An Analysis of Mississippi Conservation Officer Satisfaction with Weaponless Tactics Training

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Abstract: A survey was developed and administered to a population of Mississippi conservation law enforcement officers in order to elicit demographic characteristics and satisfaction with weaponless tactics training. One hundred and four of 253 (41%) surveys were returned for analysis. Respondents were classified based on having <5 years, 5–15 years, or >15 years service. In general, officers with more experience were likely to find weaponless tactics training important but only moderately so. More experienced officers were less likely to find weaponless tactic techniques easy to learn and remember. Additionally, more experienced officers found the techniques for weaponless tactics to be less efficient at controlling aggressively assaulting subjects. Officers felt the number of hours received in firearms training and pressure point control techniques were satisfactory whereas training in other defense areas was less than adequate. More than 60% of respondents indicated that too little time was spent training in verbal tactics, punching techniques, defending punches, kicking techniques, and throwing/takedown techniques. More than 70% of respondents indicated that too little time was allotted for training in defending against kicks, ground wrestling, and gun retention. Over 85% felt there should be an increase in multiple-assailant defense training. This survey indicated a lack of satisfaction in how officers feel they have been trained to protect themselves in their daily work. Thus, the current training system for conservation officers in Mississippi needs to be reevaluated; alternatively, encouragement or incentives for officers to seek additional training outside the agency may be necessary.

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Conservation law enforcement, while being one of the cornerstones and oldest aspects of natural resource management (Sigler 1995), has had little attention in terms of research and identification of needs. Beattie et al. (1977) gave an excellent example of the lack of advancement in conservation law enforcement even while it remains prevalent in every state's natural agency budget. Once of the earliest records of conservation law enforcement can be found in Marco Polo's chronicles of the laws that Kublai Khan (1259–94 A.D.) initiated over his lands. According to Polo, Khan had placed into law that no one should harvest animals during the breeding season and had soldiers enforce the law. Despite the history of conservation law enforcement and the fact that the average expenditure for law enforcement in 1997 in the Southeast was 23.6% of state wildlife and fisheries budgets (SEAFWA 1998), con-

servation law enforcement agencies tend to be underfunded, understaffed, and under evaluated.

An evaluation of traditional law enforcement indicates a huge discrepancy in funding when compared to conservation law enforcement. According to the National Institute of Justice, Bureau of Justice Statistics, in 1997, local police departments budget about $67,000 per sworn office or $150 per resident to operate for the year. Sheriffs' offices budget about $73,000 per officer or $49 per resident for the year. Indeed, in 2000, Jackson Mississippi's, police department was 430 officers strong with an operating budget of $28.9 million or $67,249 per officer or $144 per resident. Comparing this to the conservation law enforcement in Mississippi, the Department of Wildlife, Fisheries, and Parks received $46,940 per officer; $4 per state resident or $24 per licensed hunter/fisherman in 2001. Additionally, officers in Jackson cover 112 square miles with 430 officers, whereas conservation officers cover 60,000 square miles with 253 officers. On average, traditional law enforcement agencies maintain 2.4 officers/1,000 inhabitants (FBI Uniform Crime Report 2000), whereas the conservation Law Enforcement Division of Mississippi employees 253 officers to police 2.8 million residents (U.S. Cens. 2000) or 0.09 officers/1,000 inhabitants.

With this type of ratio of officers to residents and current budget constraints, the national concern for the training of officers to effectively and safely gain control of resistive and combative subjects is escalated. Strawbridge and Strawbridge (1990) conducted a survey of municipal and county police agencies with 500 or more sworn officers and found that the number of hours of defensive tactics training for recruits ranged from 10 to 148 hours. Only 10% of the agencies reported that officers received additional in-service training in defensive tactics. Conservation officers in Mississippi receive nearly all of their defensive tactics in the state police training academy during recruit training. This consists of about 40 hours of defensive tactics training (S. Howell, basic coordinator, Mississippi Police Officer Training Academy, pers. commun.).

Kaminski and Martin (2000) discuss the evolution of police defensive and combative training systems in the United States and their positive and negative aspects. Police training rapidly evolved following the Civil Rights Movement of the 1960s. A training system of empty-hand subject control and defense vs. baton and truncheon use emerged in the 1970s (Aikido Training Police 1970, Pines 1970). Following this, police academies enlisted anyone who was trained in open-hand combative arts for training of officers. Generally, these trainers were long-term martial artists (Moynahan 1962, Gruzanski 1963, Pines 1970, Parson 1976, Redenback 1998). These individuals developed systems for officer training into systems that became popular throughout the country. These systems, however, were usually based on the skills developed over many years of training rather than effectiveness for short term training and ease of retention (Dossey et al. 1997, Redenbach 1998).

Due to budget and time constraints to add additional training to officers daily or weekly activities and due to the lack of evaluation of officers' perceptions of the defensive tactics training received, we conducted our study. The objectives of this study were to examine officer satisfaction with the current weaponless tactics training re-

ceived and determine the effectiveness of these tactics in terms of officer use and retention. Results from this study can aid administrators in effectively planning a course of action that will ensure officer satisfaction with and acceptance of training as well as to potentially save lives.

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Methods

A survey was developed and administered to a population of Mississippi Conservation Law Enforcement officers in order to elicit demographic characteristics and satisfaction with weaponless tactics (WT) training. The demographic variables collected were gender, age, years of enforcement service, education level, height, weight, and ethnicity. WT training satisfaction evaluation included importance of WT training in their job, ease of tactics to learn and remember, effectiveness of tactics against resistive subjects and aggressively assaulting subjects, effectiveness of techniques against multiple attackers, and needs for more or less WT training in specific area. Areas of specialized training included verbal tactics, joint locks and holds, pressure point control, punching techniques, kicking techniques, defense against punching, defense against kicking, throwing/takedown techniques, ground wrestling, gun retention, firearm training, and multiple-assailant defenses.

A total of 253 surveys were mailed to the subjects at their home addresses with a cover letter describing the nature of the study. Postcard reminders were mailed 2 weeks later. This survey methodology was modified from Dillman (1987).

Data were entered into a spreadsheet, checked for entry errors, transferred to a statistical program, and summarized. Respondents were placed into groups based on years service to the agency. Group 1 were officers with <5 years service, group 2 had 5–15 years service, and group 3 had >15 years service. The statistical package SPSS (Statistical Package for the Social Sci. ver. 8.0) was used for data summary. One-way ANOVA and Student-Newman-Keuls (SNK) multiple comparison was used to determine differences between officers with <5 years, 5–15 years, and >15 years service within each question.

Results

A total of 104 of the 253 surveys were returned for a response rate of 41%. Several addresses from the officer database were incorrect, causing some officers to not receive the bulk-mailed survey. Additionally, because of the bulk mailing, investigators were unable to determine which subjects or how many did not receive surveys. Despite the low response rate, the respondents are considered representative because

of the similarity between the known demographic characteristics of the population (maintained by the Miss. Dep. Wildl., Fish, and Parks) and the reported demographics for the respondents. We do not expect that this survey could have introduced a response selection bias based on demographics and years of service.

Twenty-five respondents (24.0%) had <5 years experience in conservation law enforcement, 41 (39.4%) had between 5–15 years experience, and 38 (36.5%) had >15 years experience. One (1.0%) respondent was in the age category of 18–24, 21 (20.2%) respondents were 25–34, 42 (40.4%) were 35–44, 32 (30.8%) were 45–54, and 8 (7.7%) were 55–64 years old. Respondents were 84.6% (88) white, 11.5% (12) black, 1.0% (1) American Indian/Alaska Native, and 1.0% (1) Asian/Pacific Islander. Twenty-eight (26.9%) receive or have received additional training outside the department.

While 65% of all respondents rated the importance of WT training in conservation law enforcement as very or extremely important, differences were detected among service year groups (ANOVA, F = 3.308, $P = 0.041$) with the least experienced officers ranking WT training more important than officers with >15 years experience (Table 1). Officers with the least experience, as compared to the other 2 groups, were more likely to agree or strongly agree that weaponless tactics taught by the academy were easy to learn (ANOVA, F = 3.889, $P = 0.024$) (Table 1). Officers with the least experience were also more likely than officers with >15 years to indicate that techniques taught in the academy were easy to remember (ANOVA, F = 3.724, $P = 0.028$). Officers with >5 years experience were less likely to indicate that techniques taught at the academy were effective against resistive subjects (ANOVA, F = 5.037, $P = 0.008$). When it comes to the assaultive subjects, officers with <5 years experience found the techniques more effective than did officers with 5–15 years experiences (ANOVA, F = 3.691, $P = 0.028$). While the ANOVA indicated a significant difference between groups on the subject of effectiveness of techniques against multiple attackers (F = 2.348, $P = 0.047$), the SNK could not distinguish the groups (Table 1). No differences were detected among groups on the issue of increasing or decreasing the number of hours of WT taught in the academy (ANOVA, F = 0.103, $P = 0.860$).

Those officers assaulted in the field ($N = 35$) were asked if the WT provided by the agency prepared them for the assault. Forty-six percent of those officers that have been assaulted in the field felt barely or not at all prepared to defend themselves. Only 1 officer felt he had adequate preparation for his assault.

To assess officers feelings about training in WT, they were asked to rank the amount of training they receive as either too little, about right, or too much (Table 2). Only firearm training and pressure point control techniques were listed as being taught adequately or too much. Defense against multiple assailants was most often indicated as being taught too little followed by defense against kicks, gun retention, ground wrestling, and defense against punches. More than 60% of respondents indicated that verbal tactics and punching, kicking, and takedown/throwing techniques were taught too little.

Table 1. Mississippi conservation officer's opinions regarding weaponless tactics training. Means are based on the Likert scale of strongly disagree = 1 to strongly agree = 5. Multiple range comparisons are based on Student-Newman-Keuls, alpha = 0.05.

	<5 years	5–15 years	>15 years	ANOVA probability
Weaponless tactics training is important	4.08(1.08)A[a]	3.66(1.09)A,B	3.39(0.95)B	0.041
Techniques are easy to learn	3.88(0.60)A	3.46(0.71)B	3.34(0.91)B	0.024
Techniques are easy to remember	3.44(0.87)A	3.37(0.86)B	3.34(0.91)A,B	0.028
Effective against resistive subjects	3.88(0.60)A	3.37(0.86)B	3.34(0.63)B	0.008
Effective against assaultive subjects	3.56(0.82)A	3.02(0.88)B	3.39(0.86)A,B	0.028
Effective against multiple attackers	2.40(0.96)A	1.95(0.80)A	2.38(0.86)A	0.047
Number of hours of training be increased	4.00(0.91)A	3.98(0.69)A	3.89(0.89)A	0.860

a. Values within rows with the same letter are not significantly different.

Table 2. Mississippi conservation officer's opinions regarding the amount of weaponless tactics training received at the academy. Values are percentage of respondents.

	Far too little	Too little	About right	Too much	Far too much	Mean (SD)
Verbal tactics	23.3	38.8	34.0	2.9	1.0	2.19(0.86)
Joint locks and holds	15.5	42.7	38.8	1.9	1.0	2.30(0.79)
Pressure point control	10.7	35.0	49.5	3.9	1.0	2.50(0.78)
Punching techniques	24.3	40.8	32.0	1.9	1.0	2.15(0.84)
Kicking techniques	21.4	42.7	34.0	1.0	1.0	2.17(0.81)
Defending punches	30.1	39.8	28.2	1.0	1.0	2.03(0.85)
Defending kicks	31.1	41.7	25.2	1.0	1.0	1.99(0.83)
Throwing/takedowns	26.5	41.2	30.4	1.0	1.0	2.09(0.83)
Ground wrestling	37.3	35.3	26.5	0.0	1.0	1.92(0.85)
Gun retention	27.2	45.6	26.2	0.0	1.0	2.02(0.79)
Firearm training	9.7	21.4	68.0	1.0	0.0	2.60(0.68)
Multiple-assailant defenses	48.5	37.9	12.6	0.0	1.0	1.67(0.77)

Discussion

Though differences exist among officers with varying levels of experience, looking at responses within and among groups, generally all officers agree on the importance of WT, but at slightly different levels of enthusiasm. While officers with more experience differed in responses from less experienced officers about the important of WT, the mean score of 3.39 (Table 1) still indicated a moderately to very important rating for skills in WT. Thus, while a statistical difference exists between groups, this difference may be moot because all officers believed WT to be important for their work.

Officers with >5 years experience were more likely to disagree with the statements that WT taught by the academy are easy to learn and easy to remember (Table 1). These results are not surprising, seeing that nearly 90% of all officers indicated that they receive WT training either only at the academy or rarely (<1 time/year) with 62% stating only at the academy. After 15 years, officers who receive little to no additional training and have been lucky enough to not use the training they did re-

ceive will likely not retain the knowledge gained at the academy. Upon trying to recall techniques shown or taught to them, officers may only remember the fine-motor skill techniques that are often more "flashy" and difficult to execute rather than the simple effective ones. This indicates a need to keep officers up-to-date in training with either in-service or some external stimulus.

Kaminsky and Martin (2000) found that older officers and officers who have been assaulted hold less favorable opinions about the effectiveness of control and defensive techniques taught by their California department. Our results mirror their study. If officers find WT techniques hard to remember and learn, they are most likely going to perceive them as ineffective because they are not comfortable with them. Similarly, officers in MS who have been assaulted on the job indicated their training barely or not at all prepared them for the attack. These officers now have a feeling that the WT received are not effective in the field. Both situations may lead officers to feel vulnerable and more apprehensive to approach violators in a remote situation, effectively hindering their work.

Conservation officers in Mississippi tend to work alone. Often these officers encounter groups of 2 or more individuals that may be violating a wildlife, fisher, or marine law. If officers are not comfortable with the ability to defend themselves against assaults, they may tend not to confront these violators knowing backup is either not immediately available or not available at all. At an extreme, non-confident officers may encounter an extremely violent or volatile situation and feel unprepared, resulting in injury or death to themselves or others.

With a general lack of confidence in WT skills by nearly 40% of officers, (36.5% with >15 years experience and assaulted officers), a re-evaluation of the current training is needed. This is not a phenomenon restricted to conservation law enforcement. Kaminsky and Martin (2000) pointed out that "another fundamental problem is that there appears to be no experimental research on how best to insure law enforcement officers acquire and retain adequate skill levels in defense and control tactics. If appropriate skill levels are not acquired and retained, even well-intentioned officers may inadvertently place themselves, their fellow officers, suspects, or bystanders at unnecessary risk of injury or death." This points to another issue regarding WT training.

While officers with <5 years experience were likely to agree that WT techniques were easy to learn and remember, if these techniques are not effective as many more experienced officers have suggested, then another potentially deadly scene has been set. If officers are confident in their training, but the training is inadequate, they may place themselves in volatile and violent situations that they are not able to handle.

No significant difference existed among officers regarding the need for additional training in nearly all aspects of WT. Officers felt on average that the amount of time spent on firearms training and pressure point control techniques was adequate from the agency. These results are both comforting and disconcerting in that 46.2% of respondents indicated that their sidearm is the best defense against weaponless assaults in the field. This indicates that nearly half of officers are confident in their

training of firearms and comfortable in having a sidearm as defense. Disconcerting is that 94% of all officers report being <21 feet from subjects when they confront them in the field. It is well documented that subjects within 21 feet can assault an officer before they can draw and aim their sidearm (See Bell 2002).

Nearly every officer felt that almost all types of empty-hand techniques training needs to be increased (Table 2). Most notably, over 85% of respondents indicated a short fall in training against multiple-assailants. Nearly 75% of the respondents indicated that additional training is needed in defending against kicks, ground wrestling, and gun retention. A full 2/3 of respondents felt training was lacking in verbal tactics, punching techniques, defending punches, kicking techniques, and throwing/takedown techniques.

The importance of these findings lies in pointing out areas of perceived weakness for officers. With 2/3 of all officers feeling a need to increase training in empty-hand techniques and over 85% feeling a strong need to increase defense against multiple-assailants, it is clear that new or alternative forms of training are needed. Any system of training that is used needs to be evaluated for ease of learning and retention. Unfortunately, little to no empirical research has been conducted on physical defense and control tactics training (Kaminsky and Martin 2000).

Several officers in this study have acquired additional training beyond that provided by the agency. Nearly 100% of officers in California who were assaulted on the job that had additional martial arts training found it useful in their defense (Kaminsky and Martin 2000). Similarly, 95% (N = 19) of those officers in Mississippi that were assaulted and had additional training beyond the academy felt their additional training was moderately to very helpful in the encounter. The agency may wish to evaluate and endorse additional training such as the traditional or nontraditional martial arts or other self-defense training courses. However, if officers are applying the field techniques learned outside the official curriculum, then understanding the legal, constitutional, and decision-making aspects of force is imperative (Kaminsky and Martin 2000). Finally, it is stressed that a thorough evaluation of any martial art, self-defense system, or instructor should be conducted before any endorsement is given by the agency.

Evaluation of officer defense training is imperative. Officers that feel undertrained may be apprehensive to act in violent situations, causing severe or lethal results. Conversely, officers who are highly confident in their skills but are undertrained are also at high risk of injury or death. In a field of law enforcement where officers are in constant contact with individuals that are armed and in a mental state to kill a game animal, adequate confidence and skills in defensive tactics is a must to officer safety and survival.

The authors of this paper would like to note that it is not their intent to criticize the current training system of the Law Enforcement Division of the Department of Wildlife, Fisheries, and Parks or the Mississippi Police Officers Training Academy. Conversely, this study points to potential dangers in present perceptions of officers who work daily in the field under stressful and potentially dangerous situations. The safety and well-being of all officers is first and foremost the concern of this paper.

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