

**TriService Nursing Research Program Final Report Cover Page**

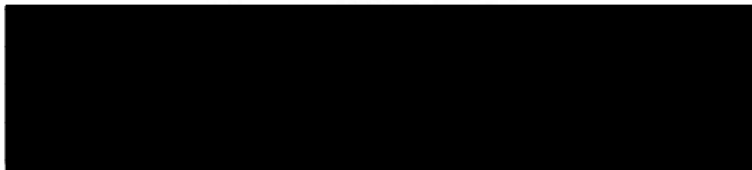
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## **Abstract**

**Purpose:** To (1) describe core cognitive content of Military Identity operationally, utilizing a self-schema model, (2) test the theoretical model by examining the effect of military identity on information processing response times (RT), and (3) explore the relationship between military identity and self-perceived psychological well-being (PWB).

**Design:** A descriptive cross-sectional mixed methods design investigated military identity content through inductive and deductive content analysis and four-group (identity groups) comparison on RT speeds and PWB scores.

**Methods:** All measures were collected virtually through Harvard's Project Implicit platform. Cognitive identity content was explored through Open-Ended (self-generated attributes) and Closed-Ended (fixed list of 60 attributes) Identity Attribute Tasks (OIAT & CIAT). A demographic questionnaire, Inclusion of Ingroup in Self Scale, Ryff's PWB scales and a RT task were utilized.

**Sample:** A Joint Services convenience sample of n=115 Active Duty Service Members: Army (50%), Air Force (39%), Marine (9%), and Navy (2%).

### **Analysis:**

Mayring's (2014) inductive (OIAT) and deductive (CIAT) content analysis characterized military identity content. Quantitative descriptive analysis was conducted using Stata for all measures except OIAT.

**Findings:** Core cognitive content of military identity included 13 categories organized into four broad categories: Leadership, Values, Mindset, and X-factor. Information processing results were consistent with other validated self-schema domains suggesting the validity of a military self-schema. Results of the PWB scores revealed an association between higher levels of military identity and greater PWB scores. Non-military identity group members scored lowest on all six PWB dimensions with markedly low scores for Self-Acceptance and Environmental Mastery.

**Implications for Military Nursing:** Psychiatric Mental Health Nurse Practitioners are uniquely positioned to assist with further investigations of military identity and translate research findings into practice. Preliminary evidence from our study can contribute to early development of strategies to strengthen positive identity attributes and tailor risk mitigation strategies for identified cognitive vulnerabilities.

### TSNRP Research Priorities

#### Primary Priority

Force Health Protection:	<input checked="" type="checkbox"/> Fit and ready force <input type="checkbox"/> Deploy with and care for the warrior <input type="checkbox"/> Care for all entrusted to our care
Nursing Competencies and Practice:	<input type="checkbox"/> Patient outcomes <input type="checkbox"/> Quality and safety <input type="checkbox"/> Translate research into practice/evidence-based practice <input type="checkbox"/> Clinical excellence <input type="checkbox"/> Knowledge management <input type="checkbox"/> Education and training
Leadership, Ethics, and Mentoring:	<input type="checkbox"/> Health policy <input type="checkbox"/> Recruitment and retention <input type="checkbox"/> Preparing tomorrow's leaders <input type="checkbox"/> Care of the caregiver
Other:	<input type="checkbox"/>

#### Secondary Priority

Force Health Protection:	<input type="checkbox"/> Fit and ready force <input checked="" type="checkbox"/> Deploy with and care for the warrior <input type="checkbox"/> Care for all entrusted to our care
Nursing Competencies and Practice:	<input type="checkbox"/> Patient outcomes <input type="checkbox"/> Quality and safety <input type="checkbox"/> Translate research into practice/evidence-based practice <input type="checkbox"/> Clinical excellence <input type="checkbox"/> Knowledge management <input type="checkbox"/> Education and training
Leadership, Ethics, and Mentoring:	<input type="checkbox"/> Health policy <input type="checkbox"/> Recruitment and retention <input type="checkbox"/> Preparing tomorrow's leaders <input type="checkbox"/> Care of the caregiver
Other:	<input type="checkbox"/>

### Project Results

In this section we summarize the efforts associated with the three specific aims of the study. The purpose of our mixed methods study was (1) to describe the core cognitive content of Military Identity operationally, utilizing a self-schema model,(2) test the theoretical model by examining the effect of military identity on information processing response times, and (3) explore the relationship between military identity and self-perceived psychological well-being (PWB). Due to the impact of the COVID-19 pandemic and information technology challenges, we were unable to achieve our original recruitment goals, despite contacting over 2,000 potential participants and attaining 630 data sets, we yielded just 115 complete and valid data sets utilized for Aim 1 but only (n=69) scored into identity groups for Aim 2 &3. Subsequently, the required minimum of 30 participants per identity group was lacking for a one-way analysis of variance (ANOVA) cross-group analysis. Therefore, a descriptive analysis was conducted for Aims 2 and 3. Findings related to each specific aim, and research questions follow.

#### Specific Aim 1: Describe the core cognitive content of military identity in Active Duty Service Members (ADSM).

- Q1: What are the attributes and categories generated from both the Open and Closed-ended Identity Attribute Tasks?
- Q2: Which identity attributes have >50% occurrence rate indicating core cognitive content?
- Q3: What are the most salient rank-ordered identity attributes for: *self-descriptiveness*, *importance*, and *valence*?

**Review of Instruments:** Cognitive content of military self-schemas was derived from Task 1 (Figure 1.0), the Open-ended Identity Attribute Task (OIAT) and Task 5, the Closed-ended Identity Attribute Task (CIAT). Cognitive content was determined by using established methods from the self-schema literature (self-schema criteria): attributes rated highly *self-descriptive* (8-11), highly *important* (8-11), and highly positive (8-11) on an 11-point scale are identified as positive self-schemas. Those rated highly *self-descriptive* (8-11), highly *important* (8-11) and highly negative (1-4) on an 11-point scale are identified as negative self-schemas (Kendzierski, 1988; Markus, 1977).

Figure 1.0

#### Task I the Open-ended Identity Attribute Task (OIAT)

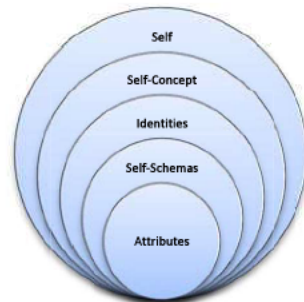
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Negative					Positive																																																														

*Note:* Participant follows directions in adjoining box and has nine opportunities. For Task 1, the OIAT (self-generated attributes), participants listed nine attributes that represent how they think about themselves as a military member and then rated each attribute according to *self-descriptiveness*, (How much does this attribute really describe me?), followed by rating the *importance* (How important is this attribute to who I am as a military member?) and *valence* (How positive or negative do I consider this attribute in myself?). Task 5, the CIAT, required the same rating system for a pre-determined list of 60 attributes (15 military positive *valence*, 15 military negative *valence*, 10 control positive *valence*, 10 control negative *valence* and 10 control neutral *valence*) for the respondent to endorse or not.

Although the self-concept is complex multidimensional, hierarchical and an associative network, Figure 1.1 provides a simplistic unidimensional representation for ease in understanding how our measures and results are interpreted theoretically with *attributes* contributing to *self-schemas*, the building blocks of *identities*. The terms *self*, *self-concept*, *identity*, and *self-schema* are used interchangeably throughout the literature.

**Figure 1.1**

*Simple Representation of Identity Components*



*Note:* Conceptual representation of self as nested unidimensional hierarchical elements

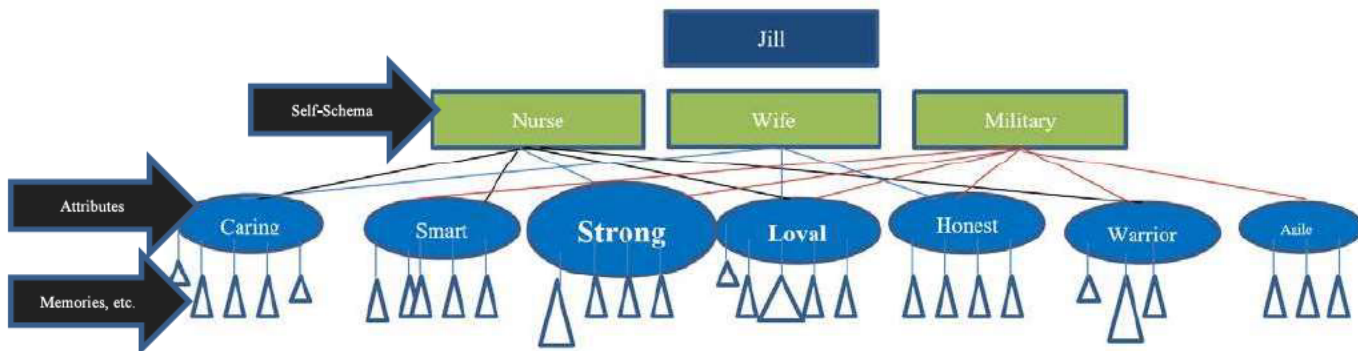
For the purposes of our study the unit of analysis was the individual identity attributes meeting Markus's (1977) self-schema criteria, those attributes rated both highly *self-descriptive* (8-11) and highly *important* (8-11) and thus referred to as military identity attributes, the cognitive content of a military self-schema (identity). Attributes not meeting self-schema criteria were not included in the analysis for the OIAT (self-generated attributes) or CIAT (fixed list attributes).

To better understand the results and interpretation of our findings it is important to understand the Self-Schema Model of the Self-Concept (Markus, 1977; Stein, 1995) the theoretical framework of our study. Self-concepts and identities are a compilation of properties with distinct structures and functions. Our goal was to test the model in our domain of identity (military) and discover the cognitive content of military self-schemas prior to investigating the structure and function. A simple conceptual illustration (Figure 1.2) is depicted for the self-concept of "Jill", represented by a hierarchical arrangement of elements, beginning with green rectangles, representing three domain-specific self-schemas (nurse, wife, military). The self-schema, represented by blue ovals, are comprised of attributes (caring, smart, strong, loyal, honest, warrior, agile) varying in size according to importance. Feeding into the self-schema are important and enduring memories about oneself, as well as internalized values, norms, and

cultural beliefs (Josephs, Markus & Tafarodi, 1992), represented by triangles. In this notional figure what we are most interested in are the attributes (blue ovals) contributing to the military self-schema (green rectangle). Specifically, the attributes military members most commonly use to describe themselves, and the associated importance and valence (positivity/negativity) placed on said attributes. The self-schema is a knowledge structure full of cognitive content made up of attributes that best describe, and are most important to, how an individual views themselves. For example, regardless of objective reality, perception is influenced by the cognitive content and structure of the self-schema, whether that content is an accurate assessment or a distortion (Markus, Hamill & Sentis, 1987). Thus, a 19-year-old with a fat self-schema may see himself or herself as obese despite an actual physical weight of 100 pounds. Ultimately, how individuals think about themselves regarding a particular domain (academic, athletic, sexual, body weight, military) impact how information relevant to that domain is processed due to the self-schema structure and function. In our study we utilize the self-schema as a proxy for identity (a more commonly understood term) recognizing that individuals have multiple interacting self-schemas that contribute to identities and self-concept. However, our focus is on one specific identity domain (military) and its underlying content.

**Figure 1.2**

*Notional depiction of the hierarchical components of “Jill’s” self-concept*



**Open-ended Identity Attribute Task (OIAT) and Closed-ended Identity Attribute Task (CIAT) Analysis:** Mayring’s (2014) inductive category development analysis was utilized for the OIAT (self-generated attributes) and structured deductive category assignment for the CIAT (fixed list attributes) data. An analysis team composed of PI/AIs collaborated virtually in coding sessions for OIAT analysis. Analytic text software Qualitative Data Analysis (QDA Miner) and Wordstat (Provalis, Montreal, Canada) were used for OIAT data. The inductive analysis began with 1017 self-generated OIAT attributes from 114 participants. Attributes were reduced to 712 after applying self-schema criteria, retaining only attributes rated both highly *self-descriptive* (8-11) and highly *important* (8-11). After collapsing identical terms and synonyms 270 attributes remained which were then subsumed into 13 distinct content categories forming four major content categories. *Stata Statistical Software: Release 15.1* (College Station, TX) was utilized to analyze data from the CIAT to generate frequencies of positive and negative military self-schema content. Attribute category content occurring in greater than 50% of participants were classified as military identity **core** cognitive content from which we rank ordered items for *self-descriptiveness*, *importance*, and *valence*. Finally, the analysis team worked together to integrate

the results from the OIAT and CIAT into a broader organizing framework for understanding the cognitive content of military identity.

### **Results: Open-ended Identity Attribute Task (OIAT, Task I)**

**Self-Schemas:** Inductive results of the military identity content analysis revealed 13 distinct categories of military identity cognitive content illustrated in Table 1.0. and Figure 1.3. The categories are derived from the self-generated attributes participants ascribe to themselves as military members. We refer to these attributes as the cognitive content of military identity because of the high *importance* and *self-descriptiveness* placed on the attributes by the participants. Distinguishing cognitive content is a critical step in our study because it will enable us to characterize common cognitive patterns of military identity, a first step for detection of potential cognitive distortions associated with military identity that may contribute to military-prevalent psychological health conditions.

The most salient military identity content was **Honor, Loyal, Disciplined, and Courage** and were defined as **core** content because over 50% of participants described their military identity in these terms. The 13 military identity content categories were further organized into four major categories with sub-categories (Figure 1.4).

**Table 1.0**

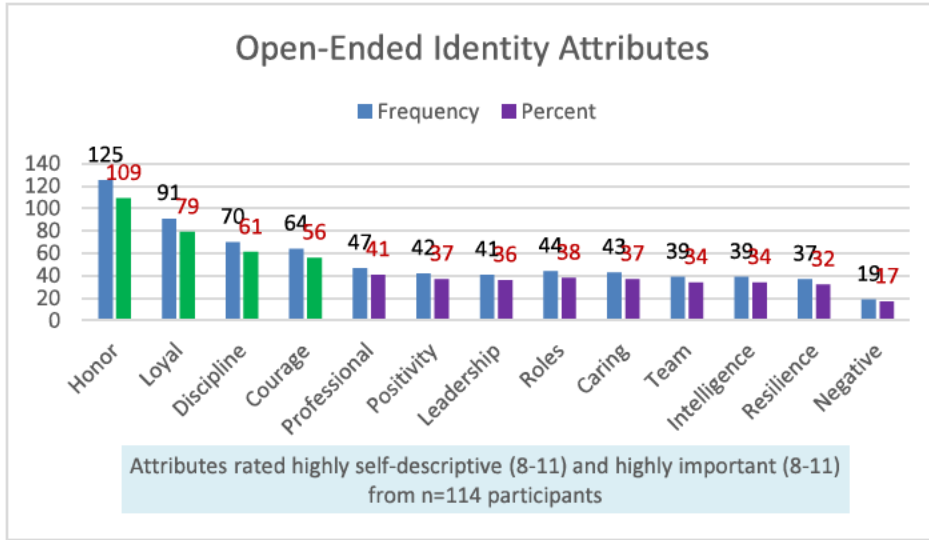
*Open-Ended Military Identity Attribute Task: Rank-ordered Military Identity Content*

Attribute	n (%)
<b>Honor</b>	125 (109)
<b>Loyal</b>	91 (79)
<b>Disciplined</b>	70 (61)
<b>Courage</b>	64 (56)
Professional	47 (41)
Roles	44 (38)
Positivity	43 (37)
Caring	43 (37)
Leadership	41 (36)
Intelligence	39 (34)
Team	39 (34)
Resilience	37 (32)
Negative	19 (17)

*Note.* Identity attributes generated from the Open-Ended Identity Attribute Task meeting self-schema criteria ranked by frequency (n) and percentage (%) of 114 participants. Core military identity content (**bolded**) is defined as content having frequencies greater than 50% of participants (n >57).

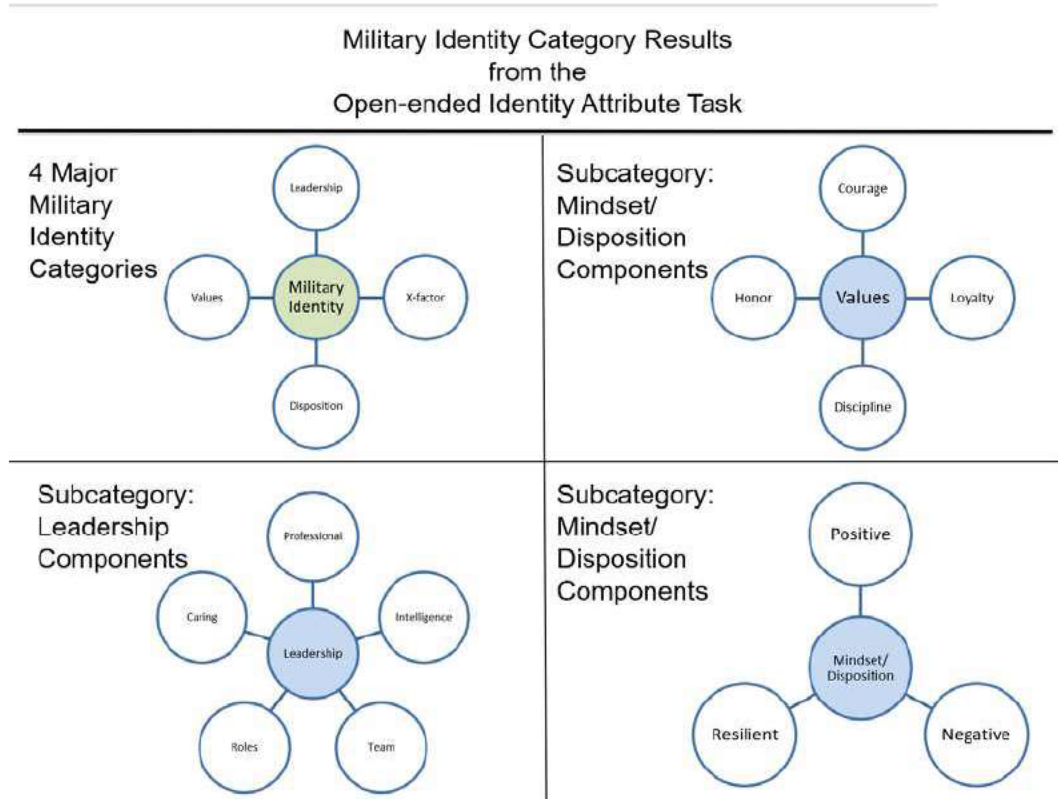
**Figure 1.3**

*Open-ended Identity Attribute Task (OIAT) Military Identity Content by Frequency & Percent*



Note. Open-ended identity attributes (self-generated) rated both highly *self-descriptive* (8-11) and highly *important* (8-11) constituting military identity content from n=114 participants displayed by frequency and percentage. Core military identity content is defined as frequencies greater than 50% of the participant pool (>57) and is represented in green.

**Figure 1.4**



**Results: Closed-Ended Identity Attribute Task (CIAT, Task V)**

**Self-Schemas:** The most salient attributes derived from the CIAT are detailed according to rating categories (*self-descriptive, importance, valence*). The top five attributes meeting self-schema criteria, rated as both highly *self-descriptive* and highly *important*, are illustrated in Table 1.2.

Participants rated the following: **Loyal, Honest, Self-disciplined, Team-Player** and **Understanding** as the top five most positive military identity attributes, while **Misunderstood, Detached, Unsatisfied, Mean** and **Anxious** were rated as five most negative. **Self-disciplined** and **Team-Player** shared the same number/percent of endorsements as did **Detached, Unsatisfied** and **Mean**.

Military identity core content (attributes that met self-schema criteria and were endorsed by greater than 50% of participants) included 14 of 15 military positive attributes and six of 10 control positive attributes (Figure 1.5). Figure 1.6 illustrates the frequency while Figure 1.7 illustrates the percentage of attribute endorsements contributing to military identity core cognitive content. Again, identifying and characterizing core cognitive content is a critical first step for the future detection of cognitive distortions associated with military identity and psychological conditions prevalent in military members.

**Table 1.2**

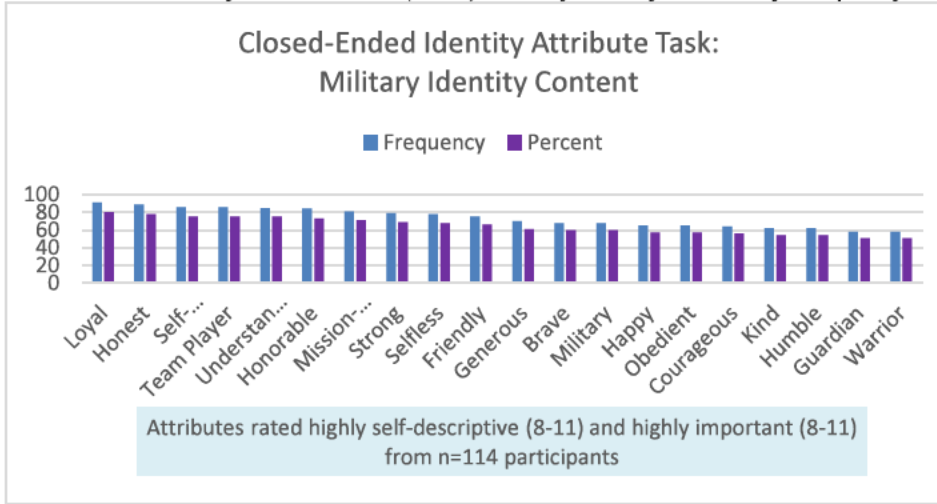
*Closed-Ended Military Identity Attributes: Ranked Attributes Rated both Highly Self-Descriptive (8-11) and Highly Important (8-11)*

		<u>Military Attributes</u>				<u>Control Attributes</u>			
Positive	n (%)	Negative	n (%)	Positive	n (%)	Negative	n (%)	Neutral	n (%)
<b>Loyal</b>	<b>91 (79.8)</b>	<b>Misunderstood</b>	<b>14 (12.3)</b>	<b>Understanding</b>	<b>85 (74.6)</b>	<b>Mean</b>	<b>11 (9.7)</b>	Strict	32 (28.1)
<b>Honest</b>	<b>89 (78.0)</b>	<b>Detached</b>	<b>11 (9.7)</b>	Friendly	75 (65.8)	Childish	6 (5.3)	Blunt	21 (18.4)
<b>Self-disciplined</b>	<b>86 (75.4)</b>	<b>Unsatisfied</b>	<b>11 (9.7)</b>	Generous	70 (61.4)	Rude	5 (4.4)	Quiet	17 (14.9)
<b>Team Player</b>	<b>86 (75.4)</b>	<b>Anxious</b>	<b>10 (8.8)</b>	Happy	65 (57.0)	Grouchy	4 (3.5)	Silly	17 (14.9)
Honorable	84 (73.7)	Conflicted	9 (7.9)	Humble	62 (54.4)	Annoying	3 (2.6)	Talkative	17 (14.9)
Mission Focused	81 (71.0)	Broken	8 (7.0)	Kind	62 (54.4)	Boring	3 (2.6)	Choosy	16 (14.0)
Strong	79 (69.3)	Empty	6 (5.3)	Pleasant	55 (48.3)	Greedy	3 (2.6)	Ordinary	15 (13.2)
Selfless	78 (68.4)	Insignificant	6 (5.3)	Creative	49 (43.0)	Loudmouth	3 (2.6)	Eccentric	10 (8.8)
Brave	68 (59.7)	Angry	5 (4.4)	Warm	44 (38.6)	Jealous	2 (1.8)	Wordy	10 (8.8)
Military	68 (59.7)	Fragmented	4 (3.5)	Individualistic	30 (26.3)	Unkind	2 (1.8)	Hesitant	8 (7.0)
Obedient	65 (57.0)	Alienated	3 (2.6)						
Courageous	64 (56.1)	Disillusioned	2 (1.8)						
Guardian	58 (50.9)	Weak	2 (1.8)						
Warrior	58 (50.9)	Ashamed	0 (0.0)						
Unfailing	38 (33.3)	Guilty	0 (0.0)						

*Note.* Identity attributes displayed from the Closed-Ended Identity Attribute Task ranked by frequency (n) and percentage (%) of endorsements by the 115 participants. A total of 60 attributes were presented: 30 stimuli (15 military positive and 15 military negative) and 30 control (10 positive, 10 negative, 10 neutral). Attributes were rated for self-descriptiveness and importance on an 11-point scale where 1 represents Not Me/Not Important and 11 represents Very Me/Very Important to “Who I am as a military member”. Number (%) attributes endorsed as both highly self-descriptive (8-11) and highly important (8-11) are displayed. The top five endorsed positive and negative attributes are bolded.

**Figure 1.5**

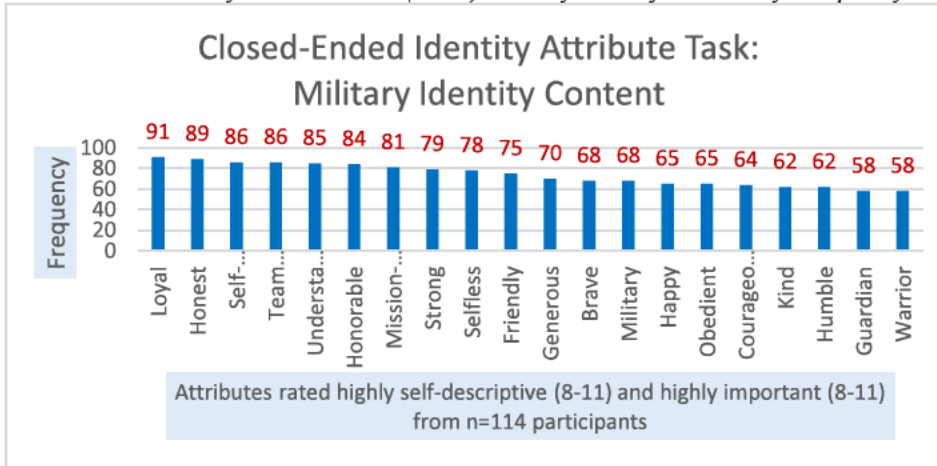
*Closed-ended Identity Attribute Task (CIAT) Military Identity Content by Frequency & Percent*



*Note:* Identity attributes classified as core cognitive military identity content are displayed from the Closed-Ended Identity Attribute Task ranked by frequency (n) and percentage (%) of endorsements. Attributes displayed were endorsed by greater than 50% of the 115 participants as being highly self-descriptive (8-11) and highly important (8-11), thus designated as military identity core cognitive content.

**Figure 1.6**

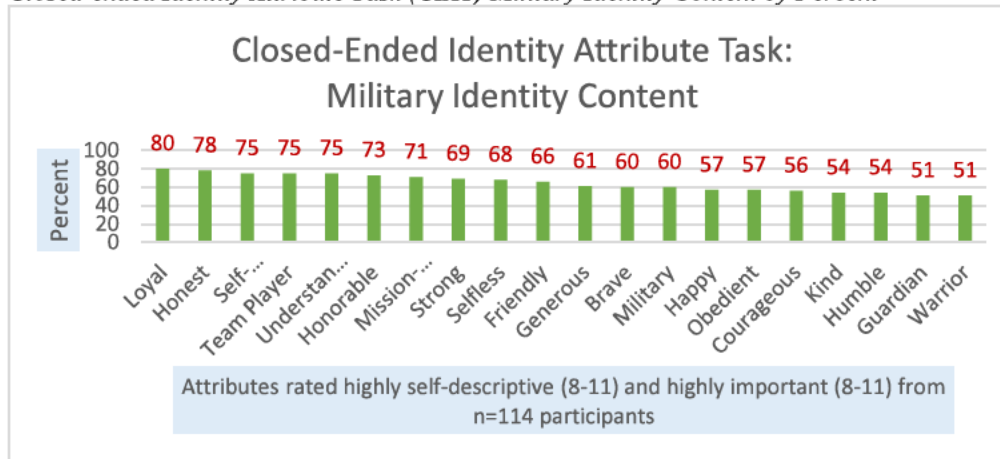
*Closed-ended Identity Attribute Task (CIAT) Military Identity Content by Frequency*



*Note:* Closed-Ended Identity Attribute Task attributes classified as core military identity content ranked by frequency (n) of endorsements.

**Figure 1.7**

*Closed-ended Identity Attribute Task (CIAT) Military Identity Content by Percent*



*Note:* Closed-Ended Identity Attribute Task attributes classified as core cognitive content and designated as military self-schemas are displayed ranked by percentage (%) of endorsements.

***Self-descriptiveness:*** The top five attributes rated as highly *self-descriptive* are, in ranked order: **Loyal, Honest, Understanding, Self-disciplined, and Team-Player** (Table 1.3).

**Table 1.3**

*Closed-Ended Military Identity Attributes: Ranked Attributes Rated Highly Self-Descriptive (8-11)*

		Military Attributes		Control Attributes					
Positive	n (%)	Negative	n (%)	Positive	n (%)	Negative	n (%)	Neutral	n (%)
<b>Loyal</b>	<b>97 (85.1)</b>	<b>Misunderstood</b>	<b>30 (26.3)</b>	<b>Understanding</b>	<b>91 (79.8)</b>	Boring	14 (12.3)	Quiet	43 (37.7)
<b>Honest</b>	<b>92 (80.7)</b>	<b>Anxious</b>	<b>29 (25.4)</b>	Friendly	86 (75.4)	Grouchy	13 (11.4)	Strict	43 (37.7)
<b>Self-disciplined</b>	<b>89 (78.1)</b>	<b>Conflicted</b>	<b>24 (21.1)</b>	Generous	84 (73.7)	Mean	13 (11.4)	Silly	40 (35.0)
<b>Team Player</b>	<b>88 (77.2)</b>	<b>Detached</b>	<b>22 (19.3)</b>	Kind	79 (69.3)	Childish	12 (10.5)	Blunt	39 (34.2)
Honorable	86 (75.4)	<b>Unsatisfied</b>	<b>18 (15.8)</b>	Humble	76 (66.7)	Rude	11 (9.7)	Choosy	33 (29.0)
Mission-Focus	86 (75.4)	Broken	19 (16.7)	Pleasant	75 (65.8)	Annoying	9 (7.9)	Talkative	33 (29.0)
Selfless	86 (75.4)	Fragmented	14 (12.3)	Happy	70 (61.4)	Loudmouth	9 (7.9)	Ordinary	31 (27.2)
Strong	85 (74.6)	Alienated	13 (11.4)	Warm	66 (57.9)	Jealous	6 (5.3)	Eccentric	27 (23.7)
Military	75 (65.8)	Insignificant	13 (11.4)	Creative	60 (52.6)	Greedy	5 (4.4)	Wordy	24 (21.0)
Brave	74 (64.9)	Empty	12 (10.5)	Individualistic	51 (44.7)	Unkind	4 (3.5)	Hesitant	20 (17.5)
Obedient	73 (64.0)	Angry	10 (8.8)						
Courageous	68 (59.7)	Disillusioned	10 (8.8)						
Guardian	66 (57.9)	Guilty	7 (8.1)						
Warrior	61 (53.5)	Ashamed	6 (5.3)						
Unfailing	46 (40.4)	Weak	5 (4.4)						

*Note.* Identity attributes displayed from the Closed-Ended Identity Attribute Task ranked by frequency (n) and percentage (%) of endorsements by the 115 participants. A total of 60 attributes were presented: 30 stimuli (15 military positive and 15 military negative) and 30 control (10 positive, 10 negative, 10 neutral). Attributes were rated for self-descriptiveness on an 11-point scale where 1 represents Not Me and 11 represents Very Me with regard to “Who I am as a military member”. Number (%) attributes endorsed as highly self-descriptive (8-11) are displayed. The top five endorsed positive and negative attributes are bolded

***Importance:*** When rated for *importance* (Table 1.4) the top attributes remain largely the same as the most *self-descriptive* attributes but ranked differently: **Self-disciplined, Strong, Team-Player and Honest, Honorable, Loyal** (identical 4<sup>th</sup> ranked). Additionally, when ranked for *importance* **Understanding** no longer ranks in the top five. It is interesting to see the differences in participants descriptions of themselves versus what attributes they value as being most important. For instance, **Self-disciplined** was rated as third most *self-descriptive* but first and most *important*, while **Strong** was listed as the tenth most *self-descriptive* but second most

*important* military identity attribute. The top five rank ordered ratings for negative identity attribute importance resulted in **Mean, Misunderstood, Unsatisfied, Anxious** and **Unkind**. **Mean** was not in the top five most self-descriptive negative attributes but was ranked as most important. Again, demonstrating that attributes that were most *important* were not necessarily most *self-descriptive*.

Table 1.4

*Closed-Ended Military Identity Attributes: Ranked Attributes Rated Highly Important (8-11)*

Positive	n (%)	Military Attributes		Positive	n (%)	Control Attributes		Neutral	n (%)
		Negative	n (%)			Negative	n (%)		
<b>Self-disciplined</b>	<b>103 (90.4)</b>	<b>Misunderstood</b>	<b>34 (29.8)</b>	Understanding	96 (84.2)	<b>Mean</b>	<b>41 (36.0)</b>	Strict	56 (49.1)
<b>Strong</b>	<b>102 (89.5)</b>	<b>Unsatisfied</b>	<b>33 (29.0)</b>	Happy	85 (74.6)	<b>Unkind</b>	<b>30 (26.3)</b>	Blunt	30 (26.3)
<b>Team Player</b>	<b>99 (86.9)</b>	<b>Anxious</b>	<b>30 (26.3)</b>	Friendly	80 (70.2)	Rude	27 (23.7)	Talkative	28 (24.6)
<b>Honest</b>	<b>98 (86)</b>	Empty	26 (22.8)	Humble	77 (67.6)	Childish	21 (18.4)	Hesitant	24 (21.0)
<b>Honorable</b>	<b>98 (86)</b>	Insignificant	26 (22.8)	Generous	76 (66.7)	Greedy	20 (17.5)	Quiet	24 (21.0)
<b>Loyal</b>	<b>98 (86)</b>	Broken	24 (21.0)	Kind	74 (64.9)	Annoying	17 (14.9)	Choosy	23 (20.2)
Selfless	93 (81.6)	Detached	24 (21.0)	Pleasant	67 (58.8)	Grouchy	13 (11.4)	Silly	22 (19.3)
Mission-Focus	89 (78.1)	Weak	23 (20.2)	Creative	65 (57.0)	Loudmouth	11 (9.7)	Ordinary	21 (18.4)
Brave	85 (74.6)	Angry	21 (18.4)	Warm	52 (45.6)	Boring	9 (7.9)	Eccentric	18 (15.8)
Courageous	85 (74.6)	Disillusioned	20 (17.5)	Individualistic	38 (33.3)	Jealous	9 (7.9)	Wordy	18 (15.8)
Military	81 (71.0)	Conflicted	19 (16.7)						
Warrior	80 (70.2)	Alienated	17 (14.9)						
Obedient	76 (66.7)	Ashamed	13 (11.4)						
Guardian	69 (60.5)	Fragmented	11 (9.7)						
Unfailing	52 (45.6)	Guilty	11 (9.7)						

*Note.* Identity attributes displayed from the Closed-Ended Identity Attribute Task ranked by frequency (n) and percentage (%) of endorsements by the 115 participants. A total of 60 attributes were presented: 30 stimuli (15 military positive and 15 military negative) and 30 control (10 positive, 10 negative, 10 neutral). Attributes were rated for self-importance on an 11-point scale where 1 represents Not Important and 11 represents Very Important with regard to "Who I am as a military member". Number (%) attributes endorsed as highly self-important (8-11) are displayed. The top five endorsed positive and negative attributes are bolded.

**Valence:** The top five positively rated attributes (Table 1.5) are the same top *self-descriptive* attributes (Table 1.3), with slight changes in rank order (**Strong, Disciplined, Team-Player Honest, and Understanding**). The most negative military identity attributes listed were: **Weak, Broken, Jealous** and with five attributes sharing the fourth ranked position: **Ashamed, Annoying, Greedy, Rude** and **Unkind**. Of all the topmost negative attributes only **Unkind** was previously listed in the top five most highly *self-descriptive* and/or highly *important*. A crosswalk in ratings for *self-descriptiveness, importance* and *valence* rankings of attributes is displayed in Table 1.6. Noted distinctions are that participants identify most with being **Loyal, Honest, and Understanding** however, they rate **Self-disciplined, Strong** and **Team Player** as the most important and most positive attributes while **Weak, Broken, and Jealous** are the most negative military identity attributes. It is important to note, with regards to mental health, that being strong is most valued and being weak is most negative, underscoring the importance of the narrative that seeking mental health help is a sign of strength.

**Table 1.5**

*Closed-Ended Military Identity Attributes: Ranked Attributes Rated Highly Positive (8-11) and Highly Negative (1-4)*

Positive Attributes				Negative Attributes			
Military	n (%)	Control	n (%)	Military	n (%)	Control	n (%)
<b>Stong</b>	<b>106 (93.0)</b>	<b>Understanding</b>	<b>99 (86.8)</b>	<b>Weak</b>	<b>99 (86.8)</b>	<b>Jealous</b>	<b>94 (82.5)</b>
<b>Self-disciplined</b>	<b>105 (92.1)</b>	Friendly	97 (85.0)	<b>Broken</b>	<b>95 (83.3)</b>	<b>Annoying</b>	<b>92 (80.7)</b>
<b>Team Player</b>	<b>100 (87.7)</b>	Happy	92 (80.7)	<b>Ashamed</b>	<b>92 (80.7)</b>	<b>Greedy</b>	<b>92 (80.7)</b>
<b>Honest</b>	<b>99 (86.8)</b>	Generous	91 (79.8)	Angry	90 (79.0)	<b>Rude</b>	<b>92 (80.7)</b>
Honorable	98 (86.0)	Humble	84 (73.7)	Empty	87 (76.3)	<b>Unkind</b>	<b>92 (80.7)</b>
Loyal	98 (86.0)	Kind	83 (72.8)	Alienated	86 (75.4)	Grouchy	87 (76.3)
Brave	94 (82.5)	Pleasant	81 (71.0)	Guilty	85 (74.6)	Childish	84 (73.7)
Courageous	91 (79.8)	Creative	75 (65.8)	Anxious	84 (73.7)	Loudmouth	84 (73.7)
Selfless	89 (78.0)	Warm	75 (65.8)	Disillusioned	84 (73.7)	Mean	81 (71.0)
Mission-focus	87 (76.3)	Individualistic	38 (33.3)	Fragmented	82 (71.9)	Boring	74 (64.9)
Guardian	80 (70.2)			Insignificant	80 (70.2)		
Warrior	80 (70.2)			Unsatisfied	78 (68.5)		
Military	70 (61.4)			Detached	74 (64.9)		
Obedient	63 (55.3)			Misunderstood	70 (61.4)		
Unfailing	52 (45.6)			Conflicted	67 (58.7)		

*Note.* Identity attributes displayed from the Closed-Ended Identity Attribute Task ranked by frequency (n) and percentage (%) of endorsements by the 115 participants. A total of 60 attributes were presented: 30 stimuli (15 military positive and 15 military negative) and 30 control (10 positive, 10 negative, 10 neutral). Attributes were rated for valence on an 11-point scale where 1-4 represents Highly Negative and 8-11 represents Highly Positive with regard to “Who I am as a military member”. Number (%) attributes endorsed as highly positive and negative are displayed. The top five endorsed positive and negative attributes are bolded.

**Table 1.6**

*Closed-Ended Military Identity Attributes: Top Five Ranked Attributes for Self-Descriptiveness, Importance, and Valence*

Self-Descriptive	n (%)	Important	n (%)	Positive	n (%)	Negative	n (%)
Loyal	97 (85.1)	Self-disciplined	103 (90.4)	Stong	106 (93.0)	Weak	99 (86.8)
Honest	92 (80.7)	Strong	102 (89.5)	Self-disciplined	105 (92.1)	Broken	95 (83.3)
Understanding	91 (79.8)	Team Player	99 (86.9)	Team Player	100 (87.7)	Jealous	94 (82.5)
Self-disciplined	89 (78.1)	Honest*	98 (86)	Honest	99 (86.8)	Annoying*	92 (80.7)
Team Player	88 (77.2)	Honorable*	98 (86)	Understanding	99 (86.8)	Ashamed*	92 (80.7)
		Loyal*	98 (86)			Greedy*	92 (80.7)

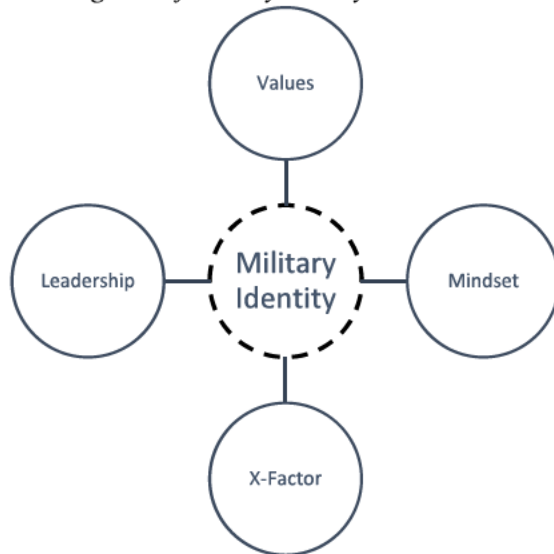
*Note.* Displayed are the top five military identity content for self-descriptiveness, importance, and valence.

## **Results: Integrated Open-Ended (OIAT) and Closed-Ended Identity Attribute Tasks (CIAT)**

**Military Self-Schemas and Military Identity:** Whereas only four of the OIAT attribute categories (self-generated attributes) contributed to our operational definition of “core” cognitive content, 20 attributes from the CIAT (endorsed from predetermined attribute list) qualified with 14 of 15 military positive attributes and 6 of 10 control positive attributes. Joint Publication 1.0, Doctrine for the Armed Forces of the United States, Appendix B, The Profession of Arms is the capstone doctrine of fundamental principles and doctrinal basis for a unified Armed Forces and foundation for developing a joint military identity. As such, we found Joint Pub 1.0 to be the ideal framework and mechanism for organizing our data in the most meaningful and relevant manner. The integrated results were organized by the primary team of investigators into four major cognitive content categories contributing to military identity (*Values, Leadership, Mindset, and X-Factor*). Figures 1.8 – 1.11 illustrate our collective findings from the OIAT and CIAT with Figure 1.8 representing major cognitive content categories that contribute to military identity while Figures 1.9 – 1.11 illustrate the cognitive content of each major content category.

**Figure 1.8**

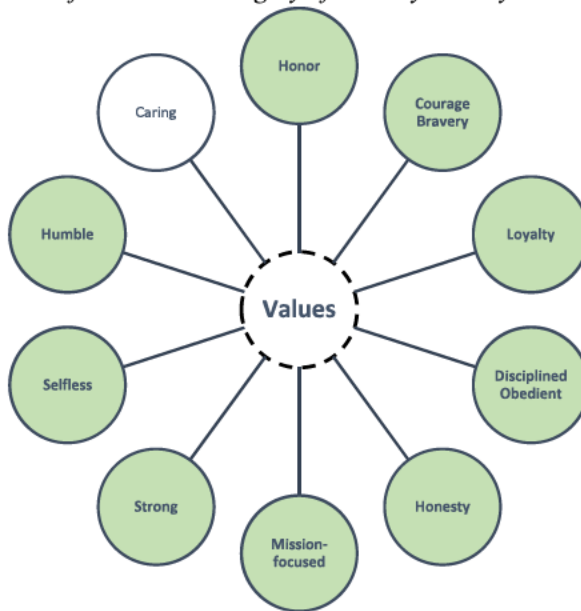
*Major Cognitive Content Categories of Military Identity*



Note: Visual representation of the combined military self-schema contributions from the Open-ended Identity Attribute Task and Closed-ended Identity Attribute Task illustrating major cognitive content categories of Military Identity.

**Figure 1.9**

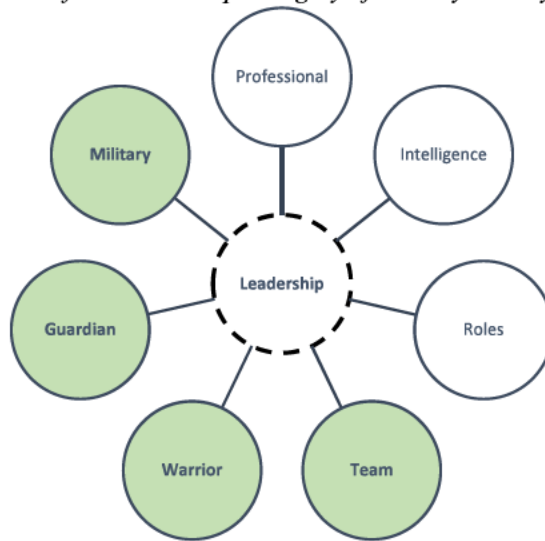
*Major Cognitive Content of the Values Category of Military Identity*



Note: Attributes from the Open-ended Identity Attribute Task and Closed-ended Identity Attribute Task meeting self-schema criteria, illustrating *Values* as central to Military Identity. Attributes shaded are defined as core cognitive content (attributes with frequencies greater than 50% of the participant pool) of Military Identity.

**Figure 1.10**

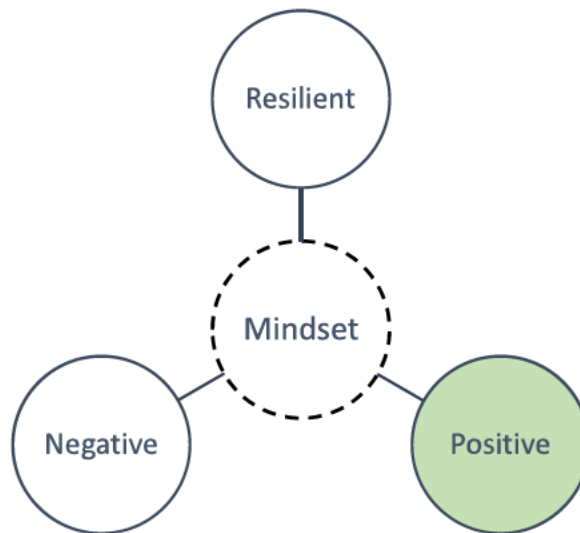
*Major Cognitive Content of the Leadership Category of Military Identity*



*Note.* Attributes from the Open-ended Identity Attribute Task and Closed-ended Identity Attribute Task meeting self-schema criteria, illustrating *Leadership* as central to Military Identity. Attributes shaded are defined as core cognitive content (attributes with frequencies greater than 50% of the participant pool) of Military Identity.

**Figure 1.11**

*Major Cognitive Content of the Mindset Category of Military Identity*



*Note.* Attributes from the Open-ended Identity Attribute Task and Closed-ended Identity Attribute Task meeting self-schema criteria, illustrating *Mindset* as central to Military Identity. Attributes shaded are defined as core cognitive content (attributes with frequencies greater than 50% of the participant pool) of Military Identity.

The underlying mechanisms responsible for CBT success continues to be ambiguous and include theories supporting altering cognitive contents (memories, knowledge, experiences), cognitive processes, and adaptive skills. Investigations targeting maladaptive cognitive processes focus on those that include negative cognitive contents. Cognitive contents about self are the basis for self-schemas (identity), (Markus, 1977; Stein, 1996). Self-schemas provide a frame of reference, organizational framework, are the basis for behavioral interpretation, and include positive, negative, and neutral cognitive content. To this end, the OIAT and CIAT results provide a foundation for military identity cognitive content and a basis for future investigations. Finally, the concept for the *X-Factor* category (Figure 1.8), is to capture those unidentifiable military identity attributes and self-schemas that do not linguistically fit into an existing category. In short, the *X-Factor* allows for future discovery and development of a dynamic military identity.

**Specific Aim 2: Examine the effect of Military Identity on information processing response times.**

- Q1: Are there statistically significant differences among identity groups of: 1) military high schematic, 2) military schematic, 3) military aschematic, and 4) non-military schematic participants on information processing response time?
- Q2: Are schematic identity groups (military/non-military) faster to endorse and reject attributes consistent with their identity than aschematics as demonstrated in other validated identity domains?

The purpose of Aim 2 was to conduct an information processing task where response time (RT) indicates presence, and self-descriptive identity attributes indicate content of military self-schema. Taken together, these indicators characterize and provide empiric measurements for military identity. Active duty participants (n=115) from U.S. military services completed a series of self-descriptive identity tasks and a RT task. Based on Markus's (1977) schematic scoring criteria, four schematic groups were formed (military-high (n=24), military (n=31), military aschematic (n=12), and non-military (n=2). Based on our theoretical framework we anticipated participants in military-high schematic and military schematic groups to be significantly quicker to endorse military positive attributes than aschematic or non-military schematic groups. We also anticipated non-military schematics to be quicker to reject positive military identity attributes.

**Table 2.0**

*Schematic Criteria to Determine Military Identity Categorization Groupings*

<i>Schematic Grouping Criteria</i>					
Schematic Group	IIS Score	Military Attribute rating Self-descriptive	Military Attribute rating Importance	Warrior Attribute rating Self-descriptive	Warrior Attribute rating Importance
Military-High	7	10-11	10-11	10-11	10-11
Military*	6-7	8-11	8-11	8-11	8-11
Aschematic	3-5	5-7	And < 7	5-7	And < 7
Non-military	1-2	1-4	8-11	1-4	8-11

**Note:** Inclusion of In-group in Self (IIS). Participants must meet criteria for two of the three Scores for attributes include rating the *self-descriptive* AND *importance* rating within the parameters for group criteria.

\*Individuals that fall anywhere in the parameter except for the "military-high" scores will be grouped as "military." Example: IIS=7, **Military** *self-descriptive*=9 and *importance*=11, **Warrior** *self-descriptive*=6 and *importance*=11 this participant scores into the **Military** group as does a participant with IIS=6, **Military** *self-descriptive*=7 and *importance*=11, **Warrior** *self-descriptive*=8 and *importance*=11.

**Table 2.1***Military Identity Project Proposal Synopsis of Measurement Instruments*

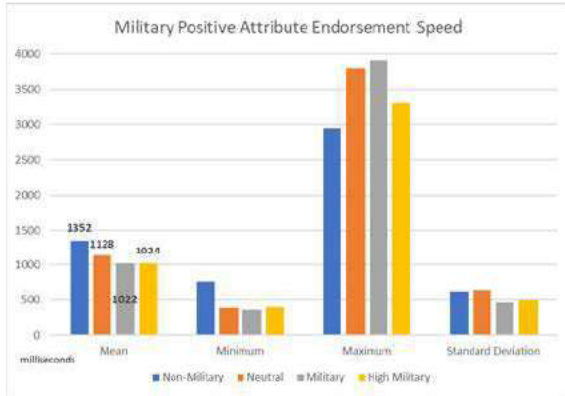
Sequence	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6
Appendix	D	E	F	G	H	I
Measure/ Instrument	Open- ended Identity Attribute Task	Identity Attribute Response Time Task	Demographic Questions	Inclusion of In-group in Self Scale	Closed- ended Identity Attribute Task	Ryff's Scales of Psychological Well-being
Reliability/ Validity	Test/Retest 0.49 at 18 months (Stein, 1990)	Test/Retest 0.66–0.68 (Gualtieri & Johnson, 2006)	N/A	Test/Retest 0.76 (Tropp & Wright, 2001)	Novel measure	Internal Consistency 0.83 to 0.91 Test/Retest 0.81 to 0.85 (Ryff, 1989)
Task Time	15 minutes	3 minutes	2 minutes	1-2 minutes	10 minutes	10 minutes

**Analysis:** Data preparation included scoring participants into schematic groups utilizing scores from the IIS, and two attribute ratings from the CIAT (military/warrior) (see Table 2.1). RT data was treated for removal of outliers two SD above the mean for each attribute set, within each subject group, and RT < 300 ms. The unit of analysis was schematic group mean response time (RT) per attribute set (military positive endorsement/rejection, military negative endorsement/rejection, control positive/negative/neutral endorsement/rejection). As stated, descriptive statistics replaced the intended ANOVA cross-group analysis due to group sizes less than n=30.

**Q1:** Are there ~~statistically significant~~ differences among identity groups of: 1) military high schematic, 2) military schematic, 3) military aschematic, and 4) non-military schematic participants on information processing response time?

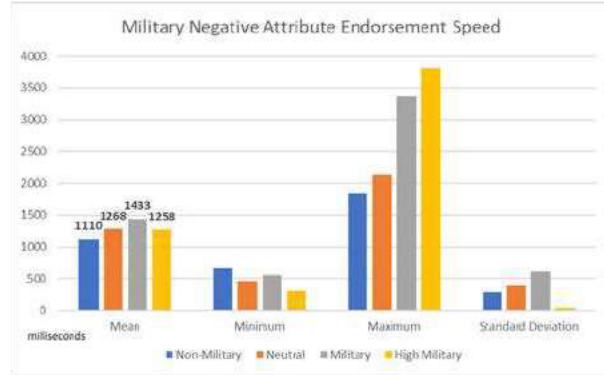
**Response Time attribute endorsements:** Results of the information processing response time attribute endorsements are displayed in Figures 2.2-2.6. The military and military-high schematics were quickest to endorse the positive military attributes (strong, loyal, military, brave, etc.), whereas the non-military schematic group members were slowest to endorse these attributes. Endorsements of negative military attributes (weak, broken, anxious, angry, etc.) revealed that non-military schematics most rapidly endorsed the negative military identity attributes. Endorsement of control positive attributes was consistent, within about half a millisecond (ms) across groups and non-military group members were fastest to endorse the control negative attributes. These results are consistent with the underlying theory but limited due to group size and the inability to analyze with inferential statistics.

**Figure 2.2 Military Positive Attribute Endorsement Speed by Group**



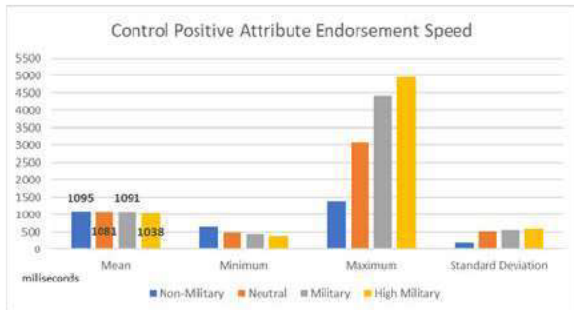
Note: As expected both military and military-high were quickest to endorse military positive attributes.

**Figure 2.3 Military Negative Attribute Endorsement Speed by Group**



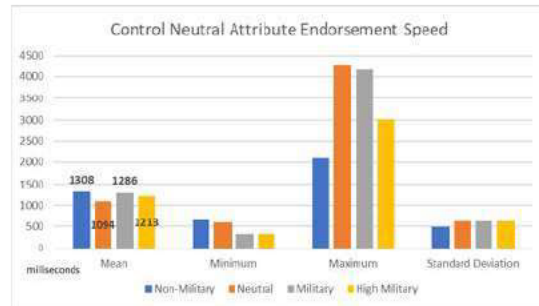
Note: As expected non-military were quickest to endorse negative military attributes.

**Figure 2.4 Control Positive Attribute Endorsement Speed by Identity Group**



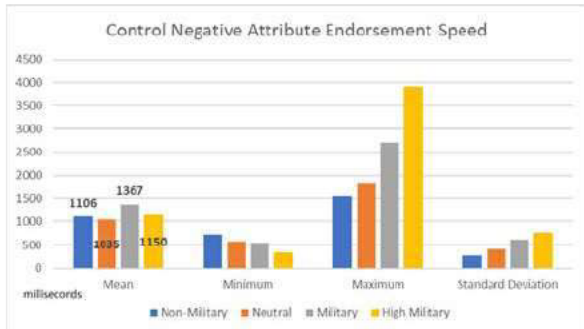
Note: As expected speed for endorsement of control positive attributes was within ~0.5 ms across groups.

**Figure 2.5 Control Neutral Attribute Endorsement Speed by Identity Group**



Note: As expected aschematics (neutral schema) were quickest to endorse neutral attributes.

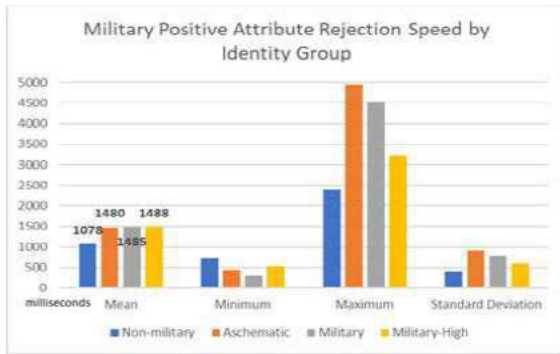
**Figure 2.6 Control Negative Attribute Rejection Speed by Identity Group**



Note: Speed for endorsement of control negative attributes was quicker for aschematics.

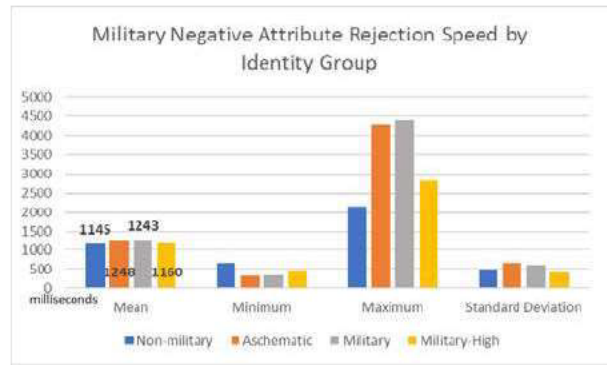
**Response Time attribute rejections:** Results of the information processing response time attribute rejections are displayed in Figures 2.7-2.11. The non-military schematics were quickest to reject the positive military attributes (strong, loyal, military, brave, etc.), whereas the military-high and military schematic group members were slowest to reject these attributes. Rejections of negative military attributes (weak, broken, anxious, angry, etc.) revealed that both non-military schematics and military high schematics most rapidly rejected the negative military identity attributes. These results are consistent with the underlying theory but limited due to group size and the inability to analyze with inferential statistics.

**Figure 2.7. Military Positive Attribute Rejection by Speed by Identity Group**



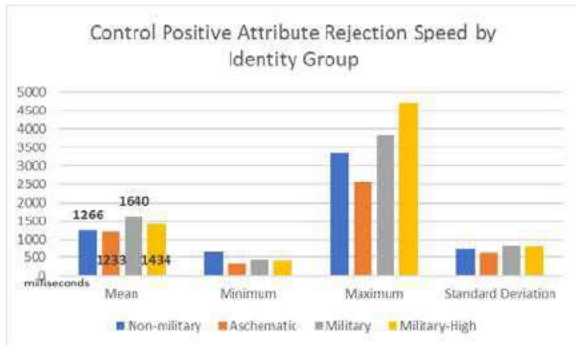
*Note: As expected non-military were quickest and military-high were slowest to reject positive military attributes.*

**Figure 2.8. Military Negative Attribute Rejection Speed by Identity Group**



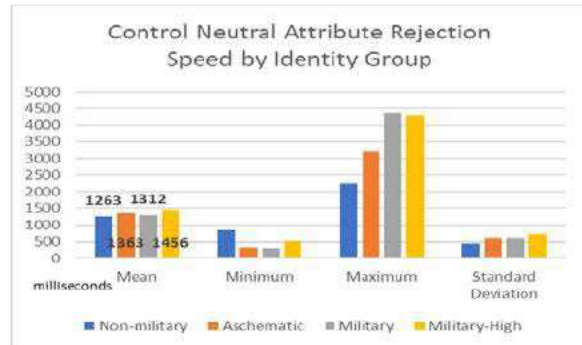
*Note: As expected aschematic were slowest but non-military were near tied with military-high as quickest to reject negative military attributes.*

**Figure 2.9. Control Positive Attribute Rejection Speed by Identity Group**



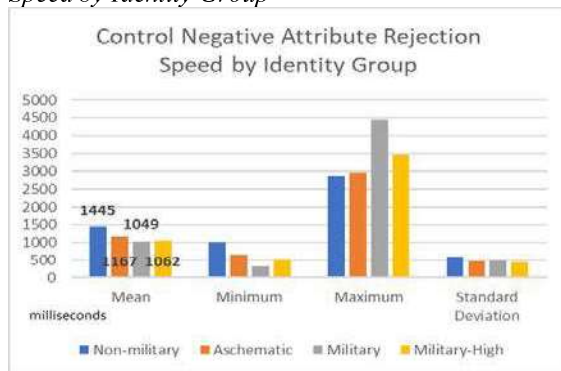
*Note: Both non-military and aschematic were much quicker to reject positive control attributes.*

**Figure 2.10. Control Neutral Attribute Rejection Speed by Identity Group**



*Note: Military-high were slowest and non-military were quickest to reject neutral control attributes.*

**Figure 2.11.** *Control Negative Attribute Rejection Speed by Identity Group*



*Note: As expected both military and military-high were quickest to reject control negative attributes and non-military were slowest.*

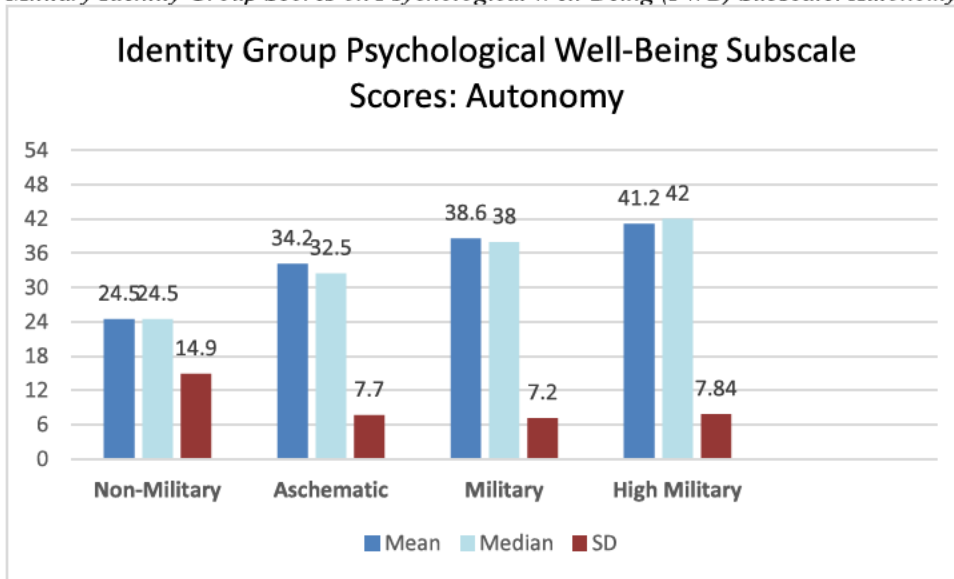
### **Specific Aim 3: Explore the relationship between Military Identity and self-perceived psychological well-being scores.**

**Q1:** Are there ~~statistically significant~~ differences in psychological well-being scores and/or subscale scores among identity groups of: 1) military high schematic, 2) military schematic, 3) military aschematic, and 4) non-military schematic participants suggesting cognitive vulnerabilities or resources associated with identity potency?

Utilizing Task 6, the Ryff Psychological Well-Being Scales (Ryff, 1989), the dimensions of autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance were measured. Due to limited group size, [military-high (n=24), military (n=31), military aschematic (n=12), and non-military (n=2)], we provide descriptive vs. inferential statistics and compared each dimension of psychological well-being (PWB) by identity (schematic) group. Results are displayed in Figures 3.1-3.6 illustrating that PWB scores were higher (greater indicator of PWB) in every dimension for military and military-high identity group members as compared to non-military and aschematic groups. Scores increased in relation to increasing strength of military identity. A comprehensive illustration of all six subscales compared by identity group is depicted in Figure 3.7. Dimensions with the greatest disparity between non-military group scores and military-high groups scores were Self-acceptance and Environmental Mastery which provide opportunities for resilience-building and potential areas of exploration for targeted mental health mitigation and intervention.

**Figure 3.1**

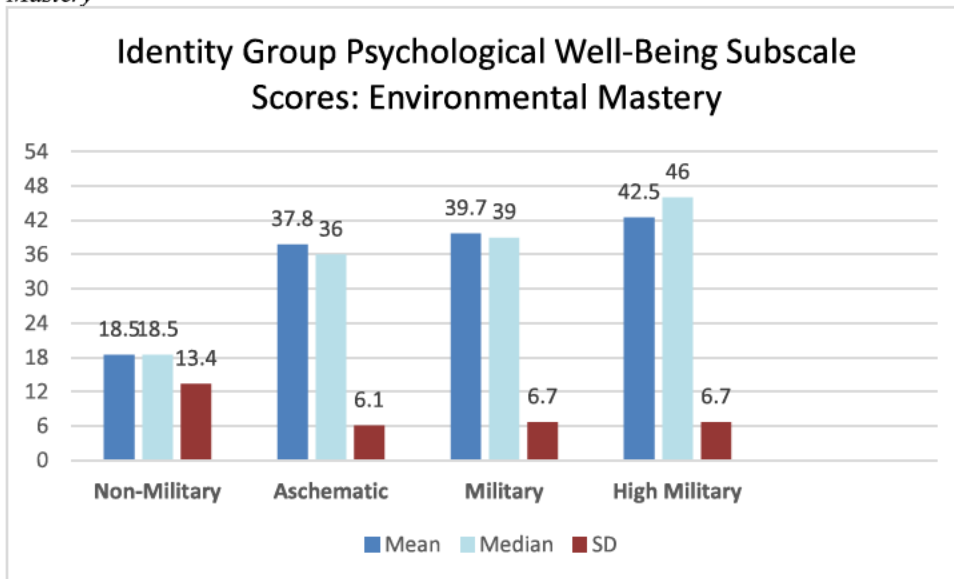
*Military Identity Group Scores on Psychological Well-Being (PWB) Subscale: Autonomy*



*Note: Comparison of Autonomy scores from Ryff's PWB 42-item inventory, one of six, 7-item subscales with a max score of 42, where higher scores reflect greater well-being.*

**Figure 3.2**

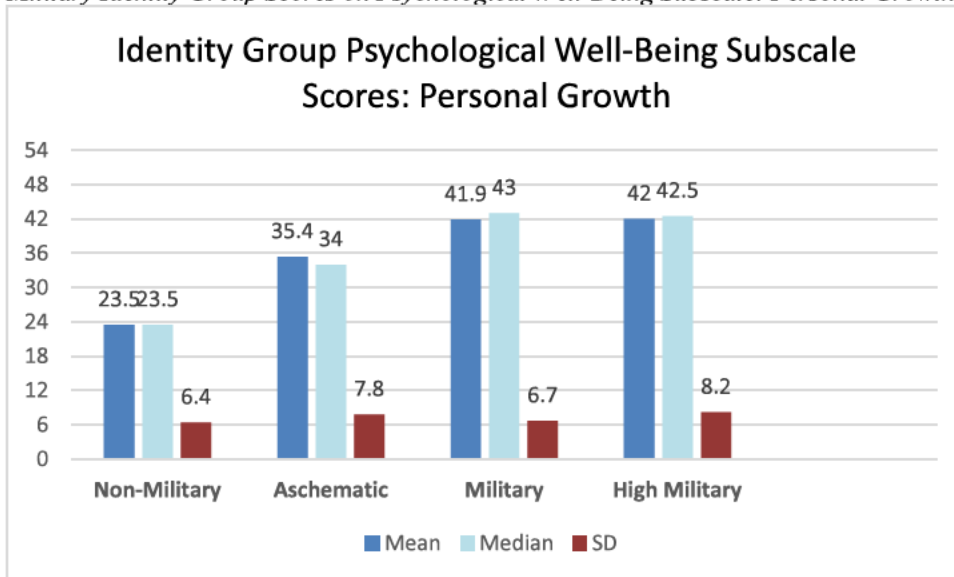
*Military Identity Group Scores on Psychological Well-Being Subscale: Environmental Mastery*



*Note: Comparison of Environmental Mastery scores from Ryff's PWB 42-item inventory, one of six, 7-item subscales with a max score of 42, where higher scores reflect greater well-being.*

**Figure 3.3**

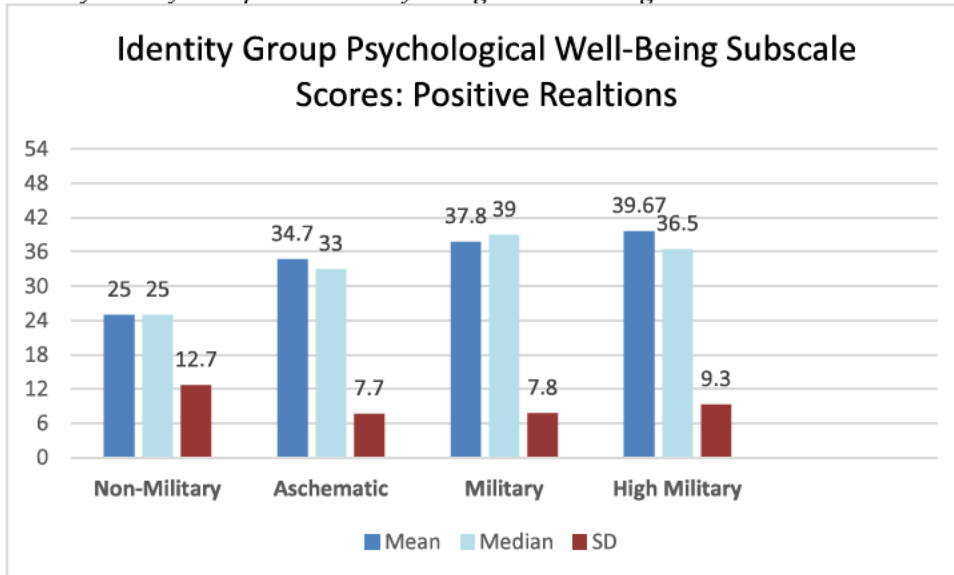
*Military Identity Group Scores on Psychological Well-Being Subscale: Personal Growth*



*Note: Comparison of Personal Growth scores from Ryff's PWB 42-item inventory, one of six, 7-item subscales with a max score of 42, where higher scores reflect greater well-being.*

**Figure 3.4**

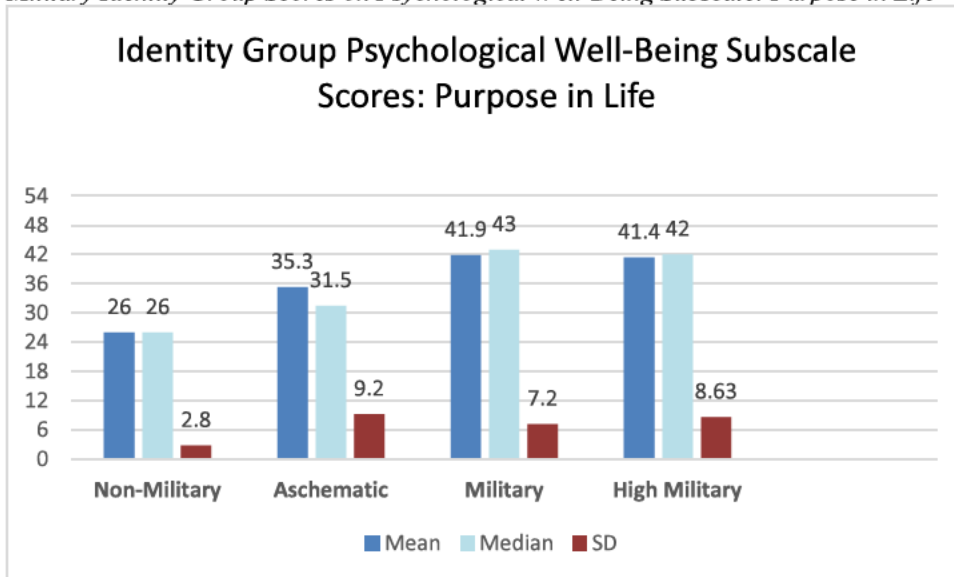
*Military Identity Group Scores on Psychological Well-Being Subscale: Positive Relations*



*Note: Comparison of Positive Relations scores from Ryff's PWB 42-item inventory, one of six, 7-item subscales with a max score of 42, where higher scores reflect greater well-being.*

**Figure 3.5**

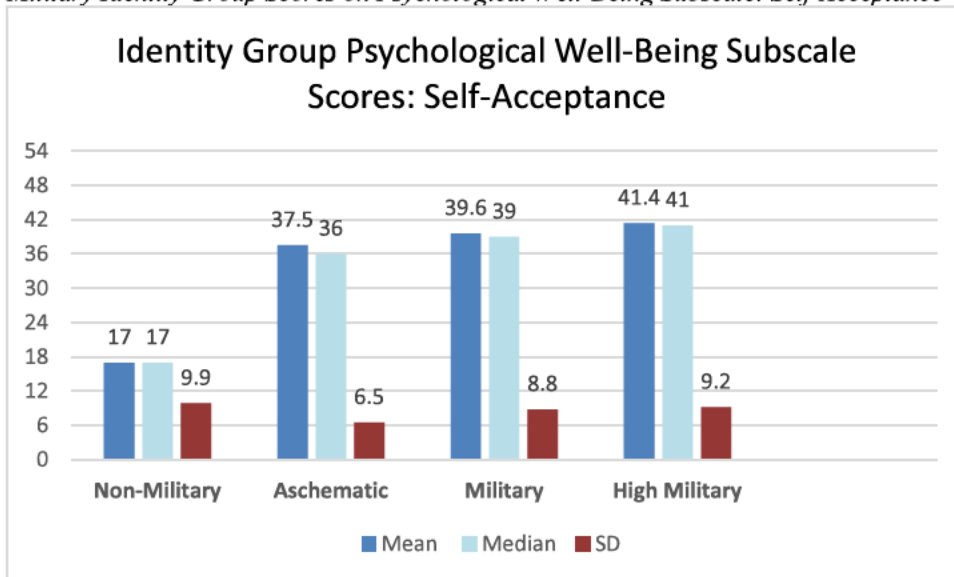
*Military Identity Group Scores on Psychological Well-Being Subscale: Purpose in Life*



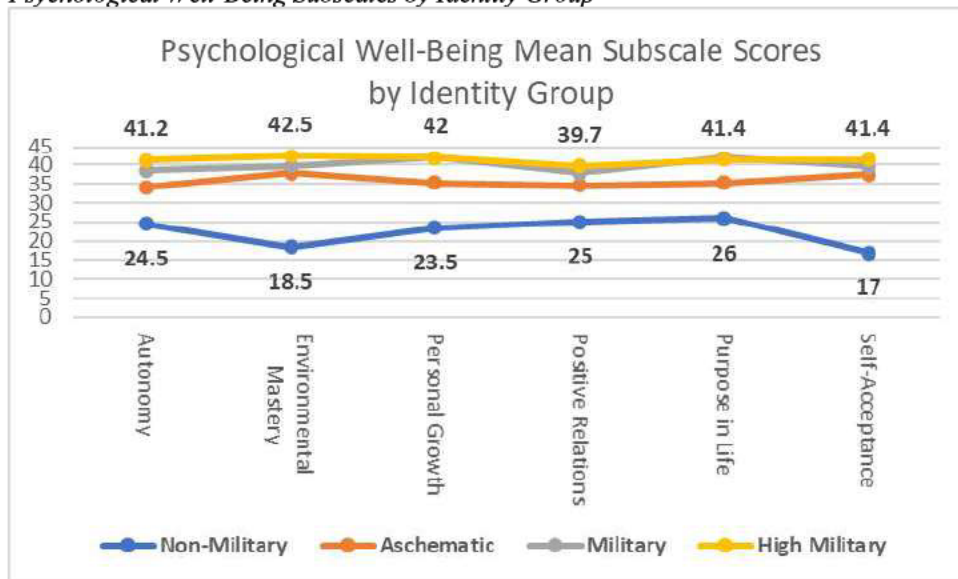
*Note: Comparison of Purpose in Life scores from Ryff's PWB 42-item inventory, one of six, 7-item subscales with a max score of 42, where higher scores reflect greater well-being.*

**Figure 3.6**

*Military Identity Group Scores on Psychological Well-Being Subscale: Self-Acceptance*



*Note: Comparison of Self-Acceptance scores from Ryff's PWB 42-item inventory, one of six, 7-item subscales with a max score of 42, where higher scores reflect greater well-being.*

**Figure 3.7***Psychological Well-Being Subscales by Identity Group*

*Note: Comparison of mean subscale scores from Ryff's PWB 42-item inventory. Each 7-item subscale has a max score of 42, where higher scores reflect greater well-being.*

**Relationship of current findings to previous findings:** Preliminary findings from our pilot Military Identity Project study introduced the first empirical evidence to conceptualize and operationally define military identity employing a cognitive self-schema model. (Migliore & Pound, 2016). Over 11,000 identity attributes from 140 participants characterized core cognitive content of military identity. The combined results of an inductive and deductive content analysis revealed four broad categories: Leadership, Values, Warrior, and Commitment comprised of 28 subcategories. Our recent findings from 115 participants resulted in over 7,900 identity attributes reduced to 13 core cognitive content categories of military identity resulting in four broad categories: Leadership, Values, Mindset, and X-Factor. As expected with a more general joint service population of participants, we discovered similar yet slightly different content categories which builds upon our pilot findings, extending our understanding of military identity to a more representative group of military members.

Results of our current study's information processing response time findings are consistent with our pilot study suggesting the presence of military self-schemas and information processing consequences consistent with the self-schema literature. Meaning that when presented with information about oneself, individuals with strong military identities (non-military and military) are quick to endorse or reject information consistent/inconsistent with their self-perceptions and identity. These findings suggest that

Our pilot results indicated that non-military identity group members had significantly lower PWB subscale scores for the Purpose in Life subscale than military group members, however, our current findings indicate that non-military group members score consistently lower across all dimensions of the PWB inventory, markedly in the dimensions of Self-Acceptance and

Environmental Mastery. Additionally, we found higher PWB scores to be a function of higher military identity.

### Effect of problems or obstacles on the results:

**Table 3**

*Military Identity Project Problems, Impact, and Mitigation Strategies*

<b>PROBLEM</b>	<b>IMPACT</b>	<b>MITIGATION</b>
COVID-19 (Feb 2020 – present)	<ul style="list-style-type: none"> <li>- Study staff assigned to COVID ops</li> <li>- Restrictions preventing HSR during pandemic</li> <li>- Restricted or limited face to face recruitment</li> <li>- Primary dependence of everything on electronic communication resulting in overload/apathy</li> <li>- Delays related to telework/administrative backlogs</li> <li>- Extended timeline with no additional funding required premature study closure due to PCSs and loss of contract research coordinator</li> </ul>	<ul style="list-style-type: none"> <li>- Realigned recruitment primarily IT</li> <li>- Added PI/new site</li> </ul>
Record-setting California (CA) Wildfires: May-Nov 2020	<ul style="list-style-type: none"> <li>- CA study staff evacuations/base evacuation</li> <li>- When COVID-19 finally allowed outdoor in-person recruitment, smoke, and dangerous air quality limited capabilities to be outdoors</li> </ul>	<ul style="list-style-type: none"> <li>- Contracted with Rally Point targeted virtual recruitment efforts</li> </ul>
Technology bots and server farm participants	<ul style="list-style-type: none"> <li>- 630 data sets from the first 72 hours of study launch resulted from technology exploitation</li> <li>- Lost an additional 1-2 mo of active study time during security revisions</li> </ul>	<ul style="list-style-type: none"> <li>-Study site blinded from public access</li> <li>-Additional security measures placed</li> <li>-Revised processes for gift card redemption</li> </ul>

As detailed in the 2020 Annual Report, the study launch (06 Apr 2020) coincided with the initial onset of the COVID-19 pandemic and enactment of associated safety protocols (telework, social distancing, etc.). Study team members tasked with COVID-19 response operations were unable to support planned marketing efforts, and regulatory/marketing approvals as they were realigned into direct care/leadership/COVID-19 surveillance and a host of other pandemic-related priorities. Subsequently, planned activities at Walter Reed National Military Medical Center (WRNMMC), MD the intended hub for Navy and Marine marketing and recruitment, were nil and the original PI was relocated during the enrollment and recruitment period. To mitigate the WRNMMC losses, we engaged an enthusiastic Army Psychologist from Tripler Army Medical Center, Hawaii to assist in recruiting Marines, however, the required resubmission of the protocol into eIRB at Tripler and a required Memorandum of Understanding was a 9-month process delaying targeted recruitment efforts. The initial recruitment plan included passive efforts (flyers/signage) but was primarily dependent upon face-to-face activities (briefings and manned tables) for promotion of the study. Digital (social media and e-mail) marketing efforts were attempted, resulting in infiltration of the study by bots/server farms and requiring a temporary halt to data collection to develop new security protocols.

The study was relaunched 28 May 20 with revised security protocols. Outreach or recruiting efforts at Travis Air Force Base (TAFB) and Womack Army Medical Center (WAMC) remained

limited to passive efforts due to continuing COVID-19 restrictions. Easing of some restrictions in Summer 2020, allowed for in-person, outdoor marketing at some venues at TAFB (cafeteria, BX, fitness center) but poor air quality due to pervasive wildfires in California, combined with limited foot traffic at venues due to COVID-19, negatively impacted these efforts. As COVID-19 restrictions continued through Fall/Winter, permission was granted to brief through some in-person (Newcomers Briefing, Airman Leadership School) and virtual (Pre-Separation) venues at TAFB only. However, the limited number of venues available remained insufficient to reach the anticipated number of potential participants at this stage of the data collection effort.

In a second attempt at digital marketing, the social media company Rally Point was engaged in November 2020. In addition to the Rally Point advertising (social media posts, text ads, e-mails) the study was marketed on Facebook via the TAFB Airmen and Family Readiness Center (AFRC) and WAMC Facebook pages from December 2020-January 2021. E-mail blasts to WAMC staff were initiated beginning December 2020. These efforts produced an increase in legitimate participation but also spurred a second round of attacks by spammers.

Finally, the data collection period was extended through 15 February 2021, to take advantage of a final in-person marketing opportunity. Study staff conducted manned table recruiting during mass COVID-19 vaccination events at TAFB on 28 Jan 21 and 4 Feb 21; 2, 753 vaccinations were administered in total, many to ADSMs. While this effort produced a small final boost in participation, ultimately there was insufficient data to support the original specified analyses and study aims were adjusted to suit the limited sample size.

**Limitations:** Our main limitation for the study is an underpowered sample size for cross-group comparisons due to the chronic and unpredictable recruitment challenges resulting from the COVID-19 pandemic. As a result, while our descriptive statistics suggest that our findings are consistent with validation studies for other domains in the self-schema literature, we cannot confirm this to be true for the military domain without a larger sample size. Additionally, our findings are primarily representative of an Army (50%) and Air Force (39%) population and may not extend to Marine and Navy populations.

**Conclusion:** The aims of our project were threefold: (1) to describe the core cognitive content of Military Identity operationally, utilizing a self-schema model, (2) test the theoretical model by examining the effect of military identity on information processing response times, and (3) explore the relationship between military identity and self-perceived psychological well-being (PWB). In conclusion, in Aim 1 we successfully described core cognitive content of a primarily Army and Air Force Military Identity, underscoring the importance of **Leadership, Values,** and a positive and resilient military **Mindset** to our military participants. Testing the Self-Schema Model of the Self-Concept in our military population, Aim 2, we attained preliminary evidence for presence and content of military self-schemas as a measure of military identity suggesting that individuals with self-schema in the military domain process information similarly to those with self-schemas in other domains. However, a high-powered replication study is required prior to be able to confirm our military domain-specific findings. future studies representing a broad joint military service population is needed to confirm preliminary findings. Our results from Aim 3 suggest that higher levels (stronger) military identity is associated with higher levels of PWB, however a high-powered replication study is required to confirm this relationship. Overall,

despite our limitations, our findings provide initial and preliminary evidence in a critical and military-specific area lacking research evidence and effort. Our study addressed the knowledge gap to build on our preliminary work and advance the understanding of military identity using a self-schema model. Our results contribute to the development of a program of research focused on the role of military identity and psychological well-being.

### Significance to Military Nursing

Implications for Nursing Clinical Practice, specifically Psychiatric Mental Health Nurse Practitioners:

- Military nurses are acutely aware of military culture and the current context of care delivery. As such, we are uniquely positioned to advocate for active duty service member needs and participate in developing culturally sensitive and personalized interventions which begin with determining potentially problematic consistent thinking patterns and behavior associated with military identity.
- Four core cognitive military identity content were discovered via self-generated by military participants: **Honor, Loyal, Disciplined, and Courage.**
- All but one of the CIAT positive military identity attributes were categorized as core cognitive content. The attribute **Unfailing** was consistently rated as the least self-descriptive, least important, and least positive of all positive military identity attributes. The ideal of Airmen being “unfailing” is anchored in the Airmen’s Creed as well as other Service’s Creeds and core values. The reality of never failing and resultant cognitive dissonance is a cognitive vulnerability recommended for future exploration.
- The negative military identity attributes listed as most *self-descriptive* and *important* were: **Misunderstood, Detached, Mean, Unsatisfied, and Anxious**, whereas the military identity attributes rated as the most negatively were: **Weak, Broken, and Ashamed.** Notably, these are all areas for further exploration with respect to cognitive vulnerabilities as well as for mitigating mental health stigma.
- The positive military identity attributes listed as most *self-descriptive* and *important* were: **Loyal, Honest, Self-Disciplined, Team Player, and Strong**, however **Strong**, and **Self-Disciplined**, were determined to be the most *important* and *positive* military identity attributes. What is the psychological impact of idealizing strength and self-discipline over loyalty, honesty, and teamwork and how does this contribute to the challenges promoting military members to seek mental health care early and often? We also recommend further investigation to understand the structure, organization, and function of military identity core cognitive content and the subsequent influence on psychological well-being.
- Self-schemas provide a frame of reference, an organizational framework and are the basis for behavioral interpretation. Our results suggest findings consistent with other self-schema domains meaning there will be predictable patterns in information processing associated with military self-schema. Individuals with a military self-schema will process self-relevant information quicker when they consider the information extremely consistent or extremely inconsistent with their self-schema (Akrami, Hedlund, & Ekehammar, 2007; Kuiper, 1981; Markus, 1977). This means that understanding military identity is essential to developing specific strategies for approaching, sharing information, and educating, members with strong military identities. This is especially important when presenting information (activity restrictions, severe prognoses, impotence, risk factors and potential adverse outcomes etc.) inconsistent to the valued identity (I am strong, I will not fail, etc.).
- Psychological Well-Being scores were consistently higher in every dimension for individuals with stronger military identities. Members with non-military identities had

consistently and considerably lower scores as compared to all other identity groups and scored lowest in **Environmental Mastery** and **Self-Acceptance** which may prove fruitful areas to target for resilience building strategies or mitigating stress in new recruits and/or accessions.

Implications for leadership, management, education, doctrine, and policy:

- Consider revising doctrine and leadership materials to reframe realistic expectations of failure which may contribute to all or nothing thinking and maladaptive cognitions resulting in insults to psychological well-being. Alternatively, if the concept of never failing is required for developing warriors who may need to kill in combat, consider dedicating targeted transition therapies in separating or retiring members to deconstruct the unyielding fallacy.
- Consider the importance military members place on honesty, integrity, strength, and honor. Military members placed in positions without the necessary resources to perform tasks within expected standards (e.g. during pandemic conditions limited patient contact, lack of personal protective equipment, isolated dying patients without family support, etc.) and with honor, are vulnerable to impaired psychological well-being. Pro-actively educating on the role and expectations during contingency and crisis standards of care as well as pro-actively providing mental health services when standard of care cannot be delivered (humanitarian, combat, or disaster) is essential to military member well-being and retention. This is highly relevant to the current pandemic and for the delivery of prolonged battlefield nursing care in austere conditions.

### **Resulting Changes**

To date we report no quantifiable or measurable changes as both the pilot study (2014) and the current study were limited in power and were basic foundational theoretical research. As with most research intended to test theoretical models the results and subsequent dissemination of research findings of a single study typically do not have an immediate impact on clinical practice, leadership, management, education, policy, and/or military doctrine. We have however, provided the required pathway for future studies that, taken together, will influence resilience education and training strategies and military-specific cognitive-based interventions for prevalent military mental conditions.

### References Cited

1. Akrami, N., Hedlund, L., & Ekehammar, B. (2007). Personality scale response latencies as self-schema indicators: The inverted-U effect revisited. *Personality and Individual Differences, 43*, 611-618.
2. Chairman, Joint Chiefs of Staff. Joint Publication 1-0, *Doctrine for The Armed Forces of the United States*. Washington, D.C.: U.S. Government Printing Office, 12 July 2017.
3. Josephs, R. A., Markus, H. R., & Tafarodi, R. W. (1992). Gender and self-esteem. *Journal of personality and social psychology, 63*(3), 391.
4. Kendzierski, D. (1988). Self-schemata and exercise. *Basic and Applied Social Psychology, 9*(1), 45-59. [http://doi.org/10.1207/s15324834basp0901\\_4](http://doi.org/10.1207/s15324834basp0901_4)
5. Kuiper, N. A. (1981). Convergent evidence for the self as a prototype: The "inverted-U RT effect" for self and other judgements. *Personality and Social Psychology Bulletin, 7*, 438-443.
6. Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology, 35*(2), 63-78.
7. Markus, H., Hamill, R., & Sentis, K. P. (1987). Thinking fat: Self-schemas for body weight and the processing of weight relevant information. *Journal of Applied Social Psychology, 17*(1), 50-71. <http://doi.org/10.1111/j.1559-1816.1987.tb00292.x>
8. Mayring, P. (2014). Qualitative content analysis. Theoretical foundation, basic procedures and software solution. *Advances in Bioethics*. [http://doi.org/10.1016/S1479-3709\(07\)11003-7](http://doi.org/10.1016/S1479-3709(07)11003-7)
9. Migliore, L. A., & Pound, L. B. (2016). The Military Identity Project: A mixed method investigation of military self-schema content. *Military Behavioral Health, 4*(2), 183-192. <http://doi.org/10.1080/21635781.2015.1133351>  
*Provalis Research: Wordstat Version 8.0* Montreal, Canada
10. Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069.
11. *Stata Statistical Software: Release 15.1* College Station, TX: StataCorp LLC.
12. Stein, K. (1994). Complexity of the self-schema and responses to disconfirming feedback. *Cognitive Therapy and Research, 18*(2), 161-178. <http://doi.org/10.1007/BF02357222>
13. Stein, K. F. (1995). The organizational properties of the self-concept and instability of affect. *Research in Nursing & Health, 18*(5), 405-15. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/7676074>
14. Stein, K. F. (1996). The self-schema model: a theoretical approach to the self-concept in eating disorders. *Archives of Psychiatric Nursing, 10*(2), 96-109. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/8935986>
15. Tropp, L. R., & Wright, S. C. (2001). Ingroup identification as the inclusion of ingroup in the self. *Personality and Social Psychology Bulletin, 27*(5), 585-600.

**Summary of Dissemination**

<b>Type of Dissemination</b>	<b>Citation</b>	<b>Date and Source of Approval for Public Release</b>
Oral Presentation	Migliore, L.A. (2020). <i>Military Identity Project: A Self-Schema Approach to Investigate a Military Identity Construct</i> . TSNRP Bio-behavioral Research Interest Group General Membership Meeting.	Presented 21 Jan 20
Published Abstract	Migliore, L.A., Killian, J., Pierce, P.F., Stucky, C.H., Danchanko, W.G., & Stalbaum, R.C. (2020). <i>Identifying the Core Content of Military Identity for Psychological Understanding</i> (Conference session). Military Health System Research Symposium, Kissimmee, FL, United States. <a href="https://mhsrs.amedd.army.mil/SitePages/Home.aspx">https://mhsrs.amedd.army.mil/SitePages/Home.aspx</a> (Conference cancelled)	Approved 26 Mar 20 by 60 AMW/PA
Published Abstract	Migliore, L.A., Killian, J., Pierce, P.F., Stucky, C.H., Danchanko, W.G., & Stalbaum, R.C. (2020). <i>Identifying the Core Content of Military Identity for Psychological Understanding</i> . (Podium Presentation.) TSNRP Dissemination Course 2020, San Antonio, TX, United States. (Conference cancelled)	Approved 26 Mar 20 by 60 AMW/PA
Poster Presentations	Migliore, L.A., Killian, J., Pierce, P.F., Stucky, C.H., & Stalbaum, R.C. (2020). <i>Identifying the Core Content of Military Identity for Psychological Understanding. Transitioning Paper-Pencil Study Measures to Online Format: Lessons Learned</i> . (Narrated poster.) TSNRP Virtual Dissemination Course, 16 October 2020. <a href="https://www.triservicenurse.org/tsnrp-dissemination-2020">https://www.triservicenurse.org/tsnrp-dissemination-2020</a>	Approved 21 Sep 20 by 60 AMW/PA

**Reportable Outcomes**

<b>Reportable Outcome</b>	<b>Detailed Description</b>
Development of Online Study Platform	All study measures, including the novel Closed-Ended Identity Attribute Task (CIAT) developed by the PI, were converted from the original paper/pencil format into a web-based program hosted by Harvard's Project Implicit, enabling the electronic collection of study data. The online platform remains available for future research.
Applied for Patent	None
Issued a Patent	None
Developed a cell line	None
Developed a tissue or serum repository	None
Developed a data registry	None

### Recruitment and Retention Table

Recruitment and Retention	Total Number of Subjects Since Study or Project Began
Number of Subjects Projected in Grant Application	850
Subjects Available	Army- 480,000 Navy- 340,500 Marine Corps- 186,200 Air Force- 332,800
Subjects Contacted or Reached by Approved Recruitment Method	2000
Human Subjects Consented	630 (implied)
Subjects Who Completed Study	630
Subjects with Complete (Valid) Data	115
Subjects with Incomplete (Invalid) Data	515

\*Virtual and passive recruitment reach unknown. Face-to-face reach estimated based on average attendance at virtual/in-person briefings and manned table recruiting events.

### Demographic Characteristics of the Sample

<b>Characteristic</b>	n = 115
Male, n (%)	73 (63.5)
Female, n (%)	41 (35.7)
Prefer not to answer	1 (0.9)
<b>Service Branch</b>	
Air Force, n (%)	45 (39.1)
Army, n (%)	58 (50.4)
Marine, n (%)	10 (8.7)
Navy, n (%)	2 (1.7)
<b>Rank</b>	
Enlisted (E1-E3), n (%)	10 (8.7)
Enlisted (E4-E5), n (%)	28 (24.4)
Enlisted (E6-E7), n (%)	21 (18.3)
Enlisted (E8 or above), n (%)	6 (5.2)
Warrant Officer (W1-W3), n (%)	4 (3.5)
Warrant Officer (W4-W5), n (%)	0 (0.0)
Officer (O1-O3), n (%)	25 (21.7)
Officer (O4-O5), n (%)	19 (16.5)
Officer (O6 or above), n (%)	2 (1.7)
Cadet	0 (0.0)
<b># of Deployments</b>	
0, n (%)	48 (41.7)
1-3, n (%)	49 (42.6)
4-6, n (%)	11 (9.6)
7-10, n (%)	5 (4.4)
11-15, n (%)	2 (1.7)
16 or more, n (%)	0 (0.0)
<b>Service Time</b>	
0-4 years, n (%)	34 (29.6)
5-10 years, n (%)	36 (31.3)
11-15 years, n (%)	23 (20.0)
16-20 years, n (%)	9 (7.8)
Over 20 years, n (%)	13 (11.3)
<b>Military Family</b>	
Yes, n (%)	25 (21.7)
No, n (%)	90 (78.3)

## Identifying the Core Content of Military Identity for Psychological Understanding

PI: Migliore, Laurie Lt Col

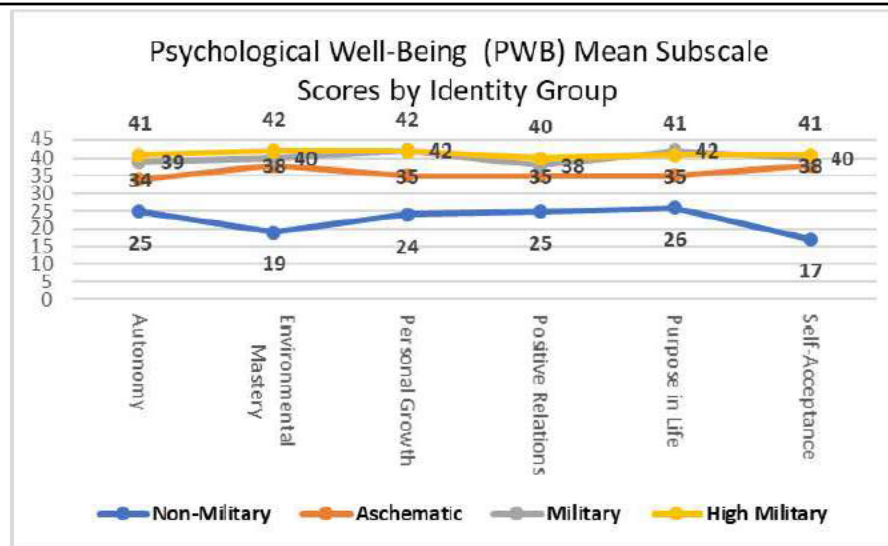
Grantee Org: The Geneva Foundation

Award Amount: \$288,524.00

### Specific Aims:

- AIM 1: Describe the core cognitive content of MI in active duty service members (ADSM).
- AIM 2: Examine the effect of MI on information processing response times.
- AIM 3: Explore the relationship between MI and self-perceived PWB scores.

**Project Location(s):** Primary location 60 MDG, Travis AFB, CA; Investigators from: 59<sup>th</sup> Medical Wing, JBSA, TX, Womack Army Medical Center, Fort Bragg, NC, Tripler Army Medical Center, HI. Study conducted virtually online.



### Key Results:

- Major military identity cognitive content categories: Values, Leadership, Mindset, and X-Factor
- Self-generated core cognitive content: *Honor, Loyal, Disciplined, and Courage* (cognitive resources/strengths)
- *Unfailing, Weak, Broken, Ashamed* (cognitive vulnerabilities)
- Response time results similar to self-schema literature; suggests Self-Schema Model as valid for Military Identity
- Higher military identity was associated with higher PWB scores -- greater well-being and happiness

### Recommendations:

- Replicate study in high powered joint service sample size
- Future study focusing on military identity structure and function of core cognitive content in mental health patients
- Better understand identity role in receiving/interpreting info
- Target *Environmental Mastery* and *Self-Acceptance* in new recruits as areas for building PWB and resilience
- Consider revising doctrine and leadership materials to reframe realistic expectations of failure; also an area for exploring as a cognitive vulnerability for mental health