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### Hostage and Barricade Incidents Within an Officer-Involved Shooting Sample: Suicide by Cop, Intervention Efficacy, and Descriptive Characteristics

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## **Hostage and Barricade Incidents Within an Officer-Involved Shooting Sample: Suicide by Cop, Intervention Efficacy, and Descriptive Characteristics**

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*The study analyzed 84 hostage, barricade, and jumper cases from within a large sample (n = 707) of officer-involved shooting (OIS) cases occurring between 1998 and 2006. Seventy-six percent of these incidents involved suicidal individuals—66% were ultimately determined to be suicide by cop (SbC), nearly twice the likelihood in the overall sample. Most of the subjects were males, average age 36, involved in an unplanned event that escalated into an SbC attempt. Seventy-one percent of OIS subjects in the hostage barricade group survived the encounter, while only 33% of the SbC subjects did, a statistically significant difference in mortality rate. Of the 43 cases where crisis negotiation and verbal techniques were attempted with SbC subjects, they made no significant difference in outcome. Length of time also did not decrease risk of injury or death. Behavioral resolve to die on the part of the subject appears to be a key determinant of outcome. Suicide-by-cop ideation and intent is a high-risk indicator for subject fatality and injury in hostage and barricade incidents, and needs to be quickly and accurately assessed.*

**KEYWORDS** *Crisis negotiation high-risk variables, suicide-by-cop, suicide, failed verbal interventions, officer-involved shootings, police use of force, police deadly-force encounters, police less-lethal force encounters*

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Crisis negotiation as a discipline was formally introduced in the early 1970s, offering an important option for high-risk hostage, barricade, and jumper incidents (Hatcher, Mohandie, Turner, & Gelles, 1998). The landmark 1975 Tennessee Appellate Court decision (*Downs v. U.S.*, 1975) stemming from an October 4, 1971, aircraft-hijacking incident that resulted in two dead hostages and one dead hijacker, provided a legal basis and mandate for crisis negotiation during critical incidents. Since the emergence of the discipline, numerous crisis and hostage negotiations have been developed and deployed throughout the United States and many industrialized nations. The expansion of the approach, a multitude of high-profile success stories, extensive training programs, research, and technological developments may have fueled high but unrealistic expectations that the process will safely resolve all or most incidents where teams are deployed. Circumstances with a poor outcome (death or injury to the subject or others) may result in unwarranted criticism of the process without giving proper acknowledgment to the fact that there are multiple determinants in the outcome of such events, not the least of which is the subject and his or her will to live (Hatcher et al., 1998, McMains & Mullins, 2001). Indeed, the tragedy of 9/11 and subsequent events perpetrated by “violent true believers” have underscored that not all violent offenders have a will to live, and in fact some have an intent to die and kill others during the incident (Meloy, Mohandie, Hemphill, & Shiva, 2001). Airline procedures prior to 9/11 assumed, for example, that the takeover of an airline was a hijacking rather than the securing of a weapon of mass destruction.

For a number of years the FBI has been conducting a longitudinal study of hostage and barricade incidents in the United States called HOBAS (Hostage Barricade Database System). As of 2007, 5035 incidents were in this nonrandom national database. HOBAS data indicate that 82% of the incidents were resolved with no injury to the subject; 10% were injured; 6% committed suicide; 1% were killed; and another 1% died in an identified suicide-by-cop situation. In 97% of the incidents in their database, no one was injured, and in 99% of the cases, no bystanders or police officers were killed. However, when one examined the manner in which the incidents were being resolved, it was determined that 57% were resolved solely via negotiations, 18% solely by physical tactics, 12% by a combination of negotiations and physical tactics, 9% by the subject attempting or completing a suicide, 3% by the escape of the subject, and nearly 1% by police walking away from the scenario (FBI, 2007). Clearly negotiations are an important part of resolving many incidents, but the HOBAS data indicate that crisis negotiation does not solve all situations. Moreover, the HOBAS database is a nonrandom, voluntary participation sample, with a likely sampling bias toward incidents that had more positive outcomes, given that it draws from established negotiation teams. A critical examination of hostage/barricade (H&B) incidents with documented negative or less

than ideal outcomes might help illuminate factors related or unrelated to risk.

A recent study of a large sample of officer-involved shootings (Mohandie, Meloy, & Collins, 2009) found that a substantial percentage of the subjects (36%) could be classified as suicide by cop. Suicide by cop (SbC) is a method of suicide that occurs when a subject engages in behavior that poses an apparent risk of serious injury or death, with the intent to precipitate the use of deadly force by law enforcement against him or her (Mohandie et al., 2009). An additional 5% of the subjects in the sample were suicidal without attempting to compel police to kill them. Thus, in 41% of the OIS incidents, the subject's death wish was an important contributor to the use of force. The majority of the cases in this initial study did not afford the opportunity for negotiations or other verbal techniques to be applied; therefore, an initial analysis of the H&B incidents within the sample was not conducted. Such events are more likely to involve the deployment of more specialized verbal techniques, including crisis negotiation. An analysis of H&B situations from within a large sample of situations that deteriorated into an OIS could help to identify common variables and risk factors, and explore the efficacy of interventions.

The purpose of this study was to identify the hostage, barricade, and jumper cases within this large sample ( $n = 707$ ) of officer-involved shootings, in order to examine incident characteristics, intervention efficacy, and overall outcomes.

## METHODOLOGY

As described in Mohandie et al. (2009), the OIS files of participating police and criminal justice agencies were analyzed over an 11-month time period between March 2006 and January 2007 by three trained researchers (a primary researcher and two assistants). These OIS files were from 8 invited sources representing more than 90 North American police departments in the United States and Canada. OIS files consisted of every single deadly-force and less-lethal incident investigated as an OIS by the participating agencies from 1998 thru 2006. All data were archival; therefore subject permission for inclusion in the study was not required. The final sample included 707 cases. Cases were excluded if officers did not discharge their weapons (lethal or less lethal), if officers only fired at animals, or if the officer accidentally discharged his or her firearm. Lethal weapons were handguns, shotguns, rifles, and MP-5s; less-lethal weapons included the officer's hands, baton, taser, K-9, beanbag shotgun, Arwen impact weapons, and Oleoresin Capsicum (OC) pepper spray.

Data reviewed included primary source material in the OIS investigative files. These materials were usually extensive and included police reports,

witness statements, criminal histories on subjects, photographs, videotapes, and external review reports. Additional support material was sought as needed, and included interviews with investigating detectives, and occasionally direct contact with involved officers in approximately 10% of the SBC cases.

Data for each of the included cases were recorded on a six-page, 110-variable codebook developed by the authors that covered the following areas: (a) *Incident Characteristics* included the type of shooting (deadly force and/or less lethal), fatalities, number of responding officers, number of rounds fired by officers, use of alternatives to deadly force including verbal strategies and their reported effects, call type, setting and location of incident, whether the event was spontaneous or deliberate, and type of crime (major or minor); (b) *Subject Data* included demographics and behavioral information about the subject such as communication of suicidal ideation (any communications with suicidal content, including statements of intent or plans) 2 months or less preceding incident, suicide notes, weapon possession and simulation, weapon status, violence against others during the incident, threats, escape behavior, resistance, known psychological history such as prior suicidal ideation (2 months or more preceding incident) or attempts, mental health diagnoses and treatment, the presence of psychosis, substance use and prior treatment, intoxication, health problems, recent relationship problems, criminal history, and current criminal justice status (on parole or probation); and, (c) *Outcomes*, most notably whether injury or death occurred to anyone involved in the incident—subject, law enforcement, or others—as well as category of overall tactics deployed by law enforcement during the incident. A short narrative overview of each case was recorded in the codebook, along with any spontaneous statements made by surviving subjects after the incident. A variable was coded as “unknown” if data for the particular case variable were unavailable (The codebook is available from the first author Kris Mohandie).

Regarding the classification of verbal techniques used by responding officers, the following guidelines were used. The classification *Commands by first responding officers* was endorsed if responding officers were noted to have given subjects initial and immediate directives as the situation first unfolded, usually in a quick, reactive stance to arriving on scene or first engaging the subject (“Stop, put down the gun, etc.”). *Initiate discussion* would be endorsed if the officers had ceased with the initial and immediate commands to “stop” or “put down your weapons” and noted to have transitioned to more calmly and methodically trying to engage the subject, assess the situation, and get information by attempting to have the subject open up a dialogue with them (“What’s going on? How can I help you? Why are you doing this?”). This would not include any efforts by trained negotiators. The *crisis negotiation* option was checked if someone trained as such was called, had arrived, and was trying to/engaging the

subject and/or the file explicitly used that term for what the officers were doing.

Cases were categorized as *suicide by cop* when the subject engaged in actual or apparent risk to others with the intent to precipitate the use of deadly force by law enforcement personnel. An initial determination of SbC status was made by the primary researcher; however, narrative summaries were independently reviewed by the first author (Kris Mohandie) to verify each determination. The first and second (J. Reid Meloy) author blindly and independently scored a representative 8% ( $n = 53$ ) of the overall sample to formally assess the reliability of these determinations of OIS or SBC. An intraclass correlation coefficient (ICC) was calculated.

Because three researchers were employed to code the overall data, and to assess the accuracy of data recording, an interrater reliability correlation coefficient was calculated on a representative 10% ( $n = 73$ ) of the overall sample for all coding categories.

## RESULTS

### Reliability

Coefficient alpha for interrater reliability on overall variables was .88. The two coders agreed 88% of the time on all the variables in each case from the entire code sheet (except for those excluded from analysis). Certain variables were excluded in this analysis: shooting distance, where rounds hit, other call for service, date of birth (age was used instead), number of children, recent job loss, length of gun ownership, manner of weapon acquisition, survivor statements, and case narrative. The ICC for assignment to SbC or OIS groups was .93.

### General Incident Description, Force Used, and Verbal Techniques

Forty-five of the OIS cases were barricade incidents, 38 were hostage incidents, and 1 involved a jumper. Thus 12% ( $n = 84$ ) of all the incidents in the total sample ( $n = 707$ ) met criteria for inclusion in the current research (the H&B cases).

Forty-eight percent ( $n = 40$ ) of the H&B cases resulted in the use of deadly force, 43% ( $n = 36$ ) both deadly and less-lethal options, 8% less-lethal only ( $n = 7$ ), and in 1% ( $n = 1$ ) it could not be determined what kind of force was deployed.

Thirty-three percent of the H&B cases ( $n = 31$ ) involved both first-responder commands and discussion initiated with the subject; 25% ( $n = 21$ ) received first-responder commands, initiated discussion, and crisis negotiation; 25% ( $n = 21$ ) were subject to first responders' commands only; 11%

( $n = 9$ ) experienced first-responder-initiated discussion and crisis negotiation; and 2% ( $n = 2$ ) received either first-responder-initiated discussion or crisis negotiation only.

### Duration and Location

The mean duration of incidents was 8 hr, with a mode of 10 min, and a range of 3 min to 216 hr. The median duration was 2 hr, 33 min.

Fifty-two percent ( $n = 44$ ) of the events lasted more than 2 hr, 8% ( $n = 7$ ) lasted 1 to 2 hr, 6% ( $n = 5$ ) were 1 hr or less, 12% ( $n = 10$ ) within 30 min, 6% ( $n = 5$ ) in 15 min or less, and 16% ( $n = 13$ ) within 10 min.

Seventy-three percent ( $n = 61$ ) of the incidents reportedly occurred in an urban setting, 17% ( $n = 14$ ) in a suburban environment, and 11% ( $n = 9$ ) in a rural location.

Forty-two percent ( $n = 35$ ) of the incidents occurred at the subject's residence, 31% ( $n = 26$ ) at another residence, 12% ( $n = 10$ ) in a public building or open-air environment, 12% ( $n = 10$ ) occurred at a business or health-care facility, one occurred at a school, another at a correctional facility, and a third at an unspecified location.

### Police Service Call Type

Initial police service calls in the H&B cases were domestic violence or a family disturbance in 20% ( $n = 17$ ) of the cases, person with a gun 12% ( $n = 10$ ), search warrant/surveillance 11% ( $n = 9$ ), an observed event 7% ( $n = 6$ ), suicidal subject 6% ( $n = 5$ ), robbery 6% ( $n = 5$ ), disturbance 5% ( $n = 4$ ), assault with a deadly weapon 5% ( $n = 4$ ), person with a knife 5% ( $n = 4$ ), traffic stop 2% ( $n = 2$ ), mentally ill subject 1% ( $n = 1$ ), hostage taking 1% ( $n = 1$ ), and other miscellaneous types 19% ( $n = 16$ ).

### Incident Context

Eighty-seven percent ( $n = 73$ ) of the incidents were apparently unplanned and spontaneous (subject did not apparently choose to initiate the incident that day), 8% ( $n = 7$ ) were planned, and 5% ( $n = 4$ ) were unknown.

Of the 55 cases that were identified as suicide by cop, these were further categorized using a modified version of Homant and Kennedy's (2000) typology that split the criminal category into three subtypes. Twenty-six percent ( $n = 14$ ) of the subjects were involved in Criminal Intervention Major Crime, 26% ( $n = 14$ ) were Criminal Intervention Minor Crime, 26% ( $n = 14$ ) were Criminal Intervention Domestic Violence, 12% ( $n = 7$ ) were Disturbed Intervention, and 11% ( $n = 6$ ) were Direct Confrontation.

## Demographics of the H&B Sample

The mean age of the subjects was 36 ( $SD = 10.88$  years), with a range of 18–69. Ninety-four percent ( $n = 79$ ) of the subjects were male, 5% were female ( $n = 4$ ), and there was 1 known transgendered subject. Thirty-one percent ( $n = 26$ ) subjects were Hispanic, 31% ( $n = 25$ ) were Caucasian, 18% ( $n = 15$ ) were African American, 5% ( $n = 4$ ) were Asian Pacific Islander, 2% ( $n = 2$ ) were Native American, 1% ( $n = 1$ ) were other, and 13% ( $n = 11$ ) were unknown. Thirty-two percent ( $n = 27$ ) were single, 21% ( $n = 18$ ) separated or divorced, 17% ( $n = 14$ ) cohabiting, 18% ( $n = 15$ ) married, and 12% ( $n = 10$ ) were of unknown marital status. Eighty-two percent ( $n = 69$ ) were determined to be heterosexual, 1% ( $n = 1$ ) homosexual, and 17% ( $n = 14$ ) were of unknown sexual orientation.

Forty-two percent ( $n = 35$ ) of the subjects had children, 31% ( $n = 26$ ) did not, and this factor was unknown in 27% ( $n = 23$ ) of the cases. In 43% ( $n = 15$ ) of the subjects with children it was determined that issues pertaining to the children (custody and child support frustrations, etc.) were related to the situation.

Twenty-six percent ( $n = 22$ ) of the subjects were employed at the time of their event, 51% ( $n = 43$ ) were not, and this issue was unknown in 23% ( $n = 19$ ) of the cases. Eleven percent ( $n = 9$ ) had recently experienced a job loss (whether they had found a new job or not). Twenty-five percent ( $n = 21$ ) of the subjects did not have housing at the time of the incident, 71% ( $n = 60$ ) did, and this variable was unknown in 4% ( $n = 3$ ) of the subjects.

## Subject's Status at the Time of the Incident

At the time of the incident, 68% ( $n = 57$ ) of the subjects reportedly experienced recent behavioral changes; 63% ( $n = 53$ ) recent relationship problems (current known relationship issues); 58% ( $n = 49$ ) had a known history of violence; 49% ( $n = 41$ ) had been to jail and/or prison before; 37% ( $n = 31$ ) were struggling with other relationship disruptions (the end of the relationship in the last 6 months); 30% ( $n = 25$ ) were having criminal justice problems; 23% ( $n = 19$ ) were having financial problems; 20% ( $n = 17$ ) were on parole or probation; 18% ( $n = 15$ ) had health problems; 13% ( $n = 11$ ) were embroiled in child custody issues; and 10% ( $n = 8$ ) had civil problems.

Seventy-four percent ( $n = 62$ ) of the subjects were having problems in at least two areas concurrently, including behavior problems, relationship issues or disruption, criminal justice system problems, financial difficulties, health problems, child custody issues, and civil litigation. The average number of concurrent difficulties at the time of the incident was 3.5, with a range of 1–7, and a mode of 3.



## SbC Statistics

Sixty-six percent ( $n = 55$ ) of the 84 cases in the H&B sample were categorized as SbC (attempt or completed), 10% ( $n = 8$ ) were categorized as a completed suicide or suicide attempt during the police encounter (without there being a known SbC motivation or attempt), and 25% ( $n = 21$ ) were categorized as a pure OIS. Therefore, 76% ( $n = 84$ ) of the OIS subjects in the H&B sample evidenced suicidality: intending, attempting, or actually committing suicide during the encounter.

## Mental Health Histories

Forty-nine percent ( $n = 41$ ) of the subjects had a confirmed or probable mental health history; however, in 37% ( $n = 31$ ) of the incidents, this information about the subject was unknown. Eighteen percent ( $n = 15$ ) of the confirmed mental health subjects were clinically judged by the researchers to be suffering from depression or some form of mood disorder, and 7% ( $n = 6$ ) from a substance abuse disorder.

Fourteen percent ( $n = 12$ ) of the subjects had prior known suicidal thoughts, while 12% ( $n = 10$ ) did not, and 74% ( $n = 62$ ) were unknown. Twelve percent ( $n = 10$ ) of the subjects had a prior known suicide attempt, while 19% ( $n = 16$ ) did not, and 69% ( $n = 58$ ) were unknown. Five percent ( $n = 4$ ) had attempted suicide by cop on a prior occasion. Seventeen percent ( $n = 14$ ) had a prior reported psychiatric hospitalization, 37% ( $n = 31$ ) did not, and this was unknown in 46% ( $n = 39$ ). Nineteen percent ( $n = 16$ ) of the subjects were described as psychotic (delusional and/or hallucinating) at the time of the event (unknown in 1%,  $n = 1$ ); 17% ( $n = 14$ ) were apparently under current mental health care (unknown in 36%,  $n = 30$ ); and 25% ( $n = 21$ ) had been prescribed psychotropic medications (unknown in 33%,  $n = 28$ ). There were no data to determine whether those on medications were compliant, nor whether they were being prescribed the proper medication for their particular condition.

## Suicidal Communications Among the Suicide or Suicide-by-Cop Subjects

In this subset of data, suicidal communications (“I want to die,” “I am going to kill myself,” “I wish I were dead”) were only noted to have occurred in individuals who were ultimately classified as suicide or suicide by cop ( $n = 63$ ). Thus these data will be reported using that group ( $n = 63$ ) as the numerical basis for calculation. Suicidal communications by the subject at any point prior to or during the incident occurred in 89% ( $n = 56$ ) of the cases, while no suicidal communication was documented in 11% ( $n = 7$ ).

Fifty-six percent ( $n = 35$ ) of the suicide or suicide-by-cop subjects communicated their suicidality prior; 46% ( $n = 16$ ) of these prior communicators did so in the minutes before the event, 20% ( $n = 7$ ) sometime during the same day, 23% ( $n = 8$ ) within a week, 3% ( $n = 1$ ) within a month, and 9% ( $n = 3$ ) at numerous time periods prior to the event. Those who did communicate prior to the event ( $n = 35$ ) told their significant other 43% ( $n = 15$ ) of the time, a family member 20% ( $n = 7$ ), friends 23% ( $n = 8$ ), other persons 11% ( $n = 4$ ), and the police 3% ( $n = 1$ ) of the time. These communications referenced the SbC method 31% ( $n = 11$ ) of the time—69% ( $n = 24$ ) of the prior suicide communicators did not talk specifically about suicide by cop to anyone. Twenty-eight suicide or suicide-by-cop H&B subjects had no documented *prior* suicidal communications (43%).

Sixty-eight percent ( $n = 43$ ) of the combined SbC and suicidal subjects ( $n = 63$ ) talked about their suicidality during the incident while 32% ( $n = 20$ ) did not. Of these “during incident” suicidal communicators ( $n = 43$ ), 70% ( $n = 30$ ) of them did refer to SbC specifically, while 30% ( $n = 13$ ) did not. Sixty-seven percent ( $n = 29$ ) of those who talked about it during the incident communicated their suicidality to police officers, 12% ( $n = 5$ ) to family members, 12% ( $n = 5$ ) to significant others, 7% ( $n = 3$ ) to friends, and to someone else in 5% ( $n = 2$ ) of the cases. Among all combined suicide and SbC subjects who survived the incident ( $n = 20$ ), 70% percent ( $n = 14$ ) admitted afterwards that they were suicidal during the incident. In only one case (2%), the postincident suicidal admission by the survivor was the only verbal evidence of suicide present in the incident.

Suicide notes were reported in 17% ( $n = 11$ ) of the cases—83% ( $n = 52$ ) of the subjects apparently left no note. Of the 11 subjects who left a note articulating that they would be committing suicide, 82% ( $n = 9$ ) of these subjects made reference to SbC as a possible method in their suicide note.

Suicidal behavior (other than the SbC) by the subject was observed in 43% ( $n = 27$ ) of the subjects during the incident. This behavior included pointing a weapon at, or using a weapon towards themselves, slashing their wrists, stabbing, or shooting themselves.

### Behavior of the Subject Among All H&B Cases

Ninety-three percent ( $n = 78$ ) of the subjects were noncompliant with law enforcement, 79% ( $n = 66$ ) aggressed against the police, 67% ( $n = 56$ ) harmed or attempted to harm civilians in the combined interval just prior to police arrival and during the incident, 26% ( $n = 22$ ) actively resisted, 24% ( $n = 20$ ) fled the police, 17% ( $n = 14$ ) destroyed property/hurt pets, 15% ( $n = 13$ ) were apparently inconsistent in their escape behavior, and 6% ( $n = 5$ ) involved themselves in a high-speed vehicle pursuit.

Ninety-nine percent ( $n = 83$ ) demonstrated a behavioral threat (pointing or gesturing with a weapon at another person, attempting to shoot someone) to someone at some point during the incident, while 77% ( $n = 65$ ) verbalized a threat toward someone just prior and/or during the incident.

### Observed Emotional State of SbC, Suicide, and OIS Subjects

An attempt was made to categorize the subject's observed emotional state or demeanor at or around the time of the event. This coding was based upon observations made by witnesses at the scene and comments made by the subject during the incident. Of the 55 individuals classified as SbC, 27% ( $n = 15$ ) were described as angry; 20% ( $n = 11$ ) desperate; 18% ( $n = 10$ ) as resolute; 18% ( $n = 10$ ) as agitated; 7% ( $n = 4$ ) defiant; and 2% panicked ( $n = 1$ ).

Of the 8 identified suicide cases, 38% ( $n = 3$ ) were observed to be desperate; 25% ( $n = 2$ ) were resolute; 1 was calm; 1 was panicked; and the other was of unknown emotional state.

Of the 21 identified as regular OIS situations, 29% were reported to be agitated ( $n = 6$ ); 19% as angry ( $n = 4$ ); 19% as defiant ( $n = 4$ ); 14% as confused ( $n = 3$ ); 10% were panicked ( $n = 2$ ); 5% were startled ( $n = 1$ ); 5% were reportedly desperate ( $n = 1$ ); and 2 were of unknown emotional state.

These previous mental state data should be treated as tentative due to the subjectivity of the observers and the lack of interrater reliability or any standardized measures.

### Intoxication and Use of Substances

Fifty-six percent ( $n = 47$ ) of the subjects were known to be under the influence at the time of the incident: 66% ( $n = 31$ ) of these intoxicated subjects were under the influence of alcohol alone or in combination with other substances, 45% ( $n = 21$ ) under the influence of illicit substances alone or in combination with alcohol or prescriptions, and 6% ( $n = 3$ ) were using prescriptions alone or in tandem with some other intoxicant. Twenty-three percent of the intoxicated subjects ( $n = 11$ ) were under the influence of either methamphetamine or cocaine during the incident, 11% ( $n = 5$ ) were using a combination of illicit substances, and 6% ( $n = 3$ ) were using marijuana.

### Weapon Possession and Use by Subjects

H&B subjects were armed with weapons during 92% ( $n = 77$ ) of the incidents, while 6% ( $n = 5$ ) feigned or simulated weapon possession. Of those who were armed ( $n = 77$ ), 64% ( $n = 54$ ) possessed a firearm, which was loaded and operational 91% ( $n = 49$ ) of the time, unloaded 4% ( $n = 2$ ) of

the time, and inoperable 4% ( $n = 2$ ) of the time. Fifty-seven percent ( $n = 31$ ) of those who possessed a firearm ( $n = 54$ ) actually fired their weapon at the police.

Other weaponry possessed by subjects included knives only (21%,  $n = 18$ ); blunt force objects only (1%,  $n = 1$ ); knife and blunt force object combined (4%,  $n = 3$ ); firearm and knife combined (6%,  $n = 5$ ); and firearm, knife, and an explosive device combined (1%,  $n = 1$ ).

Of the 6% ( $n = 5$ ) who were not armed but feigned or simulated weapon possession, 60% ( $n = 3$ ) did so by reaching or placing their hands in their waistbands, while 40% ( $n = 2$ ) either appeared to reach for a possible weapon or simulated a weapon.

### Outcomes and Casualties

Forty-four percent ( $n = 37$ ) of the subjects were killed during the encounter, 31% ( $n = 26$ ) were injured, 14% ( $n = 12$ ) committed suicide themselves, and 11% ( $n = 9$ ) of the subjects were unharmed. Overall, there was an 89% chance of injury or death to the subjects who precipitated these incidents, with a majority dying by their own hand and/or as a result of their encounters with the police.

Across the 84 incidents, 5 non-law-enforcement bystanders or others were killed; and 15 were injured. Two police officers were killed, and 13 were wounded. Combining law enforcement and non-law-enforcement injuries and deaths by incident yielded a 37% ( $n = 31$  incidents) chance of injury or death to persons other than the subject during each incident. In all cases but one, there was one subject in each incident, but multiple bystanders and police present. In four cases, all SbC or suicidal subjects, there were multiple casualties.

Sixty-six percent ( $n = 23$ ) of the subjects who survived the incident ( $n = 35$ ) were arrested and/or convicted of a crime, 2% ( $n = 2$ ) were referred to the mental health system, and the ultimate resolution was unknown or not reported in 29% ( $n = 10$ ) of the subjects. Two percent ( $n = 2$ ) of all the cases ( $n = 84$ ) had known litigation in the aftermath.

## COMPARATIVE ANALYSES

### Fatalities and Injuries Among Groups

An ANOVA among all three groups (SbC, OIS, and suicides) regarding subject fatalities yielded a significant finding ( $F = 5.708$ ,  $p < .005$ ). There were 37 fatalities among the 55 SbC cases, 6 fatalities among the 21 OIS cases, and 6 fatalities among the 8 suicide cases. Suicidality was related to a greater likelihood of subject fatality.

A comparison of subject injury between SbC and OIS cases was not significant ( $\chi^2 = 1.305$ ). There were 16 SbC injured out of 55 and 9 OIS subjects injured out of 21. Suicidality appeared unrelated to subject injury.

### Deployment of Verbal and CNT Resources

In the <1-hr-duration group, 18 of 33 events had discussion initiated, while in the  $\geq 1$ -hr group, 33 of 51 events, discussion was initiated. There were only three cases out of 33 cases of <1 hr duration with any Crisis Negotiation Team (CNT), and 29 cases out of 51 with CNT in the  $\geq 1$  hr of duration group.

### Subject Injury or Fatality by Time

Analyses were conducted to assess whether there was a difference in casualty rates (fatalities/injuries to subjects, officers, bystanders: all separate analyses) between  $\geq 1$ -hr versus <1-hr events, our hypothesis predicting lower casualty and fatality rates in the longer incidents according to generally accepted theory. Subject injury or subject fatalities, however, were not significantly different between the two time frames ( $\chi^2 = 0.745$  and  $\chi^2 = 0.629$  respectively). For subject fatality, 21 of the 33 subjects in the <1-hr group died, but 28 of 51 subjects in the  $\geq 1$ -hr group were fatalities. For subject injury, there were 12 injuries in 21 cases of <1-hr, and 14 injuries out of 51 in the  $\geq 1$ -hr category. Injuries to others also was not significantly different between the two time frames ( $\chi^2 = 0.988$ ), with 6 injured in the <1-hr group and 9 injured in the  $\geq 1$ -hr group. An analysis of fatalities to others violated statistical assumptions of size, thus precluding inferential statistical analysis, but there were 3 deaths to others in the <1-hr group and no deaths to others in the  $\geq 1$ -hr group. An analysis of injuries or fatalities to officers also violated statistical assumptions. There were 4 injured officers in the <1-hr incidents versus 9 injured officers in the  $\geq 1$ -hr events, and there were 2 murdered officers in the  $\geq 1$ -hr group versus no dead officers in the <1-hr group.

### Effects of Verbal Interventions on Fatalities, Injuries, and Shots Fired

When SbC subjects and OIS subjects (omitting suicide subjects) who received negotiation efforts were compared on subject fatalities, it violated chi-square assumptions, as there were only 4 OIS fatalities. Thus, an inferential statistical comparison could not be conducted. However, there were 32 fatalities among SbC subjects who received verbal interventions compared to 4 deaths among OIS subjects who received verbal interventions. Similarly, a statistical comparison could not be conducted on subject injuries between

groups because there were only 4 noninjuries among OIS subjects. There were 11 SbC injuries and 7 OIS injuries among those who received verbal interventions.

There was no difference between the OIS and the SbC groups in number of shots fired by officers ( $t = 0.084$ ).

Verbal efforts to de-escalate appeared to have no effect. They de-escalated none of the SbC incidents and one of the OIS incidents.

### Effects of Less-Lethal Interventions

A comparison of the efficacy of less-lethal interventions between groups was not significant ( $F = 0.332$ ). Less lethal was deployed in 32 cases involving SbC, 5 cases of suicidal individuals, and 4 OIS cases.

## DISCUSSION

These data suggest that the presence of SBC motivation in a hostage or barricade subject is a high-risk indicator for a deadly outcome. Compared to a regular OIS subject who is not suicidal or has not thought about suicide by cop, the SbC subject is more likely to die during the incident. From a clinical perspective, the subject who is contemplating suicide by cop may not be viewing the officer or negotiator in the benevolent or hopeful manner that would allow helpful rapport to develop. Rather, he may be conversing with the officer yet continue to perceive law enforcement, consciously or unconsciously, in the role of suicide weapon, a tool to be used in his self-destruction. As long as this impulse is alive and well, it will impair genuine rapport and progress in the negotiation. It is highly likely that subjects who push their agenda to the point that it escalates into a shooting are more resolved in their suicidal, destructive impulses.

A principal assumption of crisis negotiation is that buying time will facilitate a positive resolution; allow crisis reduction to occur, negative emotions to decrease, aggressive and self-destructive impulses to diminish; and enable other solutions to occur (McMains & Mullins, 2001). However, there are occasions where the passage of time can result in increased threat or no effect (McMains & Mullins, 2001), particularly if the subject does not have a will to live. The data from this study support the fact that time does not diminish risk with certain subjects, particularly subjects who are intent on their destruction at the hands of another. That formal crisis negotiation was more likely to be deployed in the longer duration incidents—1 hr or more—is consistent with the fact that it takes time for such specialists to respond to the scene once requested by first responders. The surprising finding was that the longer

incidents, where negotiations were deployed, did not experience a significant reduction in threat or negative outcomes when compared to incidents where negotiations were not utilized or deployed. This finding, however, is attenuated by the nature of the sample (officer-involved shootings) and should not be generalized to all H&B encounters. A further study that assesses our time-comparison findings in a sample of H&B cases that did *not result* in any officer-involved shootings is warranted, particularly with subjects who are contemplating suicide by cop.

These findings support the notion that some H&B events may not be resolved peacefully—despite the deployment of appropriate negotiation resources and dialogue strategies—and that the subject plays a key role in determining the peaceful outcome of events regardless of what the officers do. Although ideologically motivated H&B incidents have yet to be studied from this perspective, we think the wish to suicide, positively redefined as an act of martyrdom, will further validate these findings (Meloy, 2004).

Given these preliminary findings regarding H&B situations that end up being investigated as an OIS, it appears that officers, police managers, investigative entities, and public expectations must be realistic—many events may not be peacefully resolved due to subject motivation and intent, particularly suicidal intent, regardless of efforts to bring in negotiators and elapsed time of the incident. Given that 36% of officer-involved shootings may be classified as suicide by cop, with an additional 5% being suicidal individuals who ended up in an OIS (Mohandie et al., 2009), and these findings that identify that most H&B incidents (76%,  $n = 63$ ) evolving into a police shooting include a subject motivated to commit suicide by cop or suicide by their own hand, it appears that police agencies need to ensure that their personnel are adequately educated in rapid suicide and suicide-by-cop risk recognition. We have outlined these risk variables in previous studies (Mohandie & Meloy, 2000; Mohandie et al., 2009), which typically involve overt behavior at the time of the incident and data that can be efficiently gathered from known relatives or associates of the subject. Further, standard suicide intervention skills must be taught to all officers, and innovative strategies (verbal and physical) for managing suicide risk in highly resolved, potentially violent individuals need to be explored and developed. It is imperative that such training and awareness be mindful of the fact that one out of three hostage and/or barricade situations in which shots are fired by the police, whether or not suicidal intent is involved, will result in injury or death to another (police officer or other person including hostages and other civilian bystanders).

This study does have limitations. There is certainly sampling bias, since this subsample of H&B cases is drawn from a nonrandom sample of officer-involved shooting incidents and did not include H&B situations where shots were *not* fired. There is also no way to assess the quality and content of the negotiations and dialogue used by the various departments in each of the incidents, given the manner in which this study was conducted. Anecdotally,

the first author is aware that the negotiation teams of each of these contributing agencies are well trained, professional, with documented success in other incidents. Nonetheless, this study indicates that there are important lessons to learn from the scientific study of high-risk police intervention situations that do not resolve peacefully. We think it provides a useful counterpoint to the HOBAS data from the FBI (2007), which may contain a sampling bias in the direction of peacefully resolved hostage and barricade incidents voluntarily reported by local hostage and negotiation teams in the U.S. Learning is enhanced when both failures and successes are considered.

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