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Pepper Spray and/or Pepper Ball use in the Jail Environment

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ABSTRACT

The purpose of this paper is to determine if pepper spray (OC) and/or pepper balls are effective as agencies think they are for either the officer on patrol, and/or the officer working in the jail environment. In addition, will using pepper spray (OC) and/or pepper balls actually reduce the officer-suspect/inmate injuries? A review of articles, legal brief, opinions, surveys, and interviews will be conducted and will be presented here for an agency to determine for themselves if they should utilize pepper spray (OC) and/or pepper balls in their force continuum. The conclusion is that using pepper spray (OC) and/or pepper balls is a very effective tool. It not only incapacitates the suspect/inmate very quickly, it also reduces the amount of injuries sustained by the officers as well as the suspect/inmate and that is a cost saver to the taxpayer.

TABLE OF CONTENTS

	Page
Abstract	
Introduction.	1
Review of Literature	2
Methodology	5
Findings	6
Discussions/Conclusions	11
References	13

INTRODUCTION

Numerous law enforcement agencies throughout the United States have implemented the use of the pepper spray and/or pepper balls (also known as oleoresin capsicum or OC) in their use-of-force continuum. Pepper spray and/or pepper balls come in different style dispensers and sizes, some of the aerosol canisters are small enough that can be carried on the duty belt, or it can be purchased all the way up to a large size that is also called a “party can” for groups or a large area. They come in grenade and fogger style for crowd control, and/or even in a gun (rifle or pistol) style dispenser. Some agencies use pepper spray and/or pepper balls in their patrol and/or jail situations.

An inquiry will look at determining if pepper spray and/or pepper balls are as effective as agencies think. Also, a look at where, in the use-of-force continuum, should it be used to start taking control of a situation before sending in the troops (emergency response teams) in the jail environment. This research paper will address the question: Are pepper spray and/or pepper balls the correct tool to use in the force continuum in a jail environment?

To gain the information needed to complete this paper, contact will be made with surrounding law enforcement agencies of Potter County, Texas, to see if they are using pepper spray and/or pepper balls and their thoughts on it. A survey of fellow LEMIT Module 1 participants will be conducted along with a review of written publications, legal opinions, and information available from the Internet.

The intended outcome of this paper is to show that pepper spray and/or pepper balls are the correct tools to use in the force continuum in the jail

environment. The benefit of this research paper will be to assist law enforcement agencies in determining if using pepper spray and/or pepper balls should be implemented in their use-of-force continuum. This will also benefit the population the agency control.

REVIEW OF LITERATURE

From early-recorded history, chemicals have been used by armies and/or individuals in some form or another. They would use it to disable, confuse, and/or conquer opposing armies or individual opponents. Research has proven that pepper spray is an effective tool in today's law enforcement much like the chemicals of long ago. It incapacitates individuals quickly and it reduces physical injuries, whether it be in the field or in a jail environment. According to Johnson (1997), as early as 2300 B.C., Chinese armies would boil oil with red peppers in it to produce an irritant and smoke that would confuse and suffocate their opponents, but the wind had to be blowing in the correct direction to accomplish this objective. Once it was apparent that their opponents were confused or started retreating, they would start the offensive and attack.

Depending on what is read, some believe that the Japanese Samurai warriors took the tried and tested chemical solution that the Chinese armies were using to the next level. They not only expanded on it, but they also implemented stinkpots in its use for attacks, much like the use of the modern day smoke grenades to confuse and blind suspects. They also learned to grind pepper into a fine powder, and wrap it in rice paper. They would wait until their opponent(s) were close enough to throw it in their face, which caused temporally blindness, so

they could be defeated. PepperBall Technologies, Inc. (2004) said that some believe that the Chinese themselves came up with the idea of rice paper filled with red pepper to throw into their opponents' faces to cause temporary blindness.

Over the years, the research and technology using pepper as a chemical agent has expanded. Frey (1998) reported that in the early 1900s, (possibly 1930) the United States Army experimented with oleoresin capsicum (OC or pepper) spray, a pepper derivative. They thought it was not as good as the other chemical agents they were presently using (CN and CS), so they ceased developing it.

McEwen (1997) found that oleoresin capsicum (OC or pepper) is a natural occurring inflammatory agent derived from the cayenne peppers.) Information obtained from Johnson (1997), the Federal Food, Drug and Cosmetic Act (FDA) approved a variation of it as an ingredient in to be used in the food and pharmaceutical industries. Capsaicin can be used as a circulatory stimulant and pain reliever. Capsicum is a genus of plants that is used as a spice, a vegetable, and a medicine.

Genus capsicum is mainly a tropical perennial shrubby plant having numerous-seeded fruits (pods with seeds), anywhere from sweet to hot peppers. These plants are grown throughout the world now, but at one time, they could only be found in Central and South America. The majority of the different varieties of this plant contain capsaicin, which can produce a pungent odor or strong burning sensation. The fruit (pods) comes in different sizes, shapes, and styles. They are filled with air, and depending on the style it may have two (2)

four (4) vertical ribs, and carries seeds, but the majority of the seeds are on the dome at the stem end of it. Also in Johnson (1997), oleoresin is a natural occurring substance of a mixture of oil and resin that is extracted from plants.

According to research by Frey, Haidle, and Johnson (1997), in the early 1970's, oleoresin capsicum (OC or pepper) spray was brought to the attention of the news media when it was discovered that it was effective chemical on bears to ward off attacks. The Border Grizzly Project (research group) that at one time had ties to the University of Montana, tested oleoresin capsicum (OC or pepper) spray for six (6) years. It proved very effective, and at no time were the bears harmed. In all their applications of it, the Border Grizzly Project never had a single incident where it failed them, or produced negative results. Information obtained by Haidle (1999) another time it was used to ward off dog attacks by the United States Post Office mail carrier when they delivered letters.

Johnson (1997) found out that sometime around 1973, oleoresin capsicum (OC or pepper) spray was introduced to the law enforcement community when the flashlight "Nebulizer" came on the market. Built into the flashlight, was an aerosol of oleoresin capsicum (OC or pepper) spray. It did not receive an overwhelming response at that time. It is apparent that in 1976 the Lucky Police Products of Florida purchased the "Nebulizer" name and rights. They then reintroduced the oleoresin capsicum (OC or pepper) spray into the law enforcement community as an aerosol spray. It contained a 1 per cent oleoresin capsicum (OC or pepper) spray solution called "Capstun" to compete with Mace.

Johnson (1997) explained that pepper spray became popular in the law enforcement field after a study was completed in May 1989, by the FBI.

According to PepperBall Technologies, Inc., (2004) in 1996, Jaycor Inc. was in the business of research, development and design defense contractor for over 28 years. They started looking at the possibilities of introducing a line on non-lethal products. Shortly thereafter, they introduced a line of pepper ball launchers that resemble a rifle and pistol. The ammunition that the pepper ball launchers use is 68 calibers, hard frangible sphere. The projectiles are available in either powder filled or liquid filled.

The pepper ball launchers are utilized when the distance is too great for the effectiveness of pepper spray. The oleoresin capsicum (OC or pepper) spray in the aerosol canister, depending whether it is the stream or mist style, is usually effective from zero (0) to ten (10) feet. The pepper ball launchers are effective from zero (0) up to thirty (30) feet on an individual, and up to three hundred (300) feet for crowd control. Depending on the container style and size of the oleoresin capsicum (OC or pepper) spray, there is a possibility of only having the capability of four (4) to five (5) one (1) second bursts. In comparison, the pepper ball launchers, depending on the style, have the capability of holding from eight (8) to seven hundred (700) rounds of ammunition.

METHODOLOGY

Are Pepper Spray and/or Pepper Balls the correct tool to use in the force continuum in a jail environment? The intended outcome will show that Pepper Spray and/or Pepper Balls are the correct tool to use in the force continuum and it is safe to use in the jail environment. Contact will be made with surrounding law enforcement agencies of Potter County, Texas, to see if they are using Pepper

Spray and/or Pepper Balls and their thoughts, pro and con, on it. Numerous written publications that were obtained at the Sam Houston University, located in Huntsville, Texas, will be used in addition to the Internet to obtain any additional pertinent information that may be needed to complete this research paper.

A ten (10) question survey with yes or no answers was passed out to the twenty-eight (28) additional fellow LEMIT Module 1 participants that attended the three (3) weeks from January 26 to February 13, 2004. The participants represented twenty-six (26) different agencies (three were from the same agency) throughout the state of Texas. They consisted of eighteen (18) police departments, three (3) school police departments, six (6) sheriff offices, and one (1) TABC agent. The response to the survey was 100 per cent. The figures will only show twenty-six (26) results as three (3) of the participants were from the same agency: Humble Police Department. All of the information that was obtained will be read, studied, analyzed, and finally compiled for an impartial finding. The results will be listed in this paper.

FINDINGS

Smith and Alpert (2000) discussed that in 1999, a survey was conducted by the Police Executive Research Form (PERF) on 832 American law enforcement agencies. They discovered that 68 per cent of these agencies had policies on the use-of-force, which included the use-of-force continuum. The use-of-force continuum outlines the different levels of force to apply when handling individuals and situations. Example of police use-of-force continuum: (1) No force; (2) Command presence (officer in uniform); (3) Verbal commands; (4) Light

hand techniques: escort, handcuffs; (5) Hard hand techniques: physical contact, striking, kicking, impact weapons, etc. (6) Deadly force: firearms.

The officer should only go to the level of force that is required to respond to the threat level that they are experiencing at that time from the individual or group. According to use-of-force policies, officers can escalate their use-of-force as the suspect's resistance increases, and it should reduce when the suspect's resistance reduces. The above-mentioned survey by PERF showed that eighty-six (86) per cent of the agencies that responded placed pepper spray before any physical control techniques in their use-of-force continuum. If an agency is going to start or is already using chemical agents, the use-of-force policies need to list at what stage it will be allowed to be implemented in their force continuum.

Research shows the success rate of using oleoresin capsicum (OC or pepper) spray ranges from eighty-five (85) per cent to ninety-five (95) per cent effectiveness in taking control of the situation. The same study showed that there were few injuries to officers and suspects during the incident(s) when pepper spray was utilized, and none of them required medical treatment or hospitalization. A two-year (2) study was completed on the Portland, Oregon police department before their using pepper spray. The results showed that sixty-nine (69) per cent of the suspects and thirty-one (31) per cent of the officers received some type of injury when use-of-force was utilized. After pepper spray became available, only twelve (12) per cent of both suspects and officers were injured when use-of-force had to be utilized. A study was completed on the New Britain, Connecticut law enforcement agency and showed that out of three

hundred and sixty (360) uses of pepper spray, no officers or suspects were injured.

Lumb and Friday (1997) found that oleoresin capsicum (OC or pepper) spray can be effective in numerous situations without any long lasting side effects to the person sprayed. As with any use-of-force used, once oleoresin capsicum (OC or pepper) spray is utilized, agencies need to instruct their personnel and have it listed in their policy to seek medical attention for decontaminating the individual as soon as possible, whether it is an altercation with a suspect or an inmate in a jail. This can be accomplished with spraying water on the effected area for three (3) to four (4) minutes. If the affected area is the eye, a spray bottle should be considered as it does not produce pressure on the eyes. The decontamination should continue until the individual feels comfortable and there is no more irritation or burning sensation.

Oleoresin capsicum (OC or pepper) spray is low on the use-of-force continuum because of the low risk for injuries. Kaminski, Edwards, and Johnson (1999) discuss that the utilization of oleoresin capsicum (OC or pepper) spray will produce fewer assaults on officers, reduce the officer-suspect injuries, and result in fewer excessive force complaints. This is a benefit to the citizens and taxpayers alike, as it will be a savings to them because of the reduction in the amount paid to the area hospitals for medical attention for officers, suspects and/or inmates, court lawsuits, and workers compensation claims.

According to MeEwen (1997) the use of oleoresin capsicum (OC or pepper) spray has shown that it greatly reduces the implementation of physical and/or deadly force. Kaminski et al. (1999) suggested that agencies should

consider giving a verbal warning before their use of oleoresin capsicum (OC or pepper) spray and it should be listed in their use-of-force policy. This will be an asset if the suspect and/or inmate decide to pursue a lawsuit. NIJ (2003) confirms that oleoresin capsicum (OC or pepper) spray is a safe and an effective tool for law enforcement officers to use when confronting uncooperative and combative individuals; it provides no reason to stop using such an important less-than-lethal weapon.

Avery (2003) suggested that agencies should never forget to take into consideration the suspect's or inmate's mental state (emotionally disturbed people), and/or even the intoxication level with drugs and/or alcohol. There is a possibility that the usage of oleoresin capsicum (OC or pepper) spray may have little effect on the individual, which will in turn escalate the use-of-force continuum to another level.

PoliceOne.com (2004) explains that pepper balls are a non-lethal compliance product that is designed to fill a critical gap in the use-of-force continuum. Pepper ball products provide law enforcement officers and/or correctional facility guards the safest and most effective non-lethal tool in the variety of their use-of-force continuum. The article goes on to explain that the pepper spray and pepper ball projectiles are a life saving weapon that is used to enforce the law and maintain order in the public and inmate populations. The utilization of either pepper spray and/or pepper balls in the jail environment can defuse a problem and take control of a situation before an emergency response team has to be sent in and get physical with force.

The survey passed out to LEMIT Module 1 participants showed that only fourteen (14) of the twenty-six (26) agencies represented currently use pepper spray, they all have a written policy/procedure where it is to be used in their use-of-force continuum, and that they have jails. Only one (1) of the fourteen (14) agencies does not require a written report when pepper spray is used. All of the fourteen (14) agencies train their employees, (two agencies train only sergeants and above, and one agency trains only swat members). Eight (8) of the nine (9) agencies uses it in the jail environment. Seven (7) of nine (9) agencies use it before subduing an unruly/combatative inmate. Eleven (11) of the fourteen (14) agencies use the aerosol canister and the gun dispenser style. Nine (9) agencies reported that using it showed a decrease in the need of using pepper spray on inmates. Eleven (11) of the fourteen (14) agencies reported that the injuries to officers and/or inmates had been reduced.

Six (6) individuals were surveyed from different agencies surrounding Potter County, Texas, located in Amarillo, Texas. They were: 1) Sheriff J. R. Walker of Armstrong County Sheriff Office; 2) Sergeant Fred Britten of Carson County Sheriff Office; 3) Sheriff David Medlin of Oldham County Sheriff Office; 4) Captain Bruce Evans of the Randall County Sheriff Office; 5) Sergeant Ron Hudson of the Amarillo Police Department; and 6) Lieutenant Darrell Nash of the TDCJ-ID Clements Unit. It was discovered that Armstrong and Carson County do not use pepper spray. The other 4 agencies use pepper spray and/or a gun dispenser of some type. They all stated that the injuries to officers and/or inmates had been reduced.

CONCLUSIONS

For years, the law enforcement community has been looking for non-lethal weapons to utilize in their use-of-force continuum. The purpose of this paper was to research pertinent information on pepper spray and/or pepper balls and to make a non-biased determination if they are correct tools to use in the force continuum in a jail environment.

The conclusion is that utilizing oleoresin capsicum (OC or pepper) spray is a viable tool for the law enforcement community in their use-of-force continuum, whether it is in aerosol and/or pepper ball style, as it reduces officer and suspect injuries. Lumb and Friday (1997) point out that injuries will continue to be sustained when a use-of-force policy does not allow utilizing oleoresin capsicum (OC or pepper) spray, but to immediately go from command presence to resorting to physical force.

The final research results show that the advantages when it is sprayed on an individual are that they experience almost instantaneously swelling of the eyes (eyes go closed), a terrible burning sensation (skin is irritated and/or turns red, and the breathing is restricted due to the inflammation of the respiratory tract. By allowing the use of oleoresin capsicum (OC or pepper) spray either in aerosol and/or pepper balls in the jail environment will also save money on replacing equipment that could be damaged or destroyed when physical force has to be implemented. Injuries are more likely to be sustained to both officer and inmate when physical force has to be used to take control of an inmate.

As stated earlier, allowing the use of pepper spray and/or pepper balls in the law enforcement agency use-of-force continuum will save the taxpayers

money by reducing the amount of medical bills paid out on injuries sustained on suspects/inmates and/or on officers whether they are on patrol or in the jail.

Decontamination of an individual is relatively easy - a spray bottle filled with water. This can be easily carried in a patrol car if needed by the officer in the field or in the jail by medical personnel. Since pepper spray has an effective rate of eight-five (85) to ninety-five (95) per cent, law enforcement agencies should realize that pepper spray and/or pepper balls is relatively cheap in comparison to the rising cost of medical bills, workers compensation insurance, time off from work, and law suits sought by suspects and/or inmates for injuries received by officers.

REFERENCES

- Avery, M. (2003). Unreasonable seizures of unreasonable people: defining the totality of circumstances relevant to assessing the police use of force against emotionally disturbed people. *LexisNexis: Columbia Human Rights Law Review*, 34(261), 1-59.
- Frey, B.D. (1998). The uses and abuses of pepper-spray: should we carry it or shouldn't we? *LEMI*, (502), 1-13.
- Haidle, C. (1999). The use of pepper spray does it belong in the use of force continuum? *LEMI*, (687), 1-12.
- Johnson, D. (1997). Use of oleoresin capsicum (pepper) spray by the Calhoun County Sheriff's Office. *LEMI*, (509) 1-15
- Kaminski, R.J., Edwards, S.M., & Johnson, J.W. (1999) Assessing the incapacitative effects of pepper spray during resistive encounters with the police. *Policing: An International Journal of Police Strategy and Management*, 22(1), 7-29.
- Kelly, R. (2000, March). Pepper ball non-lethal weapon compliance technology, an alternative to lethal force. *PepperBall Technologies, Incorporated*. Retrieved February 08, 2004, from <http://www.pepperball.net/faq/general.asp>
- Lumb, R.C. & Friday, P.C. (1997). Impact of pepper spray availability on police officer use-of-force decisions. *Policing: An International Journal of Police Strategy and Management*, 20(1), 136-148.

- McEwen, T. (1997). Policies on less-than-lethal force in law enforcement agencies. *Policing: An International Journal of Police Strategy and Management*, 20(1), 39-59.
- NIJ. (2003). *The effectiveness and safety of pepper spray*. (NCJ Publication No. 195739). Washington, DC: U.S. Government Printing Office.
- PepperBall non-lethal product applications*. (2004, January). Retrieved January 29, 2004 from <http://www.policeone.com/products/articles/76817/>
- Smith, M.R., & Alpert, G.P. (2000). Pepper spray a safe and reasonable response to suspect verbal resistance. *Policing: An International Journal of Police Strategy and Management*, 23(2), 233-245.