Ordinance and strangulation protocol were adequately designed for implementing a coordinated response to IPVRS, training and educating first responders, and developing processes to enable emergency medical screenings for victims. Surveys of Burleson first responders and qualitative findings taken from interviews of strangulation task force members confirmed strong support and "buy in" for the initiative and disclosure of significant implementation or fidelity problems were rare. Key components for implementation were achieved (e.g., development of specialized forms, training, inter-agency cooperation) and implementation processes were positively evaluated by Burleson first responders in surveys (see Interim Process Evaluation Report) and stakeholder interviews.

Program fidelity was systematically assessed across five predetermined indicators that were taken directly from the Ordinance and examined using a diverse array of data. Results indicated general adherence to the goals and objectives of the Ordinance and strangulation protocol with room for improvement across several indicators. For example, while Burleson medical first responders were almost always on-scene when requested, they were only requested to be on-scene in 62% of protocol eligible cases (n = 155). As Table 31 demonstrates, there was a cumulative effect of non-compliance to each fidelity item, where non-compliance on one fidelity item adversely impacts compliance on a subsequent Ordinance requirement. It appears that this has occurred here—the percentage of cases with compliance to the Ordinance decreasing for each subsequent Ordinance requirement. More specifically, 87.7% (n = 136) of the protocol-eligible cases had the FVP, but in cases without the FVP (n = 19, 12.3%), administration of the required strangulation questions is not possible; consequently, compliance decreases from 87.7%

of cases with the FVP to 77.4% where the specialized questions were administered. Moreover, when the specialized strangulation questions are not administered, police miss an important opportunity to collect information about the strangulation event. This decreases the likelihood that police will request medical personnel to assess and treat the strangulation victim during the incident response. This reduction is observable in Table 31, where the percentage of compliant cases decreases from 77.4% (n = 120) and the specialized questions were administered to 61.9% (n = 96) of cases where BPD requested a medical response. When medical personnel have not been notified/dispatched to the scene, then it is not possible for BFD to administer their Strangulation Worksheet as part of their assessment and evaluation of the victim. However, great caution must be exercised when interpreting fidelity compliance results for BFD. Specifically, where Table 31 shows compliance for only 58.1% (n = 90) of cases it is important to emphasize that this low value does not reflect an inadequate response by BFD, but rather it indicates that their presence was not requested by police when it should have been. In summary, fidelity was partially achieved, but not all the time, and improvements were deemed necessary.

Table 31. *Frequency Distribution of Fidelity Compliance on Ordinance Requirements*

	Fidelity Compliance ***n*** **= 155**			
	No		**Yes**	
	n	**%**	***n***	**%**
Ordinance Requirements for Fidelity Compliance				
Administration of Family Violence Packet	19	12.3%	136	87.7%
Use of Specialized Strangulation Questions	35	22.6%	120	77.4%
BPD Requests Medical for Strangulation Victim	59	38.1%	96	61.9%
BFD Administers Strangulation Worksheet	65	41.9%	90	58.1%
Documentation of Referrals to Support Agency	87	56.1%	68	43.9%

The process evaluation examined seven research questions and Table 32 provides a snapshot of the results discussed in previous sections of this report.

Table 32. *Summary Review of Process Evaluation Results*

(1) Is the initiative being implemented, operated and managed as designed?	*Partial.* Fidelity was achieved, most but not all of the time. Improvements necessary.
(2) What challenges have agencies faced collecting and sharing data on IPV Strangulation?	*BPD:* Officers forget to complete FVP and specialized strangulation questions, failure to recognize all strangulation incidents and mobilize BFD. *BFD:* Occasionally skipped items on BFD worksheet, some miscommunication between BFD/BPD on-scene.
(3) Is there a quality assurance and fidelity monitoring system in place to assess the operation of the initiative?	*BPD:* Supervisor review and victim assistance monitoring. *BFD:* Supervisor and electronic quality control reviews.
(4) Is there sufficient agency financial, administrative and technical support for the initiative?	*Yes* – general agreement among first responders in process evaluation survey and stakeholder interviews.
(5) Have staff received adequate training?	*Yes* – All BPD and BFD staff trained as verified by examination of agency training records. Revised training curriculum was sufficient. Outcome evaluation to further determine "adequacy."
(6) Is there support for the initiative from other organizations?	*Yes* – Establishment of multi-agency Strangulation Task Force (STF).
(7) Are there formal or informal agreements with collaborating agencies to assist with the Protocol?	*Yes* – formalized through Ordinance and informal through the STF.

Recommendations

The results of the process evaluation indicate several recommendations are necessary:

1. **Application of Ordinance to Strangled Others**. Recognition that the Ordinance applies to *all strangled individuals* regardless of their involvement in case as a victim, suspect, witness,

or involved other. First responders should check and clarify information from all parties on-scene to avoid missing these strangulation occurrences. Strangled Others were a significant source of fidelity noncompliance.

2. **Strangulation Prompts.** First responders should ask more than once if strangulation has occurred. It may take more than one prompt for a victim to disclose strangulation for several reasons that range from trauma from the incident, physiological effects of the strangulation, and the phrasing and timing of the prompt itself.
    a. *Example 1:* If asked about strangulation as part of a long list of items and/or in a list that is asked in a quick tempo, the victim may be distracted and say "no" but if they are asked "were you choked or strangled" in another context some may indicate "yes." Researchers often observed such occurrences during coding of the case files and body camera observations.
    b. *Example 2:* Researchers saw instances where victims said "no" on the Danger Assessment but then disclosed strangulation later during the administration of the specialized strangulation questions or in some other context that involved the officer probing further about strangulation. Without the additional probing, the discovery of the strangulation would be lost. However, some officers did not ask about strangulation again if "no" was indicated on the Danger Assessment. Officers should be encouraged to probe about strangulation using the specialized strangulation questions (as required by the Ordinance) regardless of the answer a victim provides on the Danger Assessment section of the FVP.
3. **Enhance Fidelity Monitoring for BPD.** Supervisors should review the content of FVP's to ensure compliance fidelity with the Ordinance.

a. ***Documenting BFD's Presence.*** There was a significant amount of missing data on the section of the FVP that directs officers to document the name, identification number, employment agency, and unit number of emergency medical personnel. Another option would be to simplify the form to include only the bare minimum information that is needed about on-scene medical first responders.

b. ***Documenting Referrals.*** Ensure officers document victim referral information in the report as is required by the Ordinance. Like documentation about medical first responders, there was a substantial amount of missing data about referrals for victim services.

c. ***VA Fidelity Monitoring***. Regular utilization of the VA documentation of fidelity issues for strangulation cases (and other family violence cases) would be prudent.

4. **Enhance Quality Assurance and Quality Improvement (QAQI) Fidelity Monitoring BFD.** The QAQI monitoring should continue as is. BFD should continue investigation and/or correction of information absent from the strangulation worksheets to prevent missing data on strangulation signs and symptoms.

5. **BFD Assessment of Strangulation Signs and Symptoms**. BFD should encourage more detailed/active examinations of strangulation signs and symptoms particularly with detection of petechiae. For example, body camera footage revealed victims being asked if they had petechiae rather than the BFD physically examining their eyes, looking behind ears, top of scalp, and other places petechiae can appear. Because most non-medical people do not know what petechiae are, it is critical that medical first responders actively engage in detecting the presence or absence of petechiae.

6. **Consistent recognition of chokeholds, headlocks and any ***pressure*** to the neck as strangulation.** Any detection of a chokehold, headlock or any pressure to the neck for any individual involved in the incident requires BFD medical response (some officers do call medical and some erroneously do not). Strangulation does not always result in loss of breath or ability to speak; victims can also experience blocked circulation of blood flow. If a victim reports strangulation but also details they were still able to breath this does not negate the fact that they were strangled. Various definitions recognize blocked circulation as strangulation (including the Ordinance).

    a. ***Training Institute and Strangulation Prevention:*** Strangulation involves, "*Any **pressure** to the neck blocking airflow, blood flow or both, no matter what you call it, is strangulation and deadly force"* (Dr. Bill Smock, Training Institute and Strangulation Prevention). This definition is similar to language in the Ordinance as well as Texas law.

    b. ***Ordinance Definition:*** Strangulation (Effective Response to Strangulation CSO#781-02-2018, 2018) means impeding the normal breathing OR ***circulation*** of the blood of the person by applying ***pressure*** to the person's throat or neck by blocking the person's nose or mouth.

    c. ***Texas Definition:*** Texas Impede Breath (PC 22.01(B)(2)(B)) intentionally, knowingly, or recklessly impeding the normal breathing OR ***circulation*** of the blood of the person by applying ***pressure*** to the person's throat or neck or by blocking the person's nose or mouth.

7. **FVP Question Standardization.** Officers should avoid changing question wording on Danger Assessment and the Specialized Strangulation Questions on the FVP.
8. **Modify Report Language.** Because most victims do not show visible evidence of strangulation, officers should modify how this absence is described in case file narratives to demonstrate that this is a common occurrence among strangulation victims. For example, instead of stating "victim shows no visible injuries of strangulation" a slightly rephrased version to provide more context could include, "victim shows no visible injuries of strangulation, but the lack of visible injuries is common among strangulation victims."
9. **Bolster Strangulation Evidence Collection.** While the Ordinance and strangulation protocol vastly improved officer documentation of strangulation signs, symptoms, and injuries in their incident paperwork and case file narratives, additional evidence collection could occur. For example, because victims do not always show visible injuries, the use of a forensic camera can better detect and document injuries to the neck not visible to the human eye. In addition, alternative light source (narrow band light source) photography, reflective ultraviolet (UV) photography, and infrared (IR) photography are critical in strangulation injury documentation (Strack & McClane, 1998a).

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APPENDIX A – IACP Resolution

INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE

RESOLUTION

Adopted at the 121st Annual Conference Orlando,
Florida
October 21, 2014

Increasing the Awareness of the Lethality of Intimate Partner Strangulation
Submitted by: Victim Services Committee
VIC.004.T14

WHEREAS, strangulation is an indicator of the escalation of violence and associated with increased risk of serious injury and/or death in cases of intimate partner violence;[1,2,3] and

WHEREAS, strangulation has been identified as one of the most lethal forms of domestic violence and sexual assault;[4] and is used to exert power over a victim by taking from them control of their own body;[5] and

WHEREAS, when strangled, unconsciousness and anoxic brain injury may occur within seconds and death within minutes; and

WHEREAS, oftentimes, even in fatal cases, there is no external evidence of injury from strangulation, yet because of underlying brain damage due to the lack of oxygen during the strangulation assault, victims may have serious internal injuries or die days or even weeks, later; and

WHEREAS, many first responders lack specialized training to identify the signs and symptoms of strangulation and often focus on visible, obvious injuries like stab wounds or contusions. This lack of training has led to the minimization of this type of violence, exposing victims to potential serious short- and long-term health consequences, permanent brain damage, and increased likelihood of death; and

[1] Allison Turkel. "And Then He Choked Me: Understanding and Investigating Strangulation." National Center for Prosecution of Child Abuse. Update. Volume 20, Number 8, 2007.
[2] Gael B. Strack and Casey Gwinn. "On the Edge of Homicide: Strangulation as a Prelude." Criminal Justice. Volume 26, number 3, Fall 2011.
[3] Training Institute on Strangulation Prevention and the California District Attorneys Association. The Investigation and Prosecution of Strangulation Cases. 2013.
[4] Allison Turkel. "And Then He Choked Me: Understanding and Investigating Strangulation." National Center for Prosecution of Child Abuse. Update. Volume 20, Number 8, 2007.
[5] Training Institute on Strangulation Prevention and the California District Attorneys Association. The Investigation and Prosecution of Strangulation Cases. 2013.

WHEREAS, there is a need to develop more experts in the field of strangulation and to use those experts in court proceedings to educate juries and judges so that they understand the signs and symptoms associated with this crime, and the severity of this crime;[6] and

WHEREAS, some jurisdictions nationwide have taken legislative measures to address the brutality and lethality of strangulation assaults, many states, to date, still do not adequately address strangulation in their law enforcement training and/or criminal statutes, underestimating the significance of the act of strangulation and potential lethality;[7,8] and

WHEREAS, lacking specific legislation and specialized training, many near-fatal strangulation cases are prosecuted as misdemeanors crimes. However, given the lethality of strangulation, offenders should be held accountable with a penalty that is commensurate with the nature of their crimes which is the equivalent of attempted homicide or serious felonious assault;[9,10] now, therefore be it

RESOLVED, that the International Association of Chiefs of Police assembled at its 121st Annual Conference in Orlando, Florida, supports statutes and legislation that hold perpetrators accountable for the potentially lethal strangulation assaults, and, be it

FURTHER RESOLVED, that the International Association of Chiefs of Police supports training efforts, documentation forms and processes, and multidisciplinary partnerships for law enforcement that specifically address the occurrence, signs, symptoms, effective investigation, and the increased lethality of the power and control dynamics of strangulation assaults in cases of domestic and sexual violence.

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[6] Training Institute on Strangulation Prevention and the California District Attorneys Association. The Investigation and Prosecution of Strangulation Cases. 2013.

[7] Training Institute on Strangulation Prevention and the California District Attorneys Association. The Investigation and Prosecution of Strangulation Cases. 2013.

[8] Strangulation in Domestic Violence Cases: Overcoming Evidentiary Challenges to Reduce Lethality, Melissa Paluch, Development in Ney York State Family Law, Spring 2013

[9] Training Institute on Strangulation Prevention and the California District Attorneys Association. The Investigation and Prosecution of Strangulation Cases. 2013.

[10] Strangulation in Domestic Violence Cases: Overcoming Evidentiary Challenges to Reduce Lethality, Melissa Paluch, Development in Ney York State Family Law, Spring 2013.

APPENDIX B – Burleson Strangulation Ordinance

CSO#781-02-2018

ORDINANCE NO.

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BURLESON, TEXAS, CREATING ARTICLE XI, "EFFECTIVE RESPONSE TO STRANGULATION", OF CHAPTER 54, "MISCELLANEOUS OFFENSES"; PROVIDING A CUMULATIVE CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR PUBLICATION; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Burleson, Texas is a home rule city acting under its charter adopted by the electorate pursuant to Article XI, Section 5 of the Texas Constitution and Chapter 9 of the Local Government Code; and

WHEREAS, strangulation is an indicator of the escalation of violence and associated with increased risk of serious injury and/or death in cases of intimate partner violence; and

WHEREAS, strangulation has been identified as one of the most lethal forms of domestic violence and sexual assault; and used to exert power over a victim by taking from them control of their own body; and

WHEREAS, intimate partners who have a history of strangulation pose a greater risk to their victim and society at-large; and

WHEREAS, when strangled, unconsciousness and anoxic brain injury may occur within seconds and death within minutes; and

WHEREAS, oftentimes, even in fatal cases, there is no external evidence of injury from strangulation, yet because of underlying brain damage due to the lack of oxygen during strangulation assault, victims may have serious internal injuries or die days, or even weeks, later; and

WHEREAS, many first responders lack the specialized training to identify the signs and symptoms of strangulation and often focus on visible, obvious injuries like stab wounds, or contusions; and

WHEREAS, this lack of training has led to the minimization of this type of violence, exposing victims to potential serious short-term and long-term health consequences, permanent brain damage, and increased likelihood of death; and

WHEREAS, there is a need to develop more experts in the field of strangulation and to use those experts in court proceedings to educate juries and judges so they understand the signs and symptoms associated with this crime, and the severity of this crime; and

WHEREAS, some jurisdictions and nationwide have taken legislative measures to address the brutality and lethality of strangulation assaults, many states, to date, still do not adequately

address strangulation in their law enforcement training and/or criminal statutes, underestimating the significance of the act of strangulation and potential lethality; and

WHEREAS, lacking specific legislation and specialized training, many near-fatal strangulation cases are only prosecuted as misdemeanor crimes; and

WHEREAS, given the lethality of strangulation, offenders should be held accountable with a penalty that is commensurate with the nature of their crimes which is equivalent of attempted homicide or serious felony assault; and

WHEREAS, the International Association of Chiefs of Police assembled at its 1215[1] Annual Conference in Orlando, Florida, supports statutes and legislation that hold perpetrators accountable for the potentially lethal strangulation assaults; and

WHEREAS, the City Council hereby finds and determines that the regulations set forth herein are in the best interest of the public and are adopted in furtherance of the public health, safety, morals, and general welfare.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BURLESON, TEXAS:

SECTION 1.
ADOPTION

That Article XI, "Effective Response to Strangulation", of Chapter 54 of the Code of Ordinances of the City of Burleson is hereby adopted to read as follows:

ARTICLE XI. EFFECTIVE RESPONSE TO STRANGULATION Section 54-180.

GENERAL PURPOSE OF ORDINANCE.

It is the purpose of this Ordinance to protect victims whose health, safety, and welfare may be jeopardized through exposure to violence by means of strangulation.

Section 54-181. DEFINITIONS.

For the purposes of this Article, the following words and phrases shall have the meanings respectively ascribed to them by this section:

(I) Chief of Police. Chief of Police means the chief of police of the city.

(2) Family Violence. Family Violence means "Family Violence" as defined in Texas Family Code§ 71.004.

(3) Fire Chief. Fire Chief means the fire chief of the city.

(4) Emergency Medical Personnel. Emergency Medical Personnel means a firefighter, emergency medical technician, or emergency care attendant that provides first response to requests for emergency medical services and provides immediate on- scene care to ill or injured persons, while acting in his or her official capacity, and is employed by or contracted by the city or a separate governmental entity that has entered into an inter-local agreement with the city to provide such services.

(5) Peace Officer. Peace Officer means a "Peace Officer" as defined in Texas Code of Criminal Procedure Article 2.12 that is employed by the city and acting in his or her official capacity.

(6) Strangulation. Strangulation means impeding the normal breathing or circulation of the blood of the person by applying pressure to the person's throat or neck or by blocking the person's nose or mouth.

Section 54-182. PROTOCOL FOR RESPONDING TO AN ACCUSATION OF STRANGULATION.

(a) When the act of strangulation is alleged or suspected within the city, the peace officer will summon emergency medical personnel to the scene to evaluate and render aid to the victim.

(b) The peace officer will document emergency medical personnel's presence and role in the police report by including their name, identification number, employment agency and unit number.

(c) Peace officers shall provide the victim referral information to the appropriate support agency for assistance and document the referral in their police report.

(d) Peace officers will thoroughly document the suspect's behavior, actions, and any comments made during the act of strangulation.

(e) When the act of strangulation is alleged or suspected within the city, peace officers shall utilize a checklist approved by the Chief of Police to help evaluate the situation and provide aid to the victim.

(f) When the act of strangulation is alleged or suspected within the city, emergency medical personnel shall conduct a medical evaluation and assessment to help evaluate the situation and provide aid to the victim.

Section 54-183. STRANGULATION TASK FORCE.

The Chief of Police shall designate a strangulation task force (STF) consisting of members from law enforcement, emergency medical personnel, medical community personnel, advocate representatives, and any other members deemed appropriate by the Chief of Police. The STF shall aid and advise the Chief of Police and Fire Chief in developing and implementing checklists, questionnaires, and an education training program for peace officers, emergency medical personnel, and other first responders encountering strangulation scenarios.

Section 54-184. PENALTY.

Any violator of this article may be punished by administrative means by the city manager or the city manager's designee in their discretion. A violation of this article is not subject to the penalties outlined in Section 1-14 of this code. The imposition of the penalty provided in this section is not a criminal conviction and may not be considered a conviction for any purpose. The penalty provided in this section shall be cumulative of other remedies provided by state law.

Sections 54-185 - 54-189. - RESERVED.

SECTION 2.
FINDINGS OF FACT

The above and foregoing recitals are hereby found to be true and correct and are incorporated herein as findings of fact.

SECTION 3.
CUMULATIVE CLAUSE

This ordinance shall be cumulative of all provisions of ordinances and of the Code of Ordinances of the City of Burleson, Texas, as amended, except where the provisions of this ordinance are in direct conflict with the provisions of such ordinances and such Code, in which event the conflicting provisions of such ordinances and such Code are hereby repealed.

SECTION 4.
SEVERABILITY CLAUSE

It is hereby declared to be the intention of the city council that the phrases, clauses, sentences, paragraphs and sections of this ordinance are severable and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the

city council without the incorporation in its ordinance of any such unconstitutional phrase, clause, sentence, paragraph or section.

SECTION 5.
SAVINGS CLAUSE

All rights and remedies of the City of Burleson are expressly saved as to any and all violations of the provisions of the Burleson City Code of Ordinances that have accrued at the time of the effective date of this ordinance; and, as to such accrued violations and all pending litigation, both

civil and criminal, whether pending in court or not, under such ordinances, same shall not be affected by this ordinance but may be prosecuted until final disposition by the courts.

SECTION 6.
PUBLICATION CLAUSE

The City Secretary of the City of Burleson is hereby directed to give notice of the passage of this ordinance by causing the caption or title and penalty clause of this ordinance to be published as required by Section 36 of the Chatter of the City of Burleson.

SECTION 7.
EFFECTIVE DATE

This Ordinance shall be in full force and effect sixty (60) days after its publication as provided by law.

AND IT IS SO ORDAINED.

PASSED AND APPROVED THIS 19th **DAY OF** February **, 2018.**

MAYOR

ATTEST:

CITY SECRETARY

APPENDIX C – BFD Strangulation Worksheet

Burleson Fire Dept. Strangulation Protocol Worksheet		
Patient Name		
Incident Location		
Date / Incident #		
Is the patient showing evidence of difficulty breathing, unable to breath, or hyperventilation?	Yes	No
Is the patient experiencing pain? (If so rate 1-10 with 10 being the most extreme) 0 - No Pain	1-10	
Does the patient have evidence of a raspy voice, hoarse voice, cough, or inability to speak?	Yes	No
Does the patient complain of neck pain?	Yes	No
Does the patient experience nausea or vomiting?	Yes	No
Does the patient have evidence of involuntary urination or defecation?	Yes	No
Is the patient experiencing dizziness or a fainting / light - headed feeling?	Yes	No
Is the patient experiencing headache, head "rush", or ears ringing?	Yes	No
Did the patient experience loss of consciousness?	Yes	No
How long was the patient unconscious?		
Is the patient experiencing a change in mental status (disoriented, combative, memory loss, "spaced out")?	Yes	No

Does the patient have Petechiae (pinpoint red spots above the area of constriction)?	Yes	No
Is there any evidence of hemorrhaging or bruising?	Yes	No
Is there any evidence of scratch marks, scrapes, or abrasions?	Yes	No
Is there any evidence of a bloody nose or broken nose?	Yes	No
Is there any evidence of fingernail impressions?	Yes	No
Is there any swelling of the neck or face?	Yes	No
Is there any evidence of pulled / missing hair, or bumps on the head?	Yes	No
Is there any evidence of skull fracture or concussion?	Yes	No
Does the patient show evidence of swollen tongue or lips?	Yes	No
Does the patient have any existing / old injuries?	Yes	No

APPENDIX D – Logic Model for the Burleson Strangulation Ordinance

Logic Model for the Burleson Strangulation Ordinance

Problem: Strangulation

Subproblems:

1. Strangulation leads to: (a) progressive violence leading up to and including IPV homicide, and (b) police assaults
2. Lack of awareness about strangulation for victims and first responders
3. Missed indications of strangulation by first responders
4. Lack of victim and first responder awareness of current resources available
5. First responder fidelity to Ordinance
6. Lack of medical assessment and/or treatment for strangulation victims
7. Victim unwillingness to adhere to medical advice related to IPV strangulation incidents (AMA)
8. Repeat strangulation victimization

Goals:

1. Raise awareness about strangulation with first responders
2. Improve first responder knowledge about strangulation and ordinance
3. Improve first responder detection of strangulation
4. Standardize first responder responses to strangulation
5. Improve outcomes and enhance victim safety for strangulation victims by: (a) preventing future strangulation victimization; (b) providing medical assessment and treatment; (c) providing and documenting referrals for assistance; and (d) expanding victim assistance (VA) capacity and services
6. Improve first responder safety
7. Obtain ordinance fidelity

OBJECTIVES	ACTIVITIES	OUTPUTS	OUTCOMES	
			Short Term	Long Term
1. Change and/or create policies and standardize procedures to support the ordinance (G4, G5, G7)	1. Develop/change: general orders, strangulation evaluation checklist, FVP, BFD worksheet, and program ImageTrend with new worksheet	1. # or presence of changed policies/procedures & new forms/worksheets developed for ordinance		A. Increased victim engagement in the criminal justice system (participation with investigation and prosecution) B. Decrease in IPVRS homicides C. Decrease in repeat strangulation victimization
2. Improve quality and content of strangulation training (G1-G2)	2. Design/redesign/implement strangulation training	2. Presence of initial and revised strangulation training curricula		
3. Train/re-train first responders on medical consequences and lethality/danger of strangulation and ordinance requirements (G1-G3)	3. First responders complete training/education regarding immediate and future medical consequences, lethality/danger of strangulation, and ordinance requirements	3. 100% of first responders trained	A. Increased first responder knowledge/awareness of medical consequences, strangulation dangers, and ordinance requirements as measured by pre/post surveys	

Logic Model for the Burleson Strangulation Ordinance (Continued)				
OBJECTIVES	**ACTIVITIES**	**OUTPUTS**	**OUTCOMES**	
			Short Term	**Long Term**
4. First responder utilization of checklists/assessments in all eligible cases (G3-G4)	4. First responders administer strangulation evaluation checklists/worksheets in all eligible cases	4. 100% of BPD officers complete strangulation evaluation checklists in eligible cases	B. Increased detection of strangulation incidents pre/post ordinance	
	5. BPD summons BFD to all strangulation incidents and documents their presence	5. 100% of eligible strangulation incidents result in BFD dispatch to scene		
5. Provide medical assessment/treatment to eligible strangulation victims (G5b)	6. BFD provides medical assessment, response, and patient care for all strangulation victims	6. 100% of BFD personnel complete strangulation worksheets in eligible cases	C. Increased medical services/aid delivered to strangulation victims pre/post ordinance	
		7. 100% of strangulation victims assessed/treated by BFD		A. Increased victim engagement in the criminal justice system (participation with investigation and prosecution)
6. Provide and document referrals for strangulation victims to appropriate support agencies (G5c)	7. BPD provides and documents victim referral information	8. 100% of BPD personnel provide and document referrals to VA/appropriate support agencies	D. Increase in communication with and use of victim services pre/post ordinance	
7. Provide strangulation victims with follow-up services (G5d)	8. Seek external funding to enhance VA		E. Increased capacity of BPD victim services pre/post ordinance (staffing, time, resources, and activities)	B. Decrease in IPVRS homicides
	9. Hire and train new VA employees/volunteers	9. # of grants written and received for VA to expand service capacity		
	10. VA follows up with all victims by phone, email, or in person	10. VA FTEs utilized to increase service capacity		C. Decrease in repeat strangulation victimization
		11. # of victims receiving follow-up from VA		

Logic Model for the Burleson Strangulation Ordinance (Continued)				
OBJECTIVES	**ACTIVITIES**	**OUTPUTS**	**OUTCOMES**	
			Short Term	**Long Term**
8. Track repeat strangulation related victimization (G5a, d)	11. Develop a system to track victim services, victim engagement, and repeat strangulation victimization (VA & Crime Analyst)	12. Presence of repeat strangulation victimization tracked in VA spreadsheet and/or by crime analyst		A. Increased victim engagement in the criminal justice system (participation with investigation and prosecution)
9. Improve first responder safety through strangulation training and education, tracking of assaults against public servants, and dispatch notification flags (G6)	12. Track first responder assaults by suspects with strangulation history (Crime Analyst)	13. # of repeat strangulation victimizations detected 14. Presence of mechanism to track assaults on first responders by suspects with strangulation history		C. Decrease in repeat strangulation victimization
10. Monitor fidelity and correct non-compliance (G7)	13. Dispatch will create a flag for a residence previously involved in strangulation	15. # of assaults on first responders by suspects with strangulation history identified		
	14. Develop fidelity monitoring process using layered review for fidelity detection and correction/ documentation of non-compliance	16. # of strangulation flags noting prior strangulation created by dispatch 17. Presence of fidelity tracking in VA spreadsheets and supplemental files 18. Presence of mechanism that tracks correction of fidelity non-compliance 19. 100% first responder compliance with ordinance	F. Increase in officer notification of residence/suspect with prior strangulation history when responding to incidents pre/post ordinance Short Term Outcomes A-F	E. Decrease in assaults on first responders involving suspects with a strangulation history Long Term Outcomes A-D