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A MULTIFACTORIAL MODEL OF THREAT ASSESSMENT ACTIVITY APPLIED TO
EDUCATIONAL SETTINGS

by

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A DISSERTATION

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A MULTIFACTORIAL MODEL OF THREAT ASSESSMENT ACTIVITY APPLIED
TO EDUCATIONAL SETTINGS

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University of Nebraska, 2018

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The current study proposed a *multifactorial model of threat assessment activity* (MFTA) in order to assess the effectiveness of threat management interventions for preventing problematic physical approach and violence in institutes of higher education (Scalora & Bulling, 2007; Scalora, Zimmerman, & Wells, 2008; Scalora, Plank, & Scheoneman, 2009). In order to answer this overarching goal, the current study analyzed a sample of 332 cases reported to a Police Department of a Midwestern University between 2006 and 2016. The MFTA model was statistically tested via a structural equation model. Overall, the results of this study suggested that the MFTA model provided a valid approach to examine the different stages of the threat assessment and management processes. Specifically, the main findings of this model showed threat activity involved a wide pool of individuals who contacted directly and repeatedly several targets and institutions for personal reasons. Factors such as unresolved interpersonal conflicts and severe mental disorder further exacerbated the risk for physically approaching the target. For this reason, most of the threat assessment cases required management strategies that contained the individuals' behavior and aimed to hinder any additional direct face-to-face contact with the target. The results of the structural equation model suggested these strategies effectively assisted in decreasing problematic behavior over time and preventing violence at a long-term. Implications for future threat management practices were discussed.

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CHAPTER I. INTRODUCTION

I. Scope of Threat Assessment

1. Definition of Targeted Violence

Practitioners often deal with the task of assessing whether an individual is likely to behave violently in the future (e.g., over the next year, over the next five years, or over the next 10 years). Most of these predictions refer to a type of violence that is impulsive or situation-driven. In these acts of violence, there is no “premeditation.” For example, an individual could act violently as a result of a spontaneous fight at a bar or could be involved in an unexpected shooting exchange during a drug dealing activity, etc. Less often, practitioners are faced with the challenge of assessing the risk of violence when a particular individual targets or plans to attack an identifiable person, group of persons, or an institution (see Fein & Vossekuil, 1998; Fein, Vossekuil, & Holden, 1995). This type of premeditated violence is called “targeted violence.”

Targeted violence has been often described as planned or predatory because violent action does not appear in a vacuum (e.g., people just do not “snap” and decide to attack a target) (see Meloy, 2006). Targeted violence is a “grievance-based dynamic” (Calhoun & Weston, 2003; Scalora, 2002a) that is the culmination of “long-developing, identifiable trails of problems, conflicts, disputes, and failures” between the subject and the target (Fein et al., 1995, p. 3). These conflicts often manifest in problematic behavioral activity (e.g., intrusive communications), which is enhanced by situational and contextual factors. If the conflicts with the target further intensify, a subject might start conceiving violence as the only possible solution to his or her problems. Once the subject is committed to a violent action, he or she displays overt “attack-related” behaviors such as acquiring weapons, leaking their violent intentions/plans to

others, and/or attempting to gain access to the target (Meloy, Hoffmann, Gildinmann, & James, 2012; Scalora et al., 2002a; Vossekuil, Reddy, Fein, Borum, & Modzeleski, 2000).

2. Examples of Targeted Violent Related Activity

Most acts of targeted violence tend to encompass threats, stalking activity, sexual assault, or physical attacks. However, not all such activity falls within the scope of targeted violence.

Stalking comprises of behavioral patterns where a person is targeted, persecuted, and/or subjected to unwanted verbal or electronic communications or approach, and from which the victim feels distress (Coleman, 1997; Cupach & Spitzberg, 1998; Douglas, Burgess, Burgess, & Ressler, 2006; Meloy, 1998; Melton, 2000, 2007; Mullen, Pathé, & Purcell, 2000). This activity affects approximately 3.3 million people age 18 or older over the course of a year (Catalano, 2012). At present, there are no official statistics of the proportion of stalking or threat cases that could be classified as targeted violent acts. However, scientific literature suggests that public officials as well as individuals in educational and workplace settings are particularly vulnerable to targeted violent acts related to stalking (Adams, Hazelwood, Pitre, Bedard, & Landry, 2009; Calhoun & Weston, 2006; Every-Palmer, Barry-Walsh, & Pathé, 2015; Galeazzi & De Fazio, 2006; Hoffmann, Meloy, & Sheridan, 2014; Kelloway, Barling, & Hurrell, 2006; Lowry, Pathé, Phillips, Haworth, Mulder, & Briggs, 2015; Malsch, Visscher, & Blaauw, 2002; Pathé, Phillips, Perdacher, & Heffernan, 2014; Spitzberg, 2016; Storey, 2016).

Physical violence is defined as the actual or attempted physical harm to a person or persons by hitting, pushing, strangling, or harming with the use of a weapon (see Douglas, Hart, Webster, & Belfrage, 2013). Physical violence is the culmination or the end goal of some of the targeted violent trajectories. If the subject succeeds carrying out a physical attack, this activity might terminate with another human being's life (i.e., homicide) or multiple lives (i.e., multiple-

victim homicide) (Holmes & Holmes, 1992). Terrorist activities and mass shootings are common examples of targeted physical violence. Terrorist activity is defined as the unlawful use of force or violence committed by a group or individual that could be led by a foreign or home-based power that has the goal of intimidating or coercing a government or civilian population in furtherance of political objectives (Department of Homeland Security, 2005). Terrorist attacks and mass shootings have gained increasing attention due to a rise in the number of these events over the last 30 years (Cornell, 2010; Drysdale, Modzeleski, & Simons, 2010; Federal Bureau of Investigation, FBI, 2013; Fein et al., 2002; Miller, 2014; National Violent Death Reporting system, 2013; Spaaij, 2010).

Targeted violent activity could occasionally escalate into sexual violence. Sexual violence is defined as unwanted sexual activity carried through force, threat of force, or incapacitation of the victim (American College Health Assessment, ACHA, 2004; Carr, 2005; Wilson & Miller, 2016). While not all sexual assaults are the end result of targeted violence activity, there are particular events that appeared strongly related to targeted violent acts especially when they are the continuation of stalking activity (see Fisher, Cullen, & Turner, 2000).

3. Threat Assessment and Educational Institutions

Threat assessment is the term used to describe the set of investigative techniques and management strategies that can be used to identify, assess, and intervene with individuals at risk of engaging in acts of targeted violence (Borum, Fein, Vossekuil, & Berglund, 1999; Fein et al., 1995; Vossekuil, Fein, & Berglund, 2015). Most of these management strategies aim to intervene when the subjects are in the initial stages of planning an attack or even when they display problematic behavior without a definitive attack plan. Interventions in these early stages are

preferable to, and more effective than, interventions that reactively neutralize subjects in the final stages of an attack plan (e.g., subjects heavily armed that are on their way to attack a venue) (Borum et al., 1999).

Threat assessment in educational settings has been applied in colleges or universities as well as K-12 settings (Fein et al., 2002; Mayer & Leone, 1999; Scalora, Simons, & Vanslyke, 2010). Educational settings might be vulnerable not only to the threats posed by students and workers affiliated with the educational institution but also to the threats posed by outsiders, such as partners, ex-partners, parents, or friends that intrude in these settings. Therefore, there could be some overlap between the threats that the community experiences and the current threat challenges on college campuses. For this reason, a superficial glance to college-age individuals' victimization rates might provide some preliminary information of the extent and need for threat assessment services as a way of ensuring their safety.

In the community, college-age individuals are the most vulnerable age group for violent victimization (1% community and 20% individuals between 18 and 24 years old) (Lauritsen & Reizey, 2013). Most of these individuals are attending college at that time (Fisher & Wilkes, 2003), and often report being victims of behaviors related to stalking activity (14%-27%) (Spitzberg, 2016) and threats (20%) (Lauritsen & Reizey, 2013), which could escalate into physical violence (36%) (Roberts, 2005) and sexual assault (10.3%) (Fisher et al., 2000).

II. Threat Assessment: Conceptual Model and Risk Factors

1. Conceptual Model: Pathway Towards Violence (Calhoun & Weston, 2003)

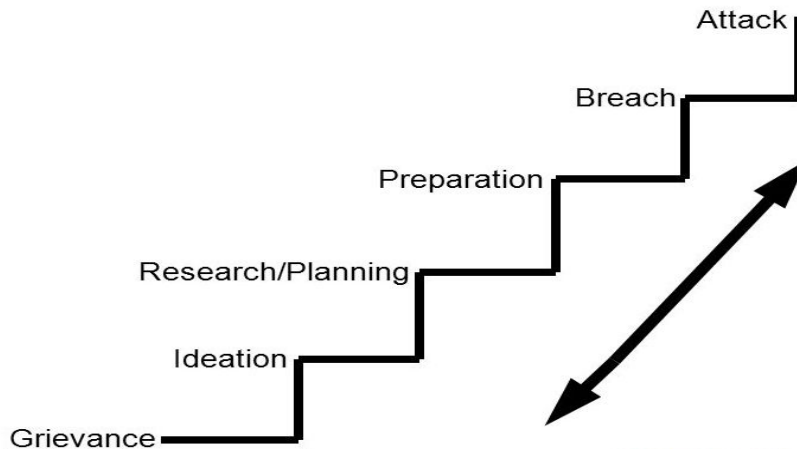
Calhoun and Weston (2003) developed a model to assist in preemptively identifying those individuals in their "pathway towards (target) violence" (see Figure 1). Conceptually, this model shows different opportunities for intervention and prevention of targeted violence.

Calhoun and Weston's (2003) model described a series of "stages" that individuals typically follow in their "pathway" towards a violent action. According to this model, individuals with a particular grievance towards the target start contemplating violence as the only potential solution to their problems. As the individuals become committed to the violent action, they show behaviors that are consistent with this commitment. For example, they might engage in attack preparatory activity, such as doing research on the target or practicing with weapons. Once a plan is developed, the individual starts trying to breach security around the target. Once the individual reaches this stage, the possibility of an attack is imminent.

Interestingly, Calhoun and Weston's 2003 pathway towards violence model implicitly measures the risk of physical proximity. This model follows prior research findings suggesting that most of the instances of targeted violence occurred during face-to-face interaction or close physical proximity (Borum et al., 1999; Fein et al., 1995; Fein & Vossekuil, 1999). Therefore, most of the stages of the pathway towards violence implicitly suggest that gaining physical proximity with the target increases the risk for targeted violence. For example, trying to breach security measures in order to approach the target is considered a sign of an imminent attack. For this reason, most of the literature in threat assessment considers trying to gain physical proximity in an aggressive or intimidating manner with the target as a proxy for violence. Physical proximity or *problematic physical approach* is the outcome measure of most of the research in targeted violence (see Meloy, 2014).

Figure 1

Pathway towards violence by Calhoun and Weston (2003)



While the pathway towards violence model is conceptually simple, its practical application is complex. Calhoun and Weston (2003) do not suggest that individuals necessarily need to go through all the stages before physically approaching or attempting an attack. However, some practitioners might mistakenly assume that a “linear” form of behavioral escalation towards violence is the most common trajectory towards an attack. As demonstrated below, current data shows that this assumption is equivocal. For example, a study of problematic approach towards British royalty showed that individuals who attempted an attack did not follow the set predetermined behavioral paths (see James et al., 2010a). Other factors such as specific subject’s characteristics, target factors, and behaviors might precipitate approach and violence without the desired escalation. Research literature now offers a more detailed approach of the factors that influence a targeted violent action. Most of these factors intertwine with each other in a complex manner that cannot be reflected in Calhoun and Weston’s model. A review of these factors is shown below.

2. Risk Factors Related to Individuals of Concern, Targets, and Pre-incident Behaviors

2.1. Subjects' characteristics

The literature indicates that there is no profile of individuals that engage in targeted violence acts such as stalking violence (Cornell, 2010; Fein & Vossekuil, 1999), mass homicide (Burns, Dean, & Jacob-Timm, 2001; O'Toole, 2000), or any form of terrorist activity (e.g., recruitment, organizing attacks, or carrying an attack) (Borum, Fein, & Vossekuil, 2012; Gill, 2015; Horgan, 2008; Monahan, 2012). These individuals are identified as potential perpetrators of an attack due to their *behavior*, including acquiring weaponry, verbalizing violent ideation, researching the target, etc. (see Fein & Vossekuil, 1998). However, literature points out specific characteristics that might influence subject behavior. As detailed below, most subjects of concern are affiliated to the settings towards which they pose a threat (e.g., students, faculty, staff/workers, etc.). Further, most subjects do not have a violent criminal record and do not make attempts to disguise their identity either. However, literature fluctuates with respect to the presence of symptoms of major mental illness. A description of these characteristics is offered below.

2.1.1. Affiliated vs. Non-affiliated to the institution under protection. One of the most important individuals' factors for threat assessment is whether the individual is affiliated with the institution towards which he or she poses a threat (e.g., educational setting, workplace environment, or government agency). In educational settings, students affiliated to the institution perpetrated most of the stalking activity or partner violence (e.g., boyfriend, classmate, or workmate) (McGuire & Wraith, 2000). Similarly, the majority of the mass murder attacks against educational settings appeared to be carried with individuals connected to the educational institution (O'Toole, 2000; Reddy et al., 2001).

In contrast, workplace environments appeared more vulnerable to outsider threats. Harrell (2011) indicated that individuals with no direct connection to the work company perpetrated 79% of the attacks against work settings (e.g., robbers). Outsiders further displayed some differences when compared to workers that posed a threat to their workplace. For example, Scalora, Washington, Casady, and Newell (2003b) found that outsiders had a prior criminal history and threatened the target prior to an approach (e.g., customer-related conflict in which threats are uttered). In contrast, current or former workers harassed individuals with whom they had a relationship, which suggest the workplace could have been chosen because of its easy access or predictable schedules (i.e., the targets arrives or leaves work at specific time from specific exits).

2.1.2. Prior violence and problematic relationships with others. Most individuals at risk for targeted violence had prior contacts with the law (Fein & Vossekuil, 1999; Scalora et al., 2002a), which could be related to prior problematic contact with the target and subsequent threat activity (Baumgartner, 2004; Scalora, Baumgartner, & Plank, 2003; Schoeneman, Scalora, Darrow, McLawsen, Chang, & Zimmerman, 2011). However, these individuals' prior criminal record is rarely violent (Scalora et al., 2002b). In addition to potential problems with the law, individuals at risk of targeted violence often have conflictive relationships with others. These individuals are often described as “problematic,” “irritable,” “not very sociable,” or even “loners” (Bondü, Cornell, & Scheithauer, 2011; Gill, Horgan, & Deckert, 2014; Hayes, Crane, & Locke, 2010; Meloy, Hempel, Mohandie, Shiva, & Gray, 2001).

2.1.3. Mental illness and substance use. Individuals who commit acts of targeted violence have often suffered from symptoms of major mental illness, including delusions, hallucinations, or thought disorder (Scalora et al., 2003). Positive symptoms of psychosis

appeared to be present in a substantial number of cases of harassment and problematic approach towards public figures (42%-83%) (Fein & Vossekuil, 1999; Hoffman et al., 2011; James et al., 2007; James et al., 2008; James et al., 2009; Marquez & Scalora, 2011; Scalora et al., 2002a; Scalora et al., 2002b; Scalora et al., 2003a; Coggins, Steadman, & Veysey, 1996), cases of students who are at risk of lethal violence (Bondü et al., 2011; Cranford, Eisenberg, & Serras, 2009; Kessler et al., 2005), and cases of lone wolf terrorists (Corner & Gill, 2015).

Symptoms of major mental illness are hypothesized to fuel individuals' grievance as well as violent ideation (Bondü et al., 2011). Hayes, Crane, and Locke (2010) found that 3% out of 27,616 Midwestern students had strong fears of acting out violently towards others on the college campus and that these individuals were often involved in mental health services. These students' violent ideation appeared associated with conflicts with others, irritability, hopelessness about the future, and increased suicidal ideation. When individuals became desperate, they often fixated on a person who was perceived as responsible for their problems and expressed violent ideation (e.g., posts on the Internet, verbalizations to others, etc.) (Cohen, Johansson, Kaati, & Mork, 2014). People close to these subjects might become aware of their violent intentions, but a study found they often failed to report this behavior in a timely manner (Gill et al., 2014).

Additional opportunity for early detection for these potentially violent individuals might appear as a result of their involvement in mental health services. Most of the individuals who presented violent ideation were also likely to endorse suicidal ideation (4%-6% college students rate of suicidal ideation) (Drum, Brownson, Burton Denmark, & Smith, 2009) and symptoms of depression for which they were referred to mental health services (Harwood, 2011; McCauley, Moskalenko, & Van Son, 2013). These symptoms further appeared related to negative life changes, perception of victimization, and chronic stress (Corner & Gill, 2015).

Last, use of substances appears to be a relevant factor for violence (Douglass, et al., 2013). In younger populations, alcohol and drug use is often linked to sexual violence (Calzada, Brown, & Doyle, 2011). However, individuals who committed an act of targeted violence were rarely intoxicated during the attacks (Meloy et al., 2001).

2.1.4. Identifying oneself. Most of the individuals who target another person, group, or institution do not attempt to disguise their identities (Dietz & Martell, 2010; Scalora et al., 2002a; Scalora et al., 2002b). However, these individuals might conceal their identities on the Internet or during the last stages of pre-attack planning (Calhoun, 1998; McCauley et al., 2013). It is possible that this behavior aims at avoiding early detection and intervention.

2.1.5. The process of radicalization and attitudes favorable for violence. Recent literature in threat assessment is applying the models used to prevent attacks against elected officials to the prevention of individuals' involvement in terrorism. This application to the study of terrorism was motivated by prior research findings. First, Gill (2015) found the prediction of the low-base rate phenomena, such as terrorism, might not be possible from a mathematical point of view. Second, Monahan (2012) indicated past literature has failed to provide appropriate predictors for terrorism involvement ("the why") (e.g., fail to find personality traits of a terrorist, see Horgan, 2008). Monahan posited that part of the difficulty in answering this question stems from the wide array of terrorist organizations and the different levels of terrorist involvement. Third, another study found marked differences among individuals who became involved in a terrorist organization depending on their role on such organization ("who") (e.g., leadership, recruiter, or tactical person) (see Canter, Sarangi, & Youngs, 2014). Given the heterogeneity of involved in terrorist activity, recent studies have changed the focus of inquiry.

Current assessment of terrorism involvement does not aim at understanding *who* would become radicalized and *why* (i.e., a predictive approach). Instead, researchers examine the behaviors that are indicative of radicalization and of the risk for engaging in a violent act (Horgan, 2008).

A first layer of research studies focuses on understanding the characteristics of people who sympathize with a terrorist cause. While there are no official base rates, a study showed 2.4% of a British community sample of Muslim individuals sympathized with violent political action (aged 18 to 45) (Bhui, Warfa, & Jones, 2014). In this study, individuals who condoned terroristic violence were English speakers under 20 who came from affluent families and were enrolled in full-time education. Research further indicated that not all of the individuals who sympathized with a terrorist cause became radicalized, and has further showed sympathizers and radicalized individuals did not present different demographics (see Gartenstein-Ross, 2014). Therefore, identification of subjects at risk of radicalization cannot depend on profiling subjects.

At present, there is little agreement in which factors are indicative of radicalization (i.e., the process by which a subject becomes involved and stays involved with terroristic ideas and/or action) (Borum, 2014). Gill (2015) noted that there are +100 predictors of radicalization, yet little is known about any of them (e.g., base rates or cohort effects). Despite this lack of detailed information, literature converges that radicalization is a multifactor process that results from the combination of cognitive, emotional, behavioral, and interpersonal factors. In line with this hypothesis, Soliman, Bellaj, and Khelifa (2016) tested a structural equation model of vulnerability to radicalization and found that good fitting models incorporated measures of social environment (e.g., need to belong), cognitive correlates (e.g., tolerance to frustration, decision

making style, cognitive style scale, etc.), and psychopathology (e.g., escalate to measure personality disorders).

In addition to its multifactorial nature, research points that radicalization is not a homogeneous process. Individuals might become radicalized through multiple mechanisms at individual and group levels (McCauley & Moskalenko, 2008), which often include change in family and/or peer interactions, change in religious and/or political practices, and increased contact with other individuals involved in terroristic activity (e.g., speaking with other radicalized individuals, contacting recruiters, combat training, etc.) (Egan et al., 2016). In this process, as individuals progress through the “ladder of radicalization,” they appear to display more overt violent behavior. However, not all individuals that become radicalized engage in violence or vice versa (Khalil, 2014). In order to determine which individuals will progress towards violence, practitioners rely on specific behavioral dynamics that serve to identify individuals at higher risk (Meloy & Gill, 2016).

Individuals who are at higher risk to carry out a terrorist attack are those individuals that have a grievance, motivation, intent, and capability to do so (Lemieux & Regens, 2012). Recent studies indicated that these factors make terrorist individuals similar to other targeted violent offenders. For example, similar to the study of Fein and his colleagues (2002), Gill, Horgan, & Deckert (2014) noted that there is no uniform profile of a lone wolf. People generally detect these individuals based on their expressed grievances or attack preparatory behaviors (grievances were known by third parties in 83% of the cases and attack plans were known in 58% of the cases). Capellan (2015) explained that symptoms of mental illness might intensify the perception of the grievance and encourage the individuals to act violently, which would manifest in the individuals’ written and verbal communications. In line with these findings, Cohen, Johansson,

Kaati, and Mork (2014) found that online information conveyed by problematic individuals might be used to assess leakage of violent ideation, fixation on a cause, and identification with a violent group of individuals.

2.2. Target factors

People or institutions that are targeted by potentially violent individuals are diverse. Most of the time, the target and the perpetrator's prior problematic interaction contributed to escalate the risk for targeted violence (see Fein & Vossekuil, 1998). Less often, targets are chosen by their convenience or iconic meaning, which contributes to broader media coverage. In any of these cases, target characteristics influence violent escalation and potential case management.

2.2.1. Socio-demographics and relationship with the subject of concern. There are not official victimization rates for targeted violent activity. Most of the targeted violent events appeared to be embedded in the statistics of general criminal acts such as stalking, harassment, and physical violence. However, which percentage of the victimization rates of these criminal activities is related to impulsive types of violence and which percentage is related to targeted violence acts is still unknown. Despite this difficulty, general victimization rates would be provided as a proxy of individual victimization rates of targeted violent activity.

Studies with large community samples indicate that females are victimized more often than males (Próspero & Vohra-Gupta, 2008) and that they suffer multiple forms of victimization (Wilcox, Jordan, & Pritchard, 2007). Within the community, college students appear particularly affected by events that could be part of targeted violence activity. Specifically, college women presented higher victimization rates related to partner violence, stalking, and sexual violence than college men (20%-44% females vs. 12%-16% males), while college men presented higher victimization rates related to physically assault than college women (18% males vs. 11%

females) (Fox, Nobles, & Piquero, 2009). Faculty and other staff in educational settings are also victims of harassment dynamics in educational settings. Approximately 33% of faculty has been harassed at some point in their careers, with female faculty stalked by male students being the majority of these victims (Morgan & Kavanaugh, 2011). Most of the faculty (67.8%) reported being followed or pursued against their will, but only a minority of these cases (6%-11%) met the legal criteria for stalking (Winkleman & Windstead, 2011).

Workplace victimization appears to be more predominant in the public sector. Individuals working in law enforcement and security seemed to be more vulnerable to violence, followed by professionals from health care professions (Harrell, 2013). In the private sector, 28% of the victims of workplace homicide were involved in sales and related occupations and about 17% were involved in protective service occupations (Harrell, 2011).

Public officials are also vulnerable to harassment and violence. Most individuals who fixated on public officials have not met them before. However, many of these individuals believed that they had an important relationship with the elected officials that confers them the right to pursue these officials (Dietz et al., 1991; James et al., 2011).

2.2.2. Target dispersion. Target dispersion has rarely been analyzed in college violence, workplace violence, or terrorism even though anecdotal evidence suggests that individuals of concern might have shared their grievance with multiple people before acting violently (Meloy, 2014; Reddy et al., 2001; Scalora et al., 2002a; Scalora et al., 2003b). This activity should be distinguished from the act of targeting multiple individuals.

Literature focusing on public figures has often analyzed the impact of target dispersion in subsequent problematic approach. A third of the individuals who approached public officials engaged in *target dispersion* or targeted multiple individuals (i.e., multiple primary targets)

(Baumgartner, 2004; Calhoun, 2001; James et al., 2010; Marquez & Scalora, 2011; Scalora et al. 2002a, 2002b; Schoeneman-Morris, Scalora, Chang, Zimmerman, & Garner, 2007). Target dispersion might occur when individuals contact a third party complaining about the target (see Scalora et al., 2002b). For example, an individual might harass an elected official and complain about this person to his or her office staff. The office staff might become targets as well.

In contrast, individuals that harass multiple targets might do so because they have particular reasons for harassing each of their targets. All of these figures should be considered primary targets. Cases that include multiple elected officials that can range from state government elected officials (Baumgartner, Scalora, & Plank, 2001) to high profile public figures, such as members of congress (Dietz et al., 1991), the President of the United States (Fein & Vossekul, 1999), or even members of the monarchy in other countries (James et al., 2007; James et al., 2009; James et al., 2010).

2.2.3. Institutions as target. Though many assailants usually have some sort of connection with the targeted institution, the probability of an attack increases depending on the level of threat, the vulnerability, and the potential damage/consequences of such an attack (Willis, Morral, Kelly, & Medby, 2005). In the cases of individuals without direct affiliation to the institution, familiarity with the target still plays an important role. For example, a study of 84 attacks in the U.S. between 1940 and 2012 suggested that the individuals chose their targets based on their familiarity with them (Becker, 2014). Familiarity with a particular target might occur because the target is physically available to the individual or because the institution is iconic and known to the individual (e.g., Boston bombings, see Spaaij & Hamm, 2015). Temporal proximity of important social events might also trigger an attack to a specific

institution. For example, Newman (2013) found that terrorist attacks against the community and institutions increase close to presidential elections.

2.3. Communication of Grievances

Calhoun and Weston (2003) indicated that understanding the grievance towards the target is a key factor in the assessment of a potential threat. Grievances are often communicated to the target or other third parties over the course of problematic activity. Obviously, there is not complete certainty that these individuals have completely reported the extent of their grievance (O'Toole, 2000). Therefore, researchers often note that they analyzed the *reported grievance* or *communication themes* as proxies for motivations for targeted violence (Scalora et al., 2002b).

2.3.1. Communication themes. Once individuals become committed to a particular cause and start engaging in problematic activity, they often feel compelled to reveal the many reasons for their actions (Calhoun, 1998). O'Toole (2000) suggests that, in addition to the content of the communication theme, practitioners should also attend to the emotional content of the grievance, including the statements that indicate anger, sense of entitlement, lack of empathy, externalization of blame, or experience of personal stressors. This author further noted that practitioners might also benefit by attending to information indicative of protective factors, such as resiliency or respect towards authority.

Regarding educational environments, subjects often communicated grievances related to revenge and anger themes (Drysdale et al., 2010). These individuals also showed overt signs of mental illness in their communications that can be romantic or hostile in nature (Morgan & Kavanaugh, 2011). Sense of failure and misfit were further components of the grievance in cases of students that target their educational institutions or their faculty (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002). Faculty acts of targeted violence have received limited attention,

but case studies suggest that paranoid ideation and potential failure for promotion might be triggers for a violent act (see case of Amy Bishop, see Blair & Schweit, 2014).

Individuals who target their workplace settings mostly resemble the case of faculty that take violent action against their educational institutions. In most cases, workplace attacks are conducted by disgruntled employees that felt mistreated by their employer and peers (see Type 3 and Type 4 workplace violent events, Rugala, 2001).

Grievances against public officials often involve multiple themes. Individuals expressed a desire for notoriety, revenge, or political change as well as intent to debase the target (Fein & Vossekuil, 1999). Research performed by Scalora and colleagues (2002) analyzed whether specific motives or communication themes were associated with approach behavior (and potential violence). These authors found that approachers displayed more personalized themes in their communications. These themes were characterized for help-seeking statements, reports that the individuals' life were at risk, or remarks indicating these individuals felt attacked by the target (Baumgartner, 2004; Hoffman et al., 2011; Scalora et al., 2003; Schoeneman et al., 2011).

Borum (2014) explained that grievances related to terrorist activity are multidimensional. Individuals involved in terrorist activity mostly expressed attitudes favorable to violence and rigid dogmatic thinking indicating that violence is the only solution. Grievances related to terrorism are often sustained by claims of attacks against the terrorist identity (e.g., attacks against Muslims) or status (e.g., immigrants will invade a country). The individuals often convey that failure to attack and beat the enemy will result in material loss (e.g., loss of their country or culture). These messages are commonly accompanied by a desire for thrills (e.g., enjoyment of violent action), revenge (e.g., enemy deserve the violent action), and moral obligation (e.g., it is your duty as a Muslim to attack any objective).

2.3.2. The importance of personalizing grievances. Personalizing a grievance entails making such grievances central to the individuals' life and identity (Borum, 2015; Scalora et al., 2002a). Personal grievances tend to be very specific, which could be assessed by the elaborated content in the communications with the target and other third parties. Schoeneman-Morris, Scalora, Chang, Zimmerman, and Garner (2007) analyzed the content of problematic letters and emails sent to a national sample of public officials and found that individuals who personalized their grievances expressed that their life was at risk (as a result of the targets' action or lack thereof), their personal rights were violated, they needed help from the target, or they suffered multiple stressors. These individuals could display delusional ideations in their communications that further indicated a personalized grievance. For example, they could believe that the target was a malevolent force that could hurt them or they could believe that they have a special relationship with the target, which entitled them to continue contacting this target.

Most of the individuals who harass a target tended to desist after an episode in which they expressed their discontent (James et al., 2010b; Scalora et al., 2002a). For example, students might express discontent to faculty in a rather aggressive manner once and desist after appropriate feedback; or a constituent might intercept a senator and become belligerent once before being notified by law enforcement that such behavior is unacceptable and legally punishable. However, individuals who personalized their grievances tended to persist in their contact behavior (Marquez & Scalora, 2011) or continued to stay involved in any activity that furthered their violent attitudes or ideation (e.g., terrorist activity) (Borum, 2015). Individuals who personalized a grievance were also more likely to escalate their behavior into approach and violence (Baumgartner et al., 2001; Scalora et al., 2002a; Scalora et al., 2003a; Meloy et al., 2011; Fein & Vossekuil, 1999).

2.2. Problematic contact behavior.

Most acts of targeted violence or physical approach are often preceded by problematic contact behavior (also called behaviors of concern) (see Scalora et al., 2002). This type of activity usually informs the professionals about the *level of concern*, which is the risk of a person committing an act of targeted violence based on the information available at the moment. Level of concern is linked to the notion of *imminence*, which is the estimated timeframe for the violent action to occur (see Meloy et al., 2012).

The assessment of the level of concern and imminence of violence depends on the nature of the behavioral activity. Subjects of concern that engage in proximity behaviors are likely to be considered high concern and at risk for imminent violence (i.e., try to gain physical proximity with the target and/or practice with weapons before approaching the target). Behaviors that do not aim at gaining physical access to the target might not be indicative of high levels of concern by themselves (e.g., unwanted and intrusive communications). However, the interrelations of several of these non-proximity behaviors might suggest increased levels of concern. The next section describes the behaviors that are analyzed as part of threat behavioral activity.

2.2.1. Proximity behaviors. These behaviors of concerns are often considered proxies for violent behavior. In most of the threat assessment literature, this behavioral activity is the dependent variable (Borum et al., 1999; James et al., 2010b; James & Farnham, 2003; McEwan, McKenzie, Mullen, & James, 2012; Scalora et al., 2002a; Scalora et al., 2002b).

2.2.1.1. Face-to-face contact. Threat assessment literature indicates that most of the individuals who attacked and even killed a target did so in close physical proximity (Borum et al., 1999; Fein & Vossekuil, 1999; Meloy, 2014). Attacks might occur when problematic contacts progress towards physically approaching the target. Once the individuals are face-to-

face, approach could escalate into physical violence (Calhoun, 1998; Hoffman et al., 2011; Unsgaard & Meloy, 2011; Van der Meer, 2015). Hoffmann, Meloy, Guldemann, and Ermer (2011) found that 46% of the individuals in their sample attempted to physically approach before trying to attack. However, only 12% of these individuals were able to establish direct contact with victim beforehand (i.e., face-to-face contact).

Therefore, a central issue of targets' protection is to prevent physical approach. Key indicators for physical approach are the individuals' statement suggesting a desire to approach the target as well as the possibility to re-approach if the subject has attempted to gain physical access in the past (between 34%-56% celebrity and elected officials were approached a second time) (Dietz & Martell, 2010).

2.2.1.2. Weapon access and practice in connection with homicidality. Prior to gaining access to the target, subjects of concern typically plotted against specific individuals and prepared an attack (Drysdale et al., 2010). High level of concern is especially warranted when these individuals showed the capability of carrying out the planned attack (see Lloyd & Dean, 2015). Indicators of capability are commonly assessed by the individuals' access, skill, and experience using weapons.

Most of these attacks are preceded by the subjects' attempts to obtain and practice with weapons (especially firearms) (Bondü et al., 2011; Harrell, 2011; Meloy et al., 2011; Meloy et al., 2014; Scalora et al., 2003b). This behavior is considered especially severe when it occurs in connection with homicidal ideation and prior interpersonal conflict (Bondü et al., 2011). This pattern has been consistently found in different samples of school shooters (Meloy et al., 2001; Meloy, Hempel, Gray, Mohandie, Shiva, & Richards, 2004; Meloy et al., 2014), family mass

murderers (Viñas-Racionero, Schlesinger, Scalora, & Jarvis, 2016), and terrorists (see TRAP-18, Meloy & Gill, 2016; Meloy & Yakeley, 2014).

2.2.2. Non-proximity behavior. Unwanted verbal and written communications, as well as surveillance behavior, by themselves might alert threat assessment professionals that a subject poses a threat towards a particular target. This behavioral activity might increase the level of concern when presented in combination with homicidal ideation, weapon access, and a desire to physically approach the target. However, when it is presented in isolation, it is often indicative of lower levels of concern.

2.2.2.1. Written and verbal threats. Threats are defined as expressions of the intention to harm (Bondü & Scheithauer, 2014). O'Toole (2000) noted that threats could be direct (i.e., "I am going to kill you"), conditional (i.e., "If you do not do what I say, I will kill you"), or veiled (i.e., "Something bad might happen to you").

Any type of threat should be taken seriously. Despite that, many threat assessment professionals suggest the most dangerous individuals are those who pose a threat rather than those who simply utter a threat (Calhoun & Weston, 2003). According to the threat assessment literature, individuals who approached or attacked a target rarely threatened this target in advance (see Meloy, 2014). On limited occasions, individuals might approach and potentially attack after uttering a threatening statement (21%-42%) (Scalora et al., 2002a).

Despite these findings, threats are a common concern in the community, educational institutions, and mental health settings (Cornell et al., 2004; Fisher & Wilkes, 2003; Hatch-Maillette, Scalora, Bader, & Bornstein, 2007; McNamara & Marsil, 2012). In these settings, the risk of threats increases when the individual has or had an intimate relationship with the target. If intimidating verbalizations fail to overpower a partner, physical aggression could be used to

regain control (Sinclair & Frieze, 2005; McEwan et al., 2012; Warren, Mullen, & Ogloff, 2011). This differs markedly from findings from prior studies on public figure attacks (see Fein & Vossekuil, 1999). Threats have been predictive of future violent action in cases of intimate partner stalking (i.e., intimacy effect) (Calhoun & Weston, 2003).

2.2.2.2. Non-threatening unwanted written and verbal communications. The most common examples of unwanted and intrusive communications are unwanted telephone calls, unwanted letters, unwanted text messages, and unwanted e-mails (Fisher et al., 2000; Fisher, 2001; Schoeneman et al., 2007; Schoeneman et al., 2011; Spitzberg & Hoobler, 2002). These behaviors are often combined with surveillance and intrusive activities (McNamara & Marsil, 2012), which means that most threatening activity is multi-modal (Cavezza & McEwan, 2014).

2.2.2.3. Surveillance behavior. Several studies have alerted about the pervasiveness of surveillance activities. For example, the results of the National Crime Victimization Survey (NCVS) indicate that almost half of the community samples have witnessed the following behaviors from the subject of concern: waiting outside or inside locations; watching from afar; or following (Amar, 2007; Fisher et al., 2000; Fisher, 2001; McNamara & Marsil, 2012). Given the difficulty of detecting this behavior, it is hypothesized that the rates found in prior studies are just an underestimation of the real prevalence. Similarly, there are few explanations on how this behavior might increase the risk for violence, even though monitoring and doing research on a target have been listed as behaviors that preceded an attack (see Meloy et al., 2001).

In addition to traditional forms of surveillance, new technologies offer the possibility of spying on a victim through the use of computers. Individuals of concern could steal private information, hack into the target's email, and spy on the target through the social networks

(McNamara & Marsil, 2012). On other occasions, these individuals implant malware on the target's computer (Fortinet, 2013).

2.2.2.4. Leakage to non-targeted third parties. Leakage are those statements, pictures, or drawings that are communicated to individuals other than the target, regarding the subject's willingness to engage in violent action (Bondü & Scheithauer, 2014; Meloy & O'Toole, 2011). Meloy, Hoffmann, Roshdi, and Guldinmann (2014) noted that leakage was a common behavior among youth that were hypothesized to be at risk for targeted violence. However, leakage lacked discriminatory value, as both individuals who engaged and did not engage in violence leaked homicidal ideation to others. For this reason, while this behavior is important to consider, it might not be an accurate predictor of violent behavior by itself.

Posts on Facebook might be another potential form of leakage of violent intention. Lyndon, Bonds-Raacke, and Cratty (2011) found that online posts were mostly used for three different goals: covert provocation, public defamation, or venting. In the case of terrorist activity, Post (2015) found that the new wave of terrorists become radicalized through the Internet, where they express violent intention and learn different attack strategies without contacting another individual directly (Weinmann, 2011; Wright, 2008).

III. An Integrative Model of Threat Assessment Activity

1. Problems of Current Approach to the Study of Targeted Violence

At present, there seems to be a gap between the pathway towards violence model and the findings of research studies. It is hypothesized that the difference between theory and practice might be due to the different methodological approaches.

Threat assessment literature conceptualized targeted violence from a process-driven approach, which attempts to describe individuals' cognitive and behavioral processes during the

planning of a violent action. However, researchers have often analyzed this process from a data-oriented approach, discriminating individuals who have committed acts of targeted violence (or approached the target) from a control group of individuals who have not engaged in such violent behaviors (i.e., post-hoc analyses). The main limitation of these studies is that observable data is only collected after the problematic behavior has occurred. These studies did not capture how dynamic factors influence individuals as they progressed along the pathway towards violence, which is the main point of the conceptual model. Therefore, conceptual and empirical models might not have a direct correspondence. This methodological gap has also been highlighted in other areas of research on targeted violence (see Cohen, 2016).

Such a lack of correspondence is understandable from a naturalistic point of view, since it is not possible to predict which individuals might escalate their behavior into violence (and obviously monitor these individuals' behavioral progression over time). However, both the conceptual and the statistical approaches have benefits. The conceptual model guides practitioners' understanding that individual's characteristics and pre-attack behaviors influenced the final outcome, even if it is only an indirect effect. Case studies are often guided by the conceptual model of targeted violence. In contrast, data-driven approaches are filled with associations among different individuals' characteristics and specific behaviors of concerns, such as physical approach. This approach enriches the conceptual model pointing out which factors to consider.

A solution that blends both approaches might improve the way researchers study targeted violent dynamics. Models with repeated measures might be an option to bring the best of the conceptual models and the data-driven models. Ideally, an individual of concern will be reported to authorities, who would start monitoring the individuals of concern at different points in time.

Any escalation in frequency or severity of behavior (e.g., attempts to interact with the target face-to-face) might be assessed and recorded. This process of analyzing data might be closer to the conceptual process-driven approach of targeted violence with some limitations. Once an incident has been reported to authorities, threat assessment professionals that deal with individuals at risk for targeted violence would immediately intervene to de-escalate the risk and prevent any potential attack. Therefore, no perfect correspondence can be drawn between individuals successfully managed and individuals who were not detected and eventually acted violently (i.e., individuals who have not been part of a threat management process). Despite this limitation, this model might improve past attempts to reconcile theory and practice.

However, there are specific elements of this conceptual model that needed to be sorted in order to translate into research terms. Scalora developed a model in 2007 that incorporated all these concepts and bolstered them with sound factors driven from past studies in targeted violent dynamics (Scalora & Bulling, 2007).

2. An Integrative Multifactorial Model of threat Assessment Activity

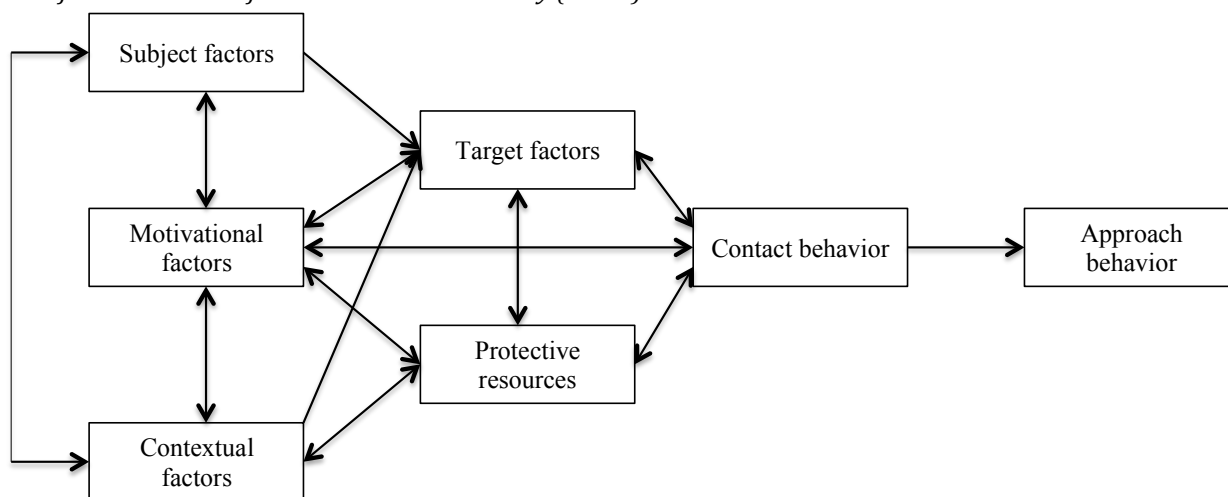
Scalora integrated Calhoun and Weston's 2003 pathway towards violence model and prior research findings into a *multifactorial model of threat assessment activity* (MFTA) (Scalora & Bulling, 2007; Scalora, Zimmerman, & Wells, 2008; Scalora, Plan, & Scheoneman, 2009). The MFTA model has been tested in a study of problematic approach towards public figures and has yielded significant results (Viñas-Racionero, Freese, & Scalora, 2016b). In this study, the dependent/outcome variable was physical contact with the target, as it is considered a proxy for violence (see Meloy, 2014).

As shown in Figure 2, some factors precede others in the MFTA model (i.e., repeated measures mediation model). The subject and target factors exist prior to the display of any

problematic behavior. Once specific individual(s) have identified specific target(s), their likelihood to attack a target increased when they showed increased problematic behavioral activity. This also considers the mediation effects of the individuals' grievance, which might escalate individuals' behavior towards an attack in absence of multiple behavioral signs directed towards the target.

Figure 2

Multifactorial model of threat assessment activity (MFTA)



This model has several advantages over prior conceptualization attempts. This model integrates prior findings using a more flexible approach that analyzes changes in dynamic risk factors. Furthermore, once individuals display any form of negative contact, the MFTA model posits that this behavior does not escalate in a “linear fashion” (e.g., from behavior A to behavior B to approach). Similarly, this model does not exclusively rely on gaining physical proximity when determining which individual is at higher risk for violence. This model considers different areas in order to identify the individuals at risk for targeted violence. Specifically, this model examines different trajectories of factors that are indicative of *intensity of effort*. These advantages are described in the next sections.

2.1. Flexible approach: Dynamic nature of individuals' risk factors. The MFTA model is a repeated measures design that allows capturing change over time. Capturing change over time is extremely important in the case of dynamic factors. Most of the recent studies analyzing pre-attack behaviors incorporate the presence of dynamic factors and the changes of these factors over time (Douglas et al., 2013; Meloy et al., 2012; Meloy & Gill, 2016; White & Meloy, 2010). The novelty of the MFTA model is not just the consideration of dynamic factors but the notion that these factors have indirect effects on other variables when mediated by a third variable.

Variations of the MFTA mediation model could be used to test the fluctuations of dynamic factors over time (e.g., crossed lag models). Factors such as mental illness or substance use can fluctuate over time. Individuals' symptoms might worsen or, in contrast, individuals might get treatment and improve. Similarly, changes in the thematic content over time might inform whether individuals who become more "fixated" on the target display changes in the content of their grievance (e.g., increase in violent ideation over time).

2.2. Non-linear escalation patterns. The concept of escalation has been defined as a linear transition from intrusive communications towards physical approach, but literature shows that this process of escalation is not necessary for an approach/violence to occur (McEwan et al., 2012). Therefore, preliminary information indicates that problematic behavior associated to targeted violence could evolve in a non-linear fashion (James et al., 2010a; McEwan et al., 2012).

The MFTA model might give additional information about the non-linear association between specific indicators and physical approach or violence. Behavior might wax and wane over time and these fluctuations are not indicative of a lesser risk. There are several explanations

why a behavior might momentarily fade away and then re-appear with higher intensity. One simple explanation is the external contingencies to the individual's behavior (e.g., mental health intervention, arrest, academic affairs instruction, etc.). Another explanation is that behavior might not need to be overt preparation of an assault in order to indicate increased risk for violence. For example, individuals displaying suicidal ideation might be as high risk as others who display violent ideation.

While difficult to assess, models testing quadratic associations among variables might help clarify this point. For example, a variation of the MFTA model using latent growth models might help to assess whether behaviors escalate in severity following a linear type of fashion or whether risk increases at certain intensity of specific behavior (e.g., inverted U-shaped type of association).

2.3. Assessment of intensity of effort. Intensity of effort is a broad construct that involves an increase in problematic behavioral activity directed towards the target or other individuals (Meloy, 2011; Scalora, 2014). Literature shows that individuals' intensity of effort is one of the major predictors of physical approach and attack (Scalora et al., 2002a; Meloy et al., 2011). Most studies conceptualized intensity of effort as heavily overlapping with repeated attempts to contact a target using different communication means (e.g., letters, emails, calls, texts, etc.) (see Hoffman et al., 2011; James et al., 2007; Meloy et al., 2011). However, intensity of effort also involves increased frequency of contacts, increased duration of contacts over time, and target dispersion (Scalora, 2014). In addition, intensity of effort is often enhanced by subjects' mental illness and the presence of personalized grievances. Factors describing intensity of effort and intensity of effort enhancers are described below.

2.3.1. Perseverance. Perseverance has been described as the frequency of a particular behavior or activity (Viñas-Racionero, Freese, & Scalora, 2016b). There is limited research analyzing the influence of perseverance behavior. Viñas-Racionero, Freese, and Scalora (2016b) analyzed the influence of perseverance on physical violence via path analysis. These authors found that perseverance was not linearly related to physical violence, while persistence and variety of intrusive behaviors were significantly related to violence. These authors hypothesized that perseverance might have significant quadratic correlation with violence, which is consistent with Dietz and Martell's (2010) study. Dietz and Martell pointed out that perseverance has an inverted U-shaped relationship with physical approach. These authors found that the risk for problematic approach increased with each successive communication until the 10th, and decreased thereafter.

The MFTA model does not currently incorporate direct indicators of perseverance. However, this indicator could be used as a moderator in the final model. Further research is needed to conclude the role of these factors in a mediation model.

2.3.2. Persistence. Persistence is described as the duration of the problematic behavior over time (James et al., 2010b). At present, scientific studies support that persistence and variety of behavior modalities are good predictors for approach (see James et al., 2010b; Meloy, 2014). This factor has been found to be a robust indicator of violence in a complex structure equation model that also tested the unique contributions of perseverance and multiple contact modalities (Viñas-Racionero et al., 2016b).

2.3.3. Multiple contact modalities. Multiple contact modalities involve behaviors that aim at contacting the target through electronic and non-electronic means. Face-to-face interactions are part of this activity as well. However, given the link between face-to-face contact

and violence, this behavior has been often treated as the dependent variable (outcome) in research studies rather than as part of multiple contact modalities.

Usually, multiple contact modalities involve contacting through several means. For example, individuals of concern might telephone in addition to writing and also express a desire for face-to-face contact (Dietz & Martell, 2010). In harassers of public figures, multiple contact modalities, mental illness, and intrusive intimacy-seeking communications usually co-occur (James et al., 2010b). These characteristics are associated to violence (McEwan et al., 2012) and future recidivism (Eke, Hilton, Meloy, Mohandie, & Williams, 2011). Individuals who engaged in multiple contact modalities were more likely to approach the target (Dietz & Martell, 2010; Marquez & Scalora, 2011; Scalora et al., 2002a). In addition, it was the strongest factor predicting violence when tested in combination with perseverance and persistence (Viñas-Racionero et al., 2016b).

2.3.4. Target dispersion or a diffused target (multiple potential victims). One of the most important components of intensity of effort is the presence of target dispersion, which has been associated with physical approach (Meloy, 2014; Scalora et al., 2002a; Scalora et al., 2002b). However, literature remains vague with respect to specific relations between target dispersion, multiple primary targets, and change in target focus.

Individuals might target multiple people or might engage in target dispersion (i.e., individuals share their grievance about the target with third parties over the course of their harassment). It should be considered whether the presence of multiple parties, in addition to target dispersion, increases risk. A second consideration is whether individuals who are third parties become an additional target over the course of the targeted violence activity. Similarly, practitioners need to determine whether the subject changes the target focus (e.g., decrease the

risk for one target but an increase in risk towards another). The MFTA model might assist in offering additional information about the association of any of these factors and physical approach.

A related difficulty is when an individual targets an institution or just unspecified people in the community. Many practitioners struggle to design management plans for individuals that threaten a diffused type of target (i.e., not identifiable individuals). However, anecdotal evidence indicates that some individuals might show similar attack behaviors regardless of whether they have a particular target in mind (Fein et al., 2002).

2.3.5. Risk enhancers of intensity of effort. Risk enhancers of intensity of effort are factors that enhance and moderate the behavioral trajectories associated with intensity of effort. These factors are not indicative of intensity of effort in themselves. However, individuals who presented these factors and engaged in behavioral activity suggestive of intensity of effort are more prone to physically approach and attack the target (Scalora, et al., 2002; Scalora et al., 2003). Next, a list of potential risk enhancers is offered.

2.3.5.1. Subjects' symptoms of mental illness and communication themes. Individuals with symptoms of major mental illness who expressed personal grievances contacted their targets more frequently and were more likely to display higher intensity of effort and physically approach the target (Baumgartner et al., 2001; Dietz & Martell, 2010; Marquez & Scalora, 2011; Meloy et al., 2012; Scalora et al, 2002a; Scalora et al., 2003).

Personal grievances can remain largely unresolved over time often become central to the subjects' life and are often associated with the conviction that violence is the only resort (Borum, 2015; Horgan, 2008; Meloy, Hoffmann, Roshdi, & Guldinmann, 2014). Subjects with symptoms of mental illness, who view their personal grievance as central to their life, often spend

increasing amounts of time engaging in problematic communications that are directed towards the target and potentially towards third parties (see Scalora et al., 2002a; Scalora & Marquez, 2011; Schoeneman, et al., 2007; Schoeneman et al., 2011). When problematic activity associated with a personal grievance and symptoms of mental illness increases, the subject has the potential to escalate towards more intimidating behaviors and even violence (see Meloy et al., 2014).

2.3.5.2. Threats and intensity of effort. Overall, threats rarely preceded acts of targeted violence (see Meloy, 2014). However, the correlation between threats and violence becomes significant when the target and the subject of concern have an intimate relationship between them (i.e., *intimacy effect*, Calhoun & Weston, 2003). Thus, research with community samples that are predominantly comprised by ex-intimate stalkers shows that substance use, employment issues, and prior threats to the victims predicted physical violence (Rosenfeld, 2004).

Interestingly, violent stalkers that target an intimate partner rarely exhibited psychotic symptoms or prior violent convictions (James & Farnham, 2003; Rosenfeld, 2004).

In workplace environments, threats also have a correlation with violent behavior, but it seems that they occur simultaneously (see Oksanen, Kaltiala-Heino, Holkeri, & Lindberg, 2015). Women tend to experience sexualized threats, while men often experience threats against their well-being (Hatch-Maillette et al., 2007). Threats often occur face-to-face and the risk of these threats evolving into violence increases when the individuals present symptoms of a major mental illness (Oksanen et al., 2015).

2.3.5.3. Pre-attack activity. Pre-attack activity is often indicative of behaviors that aim at gaining proximity with the victim in order to carry out an attack (Fein & Vossekuil, 1999). However, Meloy and his colleagues (2012) described other signs related to intensity of effort that are proximate to violence but were not directed at the target. For example, these authors noted

that individuals' violent acts against non-targeted others might be an attempt to rehearse violent behavior (i.e., novel aggression). Similarly, the authors noted that increased fixation in connection with homicidal ideation is also linked to intensity of effort and violence (see Meloy, 2014). In these situations, individuals who showed higher intensity of effort also displayed a warrior mentality. These individuals might dress like a member of the military, drill like a soldier, and develop the mentality that soldiers need to kill other human beings in wartime (Holmes & Holmes, 1992).

2.3.5.4. Future steps: testing threat assessment interventions. Future studies should incorporate the impact of management interventions in the evolution of problematic behavioral activity. For example, the MFTA model could test whether the level of intervention mediates the transition of problematic behavior into physical approach. Based on a prior study (Viñas-Racionero et al., 2016a), this study hypothesizes that variations of the current MFTA model would be useful in incorporating the effects of the management interventions into the mediation model. Therefore, the next sections will offer an overview of such interventions.

IV. Threat Assessment and Management Strategies

1. Legal/Policy Background Context

According to the Restatement of Torts, educational settings, such as universities, have the legal duty to prevent harm stemming from the individuals affiliated to the educational institution and to protect those individuals who are lawfully in their premises (i.e., sections 40 and 41 of the Third Restatement of Torts) (Nolan, Knapp, McAndrew, Randazzo, & Deisinger, 2011). Threat assessment and management activities are part of the universities efforts to fulfill this legal obligation.

Cornell and Allen (2011) noted that protection against potential violence is better accomplished with threat assessment approaches rather than “zero tolerance” policies. The latter is a punitive approach that applies sanctions indiscriminately without considering whether the sanction could increase the likelihood of future violence (see Calhoun & Weston, 2003). On the other hand, threat assessment is a preventive approach that intervenes with a subject in a manner that is consistent with the seriousness of a threat and reduces the use of severe sanctions such as long-term suspensions (Cornell, Sheras, Gregory, & Fan 2009; Summer, Beretvas, Svinivki, & Goring, 2005). The first advantage of this proactive approach is the potential to identify individuals at risk for violence before any damage occurs. The second advantage is that threat assessment decreases the risk for targeted violence by offering solutions rather than punishing problematic individuals. The third advantage is the possibility to extend the use of threat assessment to all individuals affiliated to educational settings. For example, threat assessment is not only adequate to evaluate behavior from students of concern but it is also useful to assess concerning behavior from faculty and staff (Randazzo & Plummer, 2009).

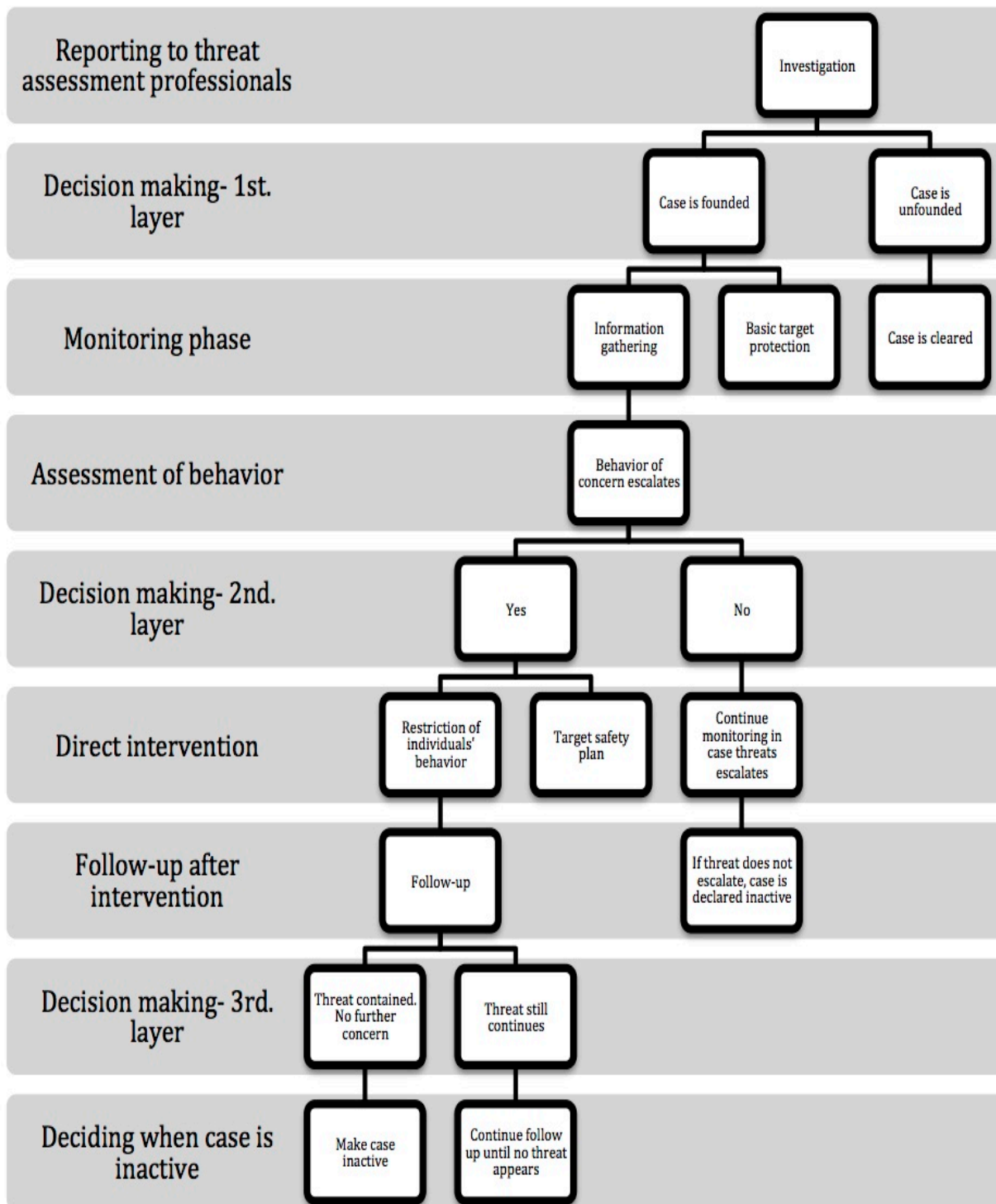
Most settings follow different guidelines when establishing their threat assessment services. One example of threat assessment guidelines in educational settings is the Virginia guidelines, which were developed after the mass-shooting incident at Virginia Tech Institute (Cornell et al., 2009). According to these guidelines, the threat assessment process starts when a threat is reported and professionals decide whether the threat is founded and unfounded. Cornell and his colleagues (2004) found that most of threats reported to authorities in k-12 settings were transient/unfounded whereas only a minority were substantive/founded threats that required further intervention (70% vs. 30%). The nature of subsequent intervention is tailored to the severity of the threat.

When a threat is founded, professionals start gathering information about the threat. Randazzo and Plummer (2009) suggested that a case manager should be appointed to monitor the case, to gather information from collateral sources, and to consult with other professionals in the area of threat assessment. Next, non-restricting intervention measures might be utilized in order to reduce the occurrence of problematic behavior (e.g., students affairs could help a problematic student to navigate a conflict with faculty in order to graduate). These measures might include coordinating with services that help the individual overcome his or her issues. If the risk increases, professionals restrict the individual's ability to carry out the threat through direct interventions, which could include measures such as a mental health hospitalization, an arrest, or a legal citation.

Obviously, this process will not follow the same sequence in crisis-based scenarios where immediate protective action is necessary. For example, an individual with homicidal ideation and paranoid delusions might pose an imminent threat to a person. This individual might be arrested while carrying a weapon on his or her way to kill the target. As a result of his or her symptoms, this person might be hospitalized for treatment. During treatment, further threat assessment information gathering will continue to monitor the level of threat that this person poses to the target during and after mental health intervention. A schema of the process of threat assessment is next showed in Figure 3.

Figure 3

Model of threat management adapted from Borum, Cornell, Modzeleski, & Jimerson (2010)



2. Types of Threat Assessment and Management Activities

2.1. Reporting threats

A timely report of a concerning behavior is one of the most crucial aspects of threat assessment. The advantage of a timely report is twofold. First, it would provide information about concerning behavior in the early stages. Second, it would give threat assessment professionals enough time to subsequently monitor and intervene. However, individuals often fail to report concerning behaviors in a timely manner (Hollister, Scalora, Hoff, & Marquez, 2014). In these situations, initial reports are only “snapshots” of the current problematic behavior that do not allow comprehending the whole problematic activity or how imminent violence might be.

In order to overcome this challenge, communities in general and educational institutions in particular are implementing informative campaigns that aid in reporting. These campaigns are designed to trigger reporting from individuals who are less likely to report concerning behaviors or threatening situations.

There are several factors that have been associated with unwillingness to report. First, males appeared to report potential threats less than females (Cass & Mallicoat, 2014; Hollister et al., 2014). Second, individuals were less likely to report their partners or ex-partners to authorities (Cass & Mallicoat, 2014). Third, individuals were less likely to report the threats to authorities when they are scared and feel less connected to the campus setting (Hollister et al., 2014; Sulkowski, 2006). Last, individuals with self-reported delinquency and negative peers were less likely to notify of potential threats to authorities (Brank et al., 2007; Hollister et al., 2014; Sulkowski, 2006).

2.2. Investigative/assessment activity

Reports are often “snapshots” that sometimes offer limited information about the threat activity. For this reason, threat assessment professionals need to assess the severity and imminence of violence at the time of reporting and start monitoring and gathering information about the concerning behavior (see Storey, Gibas, Reeves, & Hart, 2011).

2.2.1. Monitoring. Approximately 75% of universities in the nation have their own law enforcement or public safety departments (Reaves, 2008). Fein et al. (2002) explained that most of the threat assessment investigations are initiated and controlled by these departments. However, other individuals might also act as investigators in threat assessment cases (e.g., school threat assessment teams). Regardless of whether law enforcement or threat assessment teams take the lead of the investigation, a first step is to appoint a case manager that would work as a point of contact between threat assessment professionals and the subject of concern. The case manager investigates the reports and starts to gather information on the circumstances surrounding concerning behavior. Based on the information gathering results, it is decided whether the person of concern poses a threat to another person or institution (i.e., the reported threat is founded).

Upon receiving a report of concerning behavior, monitoring activity (or information gathering) starts with the follow-up interviews with target and collateral sources of information (see Calhoun & Weston, 2006; Fein et al., 2002). All investigative activities are documented in an incident tracking system that could be accessed at any time by the threat assessment teams or the department of law enforcement (if they are the ones conducting the investigation). Monitoring should continue until the threat is no longer active. Then, the case is declared inactive.

Common monitoring activities consist of interviews with the target, the person of concern, and the individuals who regularly interact either with the target or the person of concern such as peers, superiors (i.e., boss, supervisor, faculty, etc.), parent/guardians, or partners. Other activities might involve contact with the main stakeholders on campuses. Contact with these stakeholders often provides adequate information of the major problems that need to be controlled and addressed in a particular university. Information from these stakeholders might also inform about potential resources for target protection.

2.2.2. Obtaining outside information. Calhoun & Weston (2006) noted the importance of establishing liaisons with other agencies and sharing information about a threat assessment case. An individual could have prior threat activity that might have been documented by other agencies. Similarly, an individual of concern might have prior criminal records in other states. Law enforcement agencies from these states might have important information for the management of this individual. In addition, information on the areas of risk assessment and management might be shared through consultation with specific experts. For example, threat assessment teams might be consulted during an investigation or outside experts might be reached during the investigative process.

Information can also be shared among the members of a threat assessment team. Sharing information and consultation among its members are excellent strategies given the complexity of threat management. Often, cases involve a multidisciplinary response to the individual of concern that requires the involvement of law enforcement, dean of students, student affairs representatives, academic affairs, legal counsel, human resources, and mental health consultants (Randazzo & Plummer, 2009). Establishing protocols for handling cases and sharing information within a threat assessment team is key for successful management of cases.

Protocols for sharing information need to be designed in consonance with *Family Educational Rights and Privacy Act* laws (FERPA) and the *Health Insurance Portability and Accountability Act* (HIPPA) (Fein et al., 2002). If an individual poses an imminent risk to the life of another individual and the receiver of such a report is a mental health professional, the duty to protect would override any limitations in confidentiality (*Tarasoff v. Regents of the University of California*, 551 P.2d 334).

2.2.3. Threat Assessment Team Consultation. Threat assessment teams are often utilized to make appropriate consultations and to decide how an intervention will be conducted. There are different models of threat assessment teams, most of them stemming from the models developed by Delworth in 1989 (Assessment-Intervention of Student Problems, AISP). In school settings, as a minimum, these teams consist of a school administrator, a law enforcement representative, and one or more mental health professionals (Cornell & Allen, 2011). These teams meet regularly and serve as consultants with respect to assessing and intervening with troubling individuals or situations (Dunkle, Silverstein, & Warmer, 2008).

There is some variation in the role and nature of threat assessment teams (see Deisinger, Randazzo, O'Neill, & Savage, 2008; Sokolow & Lewis, 2008). If they have a more active role, they are in charge of the triage of cases (i.e., finding the cases founded or unfounded) and deciding subsequent intervention (Cornell & Allen, 2011; Eells & Rockland-Miller, 2001). Given the multidisciplinary nature of threat assessment teams, they could offer advice about legal options, individual's involvement in mental health services, and appropriate academic or disciplinary actions.

Another common function of a threat assessment team is to offer recommendations for appropriate management of the case, and then the case managers are usually the ones who

implement these recommendations. Therefore, these teams might focus only on the most challenging cases once they have been notified that there is a substantial threat against an individual or institution. The nature of a team recommendation might vary according to the investigation's needs.

2.4. Management interventions (and continued monitoring)

Management interventions are often offered in combination. Cases are rarely handled with a single strategy. In addition, even if cases are on an intervention phase, continued assessment should be employed to note the evolution of the individual(s) of concern. Usually, threat management always starts with non-confrontational intervention and then escalates to incorporate confrontational (direct) interventions if the individual of concern still persists (see Calhoun & Weston, 2006).

2.4.1. Target-focused interventions. One of the first management strategies is to develop a basic target-focused intervention (see Jordan, Wilcox, Pritchard, 2007). Threat assessment teams or law enforcement often trains the target to cut off contact with the person of concern and keep the evidence in case the contact re-starts (Meloy, 1998; Miller, 2012). A second set of measures is designed to enlist help from the target's social network such as family members, coworkers, faculty, or the school administration (e.g., Storey & Hart, 2011). Research has shown that help from family and friends attenuates the negative effects of harassment dynamics (Geistman, Smith, Lambert, & Cluse-Tolar, 2013).

If the problematic behavior is severe or the level of concern for the target's well-being increases, the target is instructed to pursue legal options so criminal charges are filed against the person of concern (Miller, 2012). Direct intervention with the subject will be provided in conjunction with these strategies.

2.4.2. Non-restrictive subject-focused management interventions. Non-restrictive interventions are the type of interventions that aim at de-escalating the subject's risk for violence without the need to impose any restriction on the subject's behavior. These interventions are often defined as "soft" or "indirect" because they utilize the setting resources to address the concerning behavior without the need to resort to more intense strategies that require the intervention of the criminal justice system (see Scalora et al., 2008).

In a school setting, developing specific environmental contingencies to de-escalate the subject of concern's behavior might suffice to reduce the risk against a particular target. Decreasing the risk for future violence is often accomplished by reducing the contact with the target while redirecting the individual to services that can assist in mitigating the individual's grievance. For example, if a student has a conflict with faculty due to grades, the student could be referred to academic services or an academic advisor that could help the student overcome his or her problems. If the student refuses or fails to fulfill the academic services requirement, more direct measures could be used such as voluntary leave of absence, interim suspension, or voluntary withdrawal (Dunkle et al., 2008).

In these instances, the case manager's interviews with the subject of concern help to monitor their behavior during the intervention (Storey & Hart, 2011). In addition, the dissuasive presence of law enforcement might be enough deterrent for the individual. Some individuals might stop their problematic contact if they feel watched by law enforcement. In these cases, there might not be a need for further restriction of their behavior.

2.4.3. Restrictive subject-focused behavioral interventions. Interventions aiming at restricting individuals' behavior should be used as a last resort. Once other interventions fail or if

the risk for violence increases, case managers need to pursue more intense and direct interventions with the individuals.

A first set of interventions might be a meeting with law enforcement, human resources, student affairs, and/or academic affairs to notify the subject that, if his or her behavior does not change, an appropriate sanction would be used (e.g., suspension, expulsion, or pursue legal charges).

The most intense and direct interventions are the ones that deal with obtaining a restraining order against the individual or even arresting this individual (McKenzie & James, 2011), as well as requesting mandatory treatment for the individual of concern if severe symptoms of major mental illness are suspected (Margolis & Shtull, 2012; Perloe & Pollard, 2016).

Mental health professionals specialized in threat assessment can act as consultants (Cornell & Allen, 2011; Farkas & Tsukayama, 2012) or even as evaluators for different types of violence risk (see Mullen et al., 2006). In these cases, monitoring the individuals' responsiveness to treatment and readiness to change is crucial (MacKenzie & James, 2011). If individuals do not show compliance with risk reduction efforts, a Tarassoff warning, voluntary and involuntary hospitalization or even civil commitment options might be considered (Borum & Reddy, 2001; Margolis & Shtull, 2012).

CHAPTER II. THE CURRENT STUDY AND METHODS

I. The Current Study

The multifactorial model of threat assessment activity (MFTA) was developed based on prior theory and research findings. A study has found support for the MFTA model in a sample of threat assessment cases in which elected officials were targeted (Viñas-Racionero et al., 2016). The current study hypothesizes that this model will also yield significant results on a sample of threat assessment cases affecting an educational institution. In this model, physical (re)approach is considered the outcome variable and a proxy for violence.

Consistent with prior findings (McGuire & Wraith, 2000), the current study estimates that most threat assessment cases occurring in educational settings will involve individuals with a prior relationship that are affiliated to the educational institutions. Given that the subject of concern and the target are likely to have a past relationship, the current study suggests that individuals of concern will justify their concerning behavior based revenge against the target or a sense of failure, which typically are categorized as personal grievances (see Drysdale et al., 2010; Morgan & Kavanaugh, 2011; Vossekuil et al., 2002). In addition, the target might fail to report the problematic behavior at its onset if the subject of concern is someone that the target already knew (Hollister et al., 2014). Therefore, it is hypothesized that problematic behavior has persisted over time before it was reported. Once behaviors of concern are reported to the proper authorities, it is expected that threat assessment professionals will monitor most of the cases, which are estimated to involve non-threatening or threatening unwanted communications rather than face-to-face approaches (see Hoffmann, Meloy, Guldemann, & Emer, 2011). Face-to-face approach is considered a proxy for violent behavior.

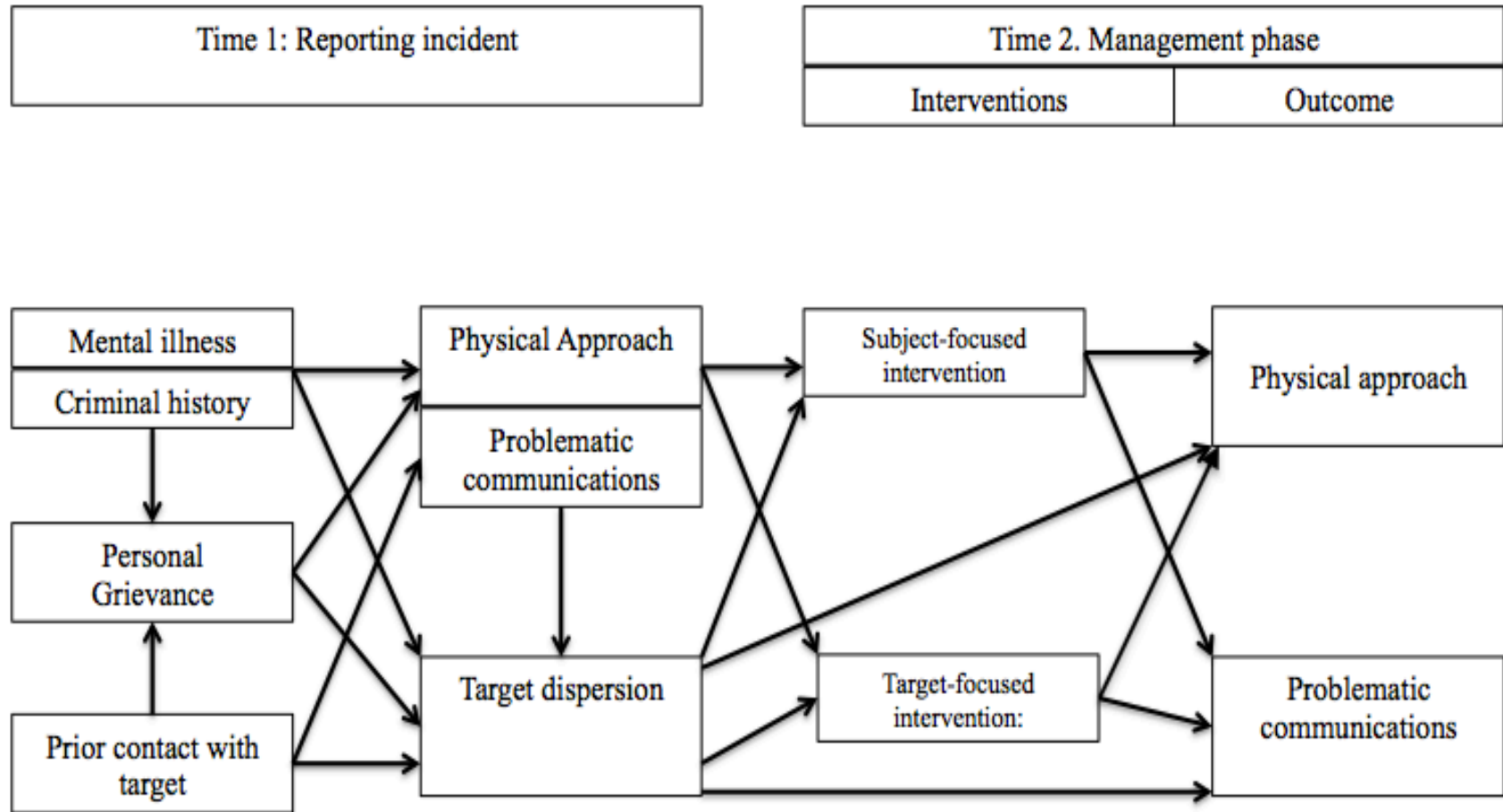
Given the potentially violent outcome of face-to-face interactions, an important aspect to consider is whether individuals who engaged in approach behaviors are different from individuals who do not resort to such severe problematic behavior. It is hypothesized that approachers might be more likely to present prior criminal history and present symptoms of major mental illness (i.e., delusions, hallucinations, or thought disorder), which is consistent with prior studies (Cohen et al., 2014; Hayes et al., 2010). Most of these cases are likely to be justified by personal grievances that will be shared with multiple parties (i.e., target dispersion) (Reddy et al., 2001). This study also estimates that individuals with the aforementioned characteristics, who display physical approach or uttered threats, will be more likely to receive subject-focused interventions. Target-focused interventions with no subject-focused interventions are therefore likely to be implemented when subjects of concern engage in non-threatening unwanted communications but not in face-to-face contacts or threats.

This study does not expect differences on the subject characteristics and target factors depending on whether approach occurred before or after a report was made to proper authorities. However, this study expects fluctuations between the rates of face-to-face contact before and after a report was made to law enforcement. It is hypothesized that face-to-face contacts with the target will decrease after a report to the proper authorities has been made. Specially, when threat assessment professionals utilized subject-focused interventions.

Once the significant associations between physical approach and the rest of the model factors are examined, the current study will test MFTA model via structured equation model. As a novelty from prior studies, the current study will incorporate the impact of threat assessment interventions on the outcome variable (physical approach). The tested model is displayed in Figure 4.

Figure 4

Multifactorial model of threat assessment activity for educational settings



II. Objectives and Study Hypotheses

Objective 1: To provide descriptive statistics for various factors within the MFTA model of threat assessment.

Hypothesis 1: According to the literature, the majority of subjects of concern would be individuals affiliated to the educational institution who had a prior relationship with the target.

Hypothesis 2: The majority of the cases will involve target dispersion.

Hypothesis 3: The majority of reported grievances will contain personal themes (i.e., help-seeking requests, personal entitlement issues, personal rights issues, delusional problems, personal safety concerns, and recent life stressors).

Hypothesis 4: The majority of the targets will fail to report the concerning behavior to threat assessment professionals during the first 24 hours after the behavior occurred.

Hypothesis 5: The majority of cases will involve non-threatening unwanted communications. Less than half of the cases will present with problematic face-to-face approach or threats.

Hypothesis 6: A substantial majority of the cases will have monitoring activity as a default threat assessment strategy. Approximately half of the cases will include non-restrictive management strategies and less than 30% of the cases will require interventions that restrict individuals' behavior.

Objective 2: To assess which factors best predict physical approach and direct intervention as suggested by the model.

Hypothesis 7: Individuals of concern who engaged in face-to-face problematic interactions will differ from individuals who do not engage in such behavior. Individuals

who engaged in face-to-face problematic interaction will be more likely to be mentally ill, to have a prior criminal record, and to display target dispersion.

Hypothesis 8: Individuals who received interventions aiming at restricting their behavior will differ from individuals who do not receive such interventions. Individuals who receive interventions aiming at restricting their behavior will more likely be mentally ill and have a past criminal record. These individuals will be also more likely to present with higher rates of face-to-face problematic interactions, direct threats, and a higher number of contacts with the target over time.

Objective 3: To assess change in physical approach behavior over time.

Hypothesis 9: There will be no differences in the subject characteristics, target factors, or communication themes that predict physical approach before and after a report was made to law enforcement (i.e., mental illness, criminal history, personal grievance, and target dispersion).

Hypothesis 10: It is hypothesized that the number of face-to-face problematic interactions and direct threats will decrease after initial reporting. However, it is also hypothesized that subjects who persist in contacting the target(s) will do so post initial report by engaging in unwanted verbal and written communications.

Objective 4: To test the applicability of MFTA model to college educational settings via path analysis.

Hypothesis 11: The multifactorial model of threat assessment activity will be tested via a structure equation model. It is expected that the model will yield adequate indices of local and global fit. It is hypothesized that prior relationship, mental illness, criminal history, personal grievances, target dispersion, and persistence of problematic behavior

over time will contribute to the structural equation model in a significant manner (e.g., significant direct effects).

Hypothesis 12: A decrease in physical approach behavior will be contingent upon the use of subject-focused management interventions. Statistically, the decrease of physical approach behavior that occurred after a law enforcement report will be tested via mediation between pre and post problematic behavior (e.g., 95% CI indirect effects will not contain zero).

III. Methods

1. Data Source and Procedure

Data for this study was drawn from 332 designated threat assessment cases from a Midwestern University Police that occurred between May 2006 and July 2016. Any suspicious activity that occurs at the university or involves any individual affiliated to the university is reported to the university police. This law enforcement office investigates, assesses, and manages individuals and situations that have the potential to escalate into further violence.

Data collection was completed by a team consisting of University of Nebraska (UNL) researchers who were trained to properly identify the research variables and code information from the records. Each case took between one and 15 hours to be coded. All data were collected in the de-identified manner.

2. Data Selection and Variable Description

The 332 cases included in the present study involved concerning behavior, including threatening or inappropriate contact with individuals affiliated to the university and/or any threat against the educational institution. In these cases, trained law enforcement investigators conducted preliminary investigations to determine whether the reported cases were founded or unfounded. Only cases that were deemed founded were included in the current sample (i.e., cases that warranted further investigative and intervention activity). A total of 56 cases were not included in the study because they were deemed unfounded ($n = 40$), involved suicidal ideation or attempts but not threat to others ($n = 3$), encompassed documentation for sex offender registry but no active threat was detected ($n = 6$), or centered on individuals that were known to the coders ($n = 7$).

Characteristics of the individuals, targets, and problematic behavior were extracted from actual documents and investigative law enforcement reports. A total of 52 variables were coded for the purposes of this study. The variables were divided into 5 subsections depending on whether they belong into the individuals of concern, the target, the communicated grievance, problematic behavior, and management interventions. These variables are described below. Kappa and Intraclass Correlation Coefficients were used to assess the level of interrater agreement on all 52 variables (see data analytic section and Appendix I).

2.1. Individuals' characteristics (12 variables)

Individuals' characteristics encompassed basic socio-demographic variables, including *gender*, *age*, and *ethnicity* (no interrater information is provided since the information in these variables was part of the law enforcement case file and no measurement of agreement is needed). Furthermore, variables related to the *relationship between the person of concern and the target* (i.e., stranger, acquaintance, friend, family, partner/ex-partner), *affiliation to campus* (i.e., affiliated to the institution vs. non-affiliated), *use of an alias*, *prior violent history with target*, *prior criminal history*, *symptoms of mental illness* (i.e., delusions, hallucinations, and thought disorder), *substance use* and *a history of suicidality*, and *a history of homicidality* were included. All these variables were coded in a dichotomous manner (presence/absence) except age (count variable) and ethnicity (nominal variable).

An individual was considered as having a direct affiliation to the university when the individual was a current student, faculty, or a staff member of the university. An individual was considered an outsider if that person did not have a current direct affiliation to the university.

Prior violence towards the target was determined to have happened when the target alleged being a victim of physical or sexual violence at the hands of the subject of concern, regardless of whether there was a conviction for these actions. Instead, the individual was considered to have a prior criminal history if he has been convicted of at least one crime. Convictions appeared on law enforcement records (i.e., law enforcement officers routinely checked National Crime Information Center records, NCIC).

An individual was considered to evidence signs and/or symptoms of mental illness if that person exhibited overt and gross symptoms of severe mental illness including delusions, hallucinations, or thought disorder, and available corroborating documentation existed affirming that the subject suffered from such symptoms (e.g., prior mental health providers' diagnosis). Substance use was coded as present when the reports indicated prior treatment or diagnosis of substance use, direct evidence of intoxication, or when collateral records note that substance use was a concern.

The level of interrater agreement for the individuals' characteristics ranged from .40 to 1.00. Three variables showed poor interrater agreement (drug use, history of suicidality, and history of homicidality), as these historical variables were not always very well captured on records (e.g., history of drug use is not always detectable unless the subject admits to this history or is observed being under the influence). In these three cases, poor agreement appeared to be explained by the scarcity of information rather than by raters' inability to identify these variables in a consistent manner.

2.2. Target factors (5 variables)

Target factors comprised four variables related to *the number of targets* (i.e., single target, multiple targets, institution as target, institution and multiple individuals being targeted), the *affiliation of the target to the university* (e.g., student, faculty, administrator,

staff, or the institution in general), the presence of *target dispersion*, the *type of grievance receivers*, and the *lapse of time* between when the problematic behavior occurred and when the target decided to report the behavior to law enforcement. The lapse of time is an ordinal variable (1 = less than 24 hours, 2 = 2-7 days, 3 = one week to a month, 4 = more than one month), whereas the other three variables are dichotomous (presence/absence) or nominal variables (i.e., type of targets).

In cases of target dispersion, individuals pursued a particular target but shared the grievance against this target with third parties. Target dispersion was differentiated from the presence of multiple primary targets. Cases with multiple primary targets are those in which individuals have different grievances directed towards different people.

The level of interrater agreement for the target factors ranged from .57 to .77, with only one variable showing poor interrater reliability (i.e., types of grievance receivers below .70).

2.3. Grievance-Communication themes (4 variables)

When the subject communicates a grievance, the specific themes of the individuals' verbalizations or messages were analyzed. The themes of the grievances were analyzed and coded in three dichotomous variables (presence/absence). A grievance was considered to be *personal* when the individual communicated help-seeking requests, personal entitlement issues, personal rights issues, delusional problems, personal safety concerns, and recent life stressors. *Target-focused grievances* were defined as those in which the individual debased the target or made comments against the educational institution. *Social issues driven grievances* were considered to be present when the individuals reported racist or sexist ideas. The *duration of the grievance* was coded dichotomously (presence/absence) in a longitudinal fashion using 3-month intervals over a two-year period (i.e., 3 months, 6

months, 9 months, 12 months, 15 months, 18 months, 21 months, 24 months, and +24months periods).

The average interrater agreement for all communication themes ranged from .54 to .79. Only the target-focused grievances showed poor levels of interrater agreement, which seemed to be caused by the low prevalence of this communication theme in the interrater subsample. Therefore, minimal deviations resulted in poor interrater reliability values.

2.4. Problematic behavior (12 variables)

Problematic behavior was coded separately for the target and for third parties that were also affected by the individuals' actions (i.e., non-targeted others). Non-targeted others were harassed when the individuals shared the grievance with them (i.e., target dispersion). For example, grievance receivers were faculty, students, student administrative services, or employment services that deal with the disgruntled student or employee on a daily basis. On a few occasions, these grievance receivers were individuals in the community that were harassed by individuals who posed a generalized risk to others in addition to the people affiliated to the university. These grievance receivers might be the receptors of problematic contact given the accessibility and opportunity rather than because of their actions or characteristics.

Problematic behavior comprised eight count variables, which encompassed the *contact locations* (i.e., on and/or off campus) as well as behaviors of concern, including *unwanted written communications* (i.e., letters/written materials, computer contacts, and text messages), *verbal communications* (i.e., phone calls or voicemail), *threats*, *public statements*, *object delivered*, *physical approach/face-to-face interactions*, and *physical assaults* (i.e., actual or attempted with and without a weapon). *Leakage of violent ideation* related to *homicidal ideation*, *suicidal ideation*, or *attacks with weapons* was coded as part

of problematic behavior. Each of these behaviors were coded in separate points in time in order to assess change in behavior (e.g., before and after a report has been made to law enforcement).

The level of interrater agreement for the contact locations within the college campus was .87 and outside campus was .60. The level of the raters' consistency for the individuals problematic behavior for targets and third parties ranged from .68 to .99, and for the individuals' leakage of violent ideation ranges from .70 to .91.

2.5. Threat assessment process (19 variables)

Assessment and management strategies were coded based on the purpose of each strategy. The *length of monitoring and indirect intervention* as well as the *length of direct intervention* was coded by counting the number of months.

It was determined that the *Monitoring and information gathering strategies* started when law enforcement investigated and collected information about the subject of concern with respect to his past history and his current concerning behavior. A total of five monitoring strategies were coded: *law enforcement investigative activity* (e.g., phone calls with target, witnesses, agencies that can offer collateral information), *mental health consultation*, *consultation with other law enforcement agencies*, *coordination with student affairs (information gathering)*, *interview with the subject*, and *threat assessment team meeting*. All these variables were coded in an ordinal manner depending on how many times law enforcement case managers resorted to these activities (0= None, 1= 1-5 times, 2= 6-10 times, 3= 11-15 times, 4= 15-20 times, 5= 21+ times). The level of interrater agreement for the monitoring activity was .84, and for the information gathering strategies ranged from .62 to .90.

Target-focused interventions was coded when law enforcement engaged in interventions designed to *gather information about the target's own protective actions* (i.e., physical security, legal means, or non-physical security means) and when law enforcement actively assisted the target in developing a *safety plan* (e.g., increase physical security, pursue legal options, or enhance non-physical security means). These variables are coded in a binary manner (presence/absence). The level of interrater agreement for target-focused interventions was .78.

Restriction of individuals' behavior was coded when the case reflects direct efforts in restricting the subject's behavior. These strategies involved a direct order given to the individual in a written or verbal manner stating that he or she should refrain from approaching or communicating with the target and non-targeted others. Failure to follow directions would result in some form of action (e.g., expulsion, ban and barred, filing charges, or arrest). There are seven strategies that were commonly used for restricting individuals' behavior: *interview with the individual or wellness check, intervention of students affairs, mental health treatment, meeting with law enforcement, arrest, legal citation* (i.e., filing charges as a result of non-compliance with law enforcement requests), *and other threat management strategies*. All these variables were coded in a binary fashion (presence/absence). The level of interrater agreement for the restrictive interventions ranged from .66 to .92.

3. Data Analytic Plan

In order to assess the level of interrater agreement, 8% (26 out of 322) of the cases in the sample were randomly selected and coded by two raters. There were a total of three raters, and two of them were randomly assigned to each case (i.e., not all the cases were rated by the same coders). Therefore, reliability of the coding scheme was calculated with

Kappa for the binary variables and Intraclass Correlation Coefficient (ICC_{12}) that used the one-way random effects variance model. For continuous and ordinal variables, the interrater agreement ranged from .60 to .99, with an average of .80. For the nominal and binary variables, the interrater agreement ranged from .40 to 1.00, with an average of .72 (see Appendix I for further information).

Data analysis for the current study followed three phases. In order to answer the first six hypotheses, descriptive data was provided, including frequencies, means, standard deviations, and range. Hypotheses 7 to 10 were answered by using chi-square statistics, multinomial logistic regression, and t-tests for between-group and within-group designs. In order to ensure the accuracy of the *t*-tests results, the assumption of normality was tested first. If this assumption was violated, the variables' outliers that fall outside the Tukey's hinges were trimmed, and only variables with acceptable skewness and kurtosis values were used (Skewness ± 3 and Kurtosis ± 10 , see Kline, 2011). Second, if Levene's test suggested the equality of the variances assumption was violated (i.e., Levene's test scores fell below the 0.05 level of significance), the degrees of freedom of the t-tests were corrected.

In order to answer the hypotheses 11 and 12, data was analyzed using SEM techniques and Mplus 7.4 software (Muthen & Muthen, 2010). First, correlations for all the variables in the model were provided. Next, path analysis was conducted to determine the global and local fit of the structural model using Weighted Least Square (WLS) with Theta parameterization (model depicted in Figure 4). Multiple indices were used to assess global model fit. The Comparative Fit Index (CFI; Bentler, 1990) and the Root Mean Square Error of Approximation (RMSEA; Browne & Cudeck, 1993) for the model were reported. For the CFI, values of .90 or greater reflect adequate fit of the model. For the RMSEA, values

of .05 or less indicate good fit, values up to .08 indicate reasonable fit, values ranging from .08-.10 indicate mediocre fit, and values greater than .10 indicate poor fit (MacCallum, Browne, & Sugawara, 1996). Once a model was deemed to fit the data adequately, parameter estimates were interpreted to estimate the local fit.

The next phase of data analysis included a bootstrap approach (Shrout & Bolger, 2002) in order to account for all the indirect effects of all the subject variables, target factors, communication themes, and pre-intervention problematic behavior on the post-intervention change on physical approach/violence when mediated by target-focused interventions and/or subject-focused interventions (i.e., indirect effects). A bootstrap approach has the advantage of maximizing power while minimizing Type I error rate. Bootstrapping provides an empirical approximation of sampling distributions of indirect effects to produce confidence intervals (CI) of estimates. If zero does not fall within the CI, one can conclude that an indirect effect is different from zero and therefore the indirect effect is present. Nonparametric resampling method (bias-corrected bootstrap) with 1000 resamples will be drawn to derive the 95% CIs for the indirect effect of all variables on problematic physical approach.

CHAPTER III. RESULTS

I. Individuals of Concern

Most of the threat assessment cases usually involved one problematic individual ($n = 330, 99.04\%$). On very special occasions, threat assessment professionals attempted to manage the risk of several individuals of concern ($n = 2, 0.6\%$). For example, cases in which numerous bloggers from a white supremacist website harassed or threatened a particular target linked to the educational institution.

The vast majority of problematic individuals were identified during the law enforcement investigation ($n = 324, 97.6\%$), though a few of them attempted to conceal their identity by using an alias ($n = 13, 3.9\%$). Only six individuals remained anonymous ($n = 6, 1.8\%$). Four of these individuals successfully avoided detection (1.2%) and two managed to remain unknown by using a character name (e.g., “concerned student”).

The identified individuals were mostly Caucasian ($n = 235, 70.8\%$), males ($n = 275, 82.8\%$) with an average age of 32 ($M = 32.22, SD = 14.52, Range = 18$ to 84). Half of these problematic individuals presented with psychological problems that ranged in severity and type (e.g., anxiety, developmental disorders, learning disabilities, mood disorder, pathological personality traits, psychotic symptoms, etc.) ($n = 168, 50.6\%$), but only a fourth exhibited active symptoms of severe mental disorder (i.e., hallucinatory disturbances, delusional ideation, and thought disorganization) ($n = 75, 22.6\%$). Some of these individuals also had a history of suicidality ($n = 60, 18.1\%$) or homicidality ($n = 40, 12\%$) as well as a history of alcohol ($n = 62, 18.7\%$) or substance use ($n = 64, 19.3\%$). Approximately a fourth of these problematic individuals had been previously convicted of a crime ($n = 79, 23.8\%$), and approximately fifteen percent had a violent history with their targets ($n = 54, 16.3\%$).

Table 1

Subject socio-demographics, psychiatric history, and criminal history

| Subject factors | | <i>M(SD)</i> |
|--|--------------------------------|--------------|
| Age | | 32.22(14.52) |
| | | <i>n(%)</i> |
| Gender | | |
| | Male | 275(82.8) |
| | Female | 42(14.8) |
| Race | | |
| | Caucasian | 235(70.8) |
| | Asian/Pacific Islander | 31(9.3) |
| | African American | 21(6.3) |
| | Middle-eastern | 6(1.8) |
| | Hispanic | 5(1.5) |
| | Native American | 4(1.2) |
| | Unknown ethnicity | 30(9) |
| Psychological disturbance | | 168(50.6) |
| | Positive symptoms of psychosis | 75(22.6) |
| History of Suicidality | | 60(18.1) |
| | Current suicidal ideation | 74(22.3) |
| History of homicidality | | 40(12) |
| | Current homicidality | 64(19.3) |
| History of alcohol | | 62(18.7) |
| History of drugs | | 64(19.3) |
| History of criminal convictions | | 79(23.8) |
| Prior violence history with the target | | 54(16.3) |

Threat assessment cases proved to be very complex to manage, as the subjects of concern often engaged in multiples modalities of intrusive behavior ($n = 185, 55.7\%$) while also reporting a violent intent ($n = 237, 71.4\%$). More than half of the cases involved unwanted written communications ($n = 174, 52.7\%$) or unwanted physical approach ($n = 190, 57.2\%$), and almost a third of the cases included unwanted verbal communications ($n = 103, 31.2\%$). In the most extreme cases, individuals manifested their willingness to attack the target with weapons ($n = 62, 18.7\%$) and/or endorsed homicidal ($n = 64, 19.3\%$) or suicidal ideation ($n = 74, 22.3\%$). In fact, violence propitiated the opening of the threat

assessment case in a minority of the cases (physical violence $n = 52$, 15.7%, and sexual violence $n = 8$, 2.4%). On other occasions, these individuals threatened the target ($n = 140$, 42.2%), which reportedly feared for their safety ($n = 157$, 47.3%). The targets' perception of danger triggered a request for help from threat assessment professionals.

II. The Targets

Primary targets were the people or institutions that the individual of concern identified in their grievances. These were the intended targets of the problematic activity. Interestingly, threat assessment cases often involved several targets, including a select groups of individuals ($n = 54$, 16.3%), institutions ($n = 40$, 12%), and multiple individuals and institutions ($n = 106$, 31.9%). Less often, these individuals targeted one particularly named individual ($n = 132$, 39.8%). The nature of these targets in relation to the college institutions heavily varied, and that variability is showed in Table 2.

Table 2

Type of primary targets based on their relation with the institution

| | Single target (<i>n</i> = 132) | Multiple targets (<i>n</i> = 54) | Institution (<i>n</i> = 40) | Multiple targets and institutions (<i>n</i> = 106) | Total (<i>N</i> = 332) |
|---|------------------------------------|--------------------------------------|---------------------------------|---|----------------------------|
| | <i>n</i> (%) | <i>n</i> (%) | <i>n</i> (%) | <i>n</i> (%) | <i>n</i> (%) |
| Student | 71(53.8) | 31(57.4) | 0(0) | 46(43.4) | 148(44.6) |
| Faculty | 21(15.9) | 15(27.8) | 0(0) | 29(27.4) | 65(19.6) |
| Administrator | 6(4.5) | 7(13) | 0(0) | 19(17.9) | 32(9.6) |
| Staff | 28(21.2) | 14(25.9) | 0(0) | 34(32.1) | 76(22.9) |
| Specific facility | 0(0) | 0(0) | 13(32.5) | 53(50) | 66(19.9) |
| College Institution | 0(0) | 0(0) | 25(62.5) | 58(54.7) | 83(25) |
| Society | 0(0) | 6(11.1) | 0(0) | 16(15.1) | 22(6.6) |
| Target's family member | 0(0) | 6(11.1) | 0(0) | 3(2.8) | 9(2.7) |
| POC's family or partner | 3(2.3) | 8(14.8) | 0(0) | 12(11.3) | 23(6.9) |
| Elected officials or families of elected officials | 0(0) | 2(3.7) | 0(0) | 4(3.8) | 6(1.8) |
| Other institutions | 0(0) | 0(0) | 5(12.5) | 20(18.9) | 25(7.5) |
| Target is a guest at the college institution | 0(0) | 0(0) | 0(0) | 2(1.9) | 2(6) |
| Law enforcement | 0(0) | 0(0) | 3(7.5) | 22(20.8) | 25(7.5) |
| Other individuals not affiliated to the college institution | 3(2.3) | 4(7.4) | 0(0) | 5(4.7) | 12(3.6) |

As showed in table 2, the targets could be a combination of individuals or particular locations. The majority of individuals targeted were college students, college staff, or faculty. In a fourth of cases, the college institution was targeted as a whole and, in a fifth of the cases, only a specific college facility. The rest of the individuals and locations appeared at a lower frequency and reflect the variability in targets that normally appeared in these types of cases.

III. The Locations

Most of the threat assessment cases occurred at different locations on and off the college campus. The most frequent campus locations included academic buildings (*n* = 134,

40.4%), residence halls ($n = 72$, 21.7%), a recreational building ($n = 58$, 17.5%) (e.g., union building, the recreational center, etc.), administrative buildings ($n = 56$, 16.9%), and outdoor locations within the college campus ($n = 38$, 11.4%). Threatening activity could also extend to other off campus locations, such as the individual of concern's residence ($n = 89$, 26.8%) and other off-campus locations ($n = 119$, 35.8%) (e.g., law enforcement head quarters, the street, targets' residence, etc.).

Analyses related to each of the objectives and hypotheses follow.

IV. Objective 1: To Provide Descriptive Statistics for Various Factors within the MFTA Model of Threat Assessment.

Hypothesis 1: According to the literature, the majority of subjects of concern would be individuals affiliated to the educational institution who had a prior relationship with the target.

This hypothesis was supported. Consistent with the tenet of the first hypothesis, the majority of individuals of concern were affiliated to the educational institution ($n = 254$, 76.5%). More than half of the problematic individuals were problematic students ($n = 206$, 62%) (i.e., $n = 175$, 52.7% current students, $n = 26$, 7.8% former students, and $n = 5$, 1.5% applicants). Less often, these individuals were employees of the institution ($n = 48$, 14.4%), such as staff ($n = 36$, 10.8%) and faculty members ($n = 12$, 3.6%). Only in a fifth of the cases were the individuals of concern not part of the college institution ($n = 73$, 21.9%). These cases included individuals with no association to the college institution ($n = 41$, 12.3%) (e.g., an angry fan of an athletic team) and relatives or partners/ex-partners of others affiliated to the institution ($n = 32$, 9.6%). This last type of case often involved instances of family or partner violence that extended to the educational setting.

In accordance with the second tenet of this first study hypothesis, most individuals of concern targeted someone they knew ($n = 264$, 79.5% vs. $n = 65$, 19.6% cases only involving strangers as targets). Given that individuals of concern often targeted multiple individuals ($n = 199$, 59.9%), Table 3 offers a break down on the individual of concern-target relationship depending on the number of targets in each case.

Table 3

Relationship between the individual of concern and the target

| | Single target ($n = 132$) | Multiple targets* ($n = 54$) | Institution* ($n = 40$) | Multiple targets and institutions* ($n = 106$) | Total** ($N = 332$) |
|--------------------|--------------------------------|-----------------------------------|------------------------------|---|--------------------------|
| | $n(\%)$ | $n(\%)$ | $n(\%)$ | $n(\%)$ | $n(\%)$ |
| Stranger | 23(17.6) | 19(35.2) | 30(76.9) | 70(66) | 142(42.8) |
| Acquaintance | 64(48.9) | 30(55.6) | 23(59) | 69(65.1) | 186(56) |
| Friend | 11(8.5) | 5(9.3) | 1(2.6) | 9(8.5) | 26(7.8) |
| Family | 2(1.5) | 7(13) | 0(0) | 12(11.3) | 21(6.3) |
| Partner/ex-partner | 30(22.9) | 23(42.6) | 0(0) | 15(14.2) | 68(20.5) |

*Note: cases involving multiple targets and/or institutions have percentages exceeding 100% due to multiple relationships with the different targets in a case.

**Note: In two cases the relationship between the subject of concern and the target could not be determined

Hypothesis 2: The majority of the cases will involve target dispersion.

While the second hypothesis of this study was not supported, a significant proportion of cases involved target dispersion ($n = 156$, 47%). Target dispersion mostly occurred when the problematic individual shared his or her grievance with third parties through face-to-face problematic interactions ($n = 57$, 36.5%, $MD = 1.17$, $SD = 2.47$) or via unwanted written communications ($n = 63$, 40.4%, $MD = 5.23$, $SD = 13.36$), verbal contacts ($n = 53$, 34%, $MD = 1.04$, $SD = 2.01$), or threats ($n = 50$, 32.1%, $MD = .65$, $SD = 1.44$). On a few occasions, these interactions escalated into assaults ($n = 12$, 7.7%, $MD = .12$, $SD = .47$). Much less often, target dispersion included stalking behavior ($n = 3$, 1.9%, $MD = .05$,

$SD = .42$), receiving unwanted gifts ($n = 1$, .6%, $MD = .01$, $SD = .08$), or public defamation ($n = 6$, 3.8%, $MD = .08$, $SD = .49$).

There were multiple grievance receivers in each case that involve target dispersion. Approximately 43% of the cases encompassed grievance receivers who did not have a connection with the college institution ($n = 67$, 42.9%). Less often, these secondary targets were university staff ($n = 39$, 25.2%), other students ($n = 30$, 19.2%), school administrators ($n = 28$, 18.1%), law enforcement ($n = 48$, 14.8%), faculty ($n = 18$, 11.6%), the target's family members ($n = 13$, 8.3%), and the person's of concern family members ($n = 10$, 6.4%).

The duration of target dispersion heavily varied across cases. In 49 cases (14.8%), target dispersion comprised a single incident or a series of incidents that only lasted a day. In 34 cases (10.2%), these secondary targets were contacted at different points over the course of a week ($n = 17$, 5.1%) or a month ($n = 17$, 5.1%). In 32 cases (9.6%), the individuals continued to pursue these secondary targets between three months and a year. In 34 cases (10.2%), target dispersion activities lasted more than one year.

Hypothesis 3: The majority of reported grievances will contain personal themes, (i.e., help-seeking requests, personal entitlement issues, personal rights issues, delusional problems, personal safety concerns, and recent life stressors).

Individuals of concern often endorsed grievances that contained different themes ($M = 3.24$ communication themes, $SD = 2.44$). Consistent with the third hypothesis, more than half of the grievances reflected an issue that was deeply personal for the individuals of concern ($n = 214$, 64.8% vs. $n = 117$, 35.2% cases that only included target-focused or social issues related grievances). Table 4 shows all of the communication themes that were present in the individuals' problematic communications.

The most frequently reported personal grievances involved complaints about different life stressors ($n = 145, 43.7\%$). Less often, personal grievances encompassed requests for help ($n = 94, 28.4\%$), claims that the individuals' rights have been violated ($n = 85, 25.7\%$), delusional beliefs (e.g., feeling persecuted) ($n = 73, 22.1\%$), perceptions that the individuals' personal safety is at risk ($n = 20, 6\%$), or suggesting that a specific entitlement or benefit has been denied ($n = 11, 3.3\%$).

Typically, most of the personal grievances were conveyed before the threat assessment activity was initiated ($n = 127, 38.3\%$). The frequency of the reported personal grievances decreased after 3 months ($n = 57, 17.2\%$) and remained equal or lower than 10% after that time ($n = 26, 7.8\%$ between 3 and 6 months, $n = 17, 5.1\%$ between 6 and 9 months, $n = 10, 3\%$ between 9 and 12 months, $n = 11, 3.3\%$ between 12 and 15 months, $n = 6, 1.8\%$ between 15 to 18 months, $n = 4, 1.2\%$ between 18 and 21 months, $n = 6, 1.8\%$ between 21 and 24 months, and $n = 8, 2.4\%$ between 24 months until the case became inactive). As it is shown below, the communication of personal grievances appeared to decrease as the problematic activity also decreased.

Table 4

Grievances and communication themes

| Communication themes | n(%) |
|---|-------------|
| Personal Grievances | |
| Requesting help | 94(28.4) |
| Personal rights have been violated | 85(25.7) |
| Delusional-based beliefs | 73(22.1) |
| Personal safety at risk | 20(6) |
| Denied specific entitlement | 11(3.3) |
| Life stressors | 145(43.7) |
| Interpersonal conflicts | 40(27.4) |
| Termination intimate relationship | 28(19.3) |
| Recent loses (e.g., job, promotion, housing, etc.) | 24(16.4) |
| Work performance declined | 23(15.8) |
| Poor academic performance | 22(15.1) |
| Legal problems | 12(8.3) |
| Worsening of mental health | 11(7.6) |
| Medical concern | 9(6.2) |
| Financial stressors | 7(4.8) |
| Past traumatic events | 5(3.4) |
| Stressors with no clear theme (e.g., feeling anxious) | 19(13.1) |
| Target-focused grievances | |
| Threatening language | 153(46.2) |
| Harassment/Degradation/Insult | 118(35.6) |
| Sexual comments towards the target | 93(28.1) |
| Obscenities | 54(16.3) |
| Anti-university | 38(11.5) |
| Social issues-related grievances | |
| Racist comments | 26(7.9) |
| Justified violence | 24(7.3) |
| Religious themes | 20(6) |
| Sexist | 15(4.5) |

Hypothesis 4: The majority of the targets will fail to report the concerning behavior to threat assessment professionals during the first 24 hours after the behavior occurred.

The fourth hypothesis was supported. Overall, the majority of targets reported instances of harassment and other problematic behavior within the first 24 hours of the *last*

occurrence of such behavior ($n = 188, 56.6\%$). However, this reported incident rarely occurred at *the onset* of problematic activity. A nuanced analysis of the data indicated two different reporting patterns depending on whether the cases had an abrupt onset of problematic behavior ($n = 136, 42.8\%$) or followed a pattern of escalation over time ($n = 182, 56.9\%$).

Approximately 40% of the threat assessment cases were opened immediately after the individual of concern started displaying behaviors that threatened the target's safety ($n = 136, 42.8\%$). The onset of this behavior rarely lasted more than a day ($n = 117, 86.03\%$) and, on 67% of the occasions, the targets reported these behaviors within the first 24 hours ($n = 92, 67.2\%$). The remaining individuals reported problematic behavior within the first week ($n = 24, 17.5\%$), within the first month ($n = 12, 8.8\%$), or after one month ($n = 9, 6.6\%$).

Almost 60% of the cases escalated in severity until the target feared for his or her well-being ($n = 182, 56.9\%$). The duration of these preliminary forms of problematic behavior oscillated between one day and thirty years, with an average duration of 3.8 months ($DS = 4.9$ months) after outliers were trimmed. Once the targets determined that the contact behavior was severe, they made a report to law enforcement ($n = 148, 82.2\%$). However, only in half of these cases problematic contact was reported within the first 24 hours ($n = 93, 51.4\%$). The other half of individuals reported the threatening activity to law enforcement within a week ($n = 35, 19.3\%$), within the first month ($n = 26, 14.4\%$), or after one month ($n = 27, 14.9\%$).

Hypothesis 5: The majority of cases will involve non-threatening unwanted communications. Less than half of the cases will present with problematic face-to-face approach or threats.

Threatening activity often manifested in multiple behavioral modalities ($n = 185$, 55.7%) that fluctuated in terms of frequency ($M = 11.32$, $SD = 11.46$ contacts per case after outliers were trimmed, Range = 1 to 1140 contacts) and duration ($M = 6.77$ months, $SD = 9.64$, Range = less than one month to 4.5 years). A close glance at the data revealed the fifth hypothesis was only partially supported. Consistent with this hypothesis, more than half of the cases involved unwanted written communications ($n = 174$, 52.7%), and an additional 30% involved unwanted verbal communications ($n = 103$, 31.2%). Similarly, less than half of the individuals directly threatened their targets ($n = 77$, 23.2%). However, contrary to our fifth hypothesis, more than half of the cases involved problematic face-to-face contacts with the targets ($n = 190$, 57.2%). Table 5 shows a summary of different problem behaviors that encompassed problematic activity.

Table 5

Behaviors during threatening activity

| | Absence | Presence | | | |
|---------------------------------------|--------------|--------------|-------------------------|-----|------|
| | <i>n</i> (%) | <i>n</i> (%) | <i>M</i> (<i>SD</i>)* | Min | Max |
| Written communications | 157(47.3) | 175(53.7) | 25.42(93.52) | 1 | 1114 |
| Verbal communications | 227(68.4) | 105(31.6) | 20.38(80.92) | 1 | 747 |
| Public statements | 306(92.2) | 26(7.8) | 1.64(1.19) | 1 | 5 |
| Stalking (surveillance and following) | 257(77.4) | 75(22.6) | 5.82(9.13) | 1 | 63 |
| Objects left/delivered | 316(95.2) | 16(4.8) | 1.53(1.19) | 1 | 5 |
| Direct Threats | 225(76.8) | 77(23.2) | 2.74(3.75) | 1 | 29 |
| Face-to-face staff | 296(89.2) | 36(10.8) | 1.97(2.05) | 1 | 11 |
| Interception law enforcement | 293(88.3) | 39(11.7) | 1.60(1.15) | 1 | 6 |
| Face-to-face target | 142(42.8) | 190(57.2) | 4.11(4.90) | 1 | 40 |
| Physical assault | 280(84.3) | 52(15.7) | 2.92(3.68) | 1 | 24 |
| Sexual assault | 324(97.6) | 8(2.4) | 2.38(2.07) | 1 | 6 |
| Inappropriate sexual behavior | 320(96.4) | 12(3.6) | 6.25(6.11) | 1 | 22 |
| Interest or use of weapons | 321(96.7) | 11(3.3) | 1.63(1.03) | 1 | 4 |
| Acts of self-harm | 298(89.8) | 34(10.2) | 2.21(2.43) | 1 | 10 |
| Property damage | 294(88.6) | 38(11.4) | 1.87(1.60) | 1 | 9 |

Note: * Outliers have not been trimmed

Hypothesis 6: A substantial majority of the cases will have monitoring activity as a default threat assessment strategy. Approximately half of the cases will include non-restrictive management strategies and less than 30% of the cases will require interventions that restrict individuals' behavior.

The sixth hypothesis was partially supported. Consistent with this hypothesis, all cases were monitored by law enforcement as a default threat assessment strategy. The length of monitoring varied widely in duration, ranging from one day to nine years, with an average length of 15 months after outliers were trimmed ($M = 15.19$, $SD = 14.75$).

In contrast, the use of non-restrictive management strategies widely exceeded our predictions. In addition to monitoring, a substantial majority of cases needed additional management strategies to assess the evolution of individuals' problematic behavior ($n = 309$, 93.1%). Table 6 shows the most common strategies consisted of interviewing the

individual of concern as well as coordinating with student affairs, other law enforcement agencies (e.g., local and federal police), and mental health services. The threat assessment team often oversaw the investigation, and law enforcement often discussed with the victim different self-protection strategies. Last, cases often required additional community resources in order to manage and assess the individuals' behavior (e.g., legal consultation, private business cooperation, other public agencies coordination, etc.).

Table 6

Non-restrictive management strategies

| | Absence | Presence | | | | |
|-------------------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | None | 1-5 | 6-10 | 11-15 | 15-20 | + 21 |
| | <i>n</i> (%) | times <i>n</i> (%) | times <i>n</i> (%) | times <i>n</i> (%) | times <i>n</i> (%) | times <i>n</i> (%) |
| Monitored (default) | 0(0) | 93(28) | 91(27.4) | 57(17.2) | 24(7.2) | 67(20.2) |
| Threat Assessment Team | 217(65.4) | 111(33.4) | 4(1.2) | 0(0) | 0(0) | 0(0) |
| Interview/welfare check | 142(42.8) | 167(50.3) | 19(5.7) | 3(.9) | 1(.3) | 0(0) |
| Student affairs | 192(57.8) | 108(32.5) | 22(6.6) | 3(.9) | 2(.6) | 5(1.5) |
| Mental health | 235(70.8) | 87(26.2) | 6(1.8) | 2(.6) | 2(.6) | 0(0) |
| Other law enforcement | 206(62) | 111(33.4) | 11(3.3) | 1(.3) | 2(.6) | 0(0) |
| Safety plan with target | 172(51.8) | 150(45.2) | 6(1.8) | 1(.3) | 1(.3) | 1(.3) |
| Other strategies | 190(57.2) | 115(34.6) | 17(5.1) | 3(.9) | 3(.9) | 2(.6) |

Similarly, 69% of cases ($n = 229$) necessitated direct, restrictive actions in order to ensure targets' protection, which vastly exceeded the prediction of 30% of the sixth hypothesis. Direct interventions were utilized at different points in time, with most cases needing between one day and eight years to fully implement these strategies ($M = 7$ months, $SD = 9.80$, after outliers were trimmed). In addition, approximately half of the cases combined different interventions at the same time ($n = 159$, 47.9%, $M = 2.85$, $SD = 1.83$). Table 7 displays the different interventions utilized to restrict the individuals' problematic behaviors. These interventions aimed at informing the individuals of concern

that they should immediately cease the threatening activity. For example, this message could be delivered by several emissaries, including threat assessment team members, college campus police, other law enforcement agencies, student affairs or others' involved in the individual's case. These interventions aim at further taking actions that posed physical, normative, or legal barriers for the individuals to continue with their behavior (i.e., involuntary psychiatric hospitalization, voluntary outpatient treatment, arrest, citations, probation requirements, academic holds/requirements, protection orders, arrests and incarceration, citations, or different forms of expulsion, suspension or ban from the college property).

Table 7

Interventions aiming at restricting the individuals' of concern behavior

| | <i>n</i> (%) |
|---|-----------------|
| Threat Assessment Team | 19(5.7) |
| Require individuals to stop their behavior | |
| Interview with Subject | 130(39.2) |
| Student Affairs | 76(22.9) |
| Other law enforcement agencies | 26(7.8) |
| Others' request to stop behavior | 16(4.8) |
| Mental Health Treatment/hospitalization | 86(25.9) |
| Legal or administrative sanctions | |
| Suspension or expulsion | 54(16.3) |
| Citation | 55(16.6) |
| Arrest | 53(16) |
| Ban and Bar | 46(13.9) |
| Protection Order | 29(8.7) |
| Probation or diversion services | 12(3.6) |
| Incarceration | 9(2.7) |
| Barriers to access the target (physical or social) | 51(15.4) |

Last, the majority of the cases required target-focused interventions, which aimed to protect the targets from the problematic individuals' actions ($n = 208$, 62.7%). The most common target-focused intervention was developing a safety plan with the target ($n = 118$,

35.5%). Less often, cases required measures that directly hinder the individuals' ability to access the target, including hardening the target with physical security ($n = 90, 27.1\%$), ensuring other people are with the target at all times ($n = 55, 16.6\%$), and prompting the target to request a protection order ($n = 47, 14.2\%$).

V. Objective 2: To Assess which Factors Best Predict Physical Approach and Direct Intervention as Suggested by the Model.

Hypothesis 7: Individuals of concern who engaged in face-to-face problematic interactions will differ from individuals who do not engage in such behavior. Individuals who engaged in face-to-face problematic interaction will be more likely to be mentally ill, to have a prior criminal record, and to display target dispersion.

The seventh hypothesis was partially supported. Contrary to this hypothesis, there was no relationship between criminal history and problematic approach. However, there was a positive association between approach and mental illness as well as between approach and target dispersion, but only in individuals who approached after threat management interventions were implemented. Table 8 shows individuals, who approached their targets after the threat assessment and management process started, were more likely to endorse symptoms of severe mental disorder during the problematic activity, including hallucinatory disturbances, delusional ideation, and thought disorganization ($n = 20, 33.3\%$ approachers vs. $n = 55, 10.4\%$ non-approachers), $\chi^2(1, N = 329) = 4.63, p = .03, \phi = .12$. Similarly, these individuals were more likely to share their grievances with third parties (i.e., target dispersion), ($n = 41, 67.2\%$ approachers vs. $n = 115, 42.4\%$ non-approachers), $\chi^2(1, N = 332) = 12.27, p < .001, \phi = .19$.

Even though it is outside of the scope of this hypothesis, chi-square analyses were run for the rest of the individuals' variables (see Table 8 for further reference). The results

of these analyses showed individuals who approached tended to be motivated by personal grievances and contacted the target to a larger extent than non-approachers. Similarly, approachers appeared more likely to be affiliated to the college campus, to display higher rates of suicidal ideation, and/or to persist contacting the target over the course of the threat management activity.

Table 8

Differences between approachers and non-approachers at different points of the threat management process

| | Pre or Post intervention | | | | Pre-intervention | | | | Post-intervention | | | |
|-------------------------|--------------------------|------------------------|-------------|-----------------|------------------------|------------------------|-------------|-----------------|------------------------|------------------------|--------------|------------------|
| | No Approach | Approach | χ^2* | <i>p</i> -value | No Approach | Approach | χ^2* | <i>p</i> -value | No Approach | Approach | χ^2* | <i>p</i> -value |
| | <i>n</i> (%) | <i>n</i> (%) | | | <i>n</i> (%) | <i>n</i> (%) | | | <i>n</i> (%) | <i>n</i> (%) | | |
| Ethnicity (Caucasian) | 100(87) | 135(90.6) | .88 | .35 | 105(86.8) | 130(90.9) | 1.15 | .29 | 190(87.6) | 45(95.7) | 2.65 | .10 |
| Gender (male) | 116(85.9) | 159(84.1) | .20 | .66 | 124(86.7) | 151(83.4) | .67 | .41 | 223(84.8) | 52(85.2) | .01 | .93 |
| Affiliated to campus | 97(70.8) | 157(82.6) | 6.42 | .01 | 104(71.7) | 150(82.4) | 5.32 | .02 | 202(75.9) | 52(85.2) | 2.48 | .12 |
| Symptoms of psychosis | 31(22.1) | 44(23.3) | .06 | .81 | 34(23) | 41(22.7) | .01 | .95 | 55(10.4) | 20(33.3) | 4.63 | .03 |
| History of suicidality | 21(70) | 39(73.6) | .12 | .73 | 23(71.9) | 37(72.5) | .004 | .95 | 44(68.8) | 16(84.2) | 1.75 | .19 |
| Current suicidality | 26(18.3) | 48(25.3) | 2.27 | .13 | 30(20) | 44(24.2) | .83 | .36 | 53(19.6) | 21(34.4) | 6.36 | .01 |
| History of homicidality | 14(48.3) | 26(51) | .05 | .82 | 16(51.6) | 24(49) | .05 | .82 | 33(52.4) | 7(41.2) | .672 | .41 |
| Current homicidality | 24(16.9) | 40(21.2) | .90 | .34 | 28(18,7) | 36(19,8) | .07 | .79 | 54(19,9) | 10(16,4) | .40 | .53 |
| Alcohol use | 25(16.8) | 37(20.3) | .68 | .41 | 46(17) | 16(26.2) | 2.76 | .10 | 22(15.6) | 42(22.1) | 2.19 | .14 |
| Drug use | 22(15.6) | 42(22.1) | 2.19 | .14 | 25(16.8) | 39(21.4) | 1.14 | .29 | 51(18.9) | 13(21.3) | .19 | .67 |
| Criminal history | 30(24.8) | 49(29.5) | .78 | .38 | 34(26.6) | 45(28.3) | .11 | .74 | 63(27.2) | 16(29.1) | .08 | .77 |
| Prior violence | 17(12) | 37(19.6) | 3.44 | .06 | 18(12) | 36(19.9) | 3.74 | .053 | 44(16.2) | 10(16.7) | .01 | .94 |
| Personal grievances | 83(58.5) | 132(69.5) | 4.33 | .04 | 88(58.7) | 127(69.8) | 4.45 | .04 | 164(60.5) | 51(83.6) | 11.63 | .001 |
| Target Dispersion | 59(41.5) | 97(51.1) | 2.95 | .09 | 64(42.7) | 92(50.5) | 2.05 | .15 | 115(42.4) | 41(67.2) | 12.27 | >.0001 |
| | <i>M</i> (<i>SD</i>) | <i>M</i> (<i>SD</i>) | <i>t</i> | <i>p</i> -value | <i>M</i> (<i>SD</i>) | <i>M</i> (<i>SD</i>) | <i>t</i> | <i>p</i> -value | <i>M</i> (<i>SD</i>) | <i>M</i> (<i>SD</i>) | <i>t</i> | <i>p</i> -value |
| Age | 30.9(13.9) | 34.1(15.2) | -1.95 | .05 | 31.2(14.1) | 33.6(15) | -1.50 | .14 | 32.4(15.3) | 32.2(14.4) | .13 | .90 |
| Total contacts | 9.4(11.3) | 12.8(11.4) | 2.7 | .01 | 9.6(11.4) | 12.7(11.4) | 2.44 | .02 | 10(11) | 17.6(11.4) | 4.69 | >.0001 |
| Total Duration | 6.8(10.3) | 6.8(9.1) | -.02 | .98 | 7.1(10.4) | 6.5(9) | -.55 | .58 | 5.6(9) | 12.2(10.6) | 4.92 | >.0001 |

Note: categories are not mutually exclusive as there are some overlap between the pre & post intervention and the other two categories.

* *df* = 1,

Age: Pre or post reporting + *df* = 264.6; pre-reporting and post-reporting *df* = 318

Total contacts: *df* = 323

Total durations: Pre or post reporting and pre-reporting *df* = 318; post-reporting *df* = 78.19

Hypothesis 8: Individuals who received interventions aiming at restricting their behavior will differ from individuals who do not receive such interventions. Individuals who receive interventions aiming at restricting their behavior will more likely be mentally ill and have past criminal record. These individuals will be also more likely to present higher rates of face-to-face problematic interactions, direct threats, and higher number of contacts with the target over time (i.e., at post-intervention phase).

This hypothesis was supported with one exception. Criminal history did not differentiate between individuals who did and did not receive interventions aiming at restricting their behavior. However, the rest of the tenets of this hypothesis were all supported.

Consistent with hypothesis 8, individuals, whose behavior was restricted during the threat management phase, were more likely to present active symptoms of psychosis ($n = 63$, 27.8% restrictive vs. $n = 12$, 11.8% non-restrictive interventions) $\chi^2(1, N = 329) = 10.22, p = .001, \phi = .18$, and to be more intrusive during their problematic behavior (i.e., higher number of contacts $M = 2.52, SD = 2.59$ restrictive vs. $M = 1.09, SD = 1.70$ non-restrictive interventions) $t(325) = 5.94, p < .0001, d = .65$. In particular, they approached ($M = .64, SD = .48$ restrictive vs. $M = .43, SD = .50$ non-restrictive interventions) $t(330) = 3.64, p < .0001, d = .43$, and threatened their targets to a higher extent than individuals who did not require such restrictive interventions ($M = .08, SD = .27$ restrictive vs. $M = .01, SD = .10$ non-restrictive interventions) $t(318.81) = 3.40, p = .001, d = .34$.

Table 9 shows the differences between individuals who did and did not receive interventions aiming at restricting their behavior. Chi-square and t -tests were utilized to examine the differences between individuals' factors and problematic behaviors. In order to ensure the accuracy of the t -tests results, the outliers for all variables were trimmed so the

assumption of normality was not violated. In addition, the degrees of freedom were corrected when the Levene's test suggested the equality of the variances assumption was violated. None of the chi-square tests needed to be corrected.

Table 9

Differences between individuals who did and did not receive interventions aiming at restricting their behavior

| | Restrictive N = 227 | Non-restrictive N = 102 | χ^2 | df | N | p-value |
|------------------------------------|------------------------|----------------------------|--------------|-----------|---------------|-------------------|
| Individual factors | <i>n</i> (%) | <i>n</i> (%) | | | | |
| Ethnicity (Caucasian) | 169(91.8) | 66(82.5) | 4.98 | 1 | 264 | .03 |
| Gender (male) | 192(84.2) | 83(86.5) | .27 | 1 | 324 | .61 |
| Affiliated to campus | 184(80.7) | 70(70.7) | 3.98 | 1 | 327 | .05 |
| Symptoms of psychosis | 63(27.8) | 12(11.8) | 10.22 | 1 | 329 | .001 |
| History of suicidality | 33(52.4) | 7(41.2) | .67 | 1 | 83 | .41 |
| Current suicidality | 64(27.9) | 10(9.7) | 13.64 | 1 | 332 | > .0001 |
| History of homicidality | 51(73.9) | 9(64.3) | .54 | 1 | 80 | .46 |
| Current homicidality | 52(22.7) | 12(11.7) | 5.58 | 1 | 332 | .02 |
| Alcohol abuse | 51(22.4) | 11(10.7) | 6.39 | 1 | 331 | .01 |
| Drug abuse | 54(23.7) | 10(9.7) | 8.89 | 1 | 331 | .003 |
| Criminal history | 60(29.6) | 19(22.6) | 1.43 | 1 | 287 | .23 |
| Violent history with target | 40(17.5) | 14(13.6) | .81 | 1 | 331 | .39 |
| Personal grievances | 161(70.3) | 54(52.4) | 9.95 | 1 | 332 | .002 |
| Target Dispersion | 129(56.3) | 27(26.2) | 25.87 | 1 | 332 | > .0001 |
| | <i>M</i> (<i>SD</i>) | <i>M</i> (<i>SD</i>) | <i>t</i> | <i>df</i> | | <i>p</i> -value |
| Age | 31.97(14.26) | 32.82(14.99) | -.47 | 318 | | .64 |
| Post-intervention behaviors | | | | | | |
| Overall contacts | 2.52(2.59) | 1.09(1.70) | 5.94 | | 325 | > .0001 |
| Overall duration | 7.64(9.63) | 4.34(7.87) | 2.75 | | 224.8 | .01 |
| Written communications | .84(1.48) | .27(.83) | 4.43 | | 314.32 | > .0001 |
| Verbal communications | .49(1.30) | .19(.79) | 2.58 | | 301.73 | .01 |
| Public statements | .04(.21) | 0(0) | 3.23 | | 227 | .001 |
| Stalking | .09(.29) | .02(.14) | 3.09 | | 327.94 | .002 |
| Objects left/delivered | .03(.16) | .02(.14) | .38 | | 329 | .71 |
| Direct Threats | .08(.27) | .01(.10) | 3.40 | | 318.81 | .001 |
| Face-to-face staff | .05(.22) | .06(.24) | -.21 | | 329 | .84 |
| Interception law enforcement | .08(.27) | .08(.27) | .40 | | 329 | .97 |
| Face-to-face target | .35(.68) | .08(.33) | 4.84 | | 326.43 | > .0001 |
| Physical assault | .04(.18) | .01(.10) | 1.63 | | 320.08 | .11 |
| Sexual assault | .01(.12) | 0(0) | .931 | | 330 | .18 |
| Inappropriate sexual behavior | .02(.18) | 0(0) | 2.0 | | 228 | .05 |
| Interest or use of weapons | .01(.12) | 0(0) | .93 | | 330 | .35 |
| Acts of self-harm | .07(.27) | .01(.10) | 2.85 | | 320.1 | .01 |
| Property damage | .06(.25) | 0(0) | 2.23 | | 330 | .001 |

Table 9 further shows that individuals who received the most restrictive interventions were more likely to abuse alcohol and drugs as well as to present a higher number of other concerning behaviors not stipulated in this hypothesis, including inappropriate sexual advances, self-harm gestures, property damage, stalking activity (e.g., surveillance), and unwanted communications. Last, individuals, who needed from restrictive interventions in order to decrease their risk, seemed more likely to be Caucasian and to be affiliated to the college campus. While these differences appear statistically significant, they might not be practically relevant, as both groups of individuals are predominantly Caucasian males affiliated to the college institution.

VI. Objective 3: To Assess Change in Physical Approach Behavior over Time.

Hypothesis 9: There will be no differences in the subject characteristics, target factors, or communication themes that predict physical approach before and after a report was made to law enforcement (i.e., mental illness, criminal history, personal grievance, and target dispersion).

Hypothesis 9 was supported. There were no differences in the individuals' characteristics, target factors, or communication themes depending on whether these individuals approach to their targets before, after, or before and after the threat assessment case was opened ($N = 142$). The individuals who did not approach the target were excluded from this model.

In order to address this hypothesis, a multinomial logistic regression was performed to model the relationship between the predictors (i.e., mental illness, criminal history, personal grievance, and target dispersion) and membership in the three mutually exclusive groups (those approaching the target only at the pre-intervention phase, those approaching the target only at the post-intervention phase, and those approaching the target at the pre

and post intervention phases). The traditional .05 criterion of statistical significance was employed for all tests. The model was overall significant, $\chi^2(8, N = 142) = 17.44$, Nagelkerke $R^2 = .13$, $p = .03$, but a nuanced look at the comparison tests did not reveal any significant results, which is in line with this hypothesis. Goodness of fit was explored by conducting a Pearson test. This test did not yield significant scores, $\chi^2(16) = 15.56$, $p = .48$, which suggests that the regression results were not likely the product of a poor fitting model.

As shown in Table 10, non-significant unique contributions were made by mental illness, criminal history, personal grievance, and target dispersion.

Table 10

Predictors' unique contribution to the multinomial logistic regression (N = 285)

| Predictor | χ^2 | df | p-value |
|-----------------------|----------|----|---------|
| Intersection | | | |
| Symptoms of psychosis | 4.07 | 2 | .30 |
| Criminal record | 2.67 | 2 | .34 |
| Personal | 3.65 | 2 | .13 |
| Target dispersion | 2.29 | 2 | .20 |

Next, the three groups were compared against each other, as Table 11 reflects. The results indicated that no variable appeared to differentiate among the three groups. However, the target dispersion leaned towards significance in one of the pairwise comparisons (i.e., approachers at pre and post intervention group vs. approachers at pre-intervention group). This result suggested that individuals who persisted approaching their targets at the pre and post management phases displayed a tendency to share their grievance with third parties to a larger extent than individuals who only approached their targets before threat assessment professionals intervened.

Table 11

Parameter estimates contrasting the three groups

| | B(SE) | 95% CI for Odds Ratio | | |
|--|-----------------------|-----------------------|------------|-------|
| | | Lower | Odds Ratio | Upper |
| Pre & Post intervention vs. Pre-intervention | | | | |
| Intersection | .34(.47) | | | |
| Personal Communication themes | .80(.49) | .84 | 2.22 | 5.86 |
| Symptoms of psychosis | .29(.43) | .58 | 1.34 | 3.10 |
| Target Dispersion | .73(.39) ⁺ | .96 | 2.07 | 4.48 |
| Criminal history | -.25(.42) | .34 | .78 | 1.79 |
| Pre & Post intervention vs. Post-intervention | | | | |
| Intersection | -.90(.81) | | | |
| Personal Communication themes | 1.82(1.15) | .64 | 6.14 | 58.69 |
| Symptoms of psychosis | -1.26(1.03) | .04 | .28 | 2.15 |
| Target Dispersion | .17(.96) | .18 | 1.18 | 7.70 |
| Criminal history | -1.29(.86) | .05 | .27 | 1.47 |
| Pre-intervention vs. Post-intervention | | | | |
| Intersection | -1.23(.78) | | | |
| Personal Communication themes | 1.02(1.09) | .33 | 2.76 | 23.28 |
| Symptoms of psychosis | -1.55(1.00) | .03 | .21 | 1.52 |
| Target Dispersion | -.56(.91) | .10 | .57 | 3.42 |
| Criminal history | -1.05(.81) | .07 | .35 | 1.72 |

Note: ⁺ $p = .065$

Hypothesis 10: It is hypothesized that the number of face-to-face problematic interactions and direct threats will decrease after initial reporting. However, it is also hypothesized that subjects who persist in contacting the target(s) will do so post initial report by engaging in unwanted verbal and written communications.

Hypothesis 10 was partially supported. A superficial, visual inspection of the Figure 5 revealed that virtually all types of problematic interactions with the target tended to fade over time (no outliers were trimmed in the variables used in the graph). Therefore, not only did face-to-face interactions and threats decrease over time but also unwanted verbal and

written communications. Table 12 demonstrated that the differences before and after initial reporting reached a statistically significant level.

Figure 5

Mean of problematic behaviors against the target over time

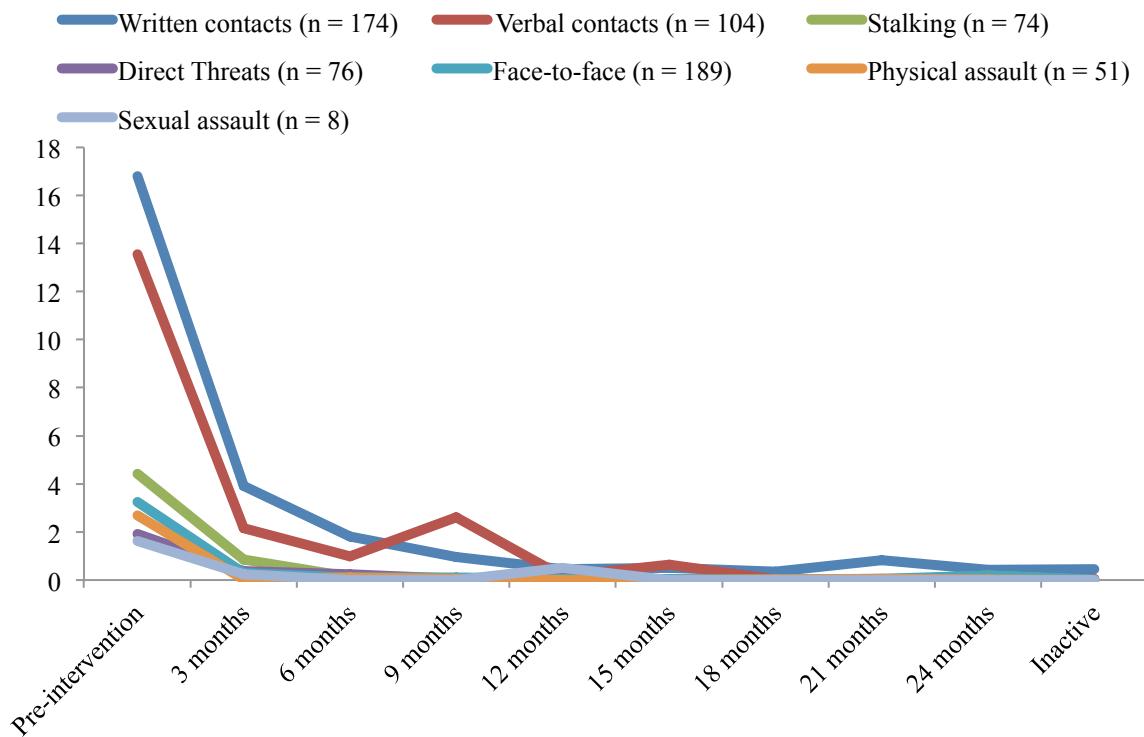


Table 12 shows the results of paired-samples *t*-tests and differences in the rates of problematic behaviors before and after the intervention of threat assessment professionals. As in prior analyses, the outliers and degrees of freedom were addressed when the assumption of either normality or equality of variances was not met. Consistent with hypothesis 10, results of the paired-samples *t*-test show a decrease in the rate of unwanted physical approach ($M = 1.58$, $SD = 2.01$ pre-intervention vs. $M = .26$, $SD = .60$ post-intervention) $t(330) = 12.53$, $p < .0001$, $d = .82$, as well as threats after law enforcement intervened in the case ($M = .31$, $SD = .70$ pre-intervention vs. $M = .06$, $SD = .23$ post-

intervention) $t(330) = 6.73, p < .0001, d = .42$. Similarly, the rates of unwanted communications and stalking activity decreased over time.

Table 12

Descriptive statistics and t-test results for problematic behavior against the target

| | Pre- intervention M(SD) | Post- intervention M(SD) | <i>n</i> | 95% CI for Mean Difference | <i>r</i> | <i>t</i> | <i>df</i> |
|------------------------------|-------------------------------|--------------------------------|----------|----------------------------------|----------|----------|-----------|
| Written contact | 1.86(2.74) | .66(1.34) | 331 | .91, 1.48 | .36** | 8.30** | 330 |
| Verbal contact | .86(1.84) | .39(1.17) | 330 | .26, .67 | .31** | 4.55** | 329 |
| Stalking | .30(.66) | .07(.26) | 331 | .16, .30 | .24** | 6.52** | 330 |
| Direct threats | .31(.70) | .06(.23) | 331 | .18, .33 | .19* | 6.73** | 330 |
| Face-to-face interactions | 1.58(2.01) | .26(.60) | 331 | 1.12, 1.53 | .29** | 12.53** | 330 |
| Physical assault | .22(.56) | .03(.16) | 331 | .13, .25 | .24** | 6.31** | 330 |
| Sexual assault | .02(.14) | .01(.10) | 332 | -.003, .03 | .20** | 1.57 | 331 |

Note: * $p = .001$, ** $p < .0001$

Despite the significant decrease in physical and sexual violence, there were 11 physical ($n = 7$) or sexual assaults ($n = 4$) that occurred even after law enforcement became involved in the case. Six of these physical assaults were part of domestic abuse situations. Specifically, the most severe attacks occurred at the off-campus residence, and often resulted in the target being injured ($n = 5$). Only a single partner violent episode occurred on campus, in which the subject of concern prevented his ex-partner from leaving the college library (e.g., grabbed her by her backpack) ($n = 1$). No injury resulted from this interaction. A notable aspect of some of these cases was the targets' ambivalence to press charges or request a protection order prior to the assaults, which increased their vulnerability and hindered law enforcement protection opportunities. The last physical assault was an attack against a correctional officer in a case in which the individual targeted

the community in general. Obviously, law enforcement had limited ability to manage this individual's aggressiveness while in prison, but this case was still included in the sample.

While the rate of sexual assaults decreased during the management phase of the threat assessment process, this decrease did not reach statistical significance. This might be explained by the overall low frequency of this behavior and by the nature of these cases. Only four sexual assaults occurred during the case management phase. These assaults consisted of instances of unwanted touching of different females by acquaintances or strangers off or on campus premises (e.g., person of concern's car, dorms, or the library). The persons of concern in these cases often targeted different young women over the course of their case (i.e., a target was not assaulted twice). Some of these females were initially ambivalent to report these instances, but they ended up reporting the abuse after other victims came forward. In these cases, the targets' perception of safety was paramount for their cooperation, as some feared retaliation if the abuse was reported. Once law enforcement had the testimony of the targets, a Title IX process was started and implemented. In the most extreme cases, charges were pressed. All the problematic individuals were then effectively managed.

VII. Objective 4: To Test the Applicability of the MFTA Model to College Educational Settings via Path Analysis.

Re-specification process

Before assessing the applicability of the MFTA model, correlations among all the variables in the model were conducted (Table 13). Criminal history was excluded from this model, as it did not significantly correlate with any other variable. Next, mental illness was not regressed on the variables "pre-intervention physical approach" and "pre-intervention unwanted communications," as all the analyses in this dissertation have shown that mental

illness does not seem to predict pre-intervention problematic face-to-face interactions. Last, the variable “prior problematic contacts with the target” was not regressed on target dispersion, as theoretically an increased focus on the target is not necessarily linked to target dispersion. The rest of the model was not modified.

Pathways in the MFTA model (Figure 6)

The MFTA model is a repeated measure design. In this model, two exogenous variables, severe mental disorder and prior problematic contact with the target, influenced the individual’s motivations and the problematic behavior that triggered the opening of a threat assessment case. Typically, threat management interventions will mediate the relationship between pre-intervention problematic activity and the post-intervention problematic activity (e.g., pre-intervention problematic behavior → threat management interventions → post-intervention problematic behavior). The vast majority of threat assessment cases required subject-focused interventions ($n = 116$, 34.9%), target-focused interventions ($n = 95$, 28.6%), or a combination of both ($n = 113$, 34%). Only 8 cases (2.4%) did not need any intervention beyond default monitoring or information gathering strategies.

The role of target dispersion as a predictor of repeated problematic physical approach was more complex. Target dispersion might develop prior to or during the threat management phase. Therefore, it may or may not be predicted by pre-intervention problematic behavior, and this was captured in the current model. Similarly, threat management interventions may or may not include the third parties affected by problematic activity (i.e., target dispersion). For example, in some cases third parties might be in different locations, and the protection of these targets was referred to the pertinent local authorities. On other occasions, third parties might become the grievance receivers during

the threat management phase, as it was the case of university staff or law enforcement that intercepted the problematic individual. Although general threat management interventions also decreased the risk for these secondary targets, there is still the possibility that these interventions do not mediate the relationship between target dispersion and post-intervention problematic activity. Therefore, this possibility was reflected in the model's pathways (e.g., target dispersion → threat management interventions → post-intervention problematic behavior, and target dispersion → post-intervention problematic behavior).

Outcome variables

In order to test the effectiveness of threat management interventions decreasing problematic behavior, two variables that captured the rate of change in problematic behavior were created. These variables were used as the outcome variables of the structural equation model (i.e., the two variables located at the right of the Figure 6). As in the initial theoretical MFTA model, one of these variables reflected the rate of change in physical approach and physical/sexual assaults against the target (i.e., face-to-face target, physical assault, sexual assault, and inappropriate sexual behavior). The second variable showed the rate of change in unwanted communications, threats, stalking, and property damage (i.e., written communications, verbal communications, public statements, stalking, objects left/delivered, direct threats, interest in weapons, and property damage).

Table 13

Correlations among the variables in the model

| | MI | CH | P | PPC | FTP | CP | TD | SF | TF | FTD |
|------------|-----------|-----------|----------|------------|------------|-----------|-----------|-----------|-----------|------------|
| CH | -.10 | | | | | | | | | |
| P | .76**** | -.17 | | | | | | | | |
| PPC | .08 | .08 | .29**** | | | | | | | |
| FTP | -.06 | .09 | -.01 | .49**** | | | | | | |
| CP | .09 | -.01 | .14** | .35**** | .24** | | | | | |
| TD | .46**** | .03 | .57**** | .24**** | .08 | .20**** | | | | |
| SF | .34**** | .13 | .28*** | .19* | .11 | .28**** | .45**** | | | |
| TF | -.05 | -.05 | .01 | .06 | .23**** | .09 | .03 | -.70**** | | |
| FTD | .18* | -.03 | .03 | -.25**** | -.53*** | -.14** | .06 | -.05 | -.04 | |
| CD | .25**** | -.02 | .19* | -.07 | -.13* | -.54**** | .12 | .11 | .04 | 0.24**** |

Note: * $p < .05$, ** $p < .01$, *** $p < .001$, **** $p < .0001$

MI = Mental Illness, CH = Criminal History, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

Hypothesis 11: The multifactorial model of threat assessment activity will be tested via a structure equation model. It is expected that the model will yield adequate indices of local and global fit. It is hypothesized that prior relationship, mental illness, criminal history, personal grievances, target dispersion, and persistence of problematic behavior over time will contribute to the structural equation model in a significant manner (e.g., significant direct effects).

With the exception of criminal history, the tenets of hypothesis 11 were mostly supported. The model yield overall adequate indices of local and global fit, $\chi^2(17, N= 322) = 26.1836, p = .061, CFI = .994, TLI = .984, RMSEA = .042$. Furthermore, the model variables significantly contributed to the prediction of problematic behavior. The current model accounted for 19.7% of the variance of the rate of change in physical approach and 11.9% of the rate of change in unwanted communications.

Direct effects on the MFTA model

The standardized path coefficients are reported in Figure 6, and the unstandardized coefficients (and SEs) are reported in Table 14. Results of the MFTA model revealed the unique effects of mental illness and prior problematic contacts on personal communication themes were significant, which indicate that a longstanding grievance with the target might become personal over time, especially when symptoms of mental disorder distorted the individuals' perception of reality (e.g., the individuals might believe the target is personally attacking them even if this perception is not grounded in reality).

The unique direct effect of prior problematic contacts on pre-intervention physical approach and unwanted communications was significant. The direct effect of the personal communication themes on unwanted communications was also significant. Therefore, those individuals with a longstanding grievance with the target were more likely to continue to

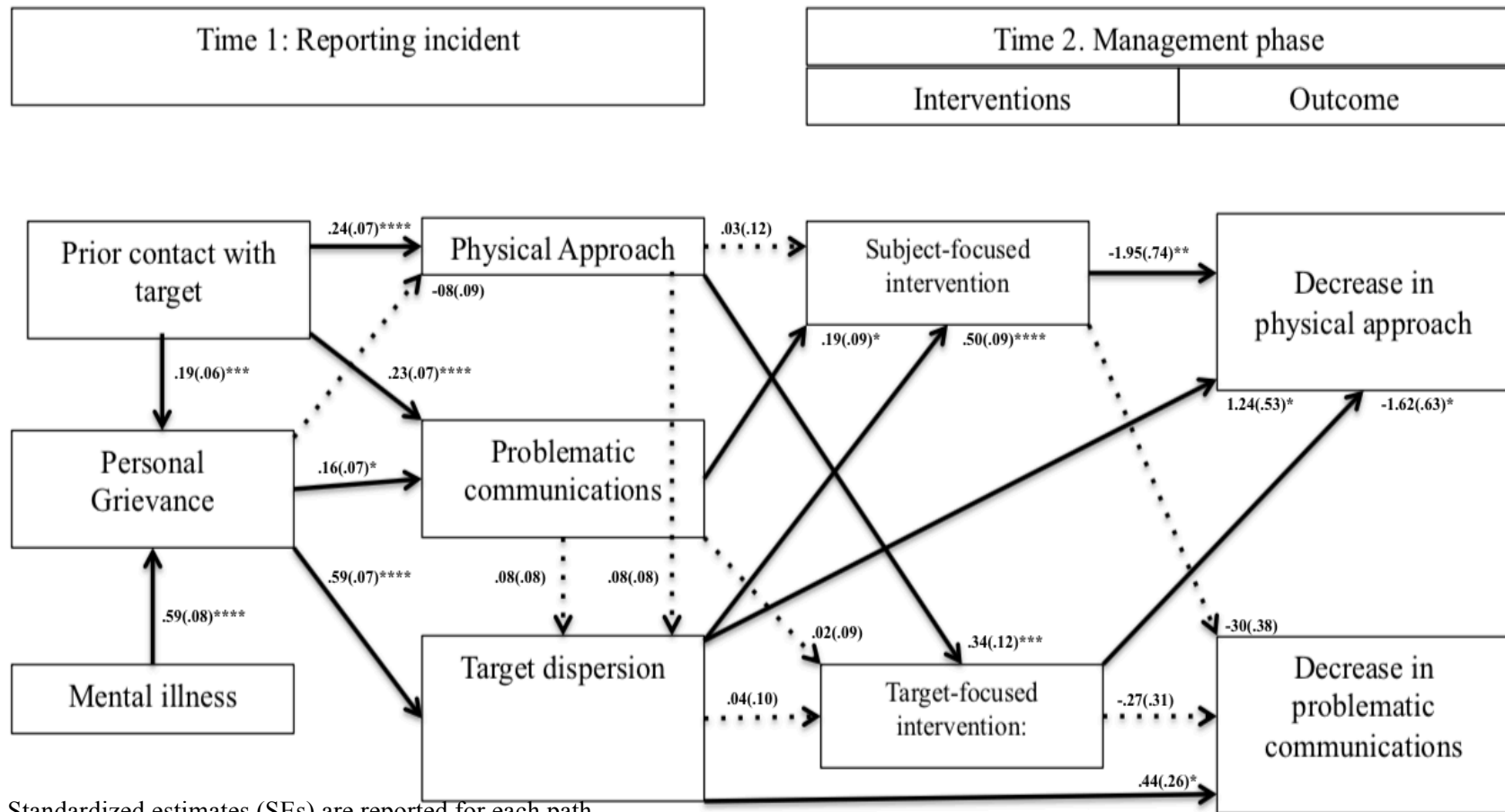
physically approach and/or place personal demands on the target, which triggered the opening of the threat assessment case. In addition, the unique direct effect of personal communication themes on target dispersion was also significant, which contends that individuals who felt personally damaged by the targets' actions were also committed to sharing their grievance with others.

The unique direct effect of pre-intervention face-to-face approach on target-focused interventions was significant, which suggested threat management professionals often protected the target with physical or legal barriers in order to hinder any further problematic behavior. The unique direct effects of pre-intervention unwanted communications and target dispersion on subject-focused interventions were also significant. This result suggests that individuals who relentlessly contacted the target and/or other third parties were more likely to be negatively sanctioned in order to stop their behavior.

While no variable had significant unique direct effects on the change in the rate of unwanted communications, it appears target dispersion's direct effect leaned towards significance. Similarly, target dispersion's unique direct effect on the change in the rate of physical approach was also significant. Therefore, repeated attempts to share the grievance with third parties should also be seen as a risk factor that contributes to the persistence of problematic behavior (against the target). Interestingly, both target and subject-focused interventions uniquely contributed to decrease the rate of physical approach during the threat management phase, as their unique direct effects were significant but negatively related.

Figure 6

Direct effects of the Multifactorial model of threat assessment activity (re-specified model)



Standardized estimates (SEs) are reported for each path.
 Note: * $p < .05$, ** $p < .01$, *** $p < .001$, **** $p < .0001$

Table 14

Unstandardized parameters of direct effects of the MFTA

| Direct effects | Estimate | S.E. | p-value |
|--|----------|------|---------|
| Personal theme regressed on | | | |
| Mental Illness | 1.81 | .39 | < .0001 |
| Prior problematic contact | .49 | .16 | .002 |
| Pre-intervention unwanted communication regressed on | | | |
| Prior problematic contact | 1.95 | .57 | .001 |
| Personal theme | .57 | .26 | .025 |
| Pre-intervention face-to-face approach regressed on | | | |
| Prior problematic contact | 1.97 | .64 | .002 |
| Personal theme | -.25 | .31 | .42 |
| Target dispersion regressed on | | | |
| Personal theme | .58 | .13 | < .0001 |
| Pre-intervention unwanted communication | .02 | .03 | .363 |
| Pre-intervention face-to-face approach | .03 | .03 | .350 |
| Target-focused interventions regressed on | | | |
| Pre-intervention face-to-face approach | .09 | .03 | .007 |
| Pre-intervention unwanted communication | .003 | .02 | .865 |
| Target dispersion | .03 | .09 | .697 |
| Subject-focused interventions regressed on | | | |
| Pre-intervention face-to-face approach | .01 | .04 | .860 |
| Pre-intervention unwanted communication | .05 | .03 | .043 |
| Target dispersion | .48 | .12 | < .0001 |
| Change in unwanted communications regressed on | | | |
| Target-focused interventions | -.28 | .32 | .389 |
| Subject-focused interventions | -.27 | .32 | .399 |
| Target dispersion | .38 | .21 | .074 |
| Change in face-to-face approach regressed on | | | |
| Target-focused interventions | -1.33 | .53 | .012 |
| Subject-focused interventions | -1.39 | .53 | .008 |
| Target dispersion | .86 | .37 | .021 |
| Subject-focused interventions correlated with | | | |
| Target-focused interventions | -.99 | .05 | < .0001 |
| Pre-intervention unwanted communication correlated with | | | |
| Pre-intervention face-to-face approach | 3.70 | 1.47 | .012 |
| Change in face-to-face approach | 1.45 | .83 | .077 |
| Pre-intervention face-to-face approach correlated with | | | |
| Change in face-to-face approach | 0.55 | .91 | .553 |
| Change unwanted communications correlated with | | | |
| Pre-intervention unwanted communication | -2.58 | .63 | < .0001 |
| Change in face-to-face approach | -.063 | .13 | .631 |

Hypothesis 12: A decrease in physical approach behavior will be contingent upon the use of subject-focused management interventions. Statistically, the decrease of physical approach behavior that occurred after a law enforcement report will be tested via mediation between pre and post problematic behavior (e.g., 95% CI indirect effects will not contain zero).

In order to answer hypothesis 12, a bootstrap approach (Shrout & Bolger, 2002), which maximizes power while minimizing Type I error rate, was implemented. Bootstrapping provides an empirical approximation of sampling distributions of indirect effects to produce confidence intervals (CI) of estimates. If zero does not fall within CI, one can conclude that an indirect effect is different from zero, and therefore, an effect is present. A nonparametric resampling method (bias-corrected bootstrap) with 1000 resamples was performed in order to derive 95% CIs for indirect effects of mental illness, prior relationship, personal grievances, pre-interventions problematic behavior, and target dispersion on change in the rate of physical approach and unwanted communications through subject-focused and target-focused interventions (see Appendix II for the full model results).

Specific trajectories of physical approach and role of threat management interventions

Hypothesis 12 was fully supported, as physical approach behavior significantly reduced over time, and its decrease appeared contingent upon the threat management interventions. All the variables in the MFTA model have the potential to increase the rate of problematic behavior over time. Specifically, individuals with symptoms of severe mental illness and/or a chronically conflictive relationship with the target might contact multiple third parties in order to make their grievance known and perform several physical approaches to the target. This trajectory should be considered an escalated trajectory that

might lead to violence. However, this trajectory was successfully thwarted by threat management interventions. Similarly, these interventions appeared to effectively decrease the chance of escalating the pre-intervention unwanted communications and conflictive face-to-face interactions into further physical approaches or violence. Therefore, it appeared a decrease in physical approach behavior was truly contingent upon the use of subject-focused interventions. A summary of the contribution of each variable to the model is offered below.

Specific indirect effects of all variables in the model

Mental illness

The 95% CI [.17, 1.15] for the indirect effects of mental illness on the rate of change in physical approach via personal communication themes and target dispersion did not contain zero. Thus, individuals who experience symptoms of severe mental illness appeared to approach their targets more over time, especially when they felt personally aggravated and were committed to voice their grievance to third parties. The opposite trajectory was found when the indirect effects of mental illness on the rate of change in physical approach via personal communication themes and target dispersion were further mediated by subject-focused interventions (95% CI = -1.01, -.13). Thus, individuals with severe mental illness who contacted third parties placing personal demands appeared to decrease their rate of approaching the target when restrictions on their behavior were set in place. Similarly, the 95% CI [-.14, -.01] for the indirect effects of mental illness on the rate of change in physical approach via personal communication themes, pre-intervention unwanted communications, and subject-focused interventions did not contain zero. Thus, individuals with symptoms of mental disorder, who initially contacted their targets placing personal demands, did not escalate their rate of face-to-face contacts when threat

assessment professionals implemented different interventions to treat their symptoms and/or restrict their behavior.

Last, the 95% CI [.05, .41] for the indirect effects of mental illness on the rate of change in unwanted communications via personal communication themes and target dispersion did not contain zero. Thus, individuals who suffered from severe mental illness tended to contact more their targets more over time when they were personally motivated and felt the need to share their grievances with others in search of support.

Prior problematic contact with the target

Similar to the case of mental illness, the 95% CI [.04, .39] for the indirect effects of prior problematic relationship with the target on the rate of change in physical approach via personal communication themes and target dispersion did not contain zero. Thus, a longstanding conflict between the problematic individuals and the target can lead to an increase in physical approach when the conflict becomes a personal matter and third parties are involved. This pathway appears successfully reverted when the indirect effects of mental illness on the rate of change in physical approach via personal communication themes and target dispersion were mitigated by subject-focused interventions (95% CI = -.33, -.03).

The 95% CI [-.23, -.02] for the indirect effects of prior problematic relationship with the target on the rate of change in physical approach via pre-intervention unwanted communications and subject-focused interventions did not contain zero. Similarly, the 95% CI [-.05, -.002] for the indirect effects of prior problematic relationship with the target on the rate of change in physical approach via personal communication themes, pre-intervention unwanted communications, and subject-focused interventions did not contain zero. Thus, subject-focused interventions appeared to effectively decrease the rate of

physical approach when individuals with an ongoing conflictive relationship with the target escalated to problematic communications to express personal and non-personal grievances. In these situations, threat assessment professionals directly intervened and requested the problematic individuals to refrain from physically contacting the targets.

A different set of strategies appeared effective when an individual with a longstanding grievance with the target had problematic face-to-face interactions that could further escalate into violence. The 95% CI [-.35, -.03] for the indirect effects of prior problematic relationship with the target on the rate of change in physical approach via prior physical approach and target-focused interventions did not contain zero. On these occasions, threat assessment professionals developed physical and legal contingencies that prevented problematic individuals from re-approaching the target during the threat management phase. Therefore, target-focused interventions also appeared effective in decreasing the rate of physical approach.

Last, the 95% CI [.01, .17] for the indirect effects of prior problematic relationship with the target on the rate of change in unwanted communications via personal communication themes and target dispersion did not contain zero. Thus, a longstanding conflict can increase the rate of contacts with the target when the individual feels personally attacked and need to share their grievance with other parties.

Personal communication themes

The 95% CI [.31, 1.69] for the indirect effects of personal communication themes on the rate of change in physical approach via target dispersion did not contain zero. Similarly, the 95% CI [.10, .67] for the indirect effects of personal communication themes on the rate of change in physical approach via target dispersion did not contain zero. Thus, personal motivations might lead to physically approaching or communicating with the

target more over time, especially when the problematic individuals feel committed to sharing their grievance with third parties. It appeared the risk of being personally motivated to pursue the target for further physical approach was reduced by the use of subject-focused interventions, as the 95% CI [-1.51, -.22] for the indirect effects of personal communication themes on the rate of change in physical approach via target dispersion and subject-focused interventions did not contain zero. In addition,

The use of interventions that restrict the individuals' behavior also appeared effective in hindering unwanted personal demands to escalate into physical approach. As such, the 95% CI [-.23, -.02] for the indirect effects of personal communication themes on the rate of change in physical approach via pre-intervention unwanted communications and subject-focused interventions did not contain zero.

Pre-intervention unwanted communications

The 95% CI [-.95, -.11] for the indirect effects of pre-intervention unwanted communications on the rate of change in physical approach via subject-focused interventions did not contain zero. Therefore, restricting the problematic individuals' actions successfully lead to a decrease in the rate of physical approach during the threat management phase.

Pre-intervention physical approach

The 95% CI [-1.35, -.16] for the indirect effects of pre-intervention physical on the rate of change in physical approach via subject-focused interventions did not contain zero. Therefore, restricting the problematic individuals' actions successfully hinder the individuals' likelihood of re-approaching the target during the threat management phase.

Target dispersion

The 95% CI [-2.60, -.41] for the indirect effects of target dispersion on the rate of change in physical approach via subject-focused interventions did not contain zero.

Therefore, while contacting several third parties might have the potential to escalate the risk for physical approach during the threat management phase, the use of interventions that limit the problematic individuals' behavior successfully reduced that likelihood.

CHAPTER IV. DISCUSSION

Overall, the results of this study suggested the prevention of violence in college campuses is terribly complex, especially given the open nature of these settings. Institutions of higher education are interlaced within a larger community and, therefore, vulnerable to a myriad of threats that are internal and external to the setting. For example, the incidents identified in this dissertation dealt with individuals suffering individualized stressors (i.e., poor school performance, conflicted relationships, etc.), subjects acting upon their delusional belief system, individuals lacking homicidal intent, partner violence, stalking, sexual violence, workplace violence, and extremist threats/activity. This wide array of concerns often came from an equally diverse pool of actors, which made the assessment and management of threats challenging. For this reason, this study was undertaken in order to further inform the protection of institutions of higher education.

A discussion of the most relevant findings is offered below in hopes of providing a better understanding of the different factors to consider during the management of threats against college institutions. Specifically, an analysis of the different factors of the multifactorial model of threat assessment activity (MFTA) will be offered as well as initial data showing the effectiveness of the current threat management practices.

Finding 1: There is no profile of problematic individual.

This study's findings coincided with prior studies underscoring that there is no particular profile of individuals at risk of engaging in threatening activity or targeted violence (Burns et al., 2001; Borum et al., 2012; Cornell, 2010; Fein & Vossekuil, 1999; Gill, 2015; Horgan, 2008; Monahan, 2012; O'Toole, 2000). Most of the individuals in this study were Caucasian, males who ranged extensively in terms of their age (range 18 to 84). There are two implications for this

finding. First, while this study does not reflect an ethnically diverse sample, it is recommended culturally sensitive threat management approaches be taken, given the international outreach of U.S. institutions of higher education. Second, given the disparate ages of individuals of concern, threat assessment should consider the individuals' stage of development when analyzing problematic behavior (e.g., adolescence vs. emergent adulthood vs. adulthood) (see Fein et al., 2002).

Finding 2: Higher Education threat assessment should not only focus on problem students (Hypothesis 1).

While no particular profile of problematic individual was found, most of the concerning behavior was derived from subjects affiliated to the institution (76% approximately). This finding is in support of this study's first hypothesis and prior studies (McGuire & Wraith, 2000; O'Toole, 2000; Reddy et al., 2001). The majority of individuals of concern were problematic students, and, less often, faculty and university employees.

Nonetheless, this study highlighted that approximately a fourth of the threats emerged from outsiders, which is consistent with the rates found in a study of college campus attacks (Drysdale et al., 2010). This result is not surprising given the wide ranging nature and activities of college institutions, which might attract individuals who are not directly affiliated to the campus (e.g., athletic events). Therefore, threat assessment professionals should contemplate the possibility of multiple sources of violence. Next, these professionals might benefit from establishing strong partnerships with community resources in order to effectively address outsiders' activity.

Finding 3: Individuals at risk do not snap, but deliberately pursue a familiar target.

Consistent with scientific literature and the second part of this study's first hypothesis (Calhoun & Weston, 2003; Scalora et al., 2002a), problematic behavior appeared to be the culmination of long-standing conflicts between individuals who knew each other (i.e., 80% of the cases in our sample). Threat assessment investigations commenced after problematic individuals escalated the conflict and started to engage in problematic activity. To wit, they communicated a threat to harm others or behaved in a manner that demonstrated intent or capability to engage in violence, as evidenced by physical assaults, angry outbursts, stalking behavior, or attack preparatory behaviors.

Finding 4: Threat assessment cases in college settings often involved multiple targets.

One of the most relevant findings of this study is that problematic activity was often directed at multiple people that were and were not preemptively identified by the individuals of concern. In this study, 199 cases involved multiple targets and 131 cases involved a specifically named individual.

In cases of multiple primary targets, a particular group of individuals might have been singled out and harassed for very particular reasons (i.e., increased target focus), which is consistent with literature (Baumgartner et al., 2001). However, this study also showed that random strangers had the potential to be targeted as well (i.e., diffuse target), especially when the person of concern had a grievance against the college institution as a whole. This finding is particularly relevant because prior studies noticed these diffused targets were also victims of lethal violence during college campus attacks (even if just accidentally) (see Drysdale et al., 2010; Vossekuil et al., 2002). Therefore, threat management should be a flexible approach that

strives to protect not only those targets that are specifically named but also all the other actors within the institution.

Finding 5: Target dispersion is substantially present (Hypothesis 2).

In addition to the presence of several primary targets, problematic activity often included multiple secondary targets (i.e., target dispersion). While the second hypothesis of this dissertation was not supported, target dispersion was still substantially present (47%).

A close analysis of the data suggested target dispersion is a heterogeneous dynamic due to the different situation in which it emerged (e.g., different type of actors or duration). First, target dispersion arose when individuals leaked their violent ideation to others, which has also been described in other studies of school violence (Hoffmann et al., 2011; Reddy et al., 2001). Second, target dispersion was manifested when university staff or law enforcement actively prevented problematic individuals from contacting their targets. As a result, these individuals started contacting the staff or law enforcement to express their frustration (as opposed to contacting the target). This form of target dispersion has been repeatedly found in the public officials harassment literature, and it appears its findings are also applicable to college settings (Baumgartner, 2004; Calhoun, 2001; James et al., 2010a; Marquez & Scalora, 2011; Scalora et al. 2002a, 2002b; Schoeneman-Morris, Scalora, Chang, Zimmerman, & Garner, 2007). Third, target dispersion appeared when people close to the target were repeatedly contacted, which has also been a commonly found behavior in stalking literature (e.g., Spitzberg, 2016). For example, an individual, who is upset about his team performance, might repeatedly call a college administrator expressing discontent and requesting his team's coach be fired.

Regardless of the motivation for target dispersion, an important contention is that these secondary targets might become primary targets. For example, in this study, law enforcement

officers became primary targets after they requested the problematic individuals to cease contacting their targets (7.5% cases). In these situations, the subjects reportedly felt unfairly treated and personally persecuted by law enforcement. From that point on, they harassed law enforcement in an attempt to express their sense of injustice (e.g., several voice messages left daily). Given these results, threat management professionals should carefully analyze target dispersion patterns and determine which secondary targets might be at risk of becoming primary targets. One key factor might be the self-reported motivations for threatening activity.

Finding 6: Problematic activity generally stemmed from deeply personal issues (Hypothesis 3).

A notable finding in this study was the identification of a broad range of motives that were communicated during problematic activity. In support of this study's third hypothesis and prior findings on harassment activity studies (Borum, 2015; Scalora et al., 2002a), most of the motivations for threatening activity were personal in nature (65% of the cases). Specifically, data suggested individuals of concern had difficulty coping with personal failures, losses (e.g., an intimate relationship), or individual stressors (i.e., academic, work, or legal issues). These messages were often communicated in the form of requests for help or emotional statements indicating the persons of concern felt undermined or unsafe, which was the basis for their grievances. As indicated by O'Toole (2000), the grievances' content was often intensified by embedded emotional states, which were often conveyed during problematic contacts (e.g., anger, stress, sense of entitlement, fear, or guilt).

In this study, the intense focus upon the presenting grievance appeared related to the nature, perseverance, and persistence of problematic activity. As observed in other types of harassment activity (Marquez & Scalora, 2011), this study suggested that the more personal the

grievance was, the more persistent the person of concern became. In addition, if the underlying personal motives and emotions were not resolved, motivations like retaliation and intimidation were likely to appear in the grievances communication themes. In these situations, the targets were likely to feel unsafe, which triggered their reporting of problematic behavior to law enforcement.

Finding 7: Problematic activity was rarely reported at first contact (Hypothesis 4).

Typically, targets who felt unsafe contacted law enforcement within *24 hours of the last incident* of problematic activity, but this contact was rarely *the onset* of problematic activity, which is consistent with the tenet of the fourth hypothesis of this study.

Overall, the threat assessment process started as a form of primary prevention after the targets perceived their safety at risk (i.e., preventing victimization from occurring). Given that targets often oscillate in their perception of risk, their threshold for reporting problematic activity might vary as well (see Hollister et al., 2014). Accordingly, only a fourth of the cases in this study were opened within 24 hours of the *first* incident of problematic activity (28%). Most of the targets resorted to law enforcement's help after a long-standing, unresolved conflict with the problematic individual escalated (57%).

There might be a logical explanation for these findings. If the first incident was perceived as potentially threatening or violent, the case might have been reported immediately. In other cases, the first problematic contact might have been innocuous (e.g., an argument). Then, this incident might have escalated in severity, which led the targets to contact the authorities. When the targets appraised their situation as dangerous, reporting of problematic behavior occurred within 24 hours of the last incident.

An additional explanation was that targets failed to report less severe forms of threat assessment activity in a timely manner in some of the cases, which is consistent with the literature (Hollister et al., 2014). For example, a study indicated reporting might have been particularly delayed in partner violence dynamics. In these cases, law enforcement was contacted only after physical violence occurred (see Cass & Mallicoat, 2014). In this study, a post-hoc analysis provided some data in support of this contention. Approximately 67% of the partner violent cases were opened after a physical assault occurred as opposed to only 11% of the non-partner violent cases, $\chi^2(1, N = 329) = 79.95, p < .0001, \phi = .49$. These results suggested that the threat assessment process might start as part of secondary and tertiary prevention, in which professionals will intervene to avoid re-victimization of a specific target or will work towards preventing new targets from being victimized.

Finding 8: Problematic activity in college campuses is particularly intense (Hypothesis 5).

In this study, problematic activity was strongly indicative of intensity of effort, as it spanned multiple contacts over an extended period of time. Most of the targets were contacted an average of 11 times via multiple communication channels at on and off campus locations over a period of six months. In addition, problematic individuals in this study displayed similar proportions of proximity and non-proximity behaviors (i.e., 54% unwanted written communications and 57% unwanted physical approach), which was against the predictions of the fifth hypothesis of this study. In minority of cases (less than 15%), these cases even involved physical or sexual violence, interest in or use of weapons, as well as self-harming behavior.

Problematic activity in college campuses showed higher levels of intensity of effort than problematic activity in other samples (e.g., public figures). For example, most of the individuals who harassed elected officials typically contacted them once and rarely escalated their

problematic behavior further (57.8%-90%) (see James et al., 2010a; Scalora et al., 2002a).

Similarly, the proportion of physical approach in these studies was well below fifty percent (e.g., Hoffman et al., 2011; James et al., 2010a; Scalora et al., 2002a), which heavily contrasted with the findings of this study.

This study's results are not surprising given that most of the targets and individuals of concern knew each other and most of the problematic contacts might have started from close physical proximity. However, these findings also implied the management of threats might require a higher proportion of restrictive management strategies than those highlighted in prior studies (Dietz & Martell, 2010; Hoffman et al., 2011; Scalora et al., 2002a; Scalora et al., 2002b).

Finding 9: Threat assessment cases required multiple interventions (Hypothesis 6).

Overall, the results of this dissertation showed threat assessment cases were managed through several interventions over a period of more than a year, which vastly exceeded the predictions of the sixth hypothesis of this study. Virtually all cases needed different information gathering strategies (93%) and required restrictive subject-focused, target safety plans, or both types of direct interventions (98%). These results seem logical in light of the level of intensity of effort displayed during problematic activity.

Consistent with scientific literature, the threat management process often started assessing any signs of imminent violence or in reaction to a violent event (Bondü et al., 2011; Harrell, 2011; Meloy et al., 2011; Meloy et al., 2014; Scalora et al., 2003b). In this study, approximately 20% of cases were opened for concerns related to current violence or homicidal ideation, which triggered an immediate response from the threat assessment professionals.

Immediate responses included legal actions (e.g., arrest), academic sanctions, mandatory mental health treatment, or a combination of all of them.

When the risk of violence was not deemed imminent, professionals started the threat management process by assessing and monitoring problematic activity. As explained in the prior studies (Calhoun & Weston, 2006; Fein et al., 2002), monitoring started after the initial report of problematic activity. Next, the threat assessment professionals gathered as much information as possible in order to determine the seriousness of the threat and the veracity of the facts reported to them (e.g., motivation, intention to approach or attack the target, determine individuals' mental condition, analyze the consistency between communications and behavior, etc.) (93% of cases), which is consistent with typical threat assessment practices (see Cornell, 2010; Randazzo & Plummer, 2009; Reddy et al., 2001). Half of the cases required direct interviews with the individuals of concern and the targets. Between 30% and 40% of the cases required consulting and gathering information with college resources such as student affairs or mental health services. Another 40% of the cases resorted to community liaisons such as other law enforcement agencies, district attorney's office, private corporations, or other community actors. Basically, the focus of the assessment phase was to determine whether the individual had a genuine intent to harm the target.

If a risk for harming the target was found, the information-gathering strategies were combined with interventions that required the problematic individuals to cease contact with the targets. As recommended in the scientific literature (Scalora et al., 2008), these interventions also aimed at redirecting these individuals to services that would mitigate their grievances. Similarly, individuals of concern might be required to attend psychological treatment in order to address different mental health concerns that could be exacerbating their behavior (e.g., hallucinatory

experiences, delusional ideation, severe agitation, homicidality, suicidality, or substance use) (26% of cases in our sample) (Cornell & Allen, 2011; Farkas & Tsukayama, 2012; MacKenzie & James, 2011). If these less intense interventions did not suffice, threat assessment professionals resorted to interventions that prevented problematic individuals from approaching the targets, such as severe academic (i.e., 16% of cases ended up in a suspension or expulsion) or legal sanctions (i.e., 16% involved arrest, 14% ban and barred from campus, 17% citations, etc.).

In accordance with literature (Deisinger, Randazzo, O'Neill, & Savage, 2008; Sokolow & Lewis, 2008), the role of the threat assessment team varied in all these processes. In this study, the threat assessment team was mostly utilized for consultation purposes. Team members were rarely appointed to intervene directly in a case unless they were part of the threat management resources (e.g., team members that work at the student affairs office).

The implementation of threat management strategies was dynamic, flexible, and fluid as it depended on the behavior of the individuals of concern as well as the targets' vulnerability. However, one of the key elements to determine and anticipate an escalation in the level of risk depended on analyzing different factors that might enhance the individuals' behavior.

Finding 10: Subject factors enhanced intensity of effort and approach (Hypotheses 7 and 9).

Partially supporting the stipulations of hypothesis 7, the results of this study suggested that individuals at higher risk for violence presented symptoms of mental illness, endorsed a personal grievance, displayed behavioral indicators of intensity of effort (e.g., target dispersion), and physically approached the target. However, the relationship between subject factors and physical approach was not as initially hypothesized. With the exception of personal grievances,

the predicted subject factors were not associated with physical approach in general (i.e., approach at the pre reporting or/and management phase of the threat assessment process).

In this study, the relationship among physical approach, mental illness, target dispersion, and intensity of effort appeared in individuals who did not appropriately respond to the threat management interventions (i.e., approached or re-approached the target though they had been instructed not to do so by threat assessment professionals). Consistent with hypothesis 9, these findings cannot be explained by the presence of different groups of individuals who approached the target at different points in time (i.e. pre-intervention, post-intervention, as well as pre or post-intervention). Rather, it appears that factors such as mental illness, personal grievances, and target dispersion combined in order to increase the risk for physically re-approaching the target in individuals who did not respond to initial management interventions.

Thus, compared to individuals who did not continue to approach after law enforcement intervened in the case, re-approachers were more likely to be individuals with symptoms of mental illness, who viewed their grievance as extremely distressing and central to their life. Some of these individuals might be desperate and even contemplating suicide as the only solution to their problems. As a result, these individuals often spent increasing amounts of time and resources communicating their grievance and level of distress to the target and other third parties despite any attempts from professionals to ameliorate their concerns (see tables 7 and 12). These findings continued to support prior studies underscoring the need to appropriately address symptoms of severe mental disorder and implement vigilant case management strategies that would capture the fluid nature of the risk posed by individuals with severe mental disorder who hold a personal grievance against the target (see Scalora et al., 2002a; Scalora & Marquez, 2011; Schoeneman, et al., 2007; Schoeneman et al., 2011).

Finding 11: Threat management is a fluid process (Hypothesis 8).

Consistent with the MFTA model (Scalora & Bulling, 2007; Scalora, Zimmerman, & Wells, 2008; Scalora, Plank, & Scheoneman, 2009) and hypothesis 8, there is no single protocol of threat management that can cover all cases. This is mostly due to the fluid nature and evolution of threats over time. When a threat cannot just be resolved with simple conflict resolution tactics, threat assessment professionals might need to implement strategies that would impose some form of restrictions on the individuals' behavior (see Cornell, 2010).

In this study, individuals who showed the most intense behavioral dynamics and/or presented different enhancers of problematic activity often necessitated direct interventions in order to de-escalate their risk. The level of concern raised by these individuals ranged from causing disruption (e.g., unwanted verbal and written communications) to intimidation (e.g., direct threats) to impending violence (e.g., face-to-face approaches, inappropriate sexual behavior, or property destruction). These subjects could also display active symptoms of psychosis, current homicidality or suicidality, and severe substance intoxication during their problematic activity. Therefore, these subjects were the focus of the most restrictive interventions given their potential to endanger the targets.

Interestingly, the subjects' criminal history did not appear to have any bearing with respect to their likelihood to approach or be the focus of the most restrictive interventions. This result contrasted with the tenets of hypotheses 7 and 8 as well as past studies (Fein & Vossekuil, 1999; Scalora et al., 2002a). A potential explanation might be that some subjects in this sample were not of, or barely above, the age of majority or might have limited time to acquire adult criminal convictions (ages 18 or 19, 15% of the subjects). A second explanation is that problematic individuals in community and college student samples might be less likely to have

prior criminal records on average than other samples of problematic individuals (e.g., sample of public figures harassers, Scalora et al., 2002a).

Finding 12: Threat management interventions effectively decreased problematic behavior over time (Hypotheses 10, 11, and 12).

The results of this study showed a significant decrease in the rate of violence, physical approach, threats, surveillance, and unwanted communications over time, which is consistent with hypothesis 10 of this study. This decrease is believed to be the result of the effective implementation of management strategies that had the potential for long-term prevention of violence. Consistent with hypothesis 11, the MFTA model permitted to statistically corroborate this assumption.

As demonstrated throughout this study, the assessment and management of threats are interdependent processes. When an individual was deemed as posing a threat towards the college institution, a specific management/monitoring plan was developed. A nuanced analysis of the MFTA model supported the presence of different factors that exacerbated intensity of effort and led to an escalation of problematic activity if no appropriate course of action was taken. Therefore, the first step of this model was to identify when subjects posed a threat towards the targets and how problematic activity could escalate over time.

One of the factors that escalated the risk for continuing to physically approach the target was the presence of long-term problematic behavior in the context of a longstanding personal grievance (e.g., personal losses). These grievances appeared to become deeply embedded in the interpersonal conflict and even extended to other parties. These unresolved grievances tended to perpetuate and escalate into problematic activity, which has also been observed in other samples (Baumgartner, 2004; Scalora et al., 2003; Schoeneman et al., 2011). In this study, one example

of this dynamic was the type of conflicts that arose after the termination of an intimate relationship. In these situations, problematic behavior had already occurred before the dissolution of the relationship (e.g., multiple calls, surveillance, etc.). However, the individuals' behavior worsened when the couple finally broke up (e.g., intimidation, threats, or emotional blackmail may be used to renew the relationship). If no effective interventions were implemented, these cases had the potential to escalate into approach and violence over time.

Similarly, acute symptoms of severe mental disorder appeared to be foundational for escalating the risk for repeated communications, physical approach, and targeted violence, which continues to endorse the robustness of this risk factor for predicting targeted violence (Baumgartner et al., 2001; Dietz & Martell, 2010; Marquez & Scalora, 2011; Meloy et al., 2012; Scalora et al, 2002a; Scalora et al., 2003). Individuals who experienced delusions or hallucinations displayed rigid beliefs that often led to very personal and inaccurate perceptions of their reality (i.e., personal grievances that were delusional in nature). These beliefs often served as a justification for their actions and translated in intense patterns of communications destined to publicize their cause against the target and other third parties. These individuals often felt entitled to their actions and could not understand other people questioning their justifications. Therefore, they were more likely to persist in their behavior until others are convinced of their rightfulness. In this study, the typical example would be those individuals who, after a period of bizarre communications, approached the college campus aiming at voicing their grudges, which could be persecutory or conspiracy-based. In the most extreme cases, this approached might have involved weapons and a desire to carry an attack. In this particular situation, an extreme intervention was needed in order to decrease risk.

Regardless of the presence of a mental disorder or the number of prior problematic episodes, target dispersion often mediated the path between the subject factors and physical approach during the threat management phase (i.e., prior problematic relationship, mental illness, and personal communication themes). The relationship between physical approach and target dispersion was not straightforward. However, this behavioral activity should still be considered a risk factor for physical approach and violence in light of this dissertation and other studies' results (Marquez & Scalora, 2011). In this study, target dispersion often involved repeatedly contacting parties that were very proximate to the target. Therefore, approaching these parties, and subsequently the target, was the next logical step in these individuals' pathway towards violence. For example, if a student wanted to pressure the Dean of Students in order to get academic probation revoked, this student might have repeatedly harassed the Dean's assistant at the student affairs office before successfully accessing the Dean. Other scenarios of this study suggested target dispersion occurred as a result of wanting to gain power and control over the targets' environment. For example, an individual might have repeatedly debased his/her ex-partner on social media and might have extensively damaged the target's public reputation (e.g., texted all the target's friends), which may be cathartic by itself for this aggrieved individual. However, in this situation the individual of concern may also be able to socially isolate the target, making this person more vulnerable to being approached while alone. In this study, target dispersion also evolved into physical approach when this activity involved leaking an already formed plan of approaching and harming a specific target. For example, a student might leak to his neighbor and friend his ideas of attacking his classmates, who are perceived as bullies and responsible for his academic failure. In all these dynamics, direct interventions were needed in order to successfully de-escalate the risk.

Consistent with hypothesis 12, the results of this study suggested all the trajectories with the potential to escalate towards approach or violence became thwarted after the use of intervention strategies that contained the situation and protected the targets. In addition, the results of this study allowed ensuring these strategies prevented violence at a long-term, as the threat assessment cases were monitored for a substantial amount of time after problematic activity ceased.

A nuanced analysis of this study's data found that virtually all cases resolved with no physical violence occurring on the college campus. Only one target was re-victimized on campus premises, and this event involved minor physical contact (i.e., grabbing the target's backpack without causing any injury).

The MFTA model suggested that threat management interventions often placed strong emphasis on grievance resolution, which is consistent with effective management practices highlighted in prior studies (see Cornell et al., 2009). In this study, individuals with long-term conflicts with the target, who had engaged in problematic communications and approaches in the past, were at risk of continuing to approach the target. In these situations, problematic individuals often received help so the intensity of the conflict would deescalate and they would abandon their course of action. These interventions were effective on the majority of occasions. Thus, only a minority of the cases necessitated long-term suspension, banning the individual from the college properties, or legal interventions. In cases where the individuals of concern were not affiliated to the college campus, appropriate referrals to community services were made so limited use of the legal and the criminal system was needed.

When the containment of potential attackers was required (e.g., arrest, involuntary hospitalization, or legal barriers to approaching the target), additional interventions were utilized

to supervise and effectively prevent any further problematic contact. For example, in this study, individuals of concern with symptoms of severe mental illness who engaged in unwanted communications against the target and/or other third parties had the potential to escalate into physical approach and violence. However, the results of the MFTA model suggested that these individuals were successfully deterred by interventions that restricted their behavior and interventions that addressed their symptoms (i.e., mental health treatment). The key element was that the mental health referral was also made within the context of an overall management plan. Consistent with the recommendations made by the United States Secret Service, the FBI, and the United States Department of Education (see Amman et al., 2016; Fein et al., 2002), the threat assessment team could monitor these individuals' progress in treatment and ensure that no violence was likely to occur.

Another characteristic of the interventions that focused on restricting the individuals' behavior was the ability to combine different short and long-term strategies. While initial containment of the threatening situation was paramount for a short-term intervention, the long-term interventions often focused on decreasing the intensity of the individuals' grievances. In this study, these long-term interventions were crucial when individuals were motivated by personal demands. In these cases, individuals of concern had the potential to approach and continue re-approaching the target in a threatening manner when their grievances were central to their identity and life goals. These individuals often needed long-term interventions that required several interviews that were non-confrontational in nature and preserved these individuals' dignity (see Calhoun & Weston, 2015). In these interviews, the individual had the opportunity to express their personal stressors and losses. At the same time, these interviews sent the message that these individuals' behavior has been noticed and could be negatively sanctioned by

authorities (see Fein et al., 2002). Within this frame, these regular contacts were the perfect avenue to re-direct these individuals' behavior and continue assessing their level of threat.

Last, target-focused interventions were crucial in situations where individuals have engaged in repeated physical approach and had the potential to repeat the behavior and attack the target. In this study, subject-focused interventions were integrated in a larger safety plan for the target and appeared consistent with evidenced-based safety strategies (see Meloy, 1998; Miller, 2012; Storey & Hart, 2011). In these plans, the target was trained to preserve evidence that could be used to press charges later (e.g., texts, emails, etc.). Next, they were recommended to enlist the assistance of their social network so they cannot be ambushed alone in a remote area. In the most extreme cases, law enforcement officers were appointed in order to protect the target in environments where the individual of concern had verbalized a desire to approach the target.

Even after problematic activity ceased, formal monitoring continued for an extended period of time (e.g., typically some months). After a determination was made that the subject no longer posed a threat to the institution, the formal monitoring terminated and the case was deemed inactive. However, no case was fully closed, as cases might become active again at a future time. Therefore, it is recommended that threat assessment professionals document the active cases and preserve the information collected for future reference.

Limitations and Implications of the Study

This study is among the first to test a conceptual model of threat assessment activity via a structural equation model. However, it presents several limitations that warrant further discussion. First, while mediation models are typically acceptable for assessing pre and post behavioral differences after an intervention (e.g., collection of two data points in time), the gold standard of assessing change over time is collecting several data points (Finch & Shim, 2018).

Similarly, the outcome variable for the mediation model was computed from “raw change” in behavior. While this approach is statistically acceptable (Kenny, 2013), other options involving growth modeling might be preferable (see Finch & Shim, 2018). The second limitation of this study is the inability to fully assess statistically whether problematic activity would have escalated to violence if no interventions were implemented. While there are reasonable and sound data suggesting violence was a very plausible outcome for several cases, this was not formally tested given the retrospective nature of the study (e.g., data collection was performed for cases that had been already cleared). The third limitation is the lack of information about interaction effects in the mediation model. All the trajectories include variables that uniquely lead to physical approach. The mediation model is not able to provide specific information about the overlap of these characteristics. Future studies might focus on a particularly small area of this model and analyze the variables via multilevel modeling. Fourth, cohort effects might have affected how the cases evolved over a period of ten years and this influence was very difficult to determine. Fifth, the immense diversity of cases proved difficult to capture in a parsimonious manner. Therefore, a conservative approach was taken when selecting the most relevant behavioral information that would fully inform about the nature of risk for targeted violence. This might have precluded low occurrence cases, such as the ones related to radicalization and terrorism, to get fully portrayed in this study data. Lastly, the data for this study relies on observations from law enforcement investigators. Such reports might vary in terms of thoroughness or level of detail. Therefore, the authors decided to take a conservative approach and coded strictly behavioral indicators that were reliably assessed by the coders. Even with this precaution, five variables in this study displayed poor interrater agreement.

Despite these limitations, the current study contends threat assessment is a successful preventive approach for institutions of higher education that covers a wide array of dynamics, individuals, and situations. Specifically, this study offered a better understanding of the patterns of behavioral escalation, risk enhancers for targeted violence, and deterrence for violence via a multifactorial model of threat assessment activity. Overall, this study supported the use of this model in evaluating the effectiveness of current threat management strategies when aiming to decrease problematic activity and prevent violence. The main finding was that subject-focused interventions in combination with sound target safety plans were effective in significantly decreasing problematic activity. The current study is a first approach to assist practitioners in identifying specific factors that can modify a risk formulation in college settings so these institutions can be better protected.

Future studies might replicate this study in order samples and settings in order to further assess the validity of the MFTA model. First, more studies need to investigate how targeted violence unfolds over time. Specifically, these studies could explore the different patterns of behavioral escalation. Some behavioral trajectories might escalate faster, and better understanding of the risk factors that enhance risk might assist threat assessment professionals in preventing violence more effectively. Second, further analysis of the threat management interventions is needed in order to continue to examine the effectiveness of such interventions. For example, cluster analysis might assist in determining the different combination of interventions over time. Last, additional research focusing on target protection is recommended in order to better understand targets' cooperation (or lack thereof).

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APPENDIX I
Interrater reliability scores

| Variable | ICC/K |
|--|--------------|
| Individuals' characteristics | |
| | ICC |
| Relationship between POC and target | .96 |
| | K |
| Affiliation to campus | .94 |
| Alias | N/A |
| Prior violent history with target | .88 |
| Prior criminal history | .71 |
| Symptoms of major mental illness | .82 |
| Alcohol abuse | 1.00 |
| Drug abuse | .56 |
| History of suicidality | .40 |
| History of homicidality | .42 |
| Target factors | |
| | K |
| Affiliation of the target to the university | .69 |
| Target dispersion | .77 |
| Type grievance receivers (average <i>K</i>) | .57 |
| | ICC |
| Lapse of time | .77 |
| Number of targets | N/A |
| Expressed concern for their safety | .69 |
| Communication themes | |
| | K |
| Personal grievances | .79 |
| Target-focused grievances | .54 |
| Social issues grievances | .76 |
| Contact locations | |
| | K |
| Contacts within college campus | .87 |
| Contacts outside the college campus | .60 |
| Problematic behavior | |
| | ICC |
| Unwanted written communications | .80 |
| Unwanted verbal communications | .99 |
| Threats | .68 |
| Public statements | N/A |
| Object delivered | N/A |
| Face-to-face contact with targets | .91 |
| Face-to-face contact with non-targets | .73 |
| Assaults | .88 |
| Leakage of violent ideation | |
| | K |
| <i>Violent ideation</i> | .91 |
| Current suicidal ideation (leakage) | .70 |
| Current homicidal ideation (leakage) | .72 |
| Access to weapons (leakage) | .81 |

| Interventions | ICC |
|-------------------------------------|------------|
| <i>Monitoring</i> | .84 |
| <i>Information gathering</i> | |
| Threat assessment meeting | .90 |
| Interview subject/welfare check | .62 |
| Coordination student affairs | .88 |
| Mental health consultation | .81 |
| Consult law enforcement | .73 |
| <i>Target-Focused interventions</i> | .78 |
| <i>Restrictive interventions</i> | |
| Interview subject/welfare check | .77 |
| Intervention student affairs | .74 |
| Mental health interventions | .92 |
| Law enforcement interventions | .76 |
| Arrest | .66 |
| Citation | .83 |

Note: N/A = no IRR value due to this variable not being present during interrater sample or being a recode from existing variables.

APPENDIX II

Indirect effects of the multifactorial model of threat assessment activity

| Effects of mental illness to Change in face-to-face approach | 95% Confidence Interval | | |
|--|-------------------------|---------------|------------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | -0.017 | 0.060 | 0.158 |
| Total indirect | -0.017 | 0.060 | 0.158 |
| Specific Indirect | | | |
| MI→P→TD→FTD | 0.174 | 0.424 | 1.154 |
| MI→P→TD→FTD | -0.048 | -0.005 | 0.003 |
| MI→P→CP→TD→FTD | -0.001 | 0.009 | 0.091 |
| MI→P→FTP→SF→FTD | -0.011 | 0.002 | 0.051 |
| MI→P→CP→SF→FTD | -0.140 | -0.034 | -0.008 |
| MI→P→TD→SF→FTD | -1.008 | -0.333 | -0.131 |
| MI→P→FTP→TF→FTD | -0.011 | 0.025 | 0.171 |
| MI→P→CP→TF→FTD | -0.030 | -0.002 | 0.027 |
| MI→P→TD→TF→FTD | -0.236 | -0.022 | 0.067 |
| MI→P→FTP→TD→SF→FTD | -0.003 | 0.004 | 0.036 |
| MI→P→CP→TD→SF→FTD | -0.084 | -0.007 | 0.005 |
| MI→P→FTP→TD→TF→FTD | 0.000 | 0.000 | 0.015 |
| MI→P→CP→TD→TF→FTD | -0.020 | 0.000 | 0.002 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects of prior problematic contacts to Change in face-to-face approach | 95% Confidence Interval | | |
|--|-------------------------|---------------|---------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | -0.300 | -0.195 | -0.059 |
| Total indirect | -0.300 | -0.195 | -0.059 |
| Specific indirect | | | |
| REL→P→TD→FTD | 0.041 | 0.137 | 0.390 |
| REL→FTP→TD→FTD | -0.009 | 0.024 | 0.120 |
| REL→CP→TD→FTD | -0.008 | 0.021 | 0.117 |
| REL→FTP→SF→FTD | -0.138 | -0.012 | 0.073 |
| REL→CP→SF→FTD | -0.229 | -0.075 | -0.020 |
| REL→FTP→TF→FTD | -0.354 | -0.130 | -0.030 |
| REL→CP→TF→FTD | -0.070 | -0.005 | 0.052 |
| REL→P→FTP→TD→FTD | -0.019 | -0.002 | 0.001 |
| REL→P→CP→TD→FTD | 0.000 | 0.003 | 0.030 |
| REL→P→FTP→SF→FTD | -0.003 | 0.001 | 0.017 |
| REL→P→CP→SF→FTD | -0.053 | -0.011 | -0.002 |
| REL→P→TD→SF→FTD | -0.333 | -0.107 | -0.030 |
| REL→FTP→TD→SF→FTD | -0.104 | -0.019 | 0.008 |
| REL→CP→TD→SF→FTD | -0.109 | -0.016 | 0.007 |
| REL→P→FTP→TF→FTD | -0.003 | 0.008 | 0.057 |
| REL→P→CP→TF→FTD | -0.012 | -0.001 | 0.008 |
| REL→P→TD→TF→FTD | -0.093 | -0.007 | 0.018 |
| REL→FTP→TD→TF→FTD | -0.035 | -0.001 | 0.003 |
| REL→CP→TD→TF→FTD | -0.026 | -0.001 | 0.002 |
| REL→P→FTP→TD→SF→FTD | -0.001 | 0.001 | 0.016 |
| REL→P→CP→TD→SF→FTD | -0.029 | -0.002 | 0.000 |
| REL→P→FTP→TD→TF→FTD | 0.000 | 0.000 | 0.004 |
| REL→P→CP→TD→TF→FTD | -0.009 | 0.000 | 0.000 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects from Personal theme to Change in face-to-face approach | 95% Confidence Interval | | |
|--|-------------------------|---------------|---------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | -0.032 | 0.102 | 0.251 |
| Total indirect | -0.032 | 0.102 | 0.251 |
| Specific indirect | | | |
| P→TD→FTD | 0.313 | 0.722 | 1.690 |
| P→FTP→TD→FTD | -0.091 | -0.008 | 0.006 |
| P→CP→TD→FTD | -0.002 | 0.016 | 0.146 |
| P→FTP→SF→FTD | -0.019 | 0.004 | 0.087 |
| P→CP→SF→FTD | -0.227 | -0.058 | -0.015 |
| P→TD→SF→FTD | -1.509 | -0.568 | -0.221 |
| P→FTP→TF→FTD | -0.019 | 0.043 | 0.254 |
| P→CP→TF→FTD | -0.053 | -0.004 | 0.043 |
| P→TD→TF→FTD | -0.411 | -0.038 | 0.112 |
| P→FTP→TD→SF→FTD | -0.005 | 0.006 | 0.069 |
| P→CP→TD→SF→FTD | -0.151 | -0.013 | 0.001 |
| P→FTP→TD→TF→FTD | -0.001 | 0.000 | 0.018 |
| P→CP→TD→TF→FTD | -0.053 | -0.001 | 0.001 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects from Pre-intervention unwanted communications to Change in face-to-face approach | 95% Confidence Interval | | |
|--|-------------------------|---------------|---------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | -0.965 | -0.381 | -0.041 |
| Total indirect | -0.965 | -0.381 | -0.041 |
| Specific indirect | | | |
| CP→TD→FTD | -0.044 | 0.103 | 0.548 |
| CP→SF→FTD | -0.947 | -0.373 | -0.106 |
| CP→TF→FTD | -0.311 | -0.025 | 0.295 |
| CP→SF→FTD | -0.515 | -0.081 | 0.030 |
| CP→TF→FTD | -0.144 | -0.005 | 0.011 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects from Pre-intervention face-to-face approach to Change in face-to-face approach | 95% Confidence Interval | | |
|---|-------------------------|---------------|------------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | -1.160 | -0.586 | -0.077 |
| Total indirect | -1.160 | -0.586 | -0.077 |
| Specific indirect | | | |
| FTP→TD→FTD | -0.043 | 0.104 | 0.422 |
| FTP→SF→FTD | -0.498 | -0.051 | 0.269 |
| FTP→TF→FTD | -1.353 | -0.551 | -0.162 |
| FTP→TD→SF→FTD | -0.371 | -0.081 | 0.029 |
| FTP→TD→TF→FTD | -0.120 | -0.005 | 0.015 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects from Target Dispersion to Change in face-to-face approach | 95% Confidence Interval | | |
|--|--------------------------------|---------------|---------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | 0.059 | 0.199 | 0.355 |
| Total indirect | -3.025 | -1.036 | -0.418 |
| Specific indirect | | | |
| TD→SF→FTD | -2.602 | -0.971 | -0.411 |
| TD→TF→FTD | -0.693 | -0.065 | 0.190 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention

| Effects from Mental illness to Change in unwanted communications | 95% Confidence Interval | | |
|--|-------------------------|--------------|---------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | 0.037 | 0.093 | 0.172 |
| Total indirect | 0.037 | 0.093 | 0.172 |
| Specific indirect | | | |
| MI→P→TD→CD | 0.050 | 0.149 | 0.414 |
| MI→P→FTP→TD→CD | -0.022 | -0.002 | 0.002 |
| MI→P→CP→TD→CD | -0.001 | 0.003 | 0.023 |
| MI→P→FTP→SF→CD | -0.002 | 0.000 | 0.011 |
| MI→P→CP→SF→CD | -0.032 | -0.005 | 0.000 |
| MI→P→TD→SF→CD | -0.273 | -0.052 | 0.008 |
| MI→P→FTP→TF→CD | -0.002 | 0.004 | 0.037 |
| MI→P→CP→TF→CD | -0.010 | 0.000 | 0.004 |
| MI→P→TD→TF→CD | -0.078 | -0.004 | 0.013 |
| MI→P→FTP→TD→SF→CD | 0.000 | 0.001 | 0.013 |
| MI→P→CP→TD→SF→CD | -0.024 | -0.001 | 0.000 |
| MI→P→FPT→TD→TF→CD | 0.000 | 0.000 | 0.004 |
| MI→P→CP→TD→TF→CD | -0.003 | 0.000 | 0.000 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects from Prior contact with target to Change in unwanted communications | 95% Confidence Interval | | |
|--|-------------------------|--------------|---------------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | -0.060 | 0.004 | 0.054 |
| Total indirect | -0.060 | 0.004 | 0.054 |
| Specific indirect | | | |
| REL→P→TD→CD | 0.013 | 0.048 | 0.166 |
| REL→FTP→TD→CD | -0.007 | 0.009 | 0.049 |
| REL→CP→TD→CD | -0.004 | 0.007 | 0.061 |
| REL→FTP→SF→CD | -0.029 | -0.002 | 0.021 |
| REL→CP→SF→CD | -0.126 | -0.012 | 0.001 |
| REL→FTP→TF→CD | -0.093 | -0.022 | 0.000 |
| REL→CP→TF→CD | -0.048 | -0.001 | 0.010 |
| REL→P→FTP→TD→CD | -0.009 | -0.001 | 0.000 |
| REL→P→CP→TD→CD | 0.000 | 0.001 | 0.010 |
| REL→P→FTP→SF→CD | -0.001 | 0.000 | 0.004 |
| REL→P→CP→SF→CD | -0.013 | -0.002 | 0.000 |
| REL→P→TD→SF→CD | -0.138 | -0.017 | 0.000 |
| REL→FTP→TD→SF→CD | -0.036 | -0.003 | 0.001 |
| REL→CD→TD→SF→CD | -0.077 | -0.003 | 0.001 |
| REL→P→FTP→TF→CD | -0.001 | 0.001 | 0.014 |
| REL→P→CP→TF→CD | -0.004 | 0.000 | 0.001 |
| REL→P→TD→TF→CD | -0.033 | -0.001 | 0.004 |
| REL→FTP→TD→TF→CD | -0.020 | 0.000 | 0.001 |
| REL→CP→TD→TF→CD | -0.020 | 0.000 | 0.000 |
| REL→P→FTP→TD→SF→CD | 0.000 | 0.000 | 0.006 |
| REL→P→CP→TD→SF→CD | -0.008 | 0.000 | 0.000 |
| REL→P→FTP→TD→TF→CD | 0.000 | 0.000 | 0.002 |
| REL→P→CP→TD→TF→CD | -0.001 | 0.000 | 0.000 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects from Personal theme to Change in unwanted communications | 95% Confidence Interval | | |
|--|-------------------------|---------------|---------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | 0.070 | 0.159 | 0.269 |
| Total indirect | 0.070 | 0.159 | 0.269 |
| Specific indirect | | | |
| P→TD→CD | 0.098 | 0.254 | 0.673 |
| P→FTP→TD→CD | -0.038 | -0.003 | 0.003 |
| P→CP→TD→CD | -0.001 | 0.006 | 0.040 |
| P→FTP→SF→CD | -0.004 | 0.001 | 0.018 |
| P→CP→SF→CD | -0.057 | -0.009 | -0.001 |
| P→TD→SF→CD | -0.445 | -0.088 | 0.012 |
| P→FTP→TF→CD | -0.004 | 0.007 | 0.064 |
| P→CP→TF→CD | -0.016 | -0.001 | 0.007 |
| P→TD→TF→CD | -0.129 | -0.006 | 0.021 |
| P→FTP→TD→SF→CD | -0.001 | 0.001 | 0.026 |
| P→CP→TD→SF→CD | -0.044 | -0.002 | 0.000 |
| P→FTP→TD→TF→CD | 0.000 | 0.000 | 0.007 |
| P→CP→TD→TF→CD | -0.006 | 0.000 | 0.000 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects from Pre-intervention of unwanted communications to Change in unwanted communications | 95% Confidence Interval | | |
|---|-------------------------|----------|---------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | -0.383 | -0.040 | 0.063 |
| Total indirect | -0.383 | -0.040 | 0.063 |
| Specific indirect | | | |
| CP→TD→CD | -0.021 | 0.036 | 0.201 |
| CP→SF→CD | -0.415 | -0.058 | 0.003 |
| CP→TF→CD | -0.143 | -0.004 | 0.049 |
| CP→TD→SF→CD | -0.247 | -0.013 | 0.005 |
| CP→TD→TF→CD | -0.067 | -0.001 | 0.002 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects from Pre-intervention face-to-face approach to Change in unwanted communications | 95% Confidence Interval | | |
|--|-------------------------|----------|---------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | -0.186 | -0.077 | 0.023 |
| Total indirect | -0.186 | -0.077 | 0.023 |
| Specific indirect | | | |
| FTP→TD→CD | -0.023 | 0.036 | 0.214 |
| FTP→SF→CD | -0.100 | -0.008 | 0.095 |
| FTP→TF→CD | -0.316 | -0.092 | 0.004 |
| FTP→TD→SF→CD | -0.153 | -0.013 | 0.006 |
| FTP→TD→TF→CD | -0.066 | -0.001 | 0.003 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.

| Effects from Target Dispersion to Change in unwanted communications | 95% Confidence Interval | | |
|--|--------------------------------|----------|------------------------|
| | Lower bound (2.5%) | Estimate | Upper bound (97.5%) |
| Total | 0.141 | 0.273 | 0.404 |
| Total indirect | -0.936 | -0.162 | 0.013 |
| Specific indirect | | | |
| TD→SF→CD | -0.771 | -0.151 | 0.019 |
| TD→TF→CD | -0.202 | -0.011 | 0.036 |

NOTE: MI = Mental Illness, P = Personal communication theme, PPC = Prior problematic contact with target, FTP = Face-to-face target/assault pre-intervention, CP = Unwanted communication pre-intervention, TD = Target dispersion, SF = Subject-focused intervention, TF = Target-focused intervention, FTD = Change in face-to-face target/assault, CD = Change in unwanted communication post-intervention.