

Center for Enhanced Performance

Hand-to-Hand Combat and the Use of Combatives Skills: An Analysis of United States Army Post-Combat Surveys from 2004-2008

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Hand-to-Hand Combat and the Use of Combatives Skills

An Analysis of United States Army Post-Combat Surveys from 2004-2008

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Despite technological advances, hand-to-hand combat remains a persistent aspect of the contemporary operating environment (Wojadkowski, 2007). To develop a more detailed understanding on the use of hand-to-hand combat, the researcher analyzed 30 Post-Combat Surveys administered to US Army Soldiers from 2004 to 2008 after their return from deployments to Iraq and Afghanistan. 216 out of 1,226 Soldiers (19.0%) reported using hand-to-hand combat skills in at least one encounter. The Soldiers' descriptions indicated that hand-to-hand combat occurred in a variety of tactical situations and that the most common skills employed were grappling techniques (72.6%), followed by the use of weapons (e.g., rifle butt strikes; 21.9%); with striking as the least reported skill (i.e., punching and kicking; 5.5%). These results further reinforce that hand-to-hand combat remains a relevant demand and the US Army should continue such training with an emphasis on grappling skills practiced across a variety of performance settings.

For many years it was generally assumed that the improvement in power and range of firearms would lead to battles being decided at a distance, and that hand-to-hand fighting would be a rare exception...how completely has the twentieth century campaign exploded this theory.

- Colonel Sir John Macdonald, British Army, 1917

Introduction

Despite technological advances, hand-to-hand combat remains a demand in the contemporary operating environment, especially given the ambiguity of urban warfare and the close, regular interaction of Soldiers with both combatants and non-combatants in a broad spectrum of use-of-force situations. During OEF and OIF, hand-to-hand combat skills were useful not only during close combat, but also in crowd control situations and to maintain control over detainees and prisoners (Wojadkowski, 2007). Defined as “an engagement between two or more persons in an empty-handed struggle or with hand-held weapons such as knives, sticks, or projectile weapons that cannot be fired” (U.S. Army, 2002, p 1-1), hand-to-hand combat, and the training thereof, appears an important area for the Army to consider in preparing Soldiers for future conflicts.

Hand-to-hand combat skills are developed in the US Army through the Modern Army Combatives Program (MACP). MACP began in 1995 with the 2nd Ranger Battalion aiming to develop more realistic hand-to-hand combat skills and systematizing these skills into a sustainable, evolving training program (Larsen, 2013). MACP

continued to grow and spread at a grassroots level throughout the Army, until the US Army Combatives School (USACS) was established and the revised field manual for training hand-to-hand combat was published in 2002 (see HQ, Department of the Army, FM 3-25.150, 2002; also Larsen, 2013). At present, the USACS directs the training and doctrine for combatives training throughout the Army and basic combatives training is one of the 40 Warrior Core Tasks of the Warrior Ethos Initiative.

The primary focus of combatives training is to develop fighting ability and skills that Soldiers need in an operational environment (US Army, 2009). Combatives is an important component of a Soldier's ability to employ different levels of force as the intensity and demands of the operational environment change. Additionally, combatives training develops the aggression and confidence necessary for Soldiers to close with an enemy and "seize the initiative to dominate, disable, or kill" (Wojdakowski, 2007, p. 1). MACP is distinct from earlier Army hand-to-hand combat training systems in that it regularly incorporates lessons learned from operational environments in order to continuously update doctrine and training. During OEF and OIF, the USACS collected more than 900 Post-Action Interviews (PAI) from Soldiers that reported the details of their hand-to-hand combat experiences during deployments (Little, 2010). USACS used these PAIs to improve combatives training and modify curriculum to support the challenges identified by Soldiers from their hand-to-hand combat encounters in OEF and OIF.

The 2009 US Army combatives field manual noted three specific lessons based on PAIs. First, grappling was an ever-present aspect of a hand-to-hand combat encounter. Although striking and weapons use were not absent from hand-to-hand combat encounters, Soldiers reported that grappling with an opponent was an integral aspect of any encounter. The second lesson incorporated from the PAIs was that Soldiers in OEF and OIF reported that their hand-to-hand combat encounters revolved around a contest over the Soldier's weapon (e.g., rifle). It appears that a Soldier's opponent regularly attempted to wrest control of the Soldier's weapon during hand-to-hand combat encounters. Finally, the fighting skills needed for success in a hand-to-hand combat encounter required development through a deliberate process that included: (a) initially establishing basic fighting skills followed by, (b) expanding such skills within a training setting that reflected the demands and context of the operational environment. Developing fundamental skills outside of a performance context, then transitioning skill development to settings that more closely resemble the expected environment is consistent with sport skill instruction and motor behavior theory (Wrisberg, 2007). A recent study (Jensen & Wrisberg, 2014) interviewing 17 Soldiers about their experiences of fighting in hand-to-hand combat suggests hand-to-hand combat occurs in a swift and unexpected manner. The results of this study reveal that hand-to-hand combat takes place in an *open skill* environment (Wrisberg, 2007) characterized as dynamic and unpredictable, which requires Soldiers to develop skills that can continuously and rapidly adapt to the ever-changing demands of the performance setting.

Research conducted to examine the mental health issues associated with service in OEF and OIF offers insight into the frequency of hand-to-hand combat on the modern battlefield. Several mental health studies examined the relationship between specific combat experiences (e.g., shooting an enemy, receiving incoming mortar fire, engaging in hand-to-hand combat) and post-deployment mental health issues (e.g., PTSD, depression,

anxiety, alcohol abuse). Although these studies were not designed to specifically examine hand-to-hand combat, they shed some light on the number of Soldiers that experienced hand-to-hand combat during OEF and OIF.

Hoge et al. (2004) surveyed three units that returned from combat deployments to OIF and OEF in 2003. They found that 189 of 876 (22%) Soldiers in one infantry brigade of the Army 3rd Infantry Division returning from an OIF deployment reported engaging in hand-to-hand combat. In another survey of an infantry brigade of the Army 82nd Airborne Division, they found that after returning from a six-month deployment to Afghanistan in March 2003, 51 of 1,961 (3%) of Soldiers reported engaging in hand-to-hand combat. Finally, Hoge et al. (2004) surveyed two Marine Corps battalions from the 1st Marine Expeditionary Force in November 2003 after a six-month deployment to Iraq and found that 71 of the 800 (9%) Marines reported engaging in hand-to-hand combat. In a later study, Kilgore et al. (2008) surveyed 1,252 Soldiers within the first few days of returning from a 12-month deployment to Iraq in 2006 and found that 39 (3.1%) reported engaging in hand-to-hand combat.

Tanielian and Jaycox (2008) conducted interviews with a widely representative sample of servicemembers who deployed to OEF and OIF. The 1,965 participants in their study included servicemembers from the Army ($n = 1,073$), Navy ($n = 207$), Air Force ($n = 235$), and the Marine Corps ($n = 450$). The study found that 9.5% of the servicemembers interviewed reported engaging in hand-to-hand combat, but a limitation of the study was that it did not include demographic information related to Soldiers who reported experiencing hand-to-hand combat. In a study surveying Army combat brigade Soldiers from four major US operational installations after a one-year deployment to Iraq found that 108 of 768 (14.6%) reported engaging in hand-to-hand combat (Garvey Wilson et al., 2010). Finally, in a study of Canadian forces after their return from a deployment to Afghanistan, 43 of 1,307 (3.3%) military personnel reported engaging in hand-to-hand combat (Bourchard et al., 2010). Furthermore, these authors found that although hand-to-hand combat was one of the least frequently reported combat stressors, it was one of the seven (out of 30 possible combat stressors) most psychologically stressful combat experiences reported by Soldiers.

Taken together, these studies reveal that 687 of 8,929 (7.69%) servicemembers reported experiencing hand-to-hand combat during their deployment to either OIF or OEF. Further, hand-to-hand combat appeared more common for Soldiers deployed to OIF, than OEF, and for at least one infantry brigade more than one in five Soldiers reported engaging in hand-to-hand combat. Additionally, hand-to-hand combat appears to be a highly stressful event. Although these studies offer some insight into the prevalence of hand-to-hand combat on the modern battlefield, they are limited in offering lessons learned for updating US Army combatives training.

As the US Army begins to transition from more than a decade of conflict in Iraq and Afghanistan a careful review of training is underway to ensure that resources are leveraged for training and equipment that most appropriately supports preparation for future conflicts. Systematic and rigorous efforts to examine the experience of Soldiers during OEF and OIF offer opportunities to capture valuable lessons and develop an understanding of the value of combatives training for the Army's future. One potential source of "combat feedback" to support continued development of the MACP is the After Action Reports collected by the US Army from Soldiers who deployed to OIF and OEF.

Of potential value for MACP is the Post-Combat Survey (PCS), now called The Soldier Survey, administered by the Maneuver Center of Excellence (MCoE) to Army units that ask Soldiers about a wide variety of tactical experiences they encountered during operational deployments. The information in the PCS was intended as supplemental research data for Army decision makers to guide training and materiel acquisition. Analyzing Soldiers' responses to questions on the PCS regarding their hand-to-hand combat encounters and use of combatives may offer valuable information to develop the MACP and assist in providing evidence-based arguments for continued combatives training in the Army.

Therefore, the purpose of this descriptive study is to present the findings from an analysis of PCSs to provide insight into how Soldiers are using combatives in the contemporary operating environment. Such insights are intended to inform the MACP's continued refinement and offer evidence of the role and merit of combatives training in preparing the US Army for future operations.

Method

Data Source

PCSs were obtained with permission and assistance from the Test and Analysis Office, Capabilities Development and Integration Directorate at the US Army MCoE. The PCSs were designed to collect feedback from Soldiers on a wide variety of tactical experiences during operational deployments to improve support to operational units and inform future modernization efforts. Soldiers who completed the PCS were instructed to only answer questions or make comments for which they had personal knowledge or experience. Comments in the PCSs reflected those individuals that chose to provide information about a tactical experience and were not based on the total number of Soldiers surveyed. The comments specifically addressing the use of combatives skills during hand-to-hand combat encounters were the unedited responses of Soldiers without any analysis or assessment. PCSs were administered from 2003 through the present, but only 30 of these surveys, from 2004 through 2008, included a question that specifically requested Soldiers to report their experiences of hand-to-hand combat.

Participants

The PCSs presented respondent demographics as aggregate data, which prevented examining the relationship between specific demographic characteristics (e.g., rank, deployment location, etc.) and responses to questions. PCSs were constructed in this manner to ensure anonymity for the participating Soldiers and to encourage uninhibited responses to survey questions. Further challenging a report on demographics was that the PCS collected demographic data in a variety of ways (i.e., some PCSs collected information on a Soldier's deployment location and other PCSs did not collect this information). Additionally, Soldiers completed the PCS at an unknown time after an OEF or OIF deployment as either a sample from the unit they deployed with or as individual Soldiers attending a professional US Army training course at the MCoE in Fort Benning, Georgia.

Despite these limitations, the demographic information available offers some insight into the branch, rank, and deployment area (i.e., OEF or OIF) of Soldiers that responded to the PCSs that contained a question about hand-to-hand combat and the use of combatives. From the surveys, information about the Soldiers' a) branch was available for 1,803 respondents, b) deployment location was available for 2,366 respondents, and c) rank was available for 1,986 respondents. Table 1 describes the demographics of the Soldiers who participated in the PCSs.

Table 1
Demographic and Military Characteristics

Characteristic	<i>N</i>	%
<i>Branch (total)</i>	1803	100
Infantry	1231	68.4
Armor	315	17.5
Artillery	113	6.3
Engineer	93	5.2
Special Forces	51	2.8
<i>Deployment location (total)</i>	2366	100
Iraq	2061	87.1
Afghanistan	305	12.9
<i>Rank (total)</i>	1986	100
PVT-CPL/SPC4	533	26.7
Sergeant	298	14.9
Sergeant First Class	196	9.8
Master Sergeant	102	5.1
Sergeant Major	6	0.3
2 nd / 1 st LT	125	6.3
Captain	94	4.7

Procedures

The document analysis technique described by Bower (2009) was used as the method of data collection and analysis. Document analysis includes “finding, selecting, appraising, and synthesizing data contained in documents” relevant to the research question (Bowen, 2009, p. 28). The PCS was an open-ended questionnaire that inquired about various combat and tactical experiences (e.g., “If you were involved in an IED attack, describe the circumstances surrounding the attack(s).”). Thirty ($n = 30$) surveys were found that questioned the experiences of hand-to-hand combat and use of combatives skills. To assess hand-to-hand combat experience Soldiers were asked about any encounters that required the use of combatives skills. The question regarding use-of-combatives differed slightly in some of the PCSs. The first PCS (2004-02) that inquired about the use of combatives asked the following question: “Did you use any Army combatives training? Please explain what was effective and/or ineffective.” The second PCS (2005-02) asked: “Explain any hands on combative situations (weapons malfunctioning in close quarters with the enemy, restrictive rules of engagement demanding less than lethal force, combative prisoners, etc.) in which you participated and

what techniques or procedures did or did not work.” Finally, the remaining 28 PCSs from 2006 to 2008 asked Soldiers to respond to the following statement: “Describe any hand to hand combative situations (combative prisoners, weapons malfunction etc.) in which you participated and what techniques/procedures proved successful and/or unsuccessful. (Example: While manning a checkpoint, I subdued a suspected combatant with a rear naked choke hold).”

The first set of analyses examined the percentage of Soldiers who provided a comment that indicated they experienced hand-to-hand combat during a deployment. From the descriptions that indicated having an experience in hand-to-hand combat, a second analysis was conducted to determine if the response indicated a single encounter or if the response suggested multiple experiences of hand-to-hand combat. Responses were then categorized into the type of environment in which the hand-to-hand encounter occurred. Finally, responses were categorized by the combatives techniques that Soldiers described employing during their hand-to-hand combat encounters. The combatives techniques were categorized based on the fighting techniques listed in US Army Field Manual 3-25.150 *Combatives* (2009). Responses on the PCSs described their hand-to-hand combat encounters in a wide variety of detail. Some Soldiers simply answered: “yes,” while other Soldiers described only the environments in which they used combatives skills or only described the combatives techniques they employed during their encounters.

Results

A total of 30 PCSs addressing the use of combatives skills were analyzed in the present study. The descriptions provided by participants ranged in length from one word (e.g., “yes”) to 124 words, with the average length of a Soldier’s response: 21.7 words (Standard Deviation = 18.6). Of the 1,124 Soldiers who provided an answer to the PCS question regarding hand-to-hand combat, 213 (19.0%) reported engaging in hand-to-hand combat. Of the Soldiers who reported engaging in hand-to-hand combat, 73 provided descriptions suggesting they had experienced multiple encounters in which they used combatives skills (e.g., “I used arm bars and wrist locks in many situations”). That is, 6.5% of all Soldiers who answered the PCS question provided descriptions that suggest the use of combatives skills on multiple occasions.

The Soldiers’ descriptions of hand-to-hand combat situations were divided into four categories: (a) *close combat*, (b) *crowd/riot control*, (c) *detainee and prisoner handling situations*, and (d) *security checkpoints*. *Close combat* encompassed descriptions of using combatives skills while clearing buildings, descriptions of “close quarters battle,” and offensive operations against combatants. *Crowd/riot control* included descriptions that specifically mentioned using combatives skills for crowd and/or riot control (e.g., “effective in large crowds,” “subdued a violent protestor,” “a few riots”). The *detainee and prisoner handling* category included descriptions in which the Soldier used the term “detainee,” “prisoner,” “captured individuals,” “PUC” or other descriptions suggesting post-offensive or security operations requiring combatives skills to secure individuals or manage detainees/prisoners. The *security checkpoint* category included descriptions suggesting operations from stationary vehicles or personnel

checkpoints (e.g., “pulling people from cars,” “several times during checkpoint searches”).

Comments suggest a wide variety of combatives techniques were employed during hand-to-hand combat encounters. A Soldier’s response could contribute multiple times to the aggregate data. For example, a Soldier might reply that combatives skills were used with a detainee and that the Soldier used both a leg sweep and handcuffing technique to resolve the situation. Table 2 indicates the frequency of environments that Soldiers described in their answers about hand-to-hand combat and the frequency of combatives skills used within general categories (i.e., *grappling*, *weapon*, *striking*).

Table 2
Numbers and Percent (%) of Overall Environment and General Categories for Use of Combatives

	NOENVIR	CC	CRC	DPH	SCP
Comments across all surveys					
N	92	30	12	65	13
%	43.4	14.2	5.7	30.7	6.1

	Grappling	Weapon	Striking
Comments across all surveys			
N	146	44	11
%	72.6	21.9	5.5

Note: NOENVIR = no environment mentioned in PCS response; CC = Close Combat; CRC = Crowd and Riot Control; DPH = Detainee and Prisoner Handling; SCP = Security Checkpoint

Almost half (43.4%) of the Soldiers did not include a description of their environment when they reported their use of combatives skills. Of the Soldiers who provided a description of the environment in which they used combatives, the most frequently described was in the *detainee and prisoner handling* category (30.7%) with *close combat* the second most common environment (14.2%). The least frequent environments in which Soldiers reported using combatives skills were the *security checkpoint* (6.1%) and *crowd/riot control* (5.7%) categories. Table 2 also details the general categories for Soldier’s descriptions of their use of combatives skills. The most common general category for use of combatives was *grappling* (72.6%), followed by using *weapons* (21.9%), and the least frequently described combatives skill, accounting for only 5.5% of the comments, was *striking*.

Descriptions of the environment were then related to descriptions of general categories of combatives use. The results of the cross-tabulation are presented in Table 3.

Table 3
Number and Percent (%) of Environment Versus Overall Combative Technique Employed Across Surveys

Environment	Grappling	Striking	Weapon
NOENVIR			
N	54	6	19
%	68.4	7.6	24.1
CC			
N	22	2	8
%	68.8	6.3	25.0
CRC			
N	9	0	3
%	75.0	0.0	25.0
DPH			
N	50	3	5
%	86.2	5.2	8.6
SCP			
N	11	0	1
%	91.7	0.0	8.3

Note: NOENVIR = no environment mentioned in PCS response; CC = Close Combat; CRC = Crowd and Riot Control; DPH = Detainee and Prisoner Handling; SCP = Security Checkpoint

As evident from Table 3, *grappling* skills were the most frequently reported category across all four environments, as well as accounts in which Soldiers did not describe an environment. Skills most often associated with security checkpoints concerned *grappling* (91.7%; $n = 12$) and *weapons* (8.3%; $n = 1$). No Soldiers noted using *striking* skills at checkpoints. Similarly, in the *detainee and prisoner handling* environment *grappling* skills were again predominate (86.2%; $n = 50$); *weapons* (8.6%; $n = 5$) and *striking* (5.2%; $n = 3$) were seldom reported. Although *grappling* skills were the most frequently described skills in *crowd and riot control* (75.0%; $n = 9$) and *close combat* (68.8%; $n = 22$) environments, *weapons* skills accounted for 25% of combatives techniques employed in each these environments. The use of striking skills remained infrequent with their use reported in only 6.3% of the *close combat* descriptions and was not reported at all in the *crowd and riot control* environment.

Table 4 presents the specific combatives skills described by Soldiers. The specific skills are categorized under the general combatives headings of: *grappling*, *striking*, and *weapons*. Table 4 also provides the percentage of specific skills used in each general category (e.g., descriptions of *arm bars* accounted for 17.8% of the *grappling* skills reported by Soldiers). Reports of combatives techniques varied in specificity, with some Soldiers providing very exact descriptions of the techniques they employed (e.g., “rear naked choke”), while others were vague in their descriptions of combatives techniques (e.g., “takedown” or “submission”). The number of reports of specific combatives techniques is presented in Table 4 to provide further insight into the actual frequency of specific combatives skills reported by Soldiers in this study.

Table 4

Number and Percent (%) of Specific Combatives Techniques Employed Across Surveys

Overall Combatives Technique	Specific Combatives Techniques	N	%
Grappling		146	72.6
	Takedown (non-specific)	32	21.9
	Arm bar	26	17.8
	Submission (non-specific)	25	17.1
	Choke	22	15.1
	Holds/Locks (non-specific)	14	9.6
	Leg/Foot sweep	8	5.5
	Mount	6	4.1
	Wrist lock	6	4.1
	Throw (non-specific)	5	3.4
	Takedown, knee	2	1.4
Striking		11	5.5
	Punch	9	81.8
	Kick	2	18.2
Weapon		44	21.9
	Butt stroke with rifle	18	40.9
	Baton/Collapsible baton	14	31.8
	Muzzle strike with rifle	9	20.5
	Knife	2	4.5
	Bayonet	1	2.3

Overall, the most common form of specific combatives technique described was *takedown* (mentioned 32 times) and accounted for 21.9% of all the *grappling* skills mentioned. Soldiers who reported using weapons during hand-to-hand combat most commonly described using a *butt stroke* (40.9%; $n = 18$) with their rifle. Combining the reports of using a rifle in hand-to-hand to include *butt stroke* (40.9%) and *muzzle strike* (20.5%) reveals that Soldiers fighting with rifle techniques accounted for the majority (61.4%; $n = 32$) of weapons techniques described by Soldiers in this study. A baton/collapsible baton (many times referred to by the brand name “ASP”) was the second most frequent (31.8%, $n = 14$) weapon described by Soldiers.

Discussion

The purpose of this study was to examine US Army Post-Combat Surveys in order to shed light on Soldiers’ hand-to-hand combat encounters during operations in Iraq and Afghanistan. Specifically, it was hoped that this research would contribute to the MACP “combat feedback” and assist with informing continued development of hand-to-hand combat training in the US Army. Perhaps the most important finding of this study was the frequency of combatives use reported by Soldiers during military operations in OIF and OEF. Consistent with reports from Hoge et al. (2004), nearly one in every five (19.0%) Soldiers reported experiencing a hand-to-hand combat encounter. This finding

suggests combatives training is relevant and important for the contemporary operational environment.

The results also suggest that combatives skills were used in at least four different tactical environments. Consistent with previous literature (Wojadkowski, 2007), combatives techniques were employed for close combat, as well as during crowd control situations and to maintain control over detainees and prisoners. Extending this previous literature, Soldiers in this study also reported employing combatives skills during security checkpoint operations. This finding was not described in previous literature (i.e., Army combatives field manuals, articles on combatives, etc.) and suggests instructors and leaders should consider incorporating the use of combatives during security checkpoint training. Taken as a whole, these findings suggest that hand-to-hand combat occurs in a variety of tactical environments. Nearly half of the Soldiers from this study did not report the environment in which they engaged in hand-to-hand combat. This lack of information indicates that the tabulation of types of environments reported here should be viewed with some caution. Additionally, hand-to-hand combat may have occurred in tactical environments other than the ones described here.

Grappling was the most common general category of hand-to-hand combat skills reported by Soldiers in this study. This finding is consistent with the Army combatives doctrine (US Army, 2009) that grappling is a dominant element of hand-to-hand combat encounters. The most common specific *grappling* technique described by Soldiers was *takedown* ($n = 32$). Although a few of the descriptions provided information about specific types of takedown, most were generic. The frequency of *takedown* as well as the inclusion of other specific techniques designed to transition a hand-to-hand combat encounter from standing to the ground (i.e., *leg/foot sweep*, *throws*, and *takedown, knee*) accounted for 32.8% of the grappling skills described by Soldiers. This is consistent with the US Army combatives manual (2009) that instructs a Soldier to use “takedowns when he encounters an opponent that he cannot subdue in the strike or clinch ranges. Takedowns allow the fighter to take the fight to the ground and finish there” (p. 4-3). The present findings suggest that the actions of many Soldiers were consistent with Army training in that they sought to subdue their opponent and viewed finishing the fight on the ground as an effective way to do so.

Striking accounted for the fewest (5.5%) skills reported by Soldiers, with *punching* (81.8% of *striking* responses) most common and *kicking* mentioned by only two Soldiers (18.2% of *striking* responses). The low reporting of *striking* skills may suggest a few things. First, the low reporting may suggest the influence of the MACP in which the fundamental combatives skills emphasize grappling skills over development of striking skills. Second, it may suggest that during many hand-to-hand combat encounters, Soldiers viewed their tactical situation as one that warranted a restrained employment of force against their opponent. Grappling skills generally offer the option to limit physical damage to an opponent, restrain them from further action, and resolve less-than-lethal tactical scenarios. Finally, the use of *weapons* in *close combat* (25.0%), *crowd/riot control* (25.0%), and undisclosed environments (24.1%) suggest that some Soldiers in this study viewed some tactical situations as demanding a use-of-force by *weapons* strikes. Soldiers may have elected to employ *weapons* instead of *striking* in tactical environments they viewed as necessitating an increased application of force.

Implications

The present findings suggest some possible applications for Soldiers, MACP instructors, and Commanders. The four environments described in this study suggest hand-to-hand combat can occur in a variety of performance settings. Any training activities that provide Soldiers with an opportunity to incorporate and practice combatives skills would likely be beneficial. During training, a *random practice* schedule (Wrisberg, 2007) that challenges a Soldier's ability to understand and respond to a variety of likely combat situations might be useful. Training in such open environments necessitates skill development that teaches Soldiers to recognize key performance cues and adapt their skills to the quickly changing demands of the environment, many times influenced by a willful opponent. Additionally, these results suggest that grappling skills, especially those techniques designed to take the fight to the ground, are important in preparing Soldiers for the modern battlefield. Although, grappling skills were the most common skill category for each tactical environment, the use of weapons, especially for *close combat* and *riot/crowd control* situations, suggests these skills should also be included in future training.

Recommendations

The results of this study suggest that combatives should remain a regular aspect of training for maneuver forces. Additionally, leaders responsible for training maneuver forces should incorporate exercises that demand the use of combatives skills during force-on-force training. Moreover, exercises should focus on scenarios that require Soldiers to resolve situations using controlled escalation of force. Lastly, training on the four tactical environments described in this study (i.e., close combat, security checkpoint, etc.) is not complete without integrating combatives training.

Limitations

This study was limited in a number of ways. First, the aggregate nature of the data in the PCSs limited connecting individual Soldiers' demographics to their response concerning hand-to-hand combat experiences. Second, this data comes from Soldiers who were comfortable reporting their experience of hand-to-hand combat; not all Soldiers may be as forthcoming. Third, the data collected from these PCSs represents the experiences of these particular Soldiers, during a specific time frame (2004-2008), in the OIF and OEF conflicts, and may not represent the experience of Soldiers from other time periods or conflicts. For this reason, the findings are particular to the operational environments of Afghanistan and Iraq. Finally, more than 40% of the descriptions of hand-to-hand combat did not describe the environment in which an encounter took place. Considering the contextual importance of environment in the execution of hand-to-hand combat, this is a limitation of the study; future research should include asking Soldiers about the setting in which they experienced hand-to-hand combat.

Future Research

The results of the present study suggest some potential lines of future research on the topic of hand-to-hand combat and combatives training. First, it would be beneficial to learn more about the experiences of Soldiers in hand-to-hand combat from different conflicts. Researchers employing a detailed post hand-to-hand combat survey or in-depth interviews could yield useful information from veterans of other conflicts. Second, relating demographic information to the hand-to-hand combat experiences described in the PCSs would provide greater insight into the MOS, rank, and deployment locations (i.e., OIF versus OEF) that may require greater emphasis on combatives training. Such an examination may also shed light on the types of combat that most likely result in hand-to-hand combat (i.e., the prevalence of hand-to-hand combat in urban versus more open operational environments). Third, since the PCSs examined extended only between 2004 and 2008 and only those Soldiers that were surveyed by the PCS, there are likely a large number of Soldiers with experience in hand-to-hand combat during OIF or OEF that could offer insight. Future PCS surveys should include questions about Soldiers' experiences of hand-to-hand combat, their use of combatives techniques, and the types of environments in which they employed combatives techniques.

Conclusion

Every Soldier should have knowledge of Army combatives techniques because a situation can change in a split-second and it is good to have that knowledge in your arsenal.

Soldier's Post-Combat Survey comment from Operation Iraqi Freedom, 2006

The present findings support the conclusion that hand-to-hand combat occurs with enough frequency in contemporary operations to warrant priority in the training of maneuver forces. Furthermore, grappling skills appear to be the primary domain on which to focus training, with fighting skills employing rifle striking as an important secondary aspect. Finally, the use of combatives skills in a variety of tactical environments offers an excellent example of the necessity of adaptability by Soldiers in modern warfare.

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