Soldier Spirituality in a Combat Zone: Preliminary Findings About Correlations with Ethics and Resiliency

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Abstract: This paper examines results of a survey of U.S. land forces in the combat zone of Iraq collected in the summer of 2009. Named the Army’s Excellence in Character, Ethics, and Leadership (EXCEL) survey, it measured spirituality as one of the individual variables among Soldiers. Spirituality is expressed using a composite score and three discrete, correlated factors. The three factors of spirituality in this study are connection to others, religious identification, and hopeful outlook. The paper analyzes statistically significant correlations between higher scores of spirituality with measures of ethics and the resilience of Soldiers.

Key words: spirituality, ethics, resilience, character development, religion in the military

The views expressed in this research paper are those of the author and do not reflect the official policy or position of the U.S. Government, the Department of Defense, the U.S. Army, National Defense University, or the U.S. Army Chaplains Corps.
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“It is in the national interest that personnel serving in the Armed Forces be protected in the realization and development of moral, spiritual, and religious values consistent with the religious beliefs of the individuals concerned. To this end, it is the duty of commanding officers in every echelon to develop to the highest degree the conditions and influences calculated to promote health, morals, and spiritual values of the personnel under their command.”

—General George C. Marshall

“Leadership is a potent combination of strategy and character. But if you must be without one, be without the strategy.”

—General Norman Schwartzkopf

Growing conceptual agreement recognizes and seeks to engage spirituality as an element of character for Soldiers in the U.S. Army. For example, spirituality, or the domain of the human spirit, is one of the three elements of the character development model for cadets at the U.S. Military Academy—along with the ethical and social domains. Holistic fitness programs in the Army and across the Department of Defense (DoD) include spiritual fitness. And in the areas of training, education, and development, leaders aspire to inculcate character development, including spirituality, to complement teaching Soldiers competence in their military tasks.

Spirituality and cognate constructs such as morals and values, as noted by Marshall above, have long been viewed as integral aspects of command. Character development is also reemerging as a facet of leading Soldiers, including character development that addresses spirituality. But connections between spirituality and other elements of character have been spoken about more along the lines of “inspiration” than “investigation.”

The intent of this paper is to examine results of the Army’s Excellence in Character, Ethics and Leadership (EXCEL) survey about spirituality and how it affects ethics and the resilience of Soldiers. These findings are based on a sample of more than 1,250 Soldiers in a combat zone. This paper offers a preliminary discussion of findings about spirituality and a three–factor construct of spirituality. The three-factor model emerged from the survey data by

4 See Comprehensive Soldier Fitness and CJCS Total Force Fitness models.
6 Rightly and by design, individual religious beliefs and practices have been protected in the military with attention to the twin principles of avoiding the “establishment” of religion for Soldiers and urging “free exercise” through a pluralistic military chaplaincy.
calculating fit indices of scores on fifteen items. Higher mean scores of spirituality are examined in light of demographic variables. Correlations between spirituality, ethics, and resilience are reported, showing how spirituality interacts with measurements of ethics and resilience. The findings also point to areas for further research.

The EXCEL survey presents an honest and thought-provoking perspective from Soldiers in a combat zone. Items on the survey address ethical attitudes, values and behavior, leadership, physical and emotional health, and spirituality. Items about spirituality were included within the larger, interdisciplinary research instrument. Spirituality, ethics, and resilience converge to give some contours of the interactions of these factors as elements of character in Soldiers.

**Background of the ARMY EXCEL Study**

In 2008, the U.S. Army initiated designs and plans for the Multi-National Forces-Iraq (MNFI) Survey-2009. The study was requested by General Petraeus as he relinquished command of the Multi-National Forces in Iraq in September of 2008. The study had the backing of the Chief of Staff of the Army and was implemented by the Center for the Army Profession and Ethic (CAPE) with collaboration by the Institute for National Security Ethics and Leadership at National Defense University, the U.S. Army Chaplains Corps, and a wide range of military and civilian academic partners. The study tests a wide range of constructs about the ethical attitudes and behavior of U.S. Land Forces. The intent of this study was to aid Army leaders in self-assessment, reflection, and continuous learning.

It was hoped findings from the survey might shed light on earlier findings by the Mental Health Assessment Team (MHAT IV and V) reports. These reports indicated significant percentages of military personnel who stated they would not report a fellow member of the military for “killing or wounding an innocent non-combatant.” The Army has set a high priority on ethics and ethical decision-making in the face of sustained operational demands. Given this reality, ethical dilemmas abound, and Soldiers are constantly faced with demanding challenges. Lapses like Abu Ghraib and other severe ethical failures make it evident that ethics training is an ongoing necessity. Survey results reveal correlations between an individual’s level of spirituality and two other constructs: ethics and resilience. Specifically, spirituality correlates positively with five factors of ethics, such as moral courage and moral confidence, as well as increased psychological and physical resilience.

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8 Charles J. Dunlap, Jr., BG, USAF, “The Joint Force Commander and Force Discipline,” *U.S. Naval Institute Proceedings* (September 2005): 34-38, reprinted in US Army Command and General Staff College, A534 Syllabus/Book of Readings, Fort Leavenworth, KS: USACGSC (September 2008), L11-5-1. BG Charles J. Dunlap wrote of the effects that the Abu Ghraib prison abuse had upon the military: “The highly publicized reports of the Abu Ghraib prison abuse scandal energized the Iraqi insurgency and eroded vital domestic and coalition support. Most damaging was the negative reaction of ordinary Iraqis, a constituency whose backing is essential to strategic success. A 2004 poll found that 54% of them believed all Americans behave like those alleged to have taken part in the abuse. So adverse were the strategic consequences that it is no overstatement to say that Americans died-and will continue to die-as an indirect result of this disciplinary catastrophe.”
The original aim of the EXCEL study was to analyze “the variables involved in building strong moral individuals and teams.” Among more than twenty constructs, the survey included items addressing spirituality, ethics, and resiliency. The survey originally aimed to sample 6,000 U.S. Land Forces in the Multi-National Forces-Iraq, both the United States Army and the United States Marine Corps (USMC). Due to practical logistical considerations in administering the surveys, the data represents only Army Soldiers.

Methods in the EXCEL Study

Survey Design. The EXCEL survey is a paper-and-pencil instrument survey which collects demographic and survey data primarily using Likert-scales. EXCEL addresses topics ranging from ethical attitudes, actions, and observed behaviors in others to leadership, attitudes about the Army, general physical concerns, attitudes, and well-being. The survey was designed in four versions: version A (which featured just the core questions), version B (which featured core questions plus spirituality questions), version A Leader (which featured core questions and was given to leaders), and version B Leader (which featured core questions plus spirituality questions and was given to leaders). Surveys were collected from 2,572 Soldiers deployed in Iraq between June 20, 2009 and July 24, 2009. To protect the anonymity of participants, data was collected from randomly selected units. Though this total number of 2,572 Soldiers fell short of the targeted sample of 6,000, the large sample size increases the reliability of the results and decreases sampling bias.

Survey Participants. This paper focuses on data from version B and version B Leader. Of the 2,572 Soldiers surveyed, 1,366 completed version B and version B Leader, (which included spirituality items.) Of 1,366 version B surveys, there were 1,263 valid responses, meaning surveys were sufficiently complete to be tabulated and analyzed. Table 1 presents a summary of demographics of version respondents. Note that 61 percent of respondents were under age 27, and 76 percent were grade E5 (sergeant) and below.

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11 See Appendix A of this paper, which lists the fifteen spirituality questions and details on their sources.
From a review of relevant literature, surveys addressing spirituality and well-being most often sample populations in hospitals or other treatment facilities, college students, or congregational members. Some articles rely on larger social science data collection such as the General Social Survey (GSS) of the National Opinion Research Center at the University of Chicago. No comparable data was previously available about Soldiers in a combat zone.

The Spirituality Items. Fifteen items relating to spirituality were included at the request of the Institute for National Security, Ethics and Leadership (INSEL) at National Defense University and the United States Army Chaplain Corps. Items were selected from established surveys. All items were formatted using a five-point Likert-scale in line with the layout of the larger survey.

Thirteen of the fifteen items included in EXCEL were based on the “Dimensions of Religion/Spirituality and Relevance to Health Research” from the VA Palo Alto Health Care System. The purpose of the study was to “identify unique religion/spirituality (R/S) factors that account for variation in R/S measures of interest to health research.”12 Their research focus was identifying religious and spiritual items relevant in health through meta-analysis of personality and medical instruments. Haber and associates took many of their questions from other well-established studies. These include the Brief Multidimensional Measure of Religion and Spirituality, by Fetzer Institute/National Institution of Aging, and R. L. Piedmont’s Development

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and Validation of the Spiritual Transcendence Scale: A Measure of Spiritual Experience. In addition, Haber et al used what they called two “classic measures with exceptional histories of use.” The first is the Spiritual Well-Being Scale, by C. W. Ellison, which measures well-being associated with God and existentialism. The second is “The Age-Universal” version of Allport and Ross’s Religious Orientation Scale.

These well-known sources combined with one of Haber’s “Religion/Spirituality Motivation, Devotion, & Coping” questions in conjunction with two MNFI-specific questions make up the fifteen items. Appendix A provides a complete list of the fifteen items and their sources.

In the design, the fifteen spirituality items were to measure three dimensions of spirituality in individuals: spiritual worldview, prayer/personal piety, and connection to a faith community. These address private and personal spirituality, as well as the public aspects of spirituality, paralleling the approach in another recent study. Also, by matching leader scores with scores of followers in their units, future analysis can examine spirituality within units and interactions between leaders and followers in multi-factorial analysis.

Procedures. To obtain a representative sample, the MNFI Inspector General (MNFI-IG) randomly selected two-brigade sized units from each of the four Army divisions then serving in Iraq. Two battalions were randomly selected within those brigades, from each of those battalions, three companies were randomly selected, and from each of the companies, three platoons were randomly selected. In addition to these troops, key leadership at the platoon, company, and battalion levels also participated in the survey, thus allowing the survey to assess the culture/climate developed by individual leaders in their areas of responsibility. Battalion chaplains and chaplain assistants implemented survey administration protocols, distributing and collecting surveys in platoon-sized elements (20 – 40 individuals). All leaders surveyed were asked as well to rate certain effects of leadership at platoon, company, and battalion level. Further, leaders were asked to evaluate the leadership and unit performance of subordinate leaders—at the next level down from them. All Soldiers completing the survey reported on their individual ethical behavior and beliefs, rated their immediate leaders and the ethical behavior of their peers, and evaluated the culture and climate in their respective units and their psychological and somatic conditions. Respondents receiving version B rated themselves on three factors of spirituality.

Of the original 2,572 Soldiers, 1,366 completed version B and version B Leader of the survey which included fifteen items assessing spirituality. Of the 1,366 surveys returned, 1,263 were valid responses. Based on a literature review, this is the largest sample of Soldiers assessing spirituality in a combat zone. The Army does collect annual data on religious preference for

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15 See Appendix A of this paper, which lists the fifteen spirituality questions and details about their sources.
Soldiers, but not qualitative survey data. The closest comparable sample probing aspects of spirituality numbered 800 in an unpublished thesis from World War II probing the effect of combat on religious belief and personal morality.\(^{16}\)

When the survey respondents completed their surveys, the chaplains and chaplain assistants collected the surveys and conveyed them to the MNFI-IG. The surveys were shipped to CAPE. The data was provided to the following individuals for further analysis: Colonel Sean T. Hannah, PhD, CAPE director, in conjunction with several leading university researchers, including (alphabetically) Dr. Bruce Avolio (University of Washington); Dr. Steve Kozlowski (Michigan State University); Dr. Robert Lord (University of Akron); Dr. John Schaubroeck (Michigan State University); and Dr. Linda Trevino (Pennsylvania State University). The draft Technical Report of the data was prepared by Dr. John Schaubroeck and COL Hannah with assistance from doctoral students at Michigan State University: Nikolaos Dimotakis, Katherine Guica, Megan Huth, and Chunyan Peng.\(^{17}\)

**Spirituality Defined for this Study**

Going into the study, the working hypothesis was that spirituality could be assessed using three subscales. The stated Hypothesis (which included three additional statements) was: “Spirituality incorporates the three elements of a spiritual worldview, personal piety, and connection to a faith community.”

The three subscales in the design did not achieve acceptable levels calculating from fit indices using five items per subscale. What emerged from calculating fit indices of spirituality items confirmed that spirituality is indeed multidimensional, but along different subscales. Items clustered around three factors, but in a different combination: connection to others, religious identification, and hopeful outlook. These three factors do not account for all elements of spirituality. By analyzing data from the survey questions, a unifying construct of spirituality emerged along three subscales. With the exception of four questions, all of the spirituality questions on the survey fell under one of these three categories.\(^{18}\) Thus, the EXCEL study does not cover all dimensions of spirituality, but it does reveal a workable model of spirituality for the Soldiers surveyed.

\(^{16}\) Mahlon W. Pomeroy, “The Effect of Military Service and Combat Experience on Religious Beliefs and Personal Morality,” (Unpublished), prepared for a Master of Arts in psychology at Syracuse University, August 1946. Pomeroy and a colleague collected data about the meaning and importance of faith in God and attitudes about prayer from 800 Soldiers on hospital wards at Camp Kilmer, NJ during January of March 1946. He reports 65,000 Soldiers passed through Camp Kilmer some weeks. His major findings are that “men felt their religion meant more to them now than before the war,” that “God evidently seemed more personal to the men now,” and “34% indicate that they pray more now than before the war, and only 9% pray less.”


\(^{18}\) Four questions were removed using the fit indices to identify items which formed the strongest constructs. Three items seem to be vague and did not align with the three factors; one item mixes two concerns in one question.
The alternative structure supports three factors using the sub-scales and items outlined below:

**Connection to Others:**
- Q.151 I feel that on a higher level all of us share a common bond.
- Q.152 Although there is good and bad in people, I believe that humanity as a whole is basically good.
- Q.154 Although individual people may be difficult, I feel a bond with all of humanity.

**Religious Identification:**
- Q.155 My spiritual life is an important part of who I am as a person.
- Q.159 I go to my place of worship (Chapel, Church, Synagogue, Temple) because it helps me connect with friends.
- Q.160 I believe my personal prayers help me during this deployment.
- Q.161 I believe the prayers of my family and friends back home help me.
- Q.162 I believe the presence and ministry of my unit chaplain brings value to the unit.

**Hopeful Outlook:**
- Q.157 I feel a sense of well-being about the direction in which my life is heading.
- Q.163 I feel good about my future.
- Q.164 I have forgiven myself for things that I have done wrong.

Using this alternative measurement model, a three-factor sub-structure provides good fit indices. Furthermore, the fit of the three-factor model is much better than a one-factor model. Table 2 presents the fit indices of this revised structure. A fit index above .90 is considered extremely strong. Fit indices at .75 are acceptable.

<table>
<thead>
<tr>
<th>Factor Structure</th>
<th>$\chi^2$</th>
<th>NFI</th>
<th>NNFI</th>
<th>CFI</th>
<th>GFI</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>AIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Factor</td>
<td>1662.12</td>
<td>.759</td>
<td>.705</td>
<td>.764</td>
<td>.767</td>
<td>.102</td>
<td>.173</td>
<td>1574.12</td>
</tr>
</tbody>
</table>

**U.S. Army Chaplaincy and DoD Terms of Reference on Spirituality**

The three-factor construct of spirituality above parallels and complements the definition for spirituality which the Army Chief of Chaplains Army employs, “a process transcending self and society that empowers the human spirit with purpose, identity, and meaning.” The three factors of the EXCEL model of spirituality connect to the three functions in the chaplaincy definition—empowering people with purpose, identity, and meaning. The chaplaincy definition also incorporates awareness of that which transcends self and society. Linking the EXCEL model of spirituality to the Army chaplaincy definition, connection to others relates to identity, religious identification relates to both identity and meaning, and hopeful outlook relates to purpose.

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19 Provided by email from staff at the Center for Spiritual Leadership (CSL), at the U.S. Army Chaplain Center and School, Fort Jackson, SC on 14 May 2010.
Another relevant definition comes from the Chairman of the Joint Chiefs of Staff Instruction on the Total Force Fitness (TFF) framework. TFF addresses spirituality, defining it as “the expression of the human spirit in thoughts, practices, and relationships of connection to self, and connections outside the self, such as other people, groups, nature, and concepts of a higher order.”20

Although these definitions overlap and incorporate various elements, the three factors which fit the data from the EXCEL survey cluster along three similar constructs: connection to others, religious identification, and hopeful outlook. These factors, when present, correlate in the lives of Soldiers to positive attributes and may act as a buffer against some psychological and physical risk factors. Each of the three factors is considered further and then examined in light of correlations between spirituality and subscales addressing ethics and resilience.

Three Factors of Spirituality

Connection to Others. McMillan and Chavis defined sense of community as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together.”21 Soldiers report a connection to others as a dimension of spirituality. This factor correlates with intentions for ethical actions, moral attitudes, and a general increased ability to withstand the rigors of combat. Members of the military are familiar with feeling a common bond with each other, just as Shakespeare coined the famous phrase, “we happy few, we band of brothers.” But this sense of connection to others goes far beyond camaraderie or esprit de corps.

While esprit de corps is important, it is vital for a Soldier to not just feel both like she or he belongs to the unit but also belongs to the rest of the human race. Soldiers who integrate this perception at a deep level of their humanity recognize even their enemies are still part of humanity deserving certain rights and protections. A connection to others may mitigate enemy abuses, POW mistreatment, and civilian casualties.

The following items comprise the subscale for the factor connection to others:

Q.151 I feel that on a higher level all of us share a common bond.
Q.152 Although there is good and bad in people, I believe that humanity as a whole is basically good.
Q.154 Although individual people may be difficult, I feel a bond with all of humanity.

Religious Identification. Spirituality is not experienced in a vacuum. Soldiers who recorded a higher level of spirituality tended to connect that spirituality to some level of participation in recognized religious activity—prayer, prayer by others, and worship. Though definitions of spirituality are sometimes vague, real Soldiers are not vague at all. For Soldiers,

20 CJCSI Total Force Fitness Framework - Spiritual Fitness Domain, Enclosure B5, (23 March 2010).
practice is important, and practice is a prominent factor in their expression of spirituality. In correlating scores for Total Spirituality, the two items most closely related to this score are those that express beliefs about prayer:

Q.160 I believe my personal prayers help me during this deployment. (.794)
Q.161 I believe the prayers of my family and friends back home help me. (.786)

The EXCEL study data indicates when Soldiers were surveyed concerning spirituality, their spirituality was most typically described with recognizable religious identifiers such as prayer, chapel attendance, and corporate worship, which are common to organized religion. In addition to the two items about prayer, this factor was measured by:

Q.155 My spiritual life is an important part of who I am as a person.
Q.159 I go to my place of worship (Chapel, Church, Synagogue, Temple) because it helps me connect with friends.
Q.162 I believe the presence and ministry of my unit chaplain brings value to the unit.

Religion and spirituality are sometimes complicated to discuss. As the Instruction issued by the Chairman of the Joint Chiefs of Staff points out, “Defining ‘spirituality’ in the Armed Forces is difficult because of: the diversity of service members and their preferred spiritual practices; and, the confusion, ambiguity, and blurred lines that exist between understanding and defining ‘spirituality’ and religion.”²² The EXCEL study shows Spirituality is experienced through religious identification. This underscores the need to ensure that individual Soldiers have the opportunity to practice their respective beliefs with freedom and respect. Soldiers who make use of these opportunities have a higher level of spirituality and, as considered below, this translates into increased resiliency and a strengthened personal ethic.

Hopeful Outlook. A third factor of spirituality emerged called hopeful outlook. Hope, optimism, and positive outlook are notable given the conditions under which these surveys were collected—living in a combat zone.

This hopeful outlook was revealed through Soldiers’ responses to the following items,

Q.157 I feel a sense of well-being about the direction in which my life is heading.
Q.163 I feel good about my future.
Q.164 I have forgiven myself for things that I have done wrong.

This last item acknowledges the issue of guilt, which combat veterans face. Guilt can often become a debilitating symptom if not properly processed and dealt with. This will be discussed as an aspect of resilience.

Frequency Distributions on Spirituality Items

Responses of Soldiers in the survey indicate a wide range of scores about spirituality. Roughly one-third of respondents indicated they were not in agreement with these items about

²² CJCSI Total Force Fitness Framework - Spiritual Fitness Domain, Enclosure B5, (23 March 2010).
spirituality, one-third of respondents were neutral, and one-third of respondents were in agreement. Two frequency distributions graphs are included that illustrate the lowest and highest response patterns for spirituality scores. In both graphs, responses are grouped into three categories: Strongly Disagree/Disagree; Neutral; Agree/Strongly Agree. Also, each graph depicts the distribution from Version B and Version B Leader surveys. Leaders tended to agree or strongly agree more with items measuring spirituality compared to the larger sample of respondents.

Graph 1 shows the distribution of the highest scores on one of the spirituality items: Q164 I feel good about my future. In this distribution, 156 total respondents marked Strongly Disagree/Disagree, 352 Neutral, and 755 Agree/Strongly Agree.

Graph 1

Graph 2 shows the distribution of the lowest scores on one of the spirituality items: Q159 If I have a problem or difficult situation, the people in my chapel community will comfort me.
and get me through it. In this distribution, 383 total respondents marked Strongly Disagree/Disagree, 484 Neutral, and 386 Agree/Strongly Agree.

Graph 2

![Bar Chart Image]

**Correlations of Spirituality to Age, Rank, and other Variables**

Regarding spirituality, a literature review identified no longitudinal studies that span the adult life-cycle from early adulthood to senior adulthood which could provide conceptual descriptions of spiritual development. Most evidence of spiritual development comes from the study of individual lives\(^\text{23}\) or is generalized from other fields such as analytic psychology.\(^\text{24}\)


moral development\textsuperscript{25} or faith development tied to a quest for meaning without regard to transcendence.\textsuperscript{26}

In Table 3, the three factors using subscales for spirituality and the Spirituality Total scores are listed with means from the Likert-scale. The strongest correlations (at the 0.01 level, 2-tailed) indicate:

- Higher spirituality scores correlated modestly with older respondents (.268)
- Higher spirituality scores correlated modestly with increased rank (.213)
- Higher spirituality scores correlated slightly with women (.121)
- Higher spirituality scores correlated slightly with higher education (.168)
- Higher spirituality scores correlated slightly with marriage (.073)
- Higher spirituality scores correlated slightly with having children (.145)

The significance of correlations is characterized as follows:

- Strong > .350
- Moderate .300 to .349
- Modest .200 to .299
- Slight .100 to .199

The cross-sectional data in this study indicate variables of age and rank produce the strongest statistically significant differences in all measures of spirituality, but leaves open the reasons for these differences.

**Table 3**

<table>
<thead>
<tr>
<th>Factor/Demographics</th>
<th>Connection to Others</th>
<th>Religious Identification</th>
<th>Hopeful Outlook</th>
<th>Total Spirituality Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (R=1-5)</td>
<td>3.0347</td>
<td>3.0343</td>
<td>3.4717</td>
<td>3.1517</td>
</tr>
<tr>
<td>Gender</td>
<td>.114**</td>
<td>.100**</td>
<td>.088**</td>
<td>.121**</td>
</tr>
<tr>
<td>Age</td>
<td>.242**</td>
<td>.232**</td>
<td>.181**</td>
<td>.268**</td>
</tr>
<tr>
<td>Education</td>
<td>.155**</td>
<td>.127**</td>
<td>.128**</td>
<td>.162**</td>
</tr>
<tr>
<td>Component</td>
<td>-.079**</td>
<td>-.054</td>
<td>-.023</td>
<td>-.064*</td>
</tr>
<tr>
<td>Married</td>
<td>.026</td>
<td>.063*</td>
<td>.093**</td>
<td>.073**</td>
</tr>
<tr>
<td>Children</td>
<td>.090**</td>
<td>.137**</td>
<td>.118**</td>
<td>.145**</td>
</tr>
<tr>
<td>Rank</td>
<td>.205**</td>
<td>.161**</td>
<td>.179**</td>
<td>.213**</td>
</tr>
</tbody>
</table>

** - Correlation is significant at the 0.01 level (2-tailed).
* - Correlation is significant at the 0.05 level (2-tailed).

Notes: Range of Likert-scale = 1-5 and N=1,223 to 1,263


In the EXCEL data, there are two additional items of note in the correlations. First, there was no statistically significant correlation between the number of deployments and any reported higher or lower Total Spirituality scores or scores on any of the three sub-scales. Second, an interesting and very strong correlation emerged in using single items about spirituality and the Total Spirituality score. The item which best correlates (.794) with the Total Spirituality score is belief in the benefits of personal prayers. This is nearly identical and closely followed (.786) by the item regarding belief in the benefits of prayers by family members and friends. The convergence of belief about prayer and the practice of prayer may be of particular interest. These responses on the belief in the effectiveness of prayer provide justification for chaplains and leaders to encourage soldiers’ spiritual practice and growth.

**Five Factors of Ethics Correlating with Spirituality**

In addition to describing spirituality, this paper examines correlations between spirituality and two constructs: ethics and resiliency. Correlations between spirituality and five factors of ethics will be reported. Further below, resiliency will be analyzed describing correlations between spirituality and two factors, emotional and physical resiliency. In ethics, measuring individual responses indicated a positive correlation between spirituality and the following factors of ethics:

- Moral Courage/Ownership (.408, Strong)
- Moral Efficacy (.391, Strong)
- Embracing Army Values (.387, Strong)
- Intent to Report Unethical Conduct (.335, Moderate)
- Soldier Identification (.295, Modest)

These five factors taken together could frame a useful approach to the ethical dimension of character. Using these to further specify the ethical dimension of character with Soldiers may fit alongside the three-factor model for examining the domain of the human spirit or spirituality. The third major element of character (using the U.S. Military Academy model) is the social dimension. Character is an overarching construct that incorporates the spiritual, ethical, and social aspects of the person in uniform.
Table 4

*Correlations between spirituality scales and ethics variables*  

<table>
<thead>
<tr>
<th>Factor \ Spirituality Scale</th>
<th>Connection to Others</th>
<th>Religious Identification</th>
<th>Hopeful Outlook</th>
<th>Total Spirituality Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral Courage/Ownership</td>
<td>.355**</td>
<td>.277*</td>
<td>.380**</td>
<td>.408**</td>
</tr>
<tr>
<td>Moral Efficacy</td>
<td>.331**</td>
<td>.257**</td>
<td>.380**</td>
<td>.391**</td>
</tr>
<tr>
<td>Embracing Army Values</td>
<td>.318**</td>
<td>.286**</td>
<td>.345**</td>
<td>.387**</td>
</tr>
<tr>
<td>Report Intentions</td>
<td>.309**</td>
<td>.232**</td>
<td>.283**</td>
<td>.335**</td>
</tr>
<tr>
<td>Soldier Identification</td>
<td>.274**</td>
<td>.219**</td>
<td>.234**</td>
<td>.295**</td>
</tr>
</tbody>
</table>

Notes: N = 1107-1220. * p < .05. ** p < .01.

In the correlations above, these show probabilities < 0.01, and there are notably strong correlations between Total Spirituality scores and moral courage/ownership, moral efficacy, and embracing Army values. These correlations are all between .387 and .408, so there is apparently notable interaction in the character of individuals who identify with the Army values, believe and intend to act on those moral ideas, and the beliefs and practices of spirituality.

*Moral Courage/Ownership (.408).* The EXCEL study used seven items to assess personal moral courage and beliefs about ownership of moral responsibility. These items asked whether or not a Soldier would address unethical acts. Each item was anchored on a five-point Likert-scale ranging from *strongly disagree* to *strongly agree*.

“A majority (56 percent to 72 percent, depending on the ethical issue) of Soldiers reported that they would confront others for unethical acts and would stand in the way of ethical misconduct as shown in Table 26 (Table 5 here). Soldiers were most likely to agree that they would confront a peer, rather than a leader, if they observed that person committing an ethical act. Soldiers were least likely to agree that they would not accept anyone in the unit behaving unethically, but even in this case the majority of Soldiers agreed.”

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27 Taken from the Center for the Army Profession and Ethics, “Correlational Analyses of Spirituality Scales Report” (unpublished) as prepared by Dr. John Schaubroeck (April 2010): 1.
Table 5

Soldier Self-reports on Personal Moral Courage/Ownership

<table>
<thead>
<tr>
<th></th>
<th>Percent (disagree or strongly disagree)</th>
<th>Percent (agree or fully agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will confront my peers if they commit an unethical act</td>
<td>9.6%</td>
<td>71.8%</td>
</tr>
<tr>
<td>I will confront a leader if he/she commits an unethical act</td>
<td>10.8%</td>
<td>69.1%</td>
</tr>
<tr>
<td>I will always state my views about an ethical issue to my leaders</td>
<td>11.5%</td>
<td>63.4%</td>
</tr>
<tr>
<td>I will go against the group's decision whenever it violates my ethical standards</td>
<td>12.5%</td>
<td>58.1%</td>
</tr>
<tr>
<td>I will assume responsibility to take action when I see an unethical act</td>
<td>10.4%</td>
<td>62.9%</td>
</tr>
<tr>
<td>I will not accept anyone in my unit behaving unethically</td>
<td>12.9%</td>
<td>55.7%</td>
</tr>
<tr>
<td>I feel it is my job to address ethical issues when I know someone has done something wrong</td>
<td>13.2%</td>
<td>56.0%</td>
</tr>
</tbody>
</table>

Notes: N=2572 individual Soldiers. Effective sample size ranges from 2434 to 2468 (includes versions A & B).

In a forthcoming paper, (Hannah and Avolio, in press) propose a psychological concept of moral potency comprised of moral courage/ownership and moral efficacy. Moral potency is framed as the link between moral cognition (built out of awareness and understanding) with moral action. Moral potency is proposed as the key valence in understanding an answer to the question, why do leaders who recognize the right ethical decision or action to take still fail to act when action is clearly warranted? Moral action is preceded by moral awareness and understanding, and perhaps it is in the area of moral potency where spirituality activates one’s sense of identity, courage, and responsibility.

Moral Efficacy (.391). “Moral efficacy is essentially one’s confidence in his or her capabilities to organize and mobilize the motivation and cognitive resources needed to attain desired moral ends while persisting in the face of moral adversity.” Moral efficacy is important for individual Soldiers who are facing complex moral dilemmas in the contemporary operating environment on a regular basis. Moral efficacy is developed over time in an individual’s life and indeed is never completely developed. An integrated approach involving cognitive, affective, and social domains would likely enhance moral confidence.

Embracing Army Values (.387). The American military is a values-based organization. These values are uniquely expressed by the Army Values, The Soldier’s Creed, and the Warrior Ethos as outlined by the Department of Defense; its ideals are established within the Constitution of the United States of America. The Army Values are presented as a those attributes by which a Soldier must live. The expectation is mandated across forces and deemed probable regardless of the Soldier’s MOS or ranking. There are seven values stipulated as vital to the success of the

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33 Snider, p. 82.
warrior, thereby facilitating success of the Armed Forces. These values are: Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, and Personal Courage. Soldiers who reported that they had internalized the seven Army Value Values to a great extent also reported lower levels of misconduct. They also reported higher levels of moral courage, that is, higher levels of intention to confront others for misconduct.

**Intentions to Report Unethical Conduct (.335).** Six items assessed whether the respondent would report unit members if he/she observed unethical behavior directed toward a non-combatant. Each item was anchored on a five-point Likert-scale with responses ranging from *Strongly disagree* to *Strongly agree*. Soldiers reported an intention to report a fellow unit member if that member was observed mistreating non-combatants as shown below in Table 5. In particular, 70 percent would report a unit member for injuring or killing a non-combatant, while 57 percent would report “a buddy” for “abusing” a non-combatant. A minority of 15 percent stated they would not report a fellow unit member for these unethical behaviors. Note that higher spirituality scores correlated with higher likelihood Soldiers would respond with their intention to report such misconduct.

**Soldier Identification (.295).** Soldier identification means, in a word, internalization. The Soldier internalizes the Army’s values and identifies with the roles and responsibilities of being a Soldier. These are the aims of the character development as the Army furthers initiatives in the tiered learning model: Training—Educating—Development. The pamphlet, *US Army Concept of the Human Dimension in Full Spectrum Operations*, discusses how the Army works to have Soldiers internalize Army values as part of identity.

**Four Factors of Resilience Correlating with Spirituality**

Researchers in resilience (or “hardiness”) define resilience as “the ability of adults in otherwise normal circumstances who are exposed to an isolated and potentially highly disruptive event such as the death of a close relation or a violent or life-threatening situation to maintain relatively stable, healthy levels of psychological and social functioning.” For Soldiers, resiliency includes not only sustaining themselves physically and emotionally while in combat but also coming home fit. “The final step in the long road home for the veteran is completing this initiation as a warrior. A veteran does not become a warrior merely for having gone to war. A veteran becomes a warrior when he learns to carry his war skills and his vision in mature ways. He becomes a warrior when he has been set right with life again.”

The effect of combat and the need to adapt upon home is reiterated by a philosopher who observes the effects of combat on veterans as students. She writes how war involves a “…shifting of habit and attitude. The point is that in putting on a uniform and going to war, a

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34 EXCEL Technical report (DRAFT), p. 36.
soldier grows skin that does not shed lightly. And even when it is time to slough that skin, after years of service, it does not come off easily.\textsuperscript{37}

Because combat affects Soldiers on many levels, the need for resiliency is amplified—before, during, and after deployment.\textsuperscript{38}

\textit{Emotional Resilience.} Regarding emotional resiliency, Soldiers displayed the following correlations between their level of spirituality and emotional resilience:

- Higher spirituality scores correlated strongly with positive affectivity (.442, Strong)
- Higher spirituality scores inversely correlated with negative affectivity (-.185, Slight)

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|}
\hline
Variable & Spirituality Scale & Connection to Others & Religious Identification & Hopeful Outlook & Total Spirituality Score \\
\hline
Positive Affectivity & & .339\textsuperscript{**} & .321\textsuperscript{**} & .424\textsuperscript{**} & .442\textsuperscript{**} \\
Negative Affectivity & & -.157\textsuperscript{**} & -.084\textsuperscript{**} & -.215\textsuperscript{**} & -.185\textsuperscript{**} \\
\hline
\end{tabular}
\caption{Table 6}
\end{table}

\textit{Notes:} \textit{N = 1107-1220.} \textit{* p <.05.} \textit{** p <.01.}

Positive affectivity reflects the extent to which a person feels enthusiastic, active, and alert. In Table 6, positive affectivity correlated with spirituality and is similar to results from previous studies (see Greenfield \textit{et al}., Vaillant and Marks, Ellison and Fan, Maselko and Kubzansky). These indicate a potentially notable and strong linkage between spiritual perceptions and psychological well-being. Positive affectivity is generally viewed as a buffer against risks for depression, a serious variable in suicide risk. Also, the inverse correlation between spirituality and negative affectivity indicate some interaction.

Given the soldiers surveyed were in a combat zone, the EXCEL survey found an interestingly high level of hopeful outlook as well as other items reflecting a positive views of the future regarding the Soldier’s situation in Iraq. Among the items describing this hopeful outlook is the reported perspective by Soldiers who forgive themselves for actions which were done in combat. This capacity to forgive oneself is relevant to emotional health in the period following combat deployment.

\textit{Resilience and Dealing with Guilt.} Absolution from guilt is a core dynamic for combat veterans reentering life after war.\textsuperscript{39} Encountering veterans as college students, one professor

\textsuperscript{38} The US Army Medical Department first called their resilience program: “Battle-mind Training” now it is calling the program simply, Resilience Training. For more information on the program, see: https://www.resilience.army.mil/.
writes of how many combat veterans struggle with guilt. While researching for a recent book, Sherman found “...in virtually all of my interviews, guilt was the elephant in the room.” She categorized the guilt which Soldiers experience into three forms: accident guilt, luck-guilt, and collateral-damage guilt. The first of these, accident guilt is rather straight-forward, it is when veterans experience guilt for mishaps that occurred in combat resulting in the loss of their buddies or the lives of innocents. Although nobody can be found to be actually culpable in these types of situations, veterans still can blame themselves and experience “accident guilt.” Luck-guilt, is a form of guilt which Sherman describes as a generalized form of “survivor guilt.” Sherman interviewed Marines recently returned from Iraq, and who were touring Annapolis. They felt genuine guilt at relaxing on a sailboat while their brothers were still in combat. The most troubling kind of guilt which Sherman studied is what she calls “collateral-damage guilt,” associated with the accidental or unintended killing of innocents.40

*Physical Resiliency.* A Soldier’s physical health is a large part of resiliency. During deployment, Soldiers may endure a wide array of physical hardships. When they return home, it is essential for Soldiers to get help for injuries and ailments incurred during deployment. This is needed in order to prepare for future deployment. Since the ongoing process of deployment, re-deployment, training, and subsequent additional deployments is a reality, resiliency is important. The correlation between a Soldier’s level of spirituality and his or her physical health is a vital link. The EXCEL study revealed an inverse relationship between a Soldier’s spirituality and somatic complaints and fatigue.

- Spirituality inversely correlated with physical and psychological fatigue (-.183)
- Spirituality inversely correlated with somatic complaints (-.146)

**Table 7**

<table>
<thead>
<tr>
<th>Variable \ Spirituality Scale</th>
<th>Connection to Others</th>
<th>Religious Identification</th>
<th>Hopeful Outlook</th>
<th>Total Spirituality Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatic Complaints</td>
<td>-.140**</td>
<td>-.064*</td>
<td>-.154**</td>
<td>-.146**</td>
</tr>
<tr>
<td>Fatigue</td>
<td>-.162**</td>
<td>-.124**</td>
<td>-.160**</td>
<td>-.183**</td>
</tr>
</tbody>
</table>

*Notes: N = 1107-1220. * p <.05. ** p <.01.*

This study is consistent with other investigations that link spirituality with physical health. Among military populations, Frederick M. Dini, LCDR, SC, USN, wrote an unpublished masters level thesis on a strategy for a military spiritual self-development tool and physical well-being. This thesis lists several previous studies which made this connection.41 Dini reports these

studies show positive correlations between spiritual development and health in the following areas: lower blood pressure, improved physical health, healthier lifestyles and less risky behavior, improved coping ability, less depression, faster healing, lower levels of bereavement after the death of a loved one, and a decrease in fear of death, higher school achievement. These studies describe civilian populations. For military populations, physical health is a potentially a life-and-death issue. A Soldier’s health and personal resiliency can very well mean the difference between coming home or not.

Conclusions and Implications

This paper addresses initial considerations about soldier spirituality as one facet of character. It conveys notable correlations between spirituality, ethical attitudes and action, and personal resilience.

Spirituality is multidimensional and includes three factors which emerged from this survey of soldiers: connection to others, religious identification, and hopeful outlook. Spirituality scores correlate moderately with age and rank. Spirituality correlates slightly with gender (higher in women), education, having children, and inversely with marriage. Regarding spirituality, the Soldiers’ beliefs about prayer (personal prayers and prayers by others on their behalf) comports most closely with their Total Spirituality scores. The convergence of belief about prayer and the practice of prayer may offer a primary means for engaging Soldiers regarding spirituality, from a variety of religious perspectives.

Spirituality positively correlates with several elements of ethical attitudes and intentions. Spirituality strongly correlates with moral courage/ownership, moral efficacy, and embracing Army values. Spirituality moderately correlates with intention to report ethical violations observed in others and with soldier identification. These attitudes and intentions may be understood as an expression of character with spirituality as one dimension of character. Fostering moral potency may be a direct benefit for deepening spirituality as a dimension of character.

Spirituality correlates with indications of emotional and physical well-being. Spirituality strongly correlates with positive affectivity and inversely with negative affectivity. Spirituality reveals a strong inverse correlation with somatic complaints and fatigue. Somatic complaints and fatigue contribute to physical risk. As described above, studies of other populations have consistently reported of the apparent connection between spirituality, physical and emotional well-being.

Regarding character, mid-grade and senior non-commissioned officers (NCOs) offered perspectives as they presented personal reports of exemplary conduct observed or performed in


close combat during an ethics and leadership program at Joint Forces Command. The theme of the symposium was ethical decision-making and high performing teams. It involved approximately 100 combat-seasoned members of the armed forces, US Special Operations Command, US Joint Forces Command, civilian academics, and law enforcement leaders—all focused on ethical conduct in ambiguous and hostile situations. The NCOs observed that “members of the military operate both with highly trained skills and a human and moral core. This core of character is formed before and beyond the military. While in uniform, experiences can both test and potentially help develop moral strength.” This captures the essential context of how personal spirituality and significant family and community influences affect men and women in military service, both in terms of their moral awareness and understanding as well as their resilience under stress.

Soldier spirituality could benefit from further investigation and diligence, using more robust instruments than the truncated combination of items used in the EXCEL study. The EXCEL study helps bring spirituality and its effects into the realm of legitimate study, worth scientific inquiry and further analysis. Though often categorized as the domain of anthropologists, psychologists, sociologists, and religious leaders, the topic of spirituality deserves to be brought into a wider, interdisciplinary line of effort. Additionally, military leaders and planners can benefit from further analysis into these issues in light of the EXCEL findings. The issues have been identified, Soldiers could benefit, and the opportunity is available.

**Recommendations for Leaders and Chaplains**

**Leaders**
- Acknowledge the value and positive impact of religious and spiritual activities on ethical behavior and resilience.
- Promote Soldiers’ participation in spiritual activities as a means of moral development within the limitations of regulations. (Although this research was not structured to demonstrate a clear causal relationship, there are correlations which imply influence.)
- Ensure soldiers have opportunity to practice their faith.
- Provide adequate resources (funding, time on the training schedule) to unit chaplains to offer spiritual fitness training and activities.

**Chaplains**
- Provide opportunities for building relationships as a means for influencing ethical behavior.
- Pray. Provide instruction on prayer. Conduct prayer services. Emphasize prayer as a means of resilience, as an item of personal protective gear. Encourage connections “back home” with those who will offer prayers on behalf of the Soldiers.
- Conduct spiritual fitness training. Provide scripture studies and instruction on the meaning and purpose of life and God working in evil situations. Emphasize the practical application of love. Love is about selfless service; treating others with respect and

43 “Symposium on ethical decision-making and behavior in high performing teams,” co-hosted by Joint Forces Command, the Center for the Army Professional Ethic, and the Institute for National Security Ethics and Leadership, 2-3 June 2010, Suffolk, VA (Final report, limited distribution), p. 11.
44 Ibid, Symposium Report, p. 11.
dignity, even our enemies; incorporate moral dilemmas and what scriptures say about them.

Acknowledgements

This preliminary report could not be possible without the visionary leadership of Colonel Sean Hannah, director of the Center for the Army Professional Ethic. He opened the proverbial door to investigating spirituality as one of the relevant variables in the moral life of Soldiers. Thanks to Colonel Hannah and his capable team of military, civilian, and academic partners. In particular, Dr. John Schaubroeck and his students made the analytic work possible. Further, the Office of the Army Chief of Chaplains and US Army Reserve provided capable assistance in sending the following chaplain candidates who performed invaluable research assistance: 1LTs David Pyle, Joel Giese, Stacy Fairley, and James Fowler. Mr. Adam Jungdahl of National Defense University deserves appreciation for his dedicated work on refining the statistical reports. Finally, the generous support of Dr. Albert C. Pierce, director, Institute for National Security Ethics and Leadership, National Defense University, and the university leadership all enabled these efforts to move forward.

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Appendix A: EXCEL Spirituality Questions with References

1. I feel that on a higher level all of us share a common bond.
   - Question source: Piedmont-Spiritual Transcendance Scale
   - Original question: I feel that on a higher level all of us share a common bond.

2. Although there is good and bad in people, I believe that humanity as a whole is basically good.
   - Question source: Piedmont-Spiritual Scale
   - Original question: Although there is good and bad in people, I believe that humanity as a whole is basically good.

3. There is an order to the universe that transcends human thinking.
   - Question source: Piedmont-Spiritual Scale
   - Original question: There is an order to the universe that transcends human thinking.

4. Although individual people may be difficult, I feel a bond with all of humanity.
   - Question source: Piedmont-Spiritual Scale
   - Original question: Although individual people may be difficult, I feel an emotional bond with all of humanity.

5. My spiritual life is an important part of who I am as a person.
   - Question source: Allport's Extrinsic Religion
   - Original question: Although I am religious, I don't let it affect my daily life.
   - Original question: Although I believe in my religion, many other things are more important in life.

6. I feel deep inner peace or harmony.
   - Question source: Existential Well-Being
   - Original question: I feel deep inner peace or harmony.

7. I feel a sense of well-being about the direction in which my life is heading.
   - Question source: Existential Well-Being
   - Original question: I feel a sense of well-being about the direction in which my life is heading.

8. I have the sense of a larger of purpose in my life.
   - Question source: Existential Well-Being
   - Original question: I have been able to step outside of my ambitions and failures, pain and joy, to experience a larger sense of fulfillment.

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46 “The Age-Universal” version of Allport and Ross's Religious Orientation Scale as reported by Haber, p. 278.
47 “Spiritual Well-Being Scale” by C. W. Ellison as reported by Haber, p. 277.
48 Haber, p. 277.
49 Haber, p. 277.
9. I go to my place of worship (Chapel, Church, Synagogue, Temple) because it helps me to connect with friends.
   - Question source: Fetzer/NIA Religious Support
   - Original question: I go to my place of worship (Church, Synagogue, Temple) because it helps me to make friends.
   - Original question: I go to my (Church, Synagogue, Temple) mostly to spend time with my friends.

10. I believe my personal prayers help me during this deployment.
    - Question source: R/S Motivation, Devotion, & Coping
    - Original question: How important is it to you to be able to turn to prayer when you are facing a personal problem?

11. I believe the prayers of my family and friends back home help me.
    - Question source: This question was created by the Chaplain Corps to determine the recognized level of spiritual support from home.

12. I believe the presence and ministry of my unit chaplain brings value to the mission.
    - Question source: This question is a military centric question created to meet the specific needs of the Chaplain Corps.

13. I feel good about my future.
    - Question source: Existential Well-Being
    - Original question: I feel good about my future.

14. I have forgiven myself for things that I have done wrong.
    - Question source: Existential Well-Being
    - Original question: I have forgiven myself for things that I have done wrong.

15. If I have a problem or difficult situation, the people in my chapel Community will comfort me and get me through it.
    - Question source: Fetzer/NIA Religious Support
    - Original question: If you were ill, how much would the people in your congregation help you out?
    - Original question: If you had a problem or difficult situation, how much comfort would the people in your congregation be willing to give you?

50 “Brief Multidimensional Measure of Religion and Spirituality” by Fetzer Institute/National Institution of Aging, as reported by Haber, p. 278.
REFERENCES


