Doing Death Work: A Mixed Method Examination of Imprinted Events and Behavioral Responses of Medical Examiner Office Staff

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ABSTRACT:
This study provides a qualitative and quantitative analysis of data from interviews of current and former staff of medical examiner offices. The current and former positions of these staff members required that they arrive at the scene of natural, accidental, and intentional deaths, retrieve the body, and assist in the evisceration of the body to help a medical officer determine the cause of death. The authors interviewed 14 staff members of different medical examiner offices about what they liked, disliked, and struggled with in the job. Additionally, study participants answered questions about imprinted events, how they and colleagues responded to the job, behavioral adaptations to the profession, and views about treatment or programming to assist persons in handling this type of work. The study identified a range of imprinted events and reasons why certain circumstances are meaningful and memorable. These professionals personalize their experiences and utilize bluntness in their conversations with family and friends about life, risk, and parenting. These death workers become risk averse, change their friendship dynamics, learn to not take life for granted, and parent and see children differently. Some participants indicated that they experience dreams and relationship difficulties. Although study participants expressed an openness for treatment and programming, this support was typically in the context of assistance for others who needed help to cope.

Neither the sun nor death can be looked at steadily. – Francois De La Rochefoucauld

People universally experience death indirectly and eventually directly, yet it gets discussed sparingly. Death is hard. It is uncomfortable. A family member, friend, or acquaintance of a decedent must deal with an end when it occurs, and the effects of a death of a loved one can be complex and protracted (Armour, 2002, 2003; Chapple, & Ziebland, 2010; Heltne, Dyregrov, & Dryegrow, 2016; Ko, Kwak, & Nelson-Becker, 2015; Murphy, Johnson, Wu, Fan, & Lohan, 2003; Sharpe, & Boyas, 2011). Persons who work in certain fields must also deal with death over a long period. Prior qualitative research focuses on first responders (Casas, & Benuto, 2021; Scott, 2007), police officers (Adams, Anderson, Turner, & Armstrong, 2011; Dabney, Copes, Tewksbury, & Hawk-Tourtelot, 2013; Howard, Tuffin, & Stephens, 2000; Koch, 2010; Vivona, 2014), journalists (Buchanan & Keats, 2011), and these professionals' behavioral responses to death or a traumatic scene. Similarly, death work impacts medical personnel, doctors, nurses, and clergy members (Costello, 2006; LeBaron, Cooke, Resmini, Garinther, Chow, Quinones, Noveroske, Baccari, Smith, Peteet, Balboni, & Balboni, 2015). Work in
death or experiences with traumatic events positions these professionals to understand
the "story" and the emotional toll of the event through interactions with the deceased's
family and friends, by seeing or interpreting signs of trauma to the body, and viewing
the event scene. For first responders, death work can be quintessential secondary
stress (Greinacher, Derezza-Greeven, Herzog, & Nikendei, 2019; Perez, Jones, &
Englert, 2010) and a source of "private trauma" (Garner, Baker, & Hagelgans, 2016).

Persons employed by a medical examiner's office observe and learn the "story" of the
death through each of these lenses – observation of the death scene, the trauma to the
decedent's body, and interactions with the decedent's family and friends. Members of
this profession remain vastly understudied. The role of a medical examiner's office is to
ascertain the cause of death. The medical examiner's office gets called to the death
scene to collect the decedent's body, transport the body, and eviscerate and autopsy
the body. These professionals also experience death as a constant aspect of their jobs.
Death is omnipresent. Unlike the police officer who will arrive at scenes of crime or
take calls for service where death did not occur, or a member of a medical services
team who saves a life despite trauma to the body, in every case where medical
examiner staff responds, there is a death. As a constant element of the medical
examiner office staff's state of existence, "death work" may be more intense and
consequential than other professions. Medical examiner office staff are necessary to
study as a population because, as laypersons, they are uninfluenced by strong
professional cultural norms of the sort that police, doctors, or nurses experience. This
study reports qualitative data from interviews with medical examiner offices staff
members. In addition, following Casas and Benuto (2021), the study also presents
quantitative results by applying the Language Inquiry and Word Count (LIWC)
framework to identify language structure and psychological states through content
analysis of the text.

| Study | Sample/Purpose | Behavioral and Adaptive Responses |
|-------|----------------|----------------------------------|

Table 1: Overview of Prior Qualitative Research on Death Workers
| Study and Year | Participants | Findings |
|----------------|--------------|----------|
| Casas, & Benuto, 2021 | 30 trauma narratives of police officers, firefighters, and emergency medical personnel from a website dedicated to first responders | Five themes emerged: job idealization (young employee, helping others, part of the action), job disillusionment (inability to help/save, burnout, compassion fatigue, lack of support), on-the-job trauma (early exposure to suffering, personalization of trauma, feeling guilt, shame, helplessness), trauma sequelae (development of psychopathy, poor quality of life, social withdrawal), and coping with trauma (maladaptive, adaptive, stigma toward treatment-seeking). |
| Carpenter, Tait, Quandrelli, & Thompson, 2016 | 34 coronial Australian professionals (10 coroners, 7 forensic pathologists, 3 nurses, 7 police officers, 3 community police liaison officers, 4 counselors); holistic overview of death investigations | Professional detachment (training, technical, practical, and mental aspects of job), anxiety (professionals new to the job); distinctness from regular police work; dark humor [by police] (to compartmentalize, detach) |
| Vivona, 2014 | 14 CSI officers (10 male, 4 female), humor as a behavioral/adaptive response | Humor has three functions: to forge group dynamics and facilitate acculturation, integration, and socialization; to mitigate tensions and stress; as a barometer of emotions |
| Dabney, Copes, Tewksbury, & Hawk-Tourtelot, 2013 | 26 members of an urban homicide unit (19 investigators, 5 line supervisors, and 2 lieutenants) | Event or occupation stressors (working crime scenes, time pressures, paperwork demands, adjudication demands); organizational stressors (administrative pressures, unit culture, external demands) |
| Study Authors and Year | Sample Description | Behavioral Responses and Practices |
|------------------------|--------------------|-----------------------------------|
| Adams, Anderson, Turner, & Armstrong, 2011 | 57 New Orleans Police Department officers (42 male, 15 female, patrol officers to captains); reactions to Hurricane Katrina | Communicating with other police officers; compartmentalization and detachment; training, technical, practical, and mental aspects of job; spiritual beliefs or practices; communication with spouse or family member; use of substances; physical activity |
| Buchanan & Keats, 2011 | 31 Canadian journalists (17) and photojournalists (14); trauma and disaster exposure | Avoidance strategies; dark humor; compartmentalizing and detachment; exercise and physical activity; training, technical, practical, and mental aspects of job; and use of substances |
| Koch, 2010 | 8 male police officers; behavioral/adaptive responses to suicide cases | Police culture mediates encounters with completed suicides; training, technical, practical, and mental aspects of job; and use of substances compartmentalization and detachment (blocked feelings); dark humor; anger; spiritual beliefs or practices (faith); (storytelling) communication with other officers (not family); depersonalizing the victim; investing in or divesting from a deeper, more personal exploration of the victim's life; engaging with or disengaging from survivors; high adrenaline, high preparedness, and hyper-alertness |
Scott, 2007

9 focus groups of 3 sets of nurses in 3 accident and emergency departments, 3 groups of paramedics at their hospital ambulance stations, and 3 groups of traffic officers; humor as a behavioral/adaptive response

Humor occurs in a context of emotionality, coping, emotional exhaustion, and annoyance. Seven categories of humor emerged: quick-witted quips, twist in the tale, moral to the story, vulture mentality, ironic expressions, cadaver rhetoric, and censoring humor expression.

Howard, Tuffin, & Stephens, 2000

12 New Zealand police officers (10 male, 2 female, constable to inspector in rank); reactions to trauma (emotional openness to others)

Communication with other officers (Emotional disclosure [of fear] but with contextual limits); dark humor; global recognition [of emotional openness] acceptable, not own emotional talk; training, technical, practical, and mental aspects of job (being “in control” to check emotions); anger; selection of close colleagues with whom to talk

PROFESSIONALS' RESPONSES TO DEATH WORK AND TRAUMA SCENES

We identified nine studies that qualitatively examine different professionals' (police, medical personnel, first responders, and journalists) reactions to death work and careers that exposed study participants to trauma. Table 1 provides an overview of these nine studies. These studies are diverse in the populations they target and the scope of the findings. Some qualitative studies address professionals' views of the profession and job stressors (Dabney, Copes, Tewksbury, & Hawk-Tourtelot, 2013). Other studies focus more directly on these professionals' behavioral, maladaptive, and adaptive responses to the work they perform (Adams, Anderson, Turner, & Armstrong, 2011; Buchanan & Keats, 2011; Carpenter, Tait, Quandrelli, & Thompson, 2016; Koch, 2010). Finally, some prior qualitative studies give in-depth attention to one particular behavioral or adaptive response to the profession's demands, such as dark humor (Vivona, 2014; Scott, 2007) or the structure and process of how professionals open up and discuss death and trauma with their colleagues (Howard, Tuffin, & Stephens, 2000). Seven of these prior studies acknowledged the role of professional and
organizational culture in job-related stressors and behavioral, adaptive, and maladaptive responses (Adams, Anderson, Turner, & Armstrong, 2011; Buchanan & Keats, 2011; Carpenter, Tait, Quandrelli, & Thompson, 2016; Dabney, Copes, Tewksbury, & Hawk-Tourtelot, 2013; Howard, Tuffin, & Stephens, 2000; Koch, 2010; Vivona, 2014). In addition, recently Casas, & Benuto (2021) merged each of these factors (culture, job stressors, and behavioral, adaptive, and maladaptive responses) into one conceptual framework with five overarching themes: the idealization of the job, disillusionment with the job, on-the-job trauma exposure, trauma sequelae, and coping with trauma.

Professional and organizational culture can impact job-related performance, work stressors, and responses of death work professionals in various ways. Loftus (2010) defined police culture as craving crime-oriented work and excitement, a persona of cynicism/pessimism and social isolation, and suspicion and intolerance of those who challenge the status quo. Skolnick (1994) noted that embedded in police culture are notions of solidarity, brotherhood and sisterhood, and bravery. Police professional culture provides "the container within which officers operate, determining how they should behave, think, and feel" (Koch, 2010, p. 92). The impact of police culture on officers is not uniformly positive or negative and appears context-specific. In terms of routine death work cases, since a high proportion of death work does not involve a crime that advances to a criminal investigation, it is not a high-status job event for police officers, and senior-level officers may relegate these cases to those new to the profession with little experience (Carpenter, Tait, Quandrelli, & Thompson, 2016). Moreover, police officers who work on these routine cases sometimes lack sensitivity when asking questions and interacting with the decedent's family or social network members (Carpenter, Tait, Quandrelli, & Thompson, 2016).

Similarly, because police culture emphasizes an action orientation and police training is lacking, officers are ill-equipped to handle the emotion of cases (Howard, Tuffin, & Stephens, 2000; Koch, 2010). However, aspects of police culture can have positive outcomes for police officers who work during major national disasters such as Hurricane Katrina, owing to the brother- and sisterhood inherent in the profession (Adams, Anderson, Turner, & Armstrong, 2011). Concerning organizational or "unit" culture in a homicide department, Dabney, Copes, Tewksbury, & Hawk-Tourtelot (2013) identified internal and organizational demands as an omnipresent feature of the culture but cautioned against a "rush to remove such visible components of homicide investigator culture" (p. 832) because of potential positive cultural impacts on enhanced police performance.
While the influence of professional and organizational culture may be more pronounced for police officers compared to other death workers (Carpenter, Tait, Quandrelli, & Thompson, 2016), it contextually remains a crucial factor for others. Buchanan, & Keats (2011) draw attention to the "ways in which the culture of journalism has exacerbated the distress that journalists experience" (p. 134) in covering traumatic events. These authors further urge that "The stress of witnessing and reporting on traumatic events coupled with the practices of silencing and stigma that exist within the culture of journalism must be considered when discussing journalists' coping strategies." (p. 134)

Prior studies suggest that death professionals use various behavioral, adaptive, and maladaptive techniques in response to the work they perform (Adams, Anderson, Turner, & Armstrong, 2011; Buchanan & Keats, 2011; Koch, 2010). Any particular behavioral response a person employs to deal with trauma can be either adaptive or maladaptive depending on the circumstance (Kirby, Shakespeare-Finch, & Palk, 2011). Therefore, labeling many behavioral responses to trauma as adaptive or maladaptive is imprecise. Synthesizing the response types across the empirical studies reveals ten different behavioral strategies that death workers employ: 1) professionalism: emphasis on the occupational role and technical, mechanical, and practical aspects; 2) investment and engagement; 3) disinvestment, disengagement, and detachment; 4) communication with or storytelling to coworkers; 5) communication with a spouse or a family member; 6) physical stimulation and hyperactivity; 7) spiritual beliefs and practices; 8) humor; 9) negative emotions (anger); and 10) use of substances.

To date, the most comprehensive conceptual framework concerning death worker views of their professions, job-related stressors, and adaptive and maladaptive behavioral responses comes from Casas and Benuto (2021). Their mixed method, qualitative and quantitative analysis, noted that many first responders idealize the job, particularly by conceiving it as a public service profession ("helping others") that places the person in the middle of the action (especially for young, new to the job, professionals). Yet, there is a powerful disillusionment with the job that sets in for many, characterized by a recognition of an inability to help or save others, burnout, compassion fatigue, and lack of organizational support. In their study, these authors also sought to examine the nature of traumatic experiences by first responders. They found that early-career exposure to human suffering is particularly acute, that first responders personalize the trauma exposure, and they experience feelings of guilt, shame, and helplessness. Trauma exposure in the Casas and Benuto framework leads to psychopathology, poor quality of life, and social withdrawal. In coping with trauma,
first responders rely on adaptive and maladaptive behavioral strategies and often experience a stigma toward treatment-seeking as an alternative.

Prior research identified the presence of secondary trauma on family members of first responders (Duarte, Hoven, Wu, Fin, Cotel, Mandell, Nagasawa, Balaban, Wernikoff, & Markensen, 2006). However, notably absent from these featured qualitative studies (see Table 1) is attention to how these lived experiences impact relations with family and friends. There is reason to believe death work influences relationships with family and friends. Agocs, Langan, and Sanders (2015) studied women police officers who are also parents and found that the professional lives of policewomen translate to "danger protection parenting practices" to "prevent their children from becoming victims or offenders" (p. 265). These authors noted that for policewomen, these concerns are omnipresent due to their exposure to "dangerous, gory, sad, frightening and/or traumatic situations that often have long-term emotional repercussions." (p. 278). The heightened concern for their child's well-being occurs because policewomen "see more, know more, worry more, and warn more." (p. 278) Work-place exposure influences how policewomen construct and deploy harm prevention strategies in the home. These authors found that "in contrast to intensive mothering approaches that rely on the advice of external experts" (p. 279), policewomen in the study relied on their own experiences and expertise. These women strategically approached how they "verbally account for their work experiences, always with their children's welfare in mind." (p. 279). The policewomen used a "teachable moment" strategy to discuss uncomfortable matters that many in society may deem inappropriate for children.

A related factor of interest to the current study is how these professionals personalize their experiences. Prior research on first responders gives scant attention to this issue. Certainly, linkage of a traumatic event to one's children carries an element of personalization. Yet one may experience an event or circumstance and relate it to oneself and not one's child. The study to most directly address the personalization of trauma is Casas and Benuto (2021). They defined "personalization of trauma" as "familiarity with the victim, finding resemblances of one's own family in the victim" (p. 6). Conversely, other studies suggest that cultural norms and professional practices develop to prevent first responders from personalizing an event, particularly when the professional is in the throes of the case (Adams, Anderson, Turner, & Armstrong, 2011; Buchanan & Keats, 2011; Carpenter, Tait, Quandrelli, & Thompson, 2016; Howard, Tuffin, & Stephens, 2000; Koch, 2010).

**PLAN FOR THE CURRENT STUDY**
Our overall strategy is similar to the Casas and Benuto (2021) study. Casas and Benuto (2021) studied 30 trauma narratives by police officers, firefighters, and emergency medical personnel randomly drawn from a website hosted by and for first responders. Their interest was in the linguistic features of the narratives, the types of trauma first responders posted about, the impact of trauma exposure on first responder health and well-being, factors identified relating to coping, resilience, and recovery, and their beliefs about mental health issues and treatment-seeking. The authors coded the trauma narratives qualitatively using an open coding approach and then subjected the open coding themes to axial coding. In addition, the authors utilized the Linguistic Inquiry and Word Count (LIWC) software for quantitative content analysis. We interview medical examiner office staff members about their professional experiences and employ open and axial coding of the qualitative data. In addition, we use the LIWC software to understand the structure of the text and the psychological processes used by medical examiner staff to describe their profession and its impacts.

Broadly stated, the research questions for the current study are as follows.

1. What types of cases do medical examiner personnel find most memorable (i.e., "imprinted events"), and what meaning underlies these events?
2. How does work as a medical examiner staff member impact these professionals' relationships with others and their belief systems?
3. How do medical examiner staff think about and discuss treatment-seeking as a strategy to cope with the trauma they experience?
4. What linguistic features are present in how medical examiner staff members discuss these issues?

METHODS

Data

The data come from interviews with medical examiner staff members employed by or previously employed by an urban medical examiner office in a southern state. The participants did not all work for the same medical examiner office, nor were they employed in this capacity all at the same time. The first author of this study previously worked as a medical examiner office staff member. She utilized her contacts to set up interviews with persons she knew in the field and used snowball sampling to identify other potential interviewees. The University of Houston-Downtown’s institutional review board (the Committee for the Protection of Human Subjects) determined the study exempt. We obtained informed consent from each study
participant. The study's first author made the contacts, set up a face-to-face interview at a place chosen by the interviewee, obtained permission to audio record, conducted the interview, took detailed notes, and transcribed the session. Each interview session lasted between 30 and 45 minutes. The first author collected body language and verbal cues (such as a laugh) data that a traditional transcript could not otherwise capture. In the transcript data, the authors note these body movements and verbal cues through the use of asterisks (* ___ *) embedded in the transcript text.

The positionality of the first author as a prior staff member of a medical examiner's office enabled her to establish rapport with those contacted for an interview. In addition, her previous work as a child forensic interviewer potentially reduced bias in the structure, format, and content of the questions during the interview. Each study participant got asked five questions (as well as follow-up questions): 1) things you like or dislike or personal struggles related to the profession; 2) standard and unusual ways coworkers react to the profession; 3) top two to three job-related events, incidents, or scenes that imprinted in your mind, and why; 4) how the profession impacted personal life, behavior, and interactions with friends and family; and 5) are programs or interventions needed to assist professionals in this work?

Qualitative Content Analysis

The second author read and coded the interviews. Initially, the second author implemented an open-coding strategy, which entailed analyzing the transcript line-by-line looking for unique traits of the text to code. After open coding, the second author subjected the open coding to axial coding, a process where open coding themes get combined under a broader, more encompassing theme. Axial coding aims to refine the open coding to develop abstract "big picture" themes. During each phase - open and axial coding - the second author consulted with the first author to agree on the coding structure and coding decisions. Our open and axial coding is both deductive and inductive. The thematic framework developed by Casas and Benuto (2021) informed the open and axial coding and the process to obtain agreement between the first and second author on coding structure and decisions. Yet, the authors maintained a necessary degree of flexibility in the coding process to allow for coding that deviated from the Casas and Benuto framework. Open and axial coding processes utilized the MaxQDA qualitative data software. At the eleventh interview, saturation in the data (where the coder creates no new open codes) occurred.

Quantitative Content Analysis
LWIC 2015 is a text analysis software that considers each word in a specified text and checks it using an internal dictionary of over 6,400 words and word stems. Based on the internal dictionary, the software determines the percentage of the words in the text that correspond to particular linguistic dimensions and concepts. These include general summary dimensions (analytic, clout, authentic, tone), perceptual processes (see, hear, feel), biological processes (body, health, sexual, ingest), drives (affiliation, achieve, power, reward, risk), time orientation (past focus, present focus, future focus), and relativity (motion, space, time). In addition, the dictionary categories include affect (positive emotion, negative emotion [anger, anxious, sadness]), social (family, friend, male, female), personal concerns (work, leisure, home, money, religion, death), and cognitive processes (insight, causal, discrepancies, tentative, certainty, differentiation). The software also measures punctuation marks and function words such as personal pronouns, impersonal pronouns, articles, prepositions, auxiliary verbs, adverbs, conjunctions, and negations. Lastly, the LIWC 2015 software evaluates and reports informal language (swear words, netspeak, assent, nonfluencies, and filler words).

For this study, LIWC categories of interest include personal and impersonal pronoun use, analytic, cognitive processes, biological processes, and perceptual processes. In addition, the study utilizes the LIWC measures for social (family, friends, etc.), work, religion, and death terms. For each open and axial coding theme identified, we report the percentage of words in those coded segments that align with the concepts of interest measured by the LIWC 2015 software.

| Table 2: Summary Statistics for the Sample (N=14) |
|--------------------------------------------------|
|                                                  |
| Freq. | Mean  | St. Dev. | Percent |
|-------|-------|----------|---------|
| Age   | 14    | 38.9     | 6.1     |
| Years in Profession | 14    | 7.7      | 5.0     |
| Sex   |       |          |         |
| Male  | 6     |          | 42.9    |
| Female| 8     |          | 57.1    |
FINDINGS AND ANALYSIS

Description of Sample

The average age of the sample is thirty-nine years. Sample respondents spent, on average, nearly eight years in the profession. Males comprise a little over one-half of the sample (n=8, 57.1 percent), while females (n=8) represent forty-three percent of the interviewees. Forty-three percent of the study participants are Hispanic. The remainder of the sample is nearly equally divided between White, non-Hispanic (n=4, 28.6 percent) and Black, non-Hispanic participants (n=3, 21.4 percent). One participant (7.1 percent) reported a White, Hispanic racial and ethnic classification. Half of the sample (n=7) were in the profession at the time of the interview. The remaining half (n=7) already exited the profession but were interviewed about their prior experiences. Eleven participants (35.7 percent) were married. Twenty-one
percent of the respondents responded that they were single (n=3) and living with a partner (n=3), respectively. Two of the participants reported a divorced status at the time of the interview (14.3 percent). One participant reported separation from a spouse at the time of the interview (7.1 percent). The article provides sample descriptive statistics in Table 2. Table 3 identifies the themes and subthemes from the open and axial coding process and provides a description for each subtheme.

| Table 3: Themes, Subthemes, and Summarized Findings |
|-----------------------------------------------------|
| Job idealization                                    |
| 1. Day-to-day novelty                               |
| Not bored; always busy; new, different, and unusual cases, constant change; new techniques and science; urban area |
| 2. Public service                                   |
| Very satisfying; deal with remains of someone's family or friend; help bring closure to a death case; it involves investigation; precision and care in handling remains |
| 3. Learning opportunity                             |
| Some cases are high-profile and make local or national news; work around doctors, investigators, and anthropologists; actual knowledge, not from TV show; opportunity to grow professionally |
| Job struggles                                       |
| 1. Work-life balance                                |
| Difficult hours that are 24/7; holiday work; difficult to make social/family plans; children don't understand, and family grows frustrated; physical exhaustion from job made time with family difficult |
| Imprinted events                  | 2. Physical demands and safety | Requires a lot of standing and movement; moving and retrieving heavy bodies; adapting to the pace of different doctors; working with scalpels and cutting instruments; going through pockets in overdose cases, fear of getting stuck by needles |
|-----------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Office politics               |                               | Bad/unqualified supervisors; persons promoted ahead of more qualified staff; schedules unfairly distributed                                                                                                                                                   |
| 1. Personal (emotional) reactions to cases | 2. Abnormal scene or circumstance | Kid cases; the reaction of the family to death; worry about messing up (particularly when new to the profession); evil of people, bad aspects of human beings; fearful circumstances of the job; fascination with the human body  

| 2. Abnormal scene or circumstance |                               | Location or site not normal; observations of human body following trauma; characteristics of the descendent; private matter turned into a public one (presence of first responders) |
| 3. Sense perception              |                               | Sights or smells of the scene                                                                                                                                                                                                                           |
| 4. Unexpected outcomes           |                               | The autopsy revealed evidence counter to initial case findings, expressed as indicating the importance of the medical examiner investigation                                                                                                                   |
| Secondary trauma exposure | Personalization of the experience | Identification with the case is the primary mechanism through which secondary trauma exposure occurs; parental, risk-taking, self, and body personalization |
|---------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Behavioral/significant personal change | 1. Bluntness about life and death | Unsolicited advice given to friends and family about parenting, personal behavior, and risk; not surprised by death; morbid attitude about death |
| | 2. Risk aversive/altered friend dynamics | More risk aversive in personal decisions; willingness to see friendship dynamics change to avoid risk |
| | 3. Appreciate life; nothing taken for granted | Heightened appreciation for life; no worry about little, unimportant aspects of life; a concern about fixing or maintaining personal relationships |
| | 4. View parenting or kids differently | "Real" discussions with children about dangers, things that may harm them; constant worry about risks; hyper-vigilant parenting |
| | 5. Dreams | Dreams about specific cases or decedents |
| | 6. Talking to a partner | Talk about work is limited; spouse or partner cannot understand or will not want to hear about the experiences |
Qualitative Findings: Medical Examiner Staff General Perceptions

Before moving to the heart of the qualitative findings, it is prudent to provide contextual information about the medical examiner staff members' perceptions of the profession and how they believe others view it. Foremost, ten of the participants commented in the interview about how the public, family, and friends misperceive those who work in the profession and what the work is all about. To an extent, the participants perceived a stigma associated with their career.

People would either look at me like I was gross, dirty, or something like I had some disease. Or they would think I had something wrong with me in my head. Like I was a psycho that liked to be around dead bodies. Other times people would feel bad for me. Like, "oh, you work at a morgue? That's too bad?" So I stopped telling strangers what I do. I just say I am a lab tech. Only my family and close friends know about my job now. (Participant 5)

I have gotten to the point where I rarely mention it. Because people either think you are some sort of heartless freak who is obsessed with death, or they have like a million questions that are based off of what they have seen on tv, none of which is accurate. (Participant 8)

Regardless of this stigma, nearly uniformly, the study participants said they liked working in the medical examiner's office. Nine participants explicitly stated they enjoyed the profession, and only one expressly noted a dislike of the career choice. Nine participants identified novelty in the day-to-day experiences, and six mentioned

| Attitudes not supportive of treatment-seeking | 1. Stigma of treatment | Persons who struggle are perceived as weak; no one wants to be "that person" |
| --- | --- | --- |
| 2. Dismissive of treatment | Value not perceived unless there is a direct indication of need; reduction of evidence of the need to being "tired" or physical exhaustion |
| 3. Others may need, but not me | A belief that others may benefit, but not me because I am well adapted or have been in the profession for a long time |
Participants did, however, identify aspects of the job that were drawbacks. Work-life balance is difficult. The physical demands of the profession are a challenge, and several participants mentioned concerns about physical safety.

Well, having small kids, I have two, and having this type of a job is never easy. And I am a man, so I think I have it easier than most women that have this sort of job. But the hours are long, and the schedule is tough. And there really isn't much predictable. You can't really plan a lot. I know my ex, she got sick of all that. Not to say that the job caused my divorce or anything because that's just dumb. But it definitely didn't help things. The job, and most importantly, the schedule of the job, it will just take it out of you. (Participant 12)

I guess I could say that actually doing the job can be physically exhausting. Some days I get off, and I am so tired. But I am not really complaining about that, I mean, the job itself is super physical in nature, and that's to be expected. But some days I make jokes that I am getting too old to do this job. (Participant 9)

I don't like cases where there is a lot of drug involvement, and someone was killed over drugs, or someone has a drug problem, and I have to go through their pockets. No matter how many times I do that, I am always scared I will get stuck by a needle in their pocket that was missed. Those little diabetic needles are small, and they are easy to miss. (Participant 6)

The study participants describe their approach to the job as "being a professional" and are quick to dispel common assumptions that they are different or the job is distinct.

Just instead of being in an office and wearing high heels and a skirt, I am in a morgue, and I wear scrubs and a face shield. Well, and there is a case we are working on. But a case, I mean, that's like an IT team working together to fix a bug or something. It's no different. We are there to do a job. We are just like
everyone else. Other than the environment. Because, you know, obviously that’s a little different. (Participant 9)

"Being a professional" in this field has a clear set of expectations. It means one works hard, takes a caring and precise approach (mainly when performing work on bodies), and respects the private aspect of death work (for the benefit of the decedent's family and friends). It also means that people working in the field can, as one participant stated, "handle your emotions." (Participant 14) Handling one's emotions appears to mean the person does not get emotional at the scene of an event and talks sparingly about the cases one works. Below are a few transcript excerpts concerning what the participants discuss and do not discuss at work.

In your free time, you talk with your co-workers about anything other than what's in front of you. (Participant 2)

But you can't really walk around saying something upset you. At most you say something like, "that case was really sad," and that's kinda it. Sometimes people will agree with you, other times they won't really say much. What gets one person upset may not even bother another person. Plus, it's not like people are sitting around having counseling sessions or anything (laughs). (Participant 3)

Well, I mean, we didn't walk around work all day saying, "oh, this is sad" and "oh, that is really scary" or "that's a really awful way to have to go," right? But you can tell people think it. You can see it in their faces and stuff. (Participant 14)

| **Table 4: Summary Statistics on Imprinted Events Mentioned (N=14)** |
|---------------------------------------------------------------|
| **Frequency** | **Percent** |
| A First Instance | 13 | 92.9 |
| Kid/Child/Adolescent | 7 | 50.0 |
| Decomposition | 6 | 42.9 |
| Homicide | 4 | 28.6 |
| Suicide | 3 | 21.4 |
| Vehicle Accident | 2 | 14.3 |
Table 4 provides summary statistics for the responses concerning imprinted events that stand out. For the majority of the study participants (N=16, 92.9%), imprinted memories were first experiences with particular events, cases, or experiences. While most of the study participants expressed this sentiment in some way, one participant put it this way: "Seen a lot of stuff like that since then, of course, you know. But I think it's the first ones that stick with you. At least for me anyway." (Participant 1) Cases that involved a child, kid, or adolescent (these are the variety of words used by the respondents) were imprinted events for half of the sample. Participant 14 stated that the two identified cases are events that "I remember like they were yesterday." Some were memorable due to a personal reaction. Others were memorable because of specific abnormal aspects of the scene, sensory perception details, or an unexpected case outcome.

**Personal Reaction.** One personal reason why respondents remember specific cases is they involve kids and the innocence of childhood. When participants referenced "kid cases," they sometimes talked about physical features of the decedent or factors that relate to youthfulness or how early the decedent was along in life (Respondent 1: "He was this handsome kid. Athletic looking ... Barely old enough to drive."); Respondent 6: "She had the most beautiful head of hair."). In accident cases that involve kids, the respondents focused on randomness and the scene of the event (Participants 2 and 9). In contrast, when the matter involved intentional infliction of abuse to a child, the focus was on what the child experienced in the time leading up to death (Participant 5).

And I guess that is one of the cases that really messed me up. I mean, kids now are rear-facing. You always see them asleep in the car seats, right? And there is a chance, I mean, it's a slim slim slim chance, but it is still possible that a kid could...
die in there, right? And it wasn't like there was a car seat malfunction; it was just an accident. Sad, you know? (Participant 9)

You never think about how small a kid would look in a body bag until you're the person putting them in there. *pushes spoon again* *pauses* It sticks with you. Those things, they stick with you. (Participant 2)

I just remember being shocked at all the anger being taken out on such a little body. This kid had a bunch of bruises, skull fractures, bleeding on her brain. Her ribs were broken, several of her internal organs were destroyed. It was way way overkill. (Participant 5)

Another common personal reaction mentioned by the participants is observing family members of the deceased react to the death (n=4). Two instances are illustrative. The Participant 4 example below connects the emotional reaction to the immediacy of the situation. This study participant also vividly recalled a feeling (skin crawl). In the second example, Participant 1 invokes the deceased's innocence (making a dumb choice).

And when we walked in with the gurney, this woman, who I think was the mom, she lost it and started sobbing. It made sense, you know, you see this black draped gurney coming in, and you know it's coming in to pick up your deceased child. I mean, like, I can't imagine. *bites nail* But I just remember I wanted to get out of there. I wanted to get the decedent, help with getting any photos, and leave. *Lowers hand from mouth* She was not doing anything wrong, meaning the mom, but listening to her lose it one room over, it really made my skin crawl. She was losing it. *Return hand to mouth, bites nail* It put such realness on the loss. (Participant 4)

I also remember one of the first suicides I ever worked..... His mom was outside screaming that we were not there for her son. She was just flipping out ... It was messed up. He was just a kid. Making a dumb choice. And there was his Mama, her baby in there, dead. Messed up. (Participant 1)

Three study participants utilized an emotional reaction that personalized the event to describe why they remembered it. This reaction acknowledges vulnerability to death due to a spontaneous or uncontrollable circumstance. Participants expressed this in the context of the randomness of acts that kill and the uncontrollable effects of
genetics in one’s family history. In addition, one participant extended the personalization of the event to their children.

Well, the kind of cancer she has, its in my family too. Like people have died from it as well. There was something about seeing her, and her body all messed up from all the aggressive treatments that hit me very close to home. I guess because it could have been me or another person in my family. That case, even though it was not gory, or gruesome, or weird, but it could have been me. It could still be me. *Voice trails lower, looks down, twirls front hair, 10 second pause* (Participant 9)

An accident like that, that could have happened to one of my kids. Kids are so fast, and they get into stuff really fast. Bad stuff. (Participant 14)

For three of the participants, there was a personal reaction to a fear of making a mistake (or "messing up") on the job. In each instance of this, the participant was careful to note that the case was a "first" of some sort. The instruction received from a more seasoned employee on the scene or upon arrival amplified this nervousness and fear for one participant. For a medical examiner staff member working a "first" case, the level of angst gets enhanced by the reality that (s)he must perform death work tasks in a public space.

I was sent out there when I was still really new, and I didn't really know what I was doing. I hadn't been out on a scene before ... my partner is telling me stuff, like "let me tell you what to do, you just follow my lead when you get there" stuff like that ... we get out of the van, and there is a bunch of people standing around and watching ... I am so worried I am going to mess something up. I walk up to the body, and the investigator knows I am new and is telling me stuff like, "don't step over the body," "tape this bag on the hand on the wrist," and I am so nervous. So I'll never forget that. (Participant 3)

Similar to the observation in the "kid cases" from above, even when the deceased is an adult, a dichotomy between intentional acts and accidental circumstances provides the basis for a distinction in personal reactions. Intentional acts that cause death prompt some to question their faith in humanity. Situations that involved an accidental death prompted an emotional response centered on the randomness of conditions that led to death. Consider below the reactions of two persons interviewed.

I remember my first homicide. It was a young woman. I think she was living on the streets, looked like a drug user. She was probably selling herself for money. And
they found her in this abandoned house ... and she had been stabbed. Real bad... She didn't have hardly any clothes on, and they stabbed her and slashed her. You could see blood in all parts of this building. Like she was fighting and alive for a long time... She couldn't have been, oh, maybe 120 pounds ... Hands all covered in stab marks ... Seeing her all curled up on the floor. It makes you think. How sick is the world? How evil are people? I can't imagine how scary it must have been for her ... Makes you question your faith in humanity. (Participant 10)

It was this person that was sitting at a light waiting to make a left and someone in oncoming traffic, they crossed over the line and hit them head on. They were just sitting there, you know? And they were killed. And think about how many times you are just sitting at a light, waiting to turn. (Participant 1)

One respondent expressed concern with personal safety as a primary reason that the imprinted event was memorable. Participant 6 described feelings experienced on the first occasion that she worked nights.

This man had gotten run over on this little back road, kind of in the middle of nowhere. We had to take flashlights and go looking on this road to see if we could find anything related to this man.... I was out there on this road, and we kind of split up.... Like you couldn't see anything.... It was something out of a scary movie.... I had goosebumps and stuff. It was like you were waiting for something to jump out the woods at you. Even thinking about it now. (Participant 6)

Lastly, a personal concern identified by a participant as a reason for remembering a particular case is the participant's fascination with the human body.

Anyway, I had never cut a case when the decedent was pregnant, and I remember being pretty nervous ... And I think I remember that case because, while it sounds bad to say, it was a fascinating case to work. The girl was pretty far along, and so the fetus was, well, it looked like a baby. It was amazing to see the human body, how we create life on a biological level like that. We saw the baby inside the amniotic sac. I remember everyone was coming in to look at the case. I can't remember a time where there was so much interest. The body is really amazing. (Participant 12)

Abnormal Aspects of the Scene or Environment. Five participants noted elements of the scene or the environment that were abnormal or distinct from normative experiences. A critical component to this theme is that what the person perceives is
unnatural or entirely outside of the range of typical experiences, either generally as a human being or specifically as a medical examiner. It is what makes these imprinted memories stable in terms of long-term recall of the events.

For one respondent, the abnormality manifested in terms of location. This participant perceived strangeness in what was happening at a particular place in separate contexts.

> It was a multiple car one, and there were two people dead. They had the entire freeway closed down. I don't remember much of the actual scene, but I do remember being really freaked out because we had to drive the wrong way up the exit ramp for the freeway. The cops had it closed down, so the only way to get to the scene was to drive the wrong way. It felt really, really weird doing that. (Participant 3)

> I never really thought about hospital morgues until I actually went in one. You don't think about hospitals having morgues. You think about hospitals getting people better, not storing bodies, right? So I was really surprised to learn that most hospitals have morgues. And I remember thinking it made sense, but it was also kind of creepy how close the morgue was to the cafeteria. (Participant 3)

For two participants, the abnormal context occurred in response to observations of the human body following trauma. Understanding the standard mechanics of an autopsy, one recalls concern with how to proceed in a case where the body was already in pieces. The other discussed the first occasion to smell burnt human flesh.

> For some reason, he decided to run across the freeway. Crazy thing to do anytime, but he did it just as it was getting dark, in the fall when it was around rush hour. He got hit, man I don't know, at least a dozen times ... he was just in pieces. There was really almost like no autopsy to do. His legs and arms were off his body, practically decapitated. His abdomen was all ripped open, most of his internal organs were ripped up. And I guess more than the gore and how strange it was to look at, I remember standing there and not knowing what to do, because how do you cut a case when the person is already in pieces? Like I remember thinking, what am I supposed to do? (Participant 7)

> This is going to sound so creepy ... but you know, a person whose remains are basically liked cooked, it doesn't smell much different than any other mammal that is cooked. It was so weird to me that the smell of someone burnt up smelled good.
I know I know you are probably thinking that is so messed up to say, but it’s true though. *pauses* I mean I just don’t want people thinking I am some crazy kind of Jeffery Dahmer or something. It just surprised me, is all. (Participant 11)

Awkwardness (or abnormality) of a scene can concern the person involved. In each of the following illustrations, the respondent identified the personal characteristics of the decedent. The first refers to the neighborhood, noting that the call was to a high social class neighborhood. The second and third are comments on abnormalcy in processing a decedent child scene.

The first time I ever worked one of those autoerotic asphyxiation cases…. This guy had this big elaborate setup, in his closet, where he had it rigged up so that he would get his air supply cut off by way of choking ... Anyway, this guy hung himself accidentally ... It was just a really weird thing to see in person. And maybe because he lived in this kind of expensive neighborhood, and had a nice house, with nice things, it seemed even more weird, like more out of place or something ... (Participant 13)

*Participant taps spoon on table* Well, like normally you use two people to get a body in a bag cause they are heavy, right. Well, this was just a kid. It was awkward, like just picking up this little kid who barely weighed anything. We both moved toward him to lift him into the bag at the same time, and then we both stopped. Then we both moved again. Then both stopped. And then, my partner gestured towards me, and I just placed the kid in the bag. He was really light. *Continues to tap spoon on table*. It was a weird thing to feel, someone not that big, moving them. And he looked really small in the bag. Well, he was. He was really small in the bag. *Tosses spoon down on table, pauses, looks down* ... especially the first time .. it impacts you. (Participant 2)

It was a nice day outside, and she had the patio sliding door open, and the baby just snuck out there, climbed on top of that cooler, and fell. It was an accident, and no one’s fault, obviously. I remember the mother crying really loud. I remember picking up the baby to put in the body bag, and it was such a strange thing, holding a baby away from me, not cradling a baby. And of course, the baby was limp, and there was all this trauma. It was bad. It was really, really bad. (Participant 14)

For one respondent, abnormality of the scene (autoerotic asphyxiation) related to the notion that what should be a private event was a "public" scene open to first
responders.

I don't know, there was this sense that something really private was now being made really public. Coming into someone's death can always be something that kind of feels private, but this was like that a lot. I mean, the guy was naked, he was clearly in the process of touching his stuff, and then he winds up dead, and here are all these people investigating it. It felt weird ... When you go out to a scene, right, and you see someone there who has died right, you're getting to see this real private thing. (Participant 13)

*Sensory Perception Details.* Stable and long-lasting impressions develop when the scene's details disturb the person's senses, whether visual or olfactory. Seven participants identified this as a reason behind their memory. In certain instances, the interviewed participant spoke of how the sensory aspect of the scene was difficult to process, regardless of the participant's training and prior experiences. Two particular examples include the following.

My first decomp was nothing exciting, just a guy who had been dead in his house for like a week, with no AC, in the heat. Anyway, it was pretty tough to be around never being around that stuff. Lots of maggot activity, he was very bloated, you can guess what he smelled like. When it came time to do second rounds, and I was undressing him, his flesh was literally getting stuck on his jeans that were super tight because of his bloating. I remember yanking on his pants, and the only thing coming off was the flesh of his thighs. I gagged, but I pushed through. I was in the room with that case for hours, and I remember thinking I would never get that smell off my body. It's in your clothes, in your hair. Even your hands smell like it through all those layers of gloves. It was a huge wake-up call that this was my job, and I had to get used to that sort of thing. (Participant 2)

It was this young man, and he had killed himself by shooting himself in the face with a shotgun ... not much of his face was remaining. It was really quite shocking to me to see the human anatomy like that, especially his head, where essentially all that remained was the back of some of the portion of his skull. You just think that you are prepared for it, but when you actually see it, it can take you off guard. I remember that most because even though I knew I was walking into a room with a shotgun wound to the face, it still took me back there for a minute ... It was unexpected because up until that point, the gore of it all hadn't gotten to me. But damn, it really got to me then. I got a sinking feeling in my stomach a little. (Participant 13)
Unexpected Case Outcome. Two study participants recalled a specific imprinted event because the case’s eventual outcome was unexpected. One participant expressed that the surprising result illustrated the importance of medical examiner work to the overall justice system.

I worked this case once that looked like an FSRA, and it was actually a guy that had been stabbed and then run over to make it look like he had just gotten hit by a car. I remember that one because it seemed like you knew what happened until the doctor actually examined the case. I guess it made me realize just how important this type of work is. It made it very concrete. Most cases, you know, you can kinda guess what happened before anyone does anything. Like oh, you hung yourself, or you got shot, or you OD’d. But every once in a while, a case takes a turn, and it really makes you remember how important autopsies are. (Participant 5)

Qualitative Findings: Behavioral/Significant Personal Change

The medical examiner field exposes professionals to a variety of difficult job-related circumstances. These professional situations impact their worldview and influence their relationships with others. In these interview data, we identified several behavioral responses. These professionals personalize their experiences and utilize bluntness in their conversations with family and friends about life, risk, and parenting. These death workers become risk aversive, change their friendship dynamics, learn to not take life for granted, and parent and see children differently. Some participants indicated that they experience dreams and relationship difficulties.

Personalization of Experience. In half of the sample (n=7), there is direct evidence of personalization of the experience. There appear to be four distinct mechanisms in these data, three that commonly occurred and one present in the transcript of only one participant. These mechanisms include parental personalization, risk-taking personalization, self personalization, and body personalization. Below are illustrations of each in order.

I think it has made me more aware of things. And more of a worry wart, really. I have seen many things that could have happened to me, or my kids, or people that I love. And so, I am constantly, even now, even after being out of it for all this time, I worry about things and people. (Participant 14)
I would go out with friends. Meet up, drink a lot. Drink till I was sick, or throwing up, or passed out or whatever. And like when I say every weekend, I mean every weekend. It's how I would see my friends. Or like meet up with a girl I was interested in. And I mean, that's not abnormal. Everyone I knew was doing it. So I did it too. I didn't think much about it. *Four second pauses, chews nails* But now, man. No way. Like no way. I think back on it, and I am just thankful I made it out ok. (Participant 8)

Sometimes there is not much separating us and the decedents we are working cases on. And it just makes you more grateful to wake up alive. (Participant 6)

I would have to say I think more now about the body I would leave behind. What would be said about me during an external exam? Would it be that I have chipped nail polish or socks that are mismatched? Or that I had tangled hair? I mean some things can't be helped, but I guess a lot of people leave their houses, and they never think they might die, so they go out looking like a mess. Not that you should go out being a mess anyway, but do you really want that on the last report of what you looked like? That you had stains on your clothes from old food or rips in your socks? (Participant 3)

**Bluntness About Life and Death.** Ten participants discussed how experiences in this profession made them blunter about life and death in interactions with friends and family. Some indicated that people don't like these conversations or believe them to be "crazy." This theme includes unsolicited advice about personal behavior or parenting and general discussions where the participant brings up death or responds to a death circumstance. Below are a few illustrations.

Yeah, I know, most people probably wouldn't agree with it, but I don't really care. I think more parents should talk with their kids about the reality of stuff that can happen to them. I mean look at all the parents that don't talk with their kids about sexual abuse. Then the kids get in these situations, and they don't know what to do because no one has ever talked about it because it's uncomfortable or scary. Well, I'd rather be uncomfortable or have my child scared because I took time out to talk with them about things that could have been avoided. (Participant 4).

I know that I am more morbid than I was before. Surprise right? (laughs). Meaning, I sometimes say things that really upsets people that are close to me, especially my mom. I slip up and say stuff like *pauses* let me give you an example. Like if I am driving a far distance, I will say something like, "I'll call you
when I get there, if I don't get in a wreck and die." It's kind of a weird thing to say, but I guess the idea of death and of dying is something that you think about more, and so you mention it more. I know. It's weird. And that sort of talking really gets to people around me. They say I am messed up. (Participant 8).

*Risk Averse/Altered Friend Dynamics.* Nine participants indicated that they became more risk averse after working in the medical examiner's office. The participants mentioned several preventative things they now do (such as regular doctor check-ups and wearing seatbelts). Yet, most mentions were of behaviors they did once but didn't anymore because of the risk involved. In essence, the participants more liberally assess risk while more conservatively measuring reward. These include avoiding drinking, not engaging in activity that may lead to road rage, less speeding, avoiding holiday events where drugs and alcohol may be present, and eliminating unnecessary entertainment activities (such as cliff diving). Below are some textual illustrations.

Well, I am less likely to do things that might get me hurt. Like I don't really speed. If someone gets mad at me when they are driving, like road rage, I can't even be bothered to get upset. I don't go out driving on holiday when people are drunk, like New Year's or St. Patrick's day. I also try to take better care of myself. I didn't use to be someone who really went to the doctor when they weren't sick. But now I go every year, and I get my checkups. I do that stuff. Sometimes stuff can be prevented or treated before it kills you, right? (Participant 11)

I also think that I am a lot more careful than I used to be. I have done a lot of dumb stuff in my life, and I have seen people that have died doing stuff I used to do. I am definitely not the risky person I used to be. Like driving, too fast, or too angry, or when you are on your phone. I used to do that all the time. Not anymore. I have seen way too many people, especially young guys, in the morgue because they were doing something risky, something they could have avoided. It's not worth it. And people do dumb stuff on motorcycles. Or on four-wheelers. No thanks. (Participant 2)

One of my cousins, she was telling me I was a wimp. A bunch of people was diving off this cliff area the last time we were on vacation. I didn't want to. It's something I would have done in a heartbeat a long time ago, but now, no. (Participant 13)

Three participants discussed how their risk aversion led to altered friend dynamics. Yet none of the three appeared willing to change back to maintain a friendship. Participant 7 expressed the following about the potential of changing friend dynamics.
I mean, if I tell someone like I don't want to do this stupid stuff because I don't want to die, and they get pissed, well then no great loss, right? (Participant 7).

*Appreciate Life; Take Nothing for Granted.* Seven participants expressed that their medical examiner profession experience helped them understand and appreciate life, not take things for granted, and become better people. These responses emphasized the need to show love to people, live life with no regret, fix relationships, live day-to-day without complaint, and not get swept up in the small things in life that matter little. Below are two illustrations of transcript text. In particular, Participant 4 explains what (s)he sees as the distinction between the pre- and post-medical examiner profession.

And that carries over to how I deal with people too. I tell my loved ones that I love them. I forgive easier. I don't get angry and wrapped up in the nonsense. Because life is just too damn short. And I try to enjoy everything. The small things. Like a phone call from an old friend. Or a sunset. Or a good meal. I don't live a fancy life Ms. Beth, but you can bet I live a full life. And you can bet I enjoy my life. You can take that to the bank. (Participant 10)

Before I worked at the morgue, it was really only once in a while that I would sit back and think, whoa, I am lucky to be here. It was really only when some kind of crazy story hit the news, and it could have been you. And after like a day or two, you would kind of forget about it and go back to not really realizing how lucky you were to be alive. But after seeing that sort of stuff all the time, you really, really get an appreciation for living. (Participant 4)

*View Parenting or Kids Differently.* Seven participants stated that they viewed parenting and kids differently because of the profession. Notably, this was not a phenomenon limited to those participants who are parents. One participant (7) expressly stated that (s)he is not a parent but that kids at family gatherings make the participant nervous. Very similar to the section above relating to being blunt with others on their behavior and parenting, this theme concerns parents who have pointed conversations with their kids, informed by the experiences of the participant's profession. In addition, this theme includes participants' self-reported aggressive parenting behavior (always knowing kids' location and what kids are doing). This behavioral response is not limited to female participants. Note that Participant 5 states he is a father.
Sometimes the accidents are something that can't be avoided. But other times, they could have been. Like for example, a kid playing with a gun and killing another kid or himself. Or a kid that goes into a pool not knowing how to swim. That sort of stuff, the stuff that could have been avoided, it would always kind of bother me. I used to think, did these parents ever talk to their kids about this sort of thing? So yeah. Um, when I would see a case that probably could have been avoided I would talk about it with my child, who was younger at the time, elementary school. I would tell my child *my child replacing him/her*, today at work, mommy saw a little boy, and he played with a gun, and you know what? He died. He shot himself, and he died. That's why you never never never touch a gun if there is one in front of you. And if any of your friends are ever playing with guns, you run away and get a grown-up. Stuff like that. Like, I mean parents say stuff all the time to their kids. Stuff like, always look before you cross the street, there are cars, cars can hit you. Right? Well, I would say that, but just make it a little more real. I would tell my child, you know, I saw this little girl, and she ran across the street to get to her friend. She ran right in front of a car, and the car hit her, and she died. Just because she ran across the street without looking because she was all excited. (Participant 4)

I was a mess when my kids started driving because it's like not only do I know what the statistics are, but I have seen what the statistics look like, and it could be one of my kids. That was a big thing for me to try and deal with, and I know I drive my kids crazy with making them call or text me all the time whenever they get to wherever they were going. I was always a very protective father, but I don't think you could do this kind of job and not get even more protective. (Participant 5)

**Dreams.** Two participants acknowledged that their work crept into their dreams. While the small number of respondents who mentioned dreams as an aftermath of working death cases makes drawing firm conclusions difficult, the contextual information from their comments does provide insight. It appears that dreams occur when the medical examiner staff member works "tough" cases.

This poor baby was so beaten and battered. All these healing fractures. I had to cut the case right around Christmas. Here's this little body on the table, all bruised up. You know, the blunt force trauma to the head is what killed this baby, but this child had been beaten probably most of its life. Little fingernails had been pulled out, and the baby had teeth missing from being hit in the mouth. Burned by cigarettes. What I remember about this was that someone asked me about the
case, this other lady I worked with. People were talking about it. You know, it was a bad child abuse case. And she was like, "you ok, I heard that was a bad case." I thought I was fine, but you know what? About a few weeks later, I had dreams about that baby. That I was hearing that baby cry, but I was in the morgue, and the baby was in the morgue. I thought I was going crazy there for a little bit *laughs* but thankfully after a while I stopped dreaming about it. (Participant 14)

Well, I have had dreams about some of the cases I have worked on. I wouldn't say they are like nightmares or anything like that. I just dreamed about these cases. Or have seen people's faces. I am sure that doctors or cops or EMS people would tell you the same thing. It's maybe like your brain's way of trying to get through all the crazy stuff you see. You do it at night. (Participant 1)

Talking to a Partner: Three participants discussed talking to a spouse or partner about work-related experiences. The variation in the three discussions illustrates the difficulty death workers experience in balancing speaking to a spouse or partner about work. One noted (s)he was not in a relationship at the time and was glad about it because such a discussion might upset a partner.

Well, I wasn't in a serious relationship while I worked at the morgue, and I am kinda glad. I don't think I would have wanted to come home and talk about that with someone. It. Might have upset them. (Participant 2)

A second participant mentioned good fortune in that the partner "gets it" by understanding the need for time alone and the desire to not talk about things from work.

*name deleted to preserve confidentiality* she gets it. She knows that I kind of sometime have to deal with rough things on certain days, and she knows to leave me alone. But some people, I would guess anyway, it's really hard on them relationship-wise. I got lucky I guess. (Participant 11)

A third recalled an occasion where the participant made an effort to speak to a spouse, and it did not go well, with the spouse questioning why the participant wanted to discuss such a horrible topic.

Well, you know, I remember that after I worked that case, I mentioned it to my wife, and she was all upset over it. She wanted to know why I would even talk about that kind of thing with her. Why I would mention that, she said it was sad and awful, and that was it. After that case, I really stopped talking bout work stuff
altogether with her. You never know how people will interpret things differently, and I really didn't want to do that anymore. (Participant 12)

**Qualitative Findings: Treatment-Seeking**

Participants, either directly or indirectly, alluded to a stigma related to treatment or counseling services. Three participants were direct in their comments.

You don't want to be the person who is struggling or having nightmares or whatever happens to people that have a hard time. (Participant 2).

And it was so busy there you couldn't really talk to your coworkers. Everyone is kind of on edge all the time. No one wants to look weak. (Participant 10)

You don't last in this field if you can't get a hold of yourself. (Participant 14)

Others appeared to dismiss the idea of treatment services because they saw no direct personal signs or indications from colleagues suggesting need.

Well, it's not like I suffer any weird anxiety or anything from working on those cases. I don't have nightmares or anything. (Participant 3)

Well, not really. I mean, I have heard people say, like "I am shot, I am going to call in tomorrow, I had some bad cases," but I mean that could be that they are just tired, not that like it's messing them up or anything. (Participant 9)

When pressed on the prospect of treatment services, several participants suggested that others may need the services but that (s)he is fine and would not take advantage of treatment services if offered. Some stated that neither they nor their colleagues needed treatment services.

I didn't, of course, you know, because I am not crazy or anything. And I wasn't depressed, I was just going through some stuff, and I ended up fine. Well, naturally, being around death all the time certainly can bring you down. And my schedule at the time was crazy too. And someone just got promoted who really didn't deserve it, and that kinda messed my head up too. So it was just a whole bunch of stuff, some related to work. Some not. I was having personal stuff go on at home also, so not just from work. No. I didn't need it. I am here now, right? And I am fine, and everything is good. So it's good. I just had some stuff I needed to work out. I worked it out. (Participant 11)
Oh yeah. Well, maybe other people, but not me. I don't need anyone, and I wouldn't go talking to someone or something. (Participant 14)

No, not really. Not that I can think of. I mean, I never needed any services or anything special. And I can't really think of anyone that did. (Participant 7)

**Quantitative Findings: Language Inquiry and Word Count (LIWC)**

Tables 5, 6, and 7 contain language inquiry and word count findings reported by subtheme. In the tables, “JI” means job idealization, “JS” means job struggles, “IE” means imprinted event, “B/PC” means behavioral or personal change, and “ATS” means attitude toward treatment-seeking. The “n” for each subtheme represents the number of study participants with coded content for the subtheme. The word count (“words”) measures (in aggregation) the amount of attention the participants gave to each subtheme. The subtheme with the highest word count is blunt talk (2,168), followed by personalization of secondary trauma (1,955), personal memory (1,849), sensory perception (1,431), work-life balance (1,413), life appreciation (1,122), risk aversion/friend dynamics (1,033), and parenting-kids (1,019). Eight themes had less than 1,000 words but more than 500: how outsiders think (963), physical demands/safety (938), abnormal scene (817), office politics (800), learning opportunities (672), public services (625), others, not me (526), and novelty (525). Five themes had less than 500 words: unexpected outcome (418), partner talk (223), dreams (187), the stigma of treatment (132), and dismissive of treatment (37). Of the eight themes with 1,000 words or more, four relate to behavior or personal change, and two concern imprinted events.

**Table 5: LIWC Results for Themes: Pronoun Usage, Analytic, Cognitive Processes, and Biological Processes (Percent and Range)**

| Pers. Pron. | Imp. Pron. | Analytic | Cog. Proc. | Biol. Proc. |
|-------------|------------|----------|------------|-------------|
| **How Outsiders Think** (n=10; words: 963) | | | | |
| 13.1 | 9.5 | 21.1 | 20.2 | 1.8 |
| 4.4-16.7 | 0-17.4 | 1-63.1 | 0-41.3 | 0-3.7 |
| **JI: Novelty** (n=9; words: 525) | | | | |
| 8.2 | 10.7 | 15.0 | 21.9 | .2 |
| 0-14.3 | 6.9-24.0 | 1.0-52.0 | 15.5-30.6 | 0-.9 |
| Category                          | Mean | 95% CI          | Median | 95% CI          | Mode | 95% CI          |
|----------------------------------|------|-----------------|--------|-----------------|------|-----------------|
| JI: Public Service (n=6; words: 625) | 11.7 | 8.0-16.7        | 10.1   | 4.1-11.1        | 32.0 | 13.3-82.2       |
| JI: Learning Opp. (n=7; words: 672) | 9.4  | 5.0-18.2        | 9.8    | 5.3-27.2        | 30.4 | 1.0-51.5        |
| JS: Work-Life Balan. (n=11; words: 1,413) | 11.5 | 8.6-16.4        | 8.7    | 3.8-12.7        | 17.7 | 1.2-31.1        |
| JS: Physical/Safety (n=8; words: 938) | 11.9 | 3.8-14.2        | 6.5    | 3.2-7.6         | 16.2 | 3.7-43.0        |
| JS: Office Politics (n=5; words: 800) | 9.9  | 3.6-12.7        | 10.6   | 8.5-12.7        | 23.6 | 11.1-57.8       |
| IE: Personal memory (n=12; words: 1,849) | 12.6 | 9.7-18.8        | 9.4    | 5.7-17.4        | 21.1 | 7.0-38.6        |
| IE: Abnormal scene (n=6; words: 817) | 9.8  | 4.6-13.5        | 9.0    | 4.1-13.8        | 28.8 | 1.3-84.4        |
| IE: Sensory percept. (n=7; words: 1,431) | 12.1 | 11.0-13.9       | 7.5    | 1.9-11.5        | 27.8 | 8.6-54.1        |
| IE: Unexp. Outcome (n=3; words: 418) | 8.4  | 6.5-10.1        | 11.7   | 9.7-13.7        | 30.8 | 22.3-45.3       |
| Category                        | Mean | 95% CI    | Range    |
|--------------------------------|------|----------|----------|
| Sec. Trauma Person (n=8; words: 1,955) | 13.1 | 8.0-14.4 | 3.9-14.0 |
| B/PC: Blunt Talk (n=10; words: 2,168) | 15.8 | 11.7-23.5 | 4.4-23.5 |
| B/PC: Risk/friend (n=9; words: 1,033) | 15.0 | 10.8-21.4 | 3.6-10.8 |
| B/PC: Life Apprec. (n=7; words: 1,122) | 14.9 | 10.3-17.1 | 7.0-10.2 |
| B/PC: Parenting-kids (n=7; words: 1,019) | 15.5 | 13.0-18.4 | 2.7-10.5 |
| B/PC: Dreams (n=2; words: 187) | 16.0 | 13.9-17.6 | 9.3-10.1 |
| B/PC: Partner talk (n=3; words: 223) | 17.0 | 15.4-17.5 | 7.7-17.2 |
| ATS: Stigma (n=5; words: 132) | 11.4 | 4.4-21.4 | 7.1-18.1 |
| ATS: Dismissive (n=2; words: 37) | 5.4 | 4.6-6.7 | 13.3-13.6 |
| ATS: Others, not me (n=9; words: 526) | 14.6 | 11.5-21.4 | 0-17.8 |

95% CI: 95% Confidence Interval; Range: The range is the lowest and highest values found in the data.
| Theme                          | Pos. Emotion | Neg. Emotion | NE: Anxiety | NE: Anger | NE: Sad |
|-------------------------------|--------------|--------------|-------------|-----------|---------|
| How Outsiders Think           | 3.3          | 3.4          | .3          | .2        | .4      |
| (n=10; words: 963)            | 0-42.8       | 0-5.7        | 0-1.4       | 0-1.2     | 0-2.2   |
| JI: Novelty                   | 3.8          | 2.1          | .2          | 0         | 0       |
| (n=9; words: 525)             | 2.4-6.3      | 0-8.1        | 0-2.7       |           |         |
| JI: Public Service            | 5.4          | 1.1          | 0           | 0         | .5      |
| (n=6; words: 625)             | 1.7-16.0     | 0-3.2        | 0-2.4       |           |         |
| JI: Learning Opp.             | 4.6          | .7           | 0           | .5        | 0       |
| (n=7; words: 672)             | 1.2-9.1      | 0-1.7        | 0-.6        |           |         |
| JS: Work-Life Balan.          | 2.1          | 1.5          | .2          | .4        | .1      |
| (n=11; words: 1,413)          | 0-4.7        | 0-3.6        | 0-1.6       | 0-1.8     | 0-.3    |
| JS: Physical/Safety           | 1.8          | 4.4          | 1.3         | .6        | 1.0     |
| (n=8; words: 938)             | 0-3.2        | 2.1-5.6      | 0-3.2       | 0-3.2     | 0-2.1   |
| JS: Office Politics           | 3.9          | 3.3          | .6          | .9        | .1      |
| (n=5; words: 800)             | 2.6-7.8      | 0-4.2        | 0-1.1       | 0-2.6     | 0-.3    |
| IE: Personal memory           | 1.5          | 3.8          | .6          | .5        | 1.2     |
| (n=12; words: 1,849)          | 0-4.1        | 2.0-7.8      | 0-2.3       | 0-1.7     | 0-3.1   |
| Category | Mean | MIN-MAX | Std. Dev | Median | MIN-MAX | Std. Dev | Median | MIN-MAX | Std. Dev | Median | MIN-MAX | Std. Dev | Median | MIN-MAX | Std. Dev | Median | MIN-MAX | Std. Dev | Median |
|----------|------|---------|----------|--------|---------|----------|--------|---------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|
| IE: Abnormal scene (n=6; words: 817) | 1.7 | 0.5-5.9 | 1.9-6.8 | 0.7 | 0.5 | 0.5 | 0.7 | 0.5 | 0.5 |
| IE: Sensory percept. (n=7; words: 1,431) | 1.8 | 0.5-3.7 | 1.2-2.8 | 0 | 0.6 | 0.6 | 0 | 0.6 | 0.6 |
| IE: Unexp. Outcome (n=3; words: 418) | 2.9 | 2.2-3.9 | 1.9 | 0 | 1.2 | 0 | 0 | 0 |
| Sec. Trauma Person. (n=8; words: 1,955) | 2.4 | 0.6 | 0.5 | 0.3 | 0.1 | 0.3 | 0 | 0.1 | 0.3 |
| B/PC: Blunt Talk (n=10; words: 2,168) | 2.1 | 0.4 | 1.4-11.8 | 0.9 | 0.3 | 0.4 | 1.5 | 0.4 |
| B/PC: Risk/friend (n=9; words: 1,033) | 2.1 | 0.81 | 0.64 | 0.15 | 0.4 | 0.15 | 0.4 |
| B/PC: Life Apprec. (n=7; words: 1,122) | 5.1 | 2.4-7.5 | 3.1 | 0.7 | 0.24 | 0.25 | 0.9 | 0.36 |
| B/PC: Parenting-kids (n=7; words: 1,019) | 1.8 | 0.24 | 0.68 | 0.48 | 0.6 | 0.7 | 0.1 |
| B/PC: Dreams (n=2; words: 187) | 3.7 | 1.3-5.6 | 2.7 | 0 | 0 | 0.5 | 0.9 |
| B/PC: Partner talk (n=3; words: 223) | 3.6 | 1.2-5.2 | 3.6 | 1.4 | 1.0-2.6 | 0 | 1.4 | 0.21 |
| ATS: Stigma (n=5; words: 132) | 1.5 | 6.1 | 1.5 | 0 | .8 |
| 0-4.5 | 0-18.2 | 0-4.6 | 0-4.6 |
| ATS: Dismissive (n=2; words: 37) | 0 | 0 | 0 | 0 | 0 |
| ATS: Others, not me (n=9; words: 526) | 4.2 | 1.3 | .4 | 0 | .2 |
| 0-14.3 | 0-2.7 | 0-1.3 | 0-1.7 |

**Table 7: LIWC Results for Themes: Perceptual Processes, Social, Work, Religion, and Death (Percent and Range)**

|                      | Perc. Proc. | Social | Work | Religion | Death |
|----------------------|-------------|--------|------|----------|-------|
| How Outsiders Think (n=10; words: 963) | 1.7 | 12.1 | 2.3 | 0 | 1.9 |
|                      | 0-7.4 | 0-17.7 | 0-3.7 | | 0-5.5 |
| JI: Novelty (n=9; words: 525) | 1.9 | 5.5 | 4.8 | .4 | 0 |
|                      | 0-4.3 | 0-21.4 | 0-8.7 | 0-2.0 | |
| JI: Public Service (n=6; words: 625) | 2.1 | 12.6 | 4.6 | 0 | .6 |
|                      | .6-4.0 | 3.7-16.7 | 0-8.2 | | 0-4.0 |
| JI: Learning Opp. (n=7; words: 672) | 2.5 | 7.3 | 7.9 | 0 | .2 |
|                      | 0-9.1 | 0-11.8 | 0-11.8 | | 0-6.0 |
| JS: Work-Life Balan.(n=11; words: 1,413) | 1.0 | 8.8 | 4.3 | .5 | .1 |
|                      | 0-2.5 | 3.8-12.7 | 2.9-6.3 | 0-3.6 | 0-1.5 |
| Category                        | Minimum | Maximum | Mean | Standard Deviation | Minimum | Maximum | Mean | Standard Deviation |
|--------------------------------|---------|---------|------|--------------------|---------|---------|------|--------------------|
| JS: Physical/Safety (n=8; words: 938) | 1.5     | 7.6     | 2.0  | .1                 | 0.4     | 0.4     | 0.2  |
| JS: Office Politics (n=5; words: 800) | .6      | 8.6     | 4.8  | .3                 | 0.5     | 0.5     | 0.6  |
| IE: Personal memory (n=12; words: 1,849) | 2.9     | 11.0    | 1.5  | .1                 | 0.1     | 0.1     | 0.9  |
| IE: Abnormal scene (n=6; words: 817) | 2.9     | 9.9     | .5   | .2                 | 0.2     | 0.2     | 1.4  |
| IE: Sensory percept. (n=7; words: 1,431) | 3.4     | 7.6     | 1.0  | 0                  | 0.2     | 0.2     | 0.2  |
| IE: Unexp. Outcome (n=3; words: 418) | 2.9     | 7.7     | 1.9  | 0                  | 0       | 0       | 1.7  |
| Sec. Trauma Person. (n=8; words: 1,955) | 2.5     | 10.1    | .5   | 0                  | 0       | 0       | 1.2  |
| B/PC: Blunt Talk (n=10; words: 2,168) | 1.7     | 15.3    | 1.0  | .1                 | 0.1     | 0.1     | 2.0  |
| B/PC: Risk/friend (n=9; words: 1,033) | 1.9     | 10.1    | .3   | .1                 | 0.1     | 0.1     | .7   |
In Tables 5, 6, and 7, the table cells are percentages with the range listed below. Study participants were most analytic in their word usage when discussing the public service orientation of the profession, unexpected case outcomes, learning opportunities in the profession, abnormalities of the scene or circumstances, and sensory perception. Concerning cognitive processes, this was most prevalent in the treatment themes when participants were dismissive of treatment and claimed that others might benefit but not the study participant. The themes relating to physical demands/safety and imprinted events remembered due to sensory perception had the highest percentages for biological processes. Participants most prominently used positive emotion when describing the public service role, expressing how the profession led to a greater appreciation for life, and discussing professional learning opportunities. Negative
emotion words appeared more frequently for the themes relating to the stigma of treatment and physical demands/safety. More specifically, anxiety as a negative emotional word appeared in the themes concerning changes in behavior relating to their children/kids in general, treatment stigma, partner talk, and physical demands/safety. As an emotional state, "anger" words were most prominent in the risk aversion/friend dynamic and unexpected outcome themes. Words related to sadness as a negative emotion most frequently occurred in blunt talk (with friends and family), partner talk, and personal memory themes.

Participants used perceptual processes (see, hear, etc.) more often when discussing treatment stigma and imprinted events relating to sensory perception, personal memory, abnormal scene, and unexpected outcomes. Social words (family, friends, etc.) appear more frequently in the themes relating to behavioral and personal change (blunt talk, parenting and kids, and partner talk) and treatment stigma. Study participants used work focus words most often when talking about professional learning opportunities and dismissing treatment. Religious-based words do not frequently appear in the transcripts. The themes work-life balance and (behavior and personal change) life appreciation have the most religious-oriented words. Lastly, study participants used terms relating to death most often when talking about blunt discussions with family and friends about life and death and discussing how others view the profession, unexpected outcomes in their work, and dreams about their work.

**Discussion and Recommendations for Future Research**

Medical examiner office staff experience secondary trauma in their professional roles. A primary mechanism through which secondary trauma occurs is the personalization of the event. The study participants recalled, often in vivid detail, traumatic events, describing events at the death scene and in the process of body evisceration that stays with them and influences them long-term. While this study did not identify the range of behavioral and adaptive responses that characterize much of the prior work on death and trauma effects on second responders, it expands current knowledge on the topic. It confirms that some of Agocs, Langan, and Sanders (2015) findings on the protective behavior of policewomen toward children apply more broadly. Medical examiner staff, male and female, shared that their parenting and views of kids changed because of this profession. They became hyper-vigilant, informing their children of risks and dangers to people (in general) and children (in specific) based on experiences from their job. They also acknowledged more aggressive parenting, which entailed more significant concern for children's whereabouts and knowledge of what children are doing and
with whom they do it. Protective practices appear to extend to others as well. Study participants discussed at length their attempts to warn others about the risks of their behavior and parenting styles. Personalization of the event also involves understanding how risky behavior may impact the medical examiner staff member individually. Study participants discussed at length how they avoid events with alcohol and drugs, do not engage in conduct they once did, and see the doctor more regularly.

More qualitative and quantitative research should be conducted on how death and trauma work influences first responders and their family members. Future work can explore whether and to what extent police officers, EMS staff, and other first responders change their worldviews and parenting from on-the-job death and trauma experiences. A question that clearly emerges from this research concerns whether the parent-child relations amongst first responders produce positive, negative, or neutral outcomes for first responders' children. A protective orientation may keep first responder children from things that harm them. Yet, too much of a protective parenting direction may be harmful to childhood and adolescent development. Similarly, as it relates to aversiveness, a first responder's risk aversion may impact the quality of life where a person overestimates relative to actual risk. Future research should continue to explore how death and trauma exposure impacts first responders.

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