

FORCE SCIENCE[®] NEWS

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I. New study: Perils & protections in dealing with excited delirium

A new study headed by an Advanced Force Science Specialist finds that an officer who confronts a subject in the throes of excited delirium stands nearly a 90% chance of ending up on the ground in a struggle with potentially serious consequences.

The more symptoms of excited delirium a subject exhibits, the greater his likelihood of being violent, researchers report. And more than 40% of afflicted subjects are armed, “generally with weapons of opportunity” such as hammers, shovels, metal bars, pieces of wood, and shards of glass.

Recommendations for how officers can tactically protect themselves and the subjects in these perilous encounters are included in a paper on the study, published recently in the peer-reviewed *International Journal of Law and Psychiatry*.

“If officers were more aware of the type of danger that could ensue” from excited delirium encounters, “and be better equipped to recognize the features,” the paper says, “then subject and officer injuries could potentially be mitigated.”

The study is believed to be the largest examination yet undertaken of police use-of-force encounters involving probable cases of excited delirium syndrome [ExDS]. The project was led by Simon Baldwin, a PhD candidate in psychology at Canada’s Carleton University and a researcher with the Royal Canadian Mounted Police.

Baldwin carries the highest level of certification in Force Science studies. His five co-authors included two Force Science instructors, Dr. Christine Hall and Chris Lawrence.

CULLING FOR CASES. The research bored into a four-year collection of force reports amassed by a large Canadian law enforcement agency in a “vast geographical area that

includes urban, suburban, rural, and remote communities.” Across that time period nearly 11 million police-public interactions occurred in the area, including 11,237 reported UOF events involving about 9,000 subjects.

The researchers parsed the official force reports in search of probable cases of ExDS, based on the presence of these 10 subject behaviors commonly associated with the syndrome:

- pain tolerance
- constant/near constant activity
- unresponsiveness to police presence
- superhuman strength
- rapid breathing
- lack of fatigue
- nudity/inappropriate clothing
- profuse sweating
- exceptional tactile body heat
- attraction/destruction of glass.

Of the 9,000 subjects on whom officers applied force, about one in 10 displayed three or more features of ExDS, 156 (1.7%) exhibited six or more, and a “very small number” (0.02%) presented all 10 screening features.

Exhibiting six or more “indicates that an individual is in a highly abnormal state” that can “only be described as a medical emergency” and is considered “probable ExDS,” Dr. Hall explains. Of this group, 95% were male, with an average age of 31, while 88.5% were perceived by involved officers “to be under the influence of drugs and/or alcohol,” with the definite emphasis on drugs. About four in 10 possessed a weapon.

On average, three to four officers responded to the scene to deal with these subjects, “consistent with more dangerous circumstances.”

In day-to-day policing, “individuals with high numbers of features of ExDS are infrequently encountered,” Baldwin notes. But on the statistically rare occasions when force is used—0.08% of police-public contacts—“subjects with multiple features of ExDS are much more commonly encountered.”

OFFICER RISK. Officers confront “highly abnormal, violent subjects” indicative of ExDS “in 1 in every 58 UOF incidents,” Baldwin writes. As the number of ExDS features exhibited by a subject increases, so does the risk of assault.

Subjects displaying six or more of the associated behaviors are more than twice as likely to engage officers in an “assaultive manner” than persons exhibiting less than three features—and nearly four times more likely to present “a threat of grievous bodily harm or death.”

Baldwin notes: “Approximately 88.5% of all probable cases of ExDS engaged in a struggle with an officer that went to the ground.... Compared to those with less than three features of ExDS, the odds of a struggle continuing after going to the ground were nearly three times higher for probable cases of ExDS.”

A *struggle* going to the ground is significantly different than a *subject* going to the ground, Baldwin points out. The latter may result from a controlled, multi-officer take-down. “But a *struggle* going to the ground can have particularly serious consequences for responding officers” as well as for the ExDS subject.

“A prolonged struggle could put these subjects at an increased risk” of arrest-related death because of the intensified physiological stress caused by exertion, Baldwin says. “Officers are also at an increased safety risk, as continued physical resistance by a subject has one of the largest associations with officer injury.”

PROTOCOLS & TACTICS. By definition, Baldwin writes, ExDS subjects “are delirious and unable to make appropriate cognitive decisions” and thus “are unlikely to comply with verbal direction.” Also their pain tolerance, continual activity, and superhuman strength may render interventions that rely on pain compliance or manual force ineffective.

When circumstances permit, the researchers recommend “multiple [officer] responses and effective intervention options to quickly and efficiently control these subjects,” reduce the “extent of struggle involved, and allow for more expedient” medical aid.

CEW probe deployment, for example, provides greater distance from the subject and also tends to have “lower injury rates when compared to the use of physical control,” the study suggests.

Once on the ground, “judicious restraint” should focus on preventing the ongoing use of large muscle groups like the legs, to reduce the adverse physiological effects of continued struggle and minimize the subject’s ability to “generate power” for more resistance. [A number of physical restraint techniques have been developed for controlling ExDS subjects, including one credited to Instructor Chris Lawrence that’s cited in Baldwin’s paper. For details, see *Force Science News* #87 at: www.forcescience.org/fsnews/87.html

“Further research is needed, however, to determine which force options optimize outcome for police and subject,” Baldwin states.

“As soon as possible, officers should continuously monitor the subject’s vitals and face” to assess the critical ABCs—airway, breathing, and circulation, the study advises. “Increasing evidence also suggests that prehospital administration of Ketamine” by EMTs “may be an optimal sedative for the treatment of ExDS, due to its quick onset and more complete behavior control,” the researchers say.

In closing, Baldwin emphasizes the importance of recognizing ExDS as a medical emergency, with dispatch of EMS to the scene as early as possible. Regular, up-to-date training on the ExDS phenomenon is urged also, to “guide appropriate policy and response strategies.”

Interestingly, despite ExDS’s deadly (for the subjects) reputation, only four violent afflicted individuals experienced “sudden and unexpected” arrest-related deaths during the study period. Acute stimulant toxicity was documented in all. Baldwin writes: “Numerous co-factors are often involved in [such] deaths, including substance use, mental illness, abrupt cessation of psychiatric medication, poor physical health, psychological and physiological stress, as well as a prolonged struggle.”

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II. More that officers should know about high-risk ExDS encounters

In reporting another new study of excited delirium, researcher Dr. Darrell Ross offers additional insights for improving the safety of officers and subjects alike in these fraught confrontations.

The goal is not to train or expect officers to make clinical diagnoses in the field as psychiatric experts, Ross says. “But providing them with research findings can enhance their awareness and focus to properly direct their initial response and use-of-force control measures.”

In addition, officers’ recognition of subjects’ key behavioral symptoms can help EMS personnel choose appropriate medical intervention. And “should a death occur,” Ross writes, “officer observations can assist investigators and the medical examiner in assessing contributing factors.”

Ross of Valdosta (GA) State U. and his co-author Dr. Michael Hazlett of Western Illinois U. analyzed UOF reports of 635 violently resistant arrestees who exhibited symptoms of excited delirium syndrome [ExDS], as compiled by 17 police departments and sheriff’s agencies in six US states.

Here are highlights they think officers should know in preparation for a potential encounter:

SYMPTOMS. Beyond violent behavior per se, which of course is not unique to ExDS situations, the new study identifies 12 telltale symptoms associated with the syndrome that officers can readily recognize: the 10 listed by Baldwin’s team in Item I above plus “incoherent speech” and “bizarre behavior.”

The most commonly confronted overall during the study period tended to be non-responsiveness to police...high pain tolerance...hyperactivity...incoherent speech...and extreme strength. Least common was attraction to glass (“rarely reported”).

Nearly 60% of the subjects studied exhibited three to four ExDS symptoms, with 12% displaying seven to 10. No one displayed all 12.

Those in the seven-or-more category were significantly more likely to exhibit the most dangerous qualities, including extreme strength and unflagging stamina, high-pain tolerance, hyperactivity, bizarre behavior, and non-responsiveness. Those subjects were also most likely to be hot to the touch, fully or partially nude, sweating profusely, and breathing rapidly.

RESISTANCE. Simply stated, Ross writes, the greater the number of ExDS symptoms displayed, the higher the level of arrestee resistance—similar to what Baldwin and his team found. Ross describes three potential gradations of intensity:

- **defensive resistance**, such as pulling, prying, twisting, stiffening, or running away—actions “meant to defeat the officer’s efforts of control and not intended to harm”;
- **active resistance**, where the arrestee uses personal weapons (grabbing, wrestling, punching, kicking) to physically assault the officer;
- **aggravated active resistance**, severe felonious attacks with personal or other weapons that “may seriously injure or kill the officer.”

Overall, he explains, 75% of subjects exhibiting three to four symptoms presented defensive resistance. Those in the five- to six-symptom group resorted to active resistance more frequently (85% in that category did so), and those showing seven or more symptoms “were more likely to escalate” to active (75%) or aggravated (25%) attacks.

Even after being put on the ground in a prone position, about one-third of subjects showing five or more symptoms continued to present active or aggravated resistance, Ross finds.

At every level, “the behaviors and the type of resistance demonstrated by persons in excited delirium is unpredictable,” he states, “and officers must remain alert to protecting themselves as well as the arrestee throughout the interaction.”

RESPONSE. To establish control, a conducted energy weapon [CEW] was used about 40% of the time against individuals showing five or more symptoms and assaultive behavior, Ross reports.

On average, two trigger pulls were needed to bring the assailant down, with the CEW typically discharged once more if resistance continued even after the subject was in a prone restraint position.

The weight of one or two officers was placed on the back of a grounded subject for one to five minutes in about 90% of the cases, and arrestees were hobbled in about one-third of the incidents—tactics that some critics have argued are potentially deadly for subjects.

To the contrary, Ross stresses, none of the study subjects died regardless of the force measures used—“a significant finding.” Arrestees did not sustain any injury about 80% of time and suffered serious injury (such as broken or dislocated bones or head trauma) in only 3% of instances. “A high percentage of arrestee injuries resulted from their violent resistance,” he says.

Ross and Hazlett devote significant space in their paper to discussing the desirability of employing a CEW to control subjects exhibiting five or more ExDS symptoms.

“While there is no risk-free use of force device or technique,” they state, “scientific research consistently shows that the CEW reduces the risk of injury or death with arrestees.... [A]rrestees exhibiting symptoms of ExDS are generally impervious to pain and the CEW provides a viable and safe use of force response to overcome [their] combative behaviors.”

In short, the study supports the conclusion of other researchers that a CEW is “the preferred [nonlethal] use-of-force device when faced with violent and agitated arrestees.”

TRAINING. Ross urges that agencies provide training on ExDS to “officers, dispatchers, administrators, emergency medical personnel, and investigators.” By policy, he says, these stakeholders, along with mental health professionals, should train together to coordinate an effective response to ExDS emergencies whenever feasible.

He recommends that a checklist of symptoms be provided to dispatchers so they can “obtain as much information as possible about [a subject’s] behaviors when dispatching officers to the scene.” Once there, officers should apply force measures, control, and restraint “quickly to minimize the arrestee’s exertional activity and shorten the confrontation,” he advises.

The symptom checklist should also “be embedded into the department’s response-to-resistance report form, so officers can fully document” their observations, as well as their verbal and physical attempts at control.

A full report on the study, titled “Assessing the symptoms associated with excited delirium syndrome and the use of conducted energy weapons,” is published in the *Forensic Research & Criminology International Journal*.

Dr. Ross, a professor and department head for sociology, anthropology, and criminal justice at Valdosta State, can be reached at: dross@valdosta.edu

III. Free webinar: Legal guidelines for dealing with suicidal subjects

Three webinar panelists with Force Science credentials will explain officers' legal obligations when responding to crisis situations involving suicidal subjects.

The free program, aired live online Sept. 18, is sponsored by Lexipol, the public safety policy advisory organization. Panelists will be Advanced Force Science Specialists Ken Wallentine and Mike Ranalli and Force Science instructor Laura Scarry. All are law enforcement and legal professionals.

Among other things, they'll discuss and clarify:

- Recent federal cases on the duty and authority imposed on officers regarding intervention with noncriminal suicidal subjects;
- How an agency and its officers can minimize liability and safety risks;
- How the "state-created danger" theory applies to would-be suicide calls;
- Three critical elements of tactical withdrawal and effective risk mitigation when faced with subjects who are in mental crisis but not an active threat.

The importance of the content is underscored in a Lexipol announcement of the program: "Despite best intentions, these volatile incidents can easily backfire on officers who intervene without proper preparation, resulting in harm to the subjects, the officers, and their agencies."

The webinar format will allow audience members to submit questions for the panelists in real time.

For more information and to register, <https://info.lexipol.com/webinar-suicidal-subjects>

Registrants who can't attend the live broadcast will be provided access to a recording for later viewing at their convenience.