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CONTENTS

**Using Mental Fitness Skills to Enhance Mental Health,
Psychological Resilience, and Stress Hardiness
in a Cohort of First Generation College Students** 1

Jon Hammermeister, Ph.D.

Caitlyn Jordan

Lawrence Briggs, Ph.D.

Ruth Galm

Eastern Washington University

Michael. A. Pickering, Ph.D.

Army Comprehensive Soldier Fitness

United States Military Academy

West Point, NY

Applied Perspectives for Academic Mental Skills Training 35

Sarah L. Castillo, Ph.D.

Douglas A Barba, Ph.D.

National University



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ABSTRACT

This study examines the utility of using Mental Fitness Skills (MFS) as a training platform to enhance the mental health, psychological resilience, and stress hardiness of First Generation College Students (FGCS). A 30-hour MFS intervention was designed and implemented emphasizing goal setting, self-confidence, imagery, concentration, and emotion control skills. A quasi-experimental design was used to compare longitudinal trends over time on the variables of interest between a MFS treatment group ($n=15$) and a control group ($n = 13$). Repeated measures ANOVA results revealed an advantage over time for the intervention group on the majority of MFS, psychological resilience, stress hardiness, and ability to deal effectively with academic challenge variables relative to peers in the control group. We discuss the implications of our findings in terms of theory, research, and practice.



The objective of this project is to identify if sport-related mental fitness skills can be utilized as a training framework to enhance the psychological resilience, stress hardiness, mental health, and ability to cope with academic challenges of First Generation College Students (FGCS).

Previous research on FGCS indicates that they experience problems both prior to and during their college experience that make them vulnerable to lower academic performance (Bui, 2002), problematic transitions, poor retention and other stress-related consequences as they adjust to college life (Terenzini, Springer, Yeager, Pascarella, & Nora, 1996). Various federal and private programs aimed at addressing these difficulties have been developed and implemented, but most rely on academic skills and time-management training. Recent statistics show that 85 percent of postsecondary institutions offer first-year seminar (or college success) courses, with study skills cited as the most frequently utilized course content (Tobolowsky, Griffin, & Romm, 2008). While this type of training has shown to be modestly effective in enhancing student success (Bail, Zhang, & Tachiyama, 2008; Bender, 2001; Crede & Kuncel, 2008; Gettinger & Siebert, 2002; Nonis & Hudson, 2010; Onwuegbuzie, Slate, & Schwartz, 2001; Weinstein & Underwood, 1985), the academic support literature also

reveals that study skills are only a part of many contributing factors to academic success (Helms & Marino, 2010). Other factors such as motivation (Bender, 2001; Eccles & Wigfield, 2002; Linnenbrink & Pintrich, 2002; Lynch, 2008; Maxwell, 1997); cognitive ability and styles (Mastropieri & Scruggs, 1997; Maxwell, 1997); self-confidence (Maxwell, 1997); locus of control (Dollinger, Matyja, & Huber, 2008; Maxwell, 1997); self-efficacy (Klassen, Krawchuk, & Rajani, 2008; Maxwell, 1997); the educational environment (Feldon, 2010); and subject-matter knowledge itself (Weinstein & Mayer, 1986) have all been shown to play a key role in student success. Thus, to be effective, learners must not only possess a wide array of study skills, they must possess the self-awareness, cognitions, resilience, and motivation to know when, where, and how to apply these skills (Helms & Marino, 2010; Pintrich & DeGroot, 1990; Smith, 1991).

The concept of mental fitness skills (MFS) training is to teach mental health-related techniques to individuals with the aim of enhancing both psychological functioning and human performance and may serve as a useful platform to address the needs of FGCS. This paradigm has been widely applied in competitive sport contexts (e.g., Greenleaf, Gould, & Dieffenbach, 2001; Gould, Dieffenbach, & Moffett, 2002; Meyers, Whelan & Murphy, 1996). MFS has also been shown to enhance



psychological resilience, stress hardiness, and performance in the military. For example, Cohn and Pakenham (2008) conducted a randomized trial with basic trainees in the Australian Defense Force and found better cognitive coping and lower psychological distress relative to a control group. A U.S. replication of this study in a group randomized trial did not demonstrate lasting positive effects from an adapted version of this brief training; however, a more in-depth training focused on performance psychology did demonstrate enhanced performance, use of mental skills, and other positive outcomes over time (Hammermeister, Pickering, Holliday, Williams, Harada, Ohlson, Csoka, & Adler, 2010).

The application of MFS-related training in academic settings with an emphasis on mental health outcomes has also undergone preliminary exploration. For example, the Penn Resiliency Program has been developed and tested for use with adolescents in public schools. The training addresses the relationship between thoughts, feelings, and behaviors, the need to challenge automatic negative thoughts and irrational beliefs, communication skills, positive thinking, and energy management. Randomized studies on the Penn Resiliency Program demonstrate that this intervention, relative to non-intervention controls, reduces the risk of developing depression (Brunwasser, Gillham & Kim, 2009); however, the impact of this intervention on academic performance is not known. This training was also recently adapted for use in the U.S. Army (Reivich, Seligman, & McBride, 2011), although the efficacy of the training is still being assessed (Lester, McBride, Bliese & Adler, 2011).

This extant body of literature suggests that MFS training has some practical utility in improving mental health and performance in sport, military, and public school settings and may be a useful tool for attending to the needs of FGCS. However, we are unaware of any empirical MFS intervention studies conducted specifically with FGCS populations. Thus, the purpose of this investigation was to provide FGCS with a 30-hour MFS academic success intervention aimed at enhancing mental fitness, psychological resilience, stress hardiness, and ability to cope with academic challenges.

METHODS

DESIGN

This study utilized a quasi-experimental design to test for effects of an MFS intervention on self-reported use of mental skills, psychological resilience, stress hardiness, indicators of mental health, and markers of ability to deal with common academic challenges. FGCS in the treatment condition were part of an existing FGCS cohort identified through the university Academic Success Center and were designated to receive the 30-hours of instruction in MFS. FGCS in the control condition were students from a required university-wide English 101 course. Data were collected at three different time points (i.e., weeks 1, 5, and 10) for each condition.

PARTICIPANTS

Study participants were 28 freshman and sophomore low income (i.e., Pell Grant eligible) students at a large regional university in the Pacific Northwest. The intervention group was comprised of 15 FGCS, all whom were freshmen, 60 percent were female, and 40 percent were male, with a mean age of 18.75 years. In terms of ethnicity, 27 percent were white, 20 percent were African American, 27 percent were Latino, 7 percent were Asian, and another 20 percent reported “other.” For the 13 FGCS in the control condition, 11 were freshman and 2 were sophomores, 39 percent were male, and 61 percent were female, with a mean age of 18.8 years. Ethnicity distribution was 69 percent white, 8 percent African American, and 23 percent reporting “other.”



INTERVENTION

A series of educational sessions utilizing a Mental Fitness Skills (MFS) curriculum targeting mental fitness techniques and skills deemed germane for FGCS success were provided in a university classroom setting. This design was loosely patterned after the Learning Enhancement Program at the United States Military Academy, which is one of the few student success models to integrate MFS with study skills training. This type of approach is holistic and should address the cognitive, motivational, and affective components of learning, which are (regrettably) seldom integrated and rarely empirically documented (Hammermeister, Pickering & Lennox, 2011; Helms & Marino, 2010). A total of 30 sessions was presented over

a 10-week academic quarter with each session lasting 50 minutes. A certified Association delivered the MFS material for Applied Sport Psychology consultant (CC – AASP), while a member of the university Academic Success Center presented the study skills material. The core components of the MFS curriculum targeted low-income FGCS, thus the presentation of the MFS material was stylistically adapted to make it relevant for this cohort. The interventions primary aims were to improve FGCS mental fitness, mental health, psychological resilience, stress hardiness, and ability to cope with academic challenges. The following is a brief description of how MFS tenants guided the curriculum.



INTRODUCTORY CONCEPTS

During the first week of the course, FGCS were introduced to characteristics that facilitate peak performance (Csikszentmihalyi, 1990; Ravizza, 1977). Specifically, these sessions utilized cognitive behavioral methods, which highlighted the impact thoughts that have on affect and ultimately on achievement-related behavior (Zinsser, Bunker, & Williams, 2001). For example, FGCS were asked to compare the thoughts and emotions associated with their “best ever” performances with those of their “worst ever” performance. The insightful results garnered from this reflection (e.g., highlighting the importance of goals, self-confidence, and focus as primary components of successful performance) were then used as rationale to move through the remaining curriculum. FGCS were also introduced to the “power of commitment” concept which was illustrated with a video and written assignment based on Roger Bannister’s sub-4-minute mile.

SELF-TALK

During the second week of the course, self-talk techniques were taught to FGCS to cultivate and sustain a positive mindset. These techniques included exercising selective perception (Gauron, 1984), controlling self-talk (Ellis & Dryden, 1987), employing personally meaningful affirmations (Rushall, 1995; Syer & Connolly, 1984), and effectively interpreting and attributing successes and failures (Seligman, 1991; Weiner, 1985). FGCS were also introduced to the concept of “victim vs. creator” language and how each may be related to success (Downing, 2011).



GOAL SETTING

During the third and fourth weeks, FGCS were taught systematic goal setting (Burton, Naylor & Holliday, 2001; Locke & Latham, 1990) and effective thinking techniques (Zinsser et al., 2001) with the aim of enhancing goal adherence and achievement. After identifying overall outcome goals, individuals then identified the priorities needed to accomplish said goals, along with the actions and attitudes required to achieve these priorities.



CONFIDENCE

During the fifth week of the intervention conceptual components from Bandura's (1977) self-efficacy theory and Vealey's (Vealey, Knight & Pappas, 2002) sport confidence model were utilized to show FGCS the importance of developing "source" confidence. Specifically, FGCS were taught how the self-efficacy principles of past performance success, vicarious experience, verbal persuasion, and emotional arousal can be utilized to enhance self-efficacy. FGCS were also taught to think of self-confidence as being a multi-dimensional construct (e.g., consisting of confidence in your physical skills, mental skills, and resilience) by providing illustrations and exercises derived from Vealey and his colleagues' (2002) sport confidence model.

RELAXATION AND EMOTION CONTROL SKILLS

During the sixth week, relaxation techniques were introduced to help FGCS sustain optimal energy levels. FGCS were taught the calming effect which can occur from disciplined self-talk (Ellis, 1973; Ellis & Dryden, 1987) as well as progressive relaxation (Benson & Proctor, 1984; Jacobson, 1938) techniques to help meet the varied energy requirements of the FGCS experience.

IMAGERY

During the seventh week, FGCS were taught to use imagery techniques to help mentally prepare for major evaluative events as well as to enhance many of the other MFS variables already discussed. The physiological basis of imagery was introduced (Ahsen, 1984), imagery fundamentals were rehearsed (Holmes & Collins, 2001), and specific applications were provided that enhanced FGCS readiness to learn and execute basic learning competencies.



CONCENTRATION

Concentration techniques addressing the attentional demands associated with the undergraduate college experience were introduced in the eighth week. For instance, FGCS were taught how to utilize performance routines (Orlick, 1986) and specific focus cues (Schmid & Peper, 1998; Zinsser et al., 2001) to direct and sustain attention appropriately during midterm and final exams. Nideffer's (1976) conceptualization of directing and widening attention guided several practical exercises that were incorporated.

INTEGRATION STRATEGIES

Weeks nine and ten were primarily focused on assignments designed to allow FGCS to synthesize the mental fitness skills previously taught. For example, to illustrate how the mental fitness skills are related to psychological resilience, FGCS were required to view a movie (i.e., "Rudy" - an iconic FGCS success story) and then were asked to assess how the lead character was able utilize skills such as goal-setting, self-talk, positive imagery, concentration, and self-confidence to bolster his resilience and ultimately achieve success. They were then asked to reflect on their personal use of Mental Fitness Skills (MFS) and describe how the constellation of skills taught to them during the intervention could be used to enhance their own resilience and subsequently be used as a tool to help them achieve their dreams.

ACADEMIC SKILLS CURRICULUM

The intervention also included four class sessions devoted to traditional academic skills training. These sessions included instruction on study skills (week 4), test taking strategies (week 5), time management (week 7), and preparation techniques for final exams (week 9).

UNIVERSITY REQUIREMENTS

During the course of the intervention, students were also required to submit journal entries every two weeks, which chronicled their understanding and use of the MFS material, presented to them. Several quizzes and a midterm exam were also used to "create a need" to learn and keep the FGCS on track and on-task and to provide a basis for their university course grade.



CONTROL CONDITION

An English 101 course was utilized as the control condition. The delivery and logistical attributes of the material presented in this condition were the same as those of the MFS intervention (e.g., educational in nature, interactivity, timing, university classroom setting); and was taught by a graduate student. The timing, context, and amount of instructor contact with FGCS were virtually identical for both the control and MFS sessions.



INSTRUMENTS

MENTAL FITNESS SKILLS

Ottawa Mental Skills Assessment Tool-3. Durand-Bush and Salmela (2001) developed the Ottawa Mental Skills Assessment Tool-3 (OMSAT-3) to measure a broad range of mental skills important for sport performance. For this study, 6 of the 12 subscales were deemed appropriate for assessing MFS among FGCS including: a) self-confidence, b) relaxation, c) commitment, d) focus, e) goal-setting and f) imagery. Each item on the OMSAT-3 is answered on a “strongly disagree” to “strongly agree” 7-point Likert scale (e.g., “I am determined to never give up”). The OMSAT-3’s scales have demonstrated acceptable internal consistency ($\alpha = .68$ to $.88$, mean $.78$) and temporal stability ($r = .78$ to $.96$, mean $.86$; Durand-Bush & Salmela, 2001).

DEPRESSION ANXIETY STRESS SCALES

The shortened 21-item version of the Depression Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995) is a self-report inventory that assesses three negative affective states, including depression, anxiety and stress, with each subscale comprised of seven items. The DASS-21 has a similar factor structure to the DASS-42, but has advantages over the DASS-42, including a more interpretable factor solution with smaller inter-factor correlations, higher mean loadings and fewer cross-loadings (Antony, Bieling, Cox, Enns, & Swinson, 1998). To minimize subject burden, and given the aforementioned advantages, the DASS-21 was employed in the current research. A 0-3 response format was used: *did not apply to me at all (0), applied to me to some degree, or some of the time (1), applied to me to a considerable degree, or a good part of the time (2), and applied to me very much or most of the time (3)*. The depression subscale (DASS-D) measures symptoms relating to dysphoric mood (e.g. sadness, worthlessness), for example “I couldn’t seem to experience any positive feeling at all.”



SELF-ESTEEM

The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) was designed as a uni-dimensional self-report measure of feelings of global self-esteem in adolescents. The RSES consists of 10 items—five positive statements and five negative statements about the self. Example statements include: “On the whole, I am satisfied with myself,” “At times I think I am no good at all,” and “I feel that I have a number of good qualities.” A four-point response format was used: *strongly disagree*, *disagree*, *agree*, and *strongly agree* (Blascovich & Tomaka, 1991). Scores for each item are summed, giving a total score range from 10 to 40, with higher

scores signifying higher self-esteem. Previous researchers have reported reasonable levels of internal consistency for their samples with Cronbach’s (1951) alphas of between .72 and .88 (Byrne, 1996). Rosenberg (1965) provided substantial evidence of the construct/predictive validity of the scale, relating poor self-esteem to social and behavioral consequences such as anxiety, depression, and loneliness. The satisfactory convergent and discriminant validity of the RSES has also been well documented (Blascovich & Tomaka, 1991).



SITUATIONAL HARDINESS: GOAL CONTROLLABILITY & CHALLENGE

The Stress Appraisal Measure (SAM; Peacock & Wong, 1990) is designed to assess anticipatory stress associated with specific events (as opposed to stress associated with past or current events). The SAM is a 24-item scale that reflects six dimensions of situational appraisal (controllable-by-self, threat, centrality, uncontrollable, controllable-by-others, and challenge). The SAM was developed through a series of three factor analytic studies demonstrating consistent item loading and distinction amongst the proposed factors (Peacock & Wong, 1990). Subsequent inquiry by the SAM authors has incorporated only select SAM subscales and has reported reasonable internal consistency for such use (Peacock & Wong, 1996). Of the six situational appraisal factors assessed by the SAM, the *controllable-by-self* and the *challenge* dimensions most closely parallel the notion of situational hardness. Both goal controllability and goal challenge were assessed with four items each, revised from the SAM to emphasize response relevant to personal goals. A 5-point Likert type scale with item responses ranging from strongly disagree to strongly agree were used.



SITUATIONAL HARDINESS: GOAL COMMITMENT

The Brief Hollenbeck, Williams and Klein Goal Commitment Scale (HWK-5; Klein, Wesson, Hollenbeck, Wright, & DeShon, 2001) is a revised version of the original nine-item Hollenbeck, Williams & Klein Goal Commitment Scale (HWK; Hollenbeck, Williams & Klein, 1989), which resulted from an extensive measurement model meta-analysis conducted by members of the original HWK instrument development team (Klein, et al., 2001). Both the 2001 meta-analysis and an earlier empirical synthesis by Klein, Wesson, Hollenbeck and Alge (1989) reported that the nine-item HWK instrument was the most commonly used scale for empirically assessing goal commitment. The meta-analytic revision to the shorter five-item version resulted from published concerns regarding the dimensional structure of the original nine-item scale (DeShon & Landis, 1997; Tubbs, 1993; Tubbs & Dahl, 1991). The 2001 meta-analysis was based on 17 independent samples and 2,918 respondents, and revealed the five-item structure

that is uni-dimensional and equivalent across measurement timing, goal origin, and task complexity. The HWK authors now recommend the 5-item scale be used in future research requiring a psychometrically sound, construct relevant, robust, and generalized self-report measure of goal commitment.

PSYCHOLOGICAL RESILIENCE

The Connor Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003) measures the total resilience of an individual and consists of 25 items using a five-point Likert scale ranging from 0 (*not true at all*) to 4 (*true nearly all of the time*). The scale examines how the participant felt over the past month (e.g., "I like challenges."). A total resilience value is obtained by summing each item (range 0 to 100). Higher scores represent greater resilience. The CD-RISC has been shown to be a reliable and valid tool for use in adults (Campbell-Sills & Stein, 2007; Connor & Davidson, 2003).



ACADEMIC CHALLENGES

Another key indicator of resilience is the ability to effectively cope with academic challenges. Thus, we modified an instrument developed by Bui (2002) for use in this study. The challenge items included fear of failing at the university, worrying about financial aid, worrying about college-related decisions, overcoming poor preparation in high school, and feelings of being accepted at the university. For each challenge, students indicated their assessment of how true the experience was for them on a 7-point scale ranging from 1 (*not at all true*) to 7 (*completely true*).

PROCEDURE

Following Institutional Review Board approval, data were collected in the classrooms for each respective condition. FGCS in the MFS condition had the opportunity to decline participation in the study; however, course requirements, which constituted criteria for grades, were not optional. For the control condition, participation was voluntary.

RESULTS

Prior to our main analyses, we screened the data for multivariate outliers by calculating Mahalanobi's distances based on centroids of the OMSAT-3 variables (Tabachnick & Fidell, 2007). We identified one multivariate outlier exceeding a chi square critical value of 42.90 on OMSAT and CD RISC, as well as one age outlier (age = 37). Follow-up analyses revealed these responses were atypical, and thus not retained for subsequent analyses.

Table 1 displays means and standard deviations for the targeted mental fitness skills, indicators of stress hardiness, resilience, and academic challenge scores reported by FGCS in both groups across the 10 weeks of the academic quarter. Analysis of Variance (ANOVA) critical ratios or p-values for each model assessed are available from the corresponding author. Also, due to the exploratory nature of this study and the small sample size, p-values of $\leq .10$ were deemed worthy of further discussion. Figures 1-4 provide a visual overview comparing the MFS and control group change trajectories of these longitudinally assessed outcome variables.

MFS

The longitudinal plots displayed in Figure 1 provide a visual summary of the different trajectories of the two groups on each targeted MFS variable, while Table 1 provides a more precise examination of the group means and standard deviations. The repeated measures ANOVA revealed linear effects for the focus subscale of the OMSAT-3, $F(1,26) = 3.87$, $p \leq .10$ as well as the commitment subscale, $F(1,26) = 7.75$, $p \leq .01$ (see Table 1) with the treatment group reporting more knowledge and use of these variables over time than the control group.



INDICATORS OF MENTAL HEALTH

Repeated measures ANOVA revealed a linear effect for the DASS anxiety subscale, $F(1,26) = 4.86, p \leftarrow .05$, with the treatment condition reporting less perceived mental distress over time than the control condition (see Figure 2).

RESILIENCE AND STRESS HARDINESS

Results from the repeated measures ANOVA showed a linear effect for the CD-RISC, $F(1, 26) = 3.00, p \leftarrow .10$; the goal controllability subscale from the SAM, $F(1, 26) = 9.16, p \leftarrow .01$; and the goal commitment scale from the HWK-5, $F(1, 26) = 4.78, p \leftarrow .05$, with the treatment group reporting more perceived resilience and stress hardiness over time than did the control group. A quadratic effect for the challenge subscale of the SAM, $F(1, 26) = 8.18, p \leftarrow .01$ was also noted suggesting that FGCS perception of challenges develop in different patterns over time between the two groups (see Figure 3).

ACADEMIC CHALLENGES

Repeated measures ANOVA results revealed linear effects for the feeling prepared for college item, $F(1,26) = 5.55, p \leftarrow .05$ and wanting to use their college education to help earn a good income, $F(1,26) = 2.93, p \leftarrow .10$ with the treatment condition reporting more perceived ability to deal with these challenges over time. A quadratic effect was also noted for the income item, $F(1, 26) = 2.98, p \leftarrow .10$ and for the comfort making college decisions item, $F(1, 26) = 2.92, p \leftarrow .10$. A linear effect was also evident for the worry about money and finances item, $F(1, 26) = 3.69, p \leftarrow .10$ with the control condition reporting less perceived worry about money over time (see Figure 4).



DISCUSSION

The findings from our study may offer some applied and theoretical insight to practitioners and researchers working in either student services or performance psychology settings. The broad-based psychological main effects suggest this type of MFS-based intervention holds promise as a potentially beneficial approach to working with FGCS in academic settings. Of the 18 psychological self-report measures that were assessed, 11 exhibited differences ($p < .10$) between groups, with all but one favoring the MFS intervention group. In addition, differences between groups for four of the remaining psychological constructs (DASS stress, DASS total, self-esteem, goal-setting) also favored the MFS trained group ($p < .20$), although not meeting our criterion p-value. This overall pattern, while not conclusive, suggests that exposure to MFS had a positive impact upon the psychological functioning of FGCS.

INTERVENTION IMPACT ON MENTAL FITNESS SKILLS VARIABLES

FGCS in the intervention condition reported enhanced use of commitment, focus, and goal setting as well as a slight edge in reported use of mental imagery, self-confidence, and relaxation than did FGCS assigned to the control condition. Given

that the focus of the MFS intervention was to enhance awareness and knowledge about the fundamentals of the specific mental techniques assessed, these results are not surprising. While the pattern changes were consistent across the targeted MFS techniques, it should be noted that the effects did not reach statistical significance on all targeted variables, which is not especially surprising given our complex intervention and relatively low sample size.

The “j-curve” noted with the goal setting pattern may be a notable and useful finding for performance psychologists (see Figure 1). We have seen a similar anecdotal phenomenon when working with both soldiers and athletes. It seems there is a tendency for some individuals to view themselves as competent and proficient goal-setters prior to formal goal-setting training. Then, after learning more about the topic these same individuals re-assess their goal-setting skills and practices, resulting in a lower self-assessment. In other words, the educational training alters respondent perceptions even though the past goal-setting behavior being referenced does not change. Obviously, if this occurs, post-intervention self-assessments will be confounded by such a “response shift” (Howard & Dailey, 1979). Future performance psychology researchers may wish to explore this phenomenon in more detail as the theoretical and applied implications are numerous.



MENTAL FITNESS SKILLS IMPACT ON INDICATORS OF MENTAL HEALTH


FGCS in the intervention condition reported significantly lower scores on the DASS anxiety subscale and showed a slight edge on the DASS stress, DASS depression, and DASS total subscales [see Figure 2]. FGCS in the intervention condition also showed a slight edge on the self-esteem instrument. As this study was exploratory in nature, the mechanisms driving these findings still remain unknown; however, the established link between self-confidence and self-efficacy may provide some clues. Self-efficacy (Bandura, 1977) is a specific self-perception, and has been referred to as a situational specific form of self-confidence (Feltz, 1988) and also has a well-known inverse relationship with anxiety [e.g., Martens, Vealey & Burton, 1990]. Bandura (1997) argued that efficacy expectations to perform a given task could influence self-perceptions [e.g., self-confidence] when the success/failure is heavily tied in with self-worth. In our study, it is possible that the FGCS placed a high degree of importance to academic-related activities. Thus, self-worth is likely to be derived from the FGCS efficacy expectations about their academics rather than the reverse. The MFS intervention, we believe, provided educational material which enhanced FGCS efficacy expectations about their ability to perform well in college, thus influencing their self-esteem and DASS subscale scores.



MENTAL FITNESS SKILLS IMPACT ON HARDINESS AND RESILIENCE

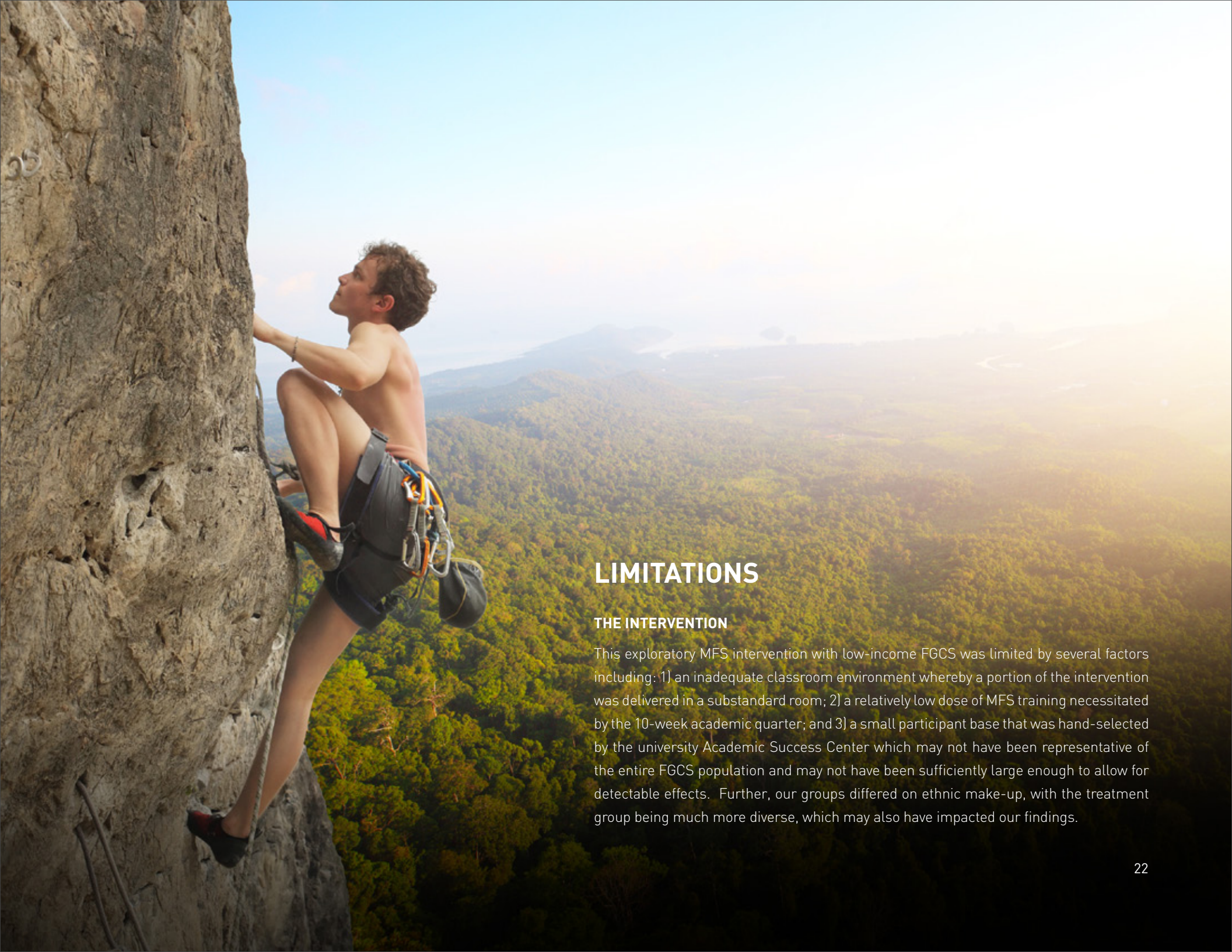
FGCS in the intervention group reported higher scores on the CD-RISC, the SAM, and the HWK-5 over time than did FGCS in the control condition. The CD-RISC finding is congruent with our previous work in a military setting which showed Army soldiers who participated in an eight-week MFS intervention displayed higher psychological resilience scores than did peers in a control condition. The finding with the SAM and the HWK-5 (i.e., our situational hardiness measures of control, commitment, and challenge) also appears to be congruent with previous hardiness research as Maddi and colleagues (Maddi, Harvey, Khoshaba, Fazel & Resurreccion, 2009) showed that college students in a “hardi-training” intervention condition scored higher on measures of hardiness and GPA than did controls.

The pattern of results obtained in this study is also consistent with the assumption that hardiness and resilience attitudes and skills can be trained with the techniques emphasized in the MFS intervention. This finding should highlight the importance of MFS training among FGCS, especially material related to improving focus, goal setting, mental imagery, self-confidence and relaxation, which all showed at least a slight edge for the FGCS in the intervention condition. It appears that FGCS who are armed with more knowledge and skills in these MFS areas may also be providing themselves with an inoculating effect against stress. This idea is congruent with the work of Luthar and Zelazo (2003) who imply these MFS components could also be regarded as resilience “protective factors.” Luthar and Zelazo (2003) suggested that for resilience to occur, protective factors (including the ability to use MFS-related constructs such as commitment, focus, goals, imagery, self-confidence and relaxation) need to outweigh vulnerability factors (such as maladaptive personality traits, poor family life and support, low IQ, low SES, etc.), to overcome risk factors (of which there are many for FGCS). In other words, mentally fit FGCS may be “armed” with protective MFS attributes that help them overcome the sense of risk and vulnerability associated college-related adversity.

A close-up photograph of a soccer ball hitting a goal net. The ball is white with black pentagonal panels and is positioned in the center of the frame, slightly to the left. The net is white and made of a hexagonal mesh, extending from the top right towards the bottom left. The background is a blurred green field. The lighting is bright, creating a sense of motion and impact.

MENTAL FITNESS SKILLS AND ACADEMIC CHALLENGES

FGCS in the intervention group reported feeling more prepared for college, more comfort making college-related decisions, and more desire to use their college degree to earn a good income after graduation compared to FGCS in the control group. These findings are not surprising given the overall pattern of results reported in this study so far. That is, FGCS who are more mentally skilled are also more mentally healthy, more stress hardy and resilient, and also appear better equipped to deal with some of the common challenges found in a university setting. This result is also congruent with our recent MFS work with Army soldiers who showed an enhanced ability to deal with basic combat training-related adversity relative to peers in a control condition. Given the consistency of these findings, it appears that MFS may indeed be a viable platform to train resilience, stress hardiness, and ability to cope with academic challenges.



LIMITATIONS

THE INTERVENTION

This exploratory MFS intervention with low-income FGCS was limited by several factors including: 1) an inadequate classroom environment whereby a portion of the intervention was delivered in a substandard room; 2) a relatively low dose of MFS training necessitated by the 10-week academic quarter; and 3) a small participant base that was hand-selected by the university Academic Success Center which may not have been representative of the entire FGCS population and may not have been sufficiently large enough to allow for detectable effects. Further, our groups differed on ethnic make-up, with the treatment group being much more diverse, which may also have impacted our findings.



MEASUREMENT

This study utilized MFS instruments that originate primarily from sport contexts. We are unaware of any prior use of the OMSAT-3 within academic settings, or with an FGCS population, or of any reported psychometric, or construct validation evidence for use outside of a sport realm. Thus, our instrumentation may have been limited in its sensitivity to provide valid assessments of FGCS cognitions or to capture potential group differences.



MODERATOR EFFECTS

The aim this study was to assess existence of a main effect when comparing MFS to a control condition; however, it also possible that subpopulations of FGCS may respond to MFS-type training differently. If so, then our main effects analysis may not reflect the more subtle impacts of MFS training. In other words, MFS training may be helpful to FGCS that possess certain attributes; inconclusive with others, or could even have a negative effect on still others. Examining such potential moderator effects will require a considerably larger sample, and is something our research team will be actively investigating within our future inquiry in this area.



SUMMARY & FUTURE DIRECTIONS

Based on the FGCS self-reports of MFS use, indicators of mental health, perceived resilience, stress hardiness, and ability to deal with university challenges, results from this initial investigation suggest that FGCS can benefit from exposure to MFS training, particularly with regard to psychological functioning. The effects observed herein were small in magnitude, but were also consistent across the outcomes that were assessed. Despite these encouraging findings, it is also evident that more inquiry and rigorous research needs to occur examining the efficacy of educational-based MFS programs. There is ample opportunity for future research to build upon this initial inquiry into the potential efficacy of MFS training with FGCS. For example, the longitudinal effects of varied dosages of MFS training should be examined. Second, as alluded to in our

discussion, much more work is needed with respect to improving the psychometric quality of tools and methods used to assess psychological and performance changes in this population. Finally, further exploration of potential moderators of MFS training effects is necessary to avoid the temptation of implementing a “one-size-fits all” intervention approach, which could potentially impede the effectiveness of MFS treatments with unique FGCS subpopulations.

Despite the work remaining to be done, this exploratory study should provide student services personnel, college administrators, performance psychologists, and FGCS a degree of assurance that mental fitness skills can be trained in educational settings and may contribute to the overall resilience and stress hardiness of FGCS.

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FIGURE 1: COMPARISON OF MENTAL FITNESS SKILLS AND CONTROL GROUP ON TARGETED MENTAL FITNESS SKILLS VARIABLES

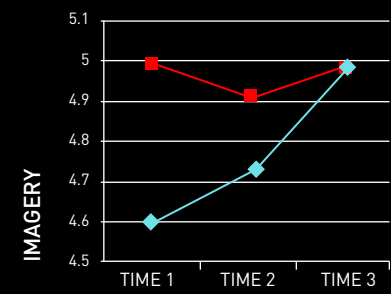
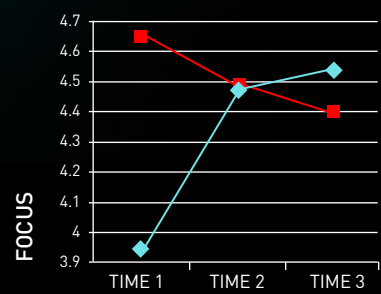
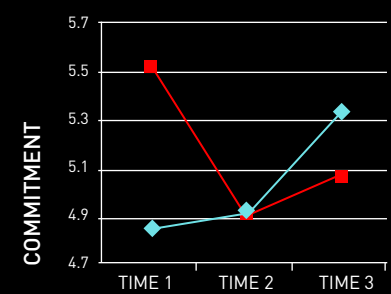
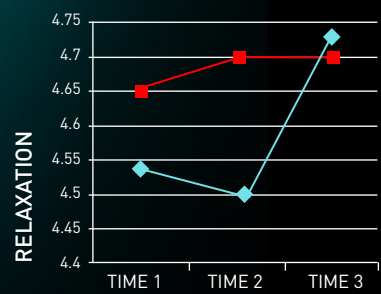
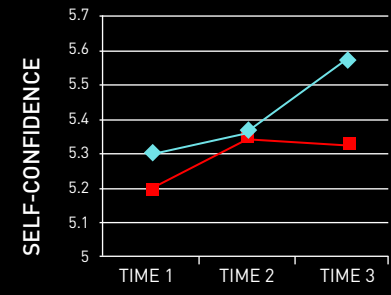
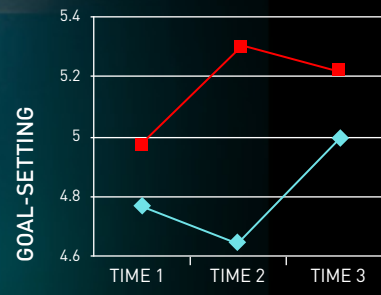
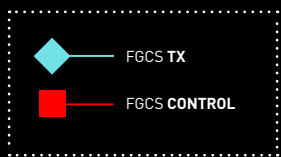




FIGURE 2: COMPARISON OF MENTAL FITNESS SKILLS AND CONTROL GROUP ON INDICATORS OF MENTAL HEALTH

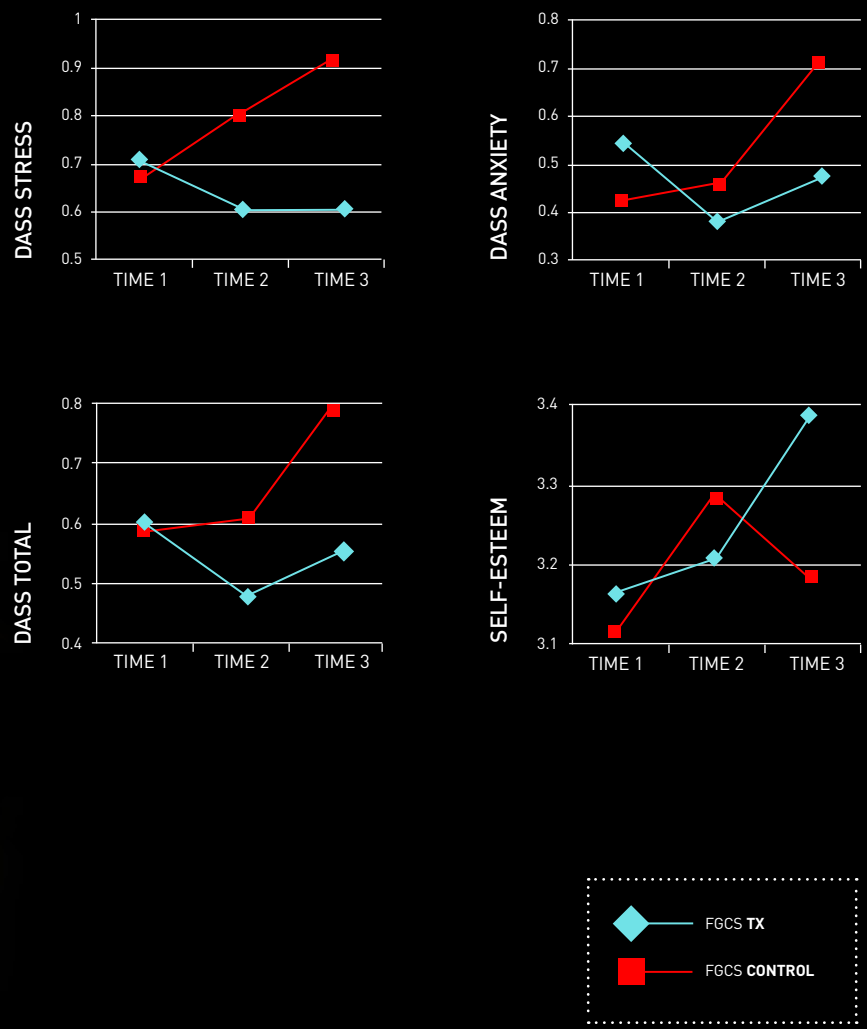


FIGURE 3: COMPARISON OF MENTAL FITNESS SKILLS AND CONTROL GROUP ON RESILIENCE AND HARDINESS OUTCOMES

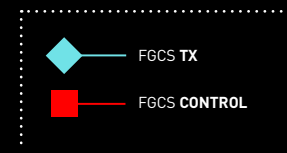
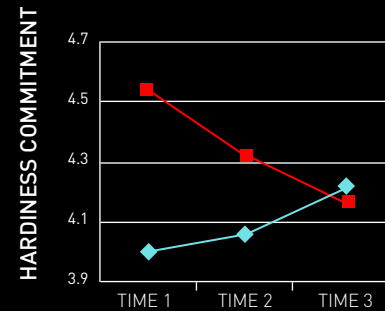
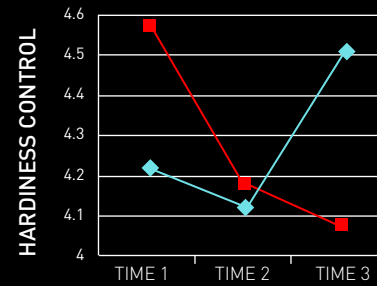
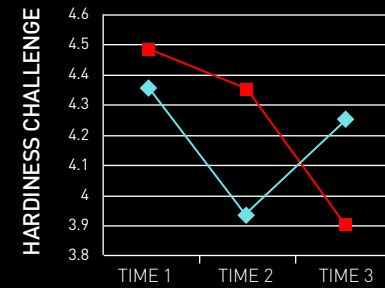
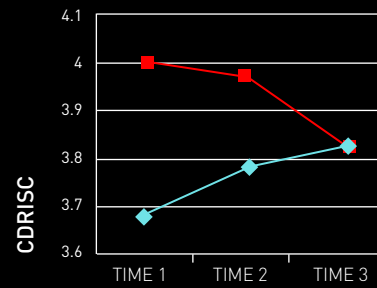




FIGURE 4: COMPARISON OF MENTAL FITNESS SKILLS AND CONTROL GROUP ON ACADEMIC CHALLENGES

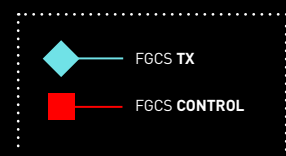
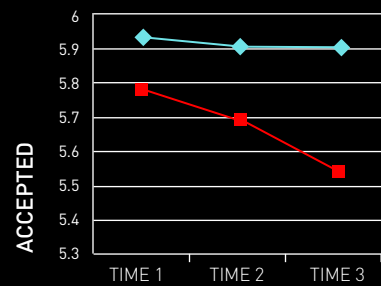
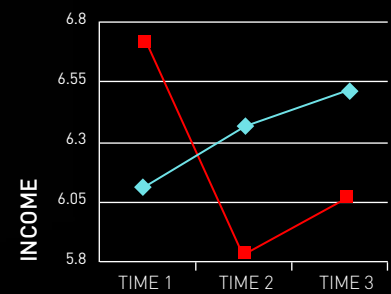
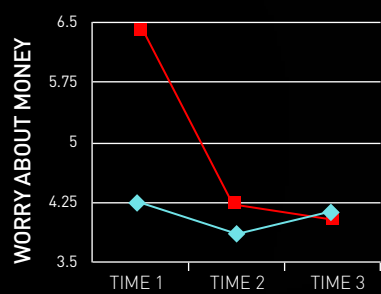
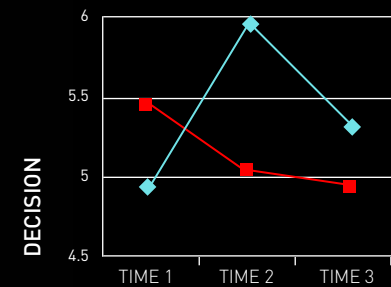
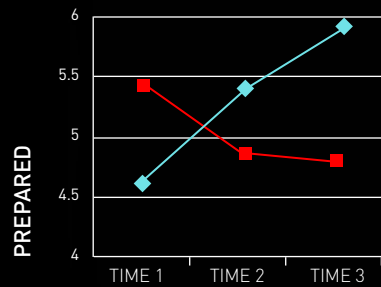
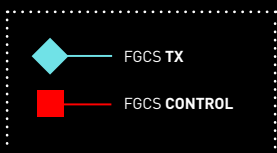


TABLE 1: DESCRIPTIVE STATISTICS FOR MENTAL FITNESS SKILLS AND CONTROL GROUPS

	FGCS TX			FGCS Control		
	T 1	n=15 T 2	T 3	T 1	n=13 T 2	T 3
		Mean (SD)			Mean (SD)	

MENTAL HEALTH

DASS Total	0.61 0.57	0.47 (0.54)	0.55 (0.48)	0.55 (0.48)	0.61 (0.49)	0.61 (0.49)
DASS Anxiety1	0.54 (0.52)	0.37 (0.53)	0.49 (0.53)	0.44 (0.49)	0.46 (0.60)	0.72 (0.56)
DASS Stress	0.70 (0.61)	0.62 (0.60)	0.61 (0.48)	0.67 (0.55)	0.80 (0.62)	0.93 (0.52)
RSES	3.16 (0.55)	3.21 (0.47)	3.39 (0.49)	3.12 (0.69)	3.27 (0.56)	3.18 (0.42)

MFS

Self-Confidence	5.31 (1.18)	5.39 (0.93)	5.58 (0.94)	5.21 (1.41)	5.37 (0.93)	5.34 (0.86)
Relaxation	4.55 (0.71)	4.50 (0.80)	4.72 (1.06)	4.65 (1.22)	4.70 (1.16)	4.70 (0.84)
Commitment1	4.86 (0.98)	4.93 (1.24)	5.33 (1.09)	5.53 (1.13)	4.93 (1.01)	5.08 (0.53)
Focus2*	3.94 (1.48)	4.46 (1.18)	4.53 (1.34)	4.65 (1.59)	4.49 (1.28)	4.40 (0.95)
Goal-Setting	4.79 (1.10)	4.66 (1.30)	5.00 (1.28)	4.97 (1.35)	5.29 (1.03)	5.22 (0.83)
Imagery	4.61 (0.97)	4.74 (1.21)	4.97 (1.04)	4.99 (0.99)	4.93 (0.88)	4.97 (0.83)

a. Significant at .05 – Linear effect1

b. Significant at .10 – Linear effect1*

c. Significant at .05 – Quadratic effect2

d. Significant at .10 - Quadratic effect2*

	FGCS TX			FGCS Control		
	T 1	n=15 T 2	T 3	T 1	n=13 T 2	T 3
		Mean (SD)			Mean (SD)	

RESILIENCE

CDRISC1*	3.67 (0.57)	3.79 (0.49)	3.83 (0.60)	4.01 (0.64)	3.98 (0.54)	3.83 (0.56)
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HARDINESS

Hardiness Challenge1, 2	4.35 (0.71)	3.92 (0.81)	4.25 (0.65)	4.48 (0.55)	4.35 (0.49)	3.90 (0.64)
Hardiness Control1	4.22 (0.81)	4.12 (0.71)	4.50 (0.57)	4.56 (0.84)	4.18 (0.71)	4.06 (0.65)
Hardiness Commitment1	3.99 (0.79)	4.04 (0.77)	4.20 (0.74)	4.55 (0.46)	4.33 (0.42)	4.14 (0.68)

CHALLENGES

Prepared1	4.67 (1.29)	5.43 (1.17)	5.96 (1.08)	5.38 (1.56)	4.85 (1.34)	4.77 (1.24)
Decision2*	4.93 (1.10)	5.93 (0.78)	5.28 (1.58)	5.46 (1.39)	5.08 (1.26)	4.92 (1.50)
Worry about money1*	4.29 (1.83)	3.82 (1.82)	4.01 (2.24)	6.31 (1.44)	4.23 (1.64)	4.00 (2.08)
Income1*, 2*	6.13 (1.32)	6.37 (0.89)	6.49 (0.73)	6.69 (0.85)	5.85 (1.21)	6.08 (1.32)
Accepted	5.93 (1.46)	5.90 (1.16)	5.91 (1.23)	5.77 (1.240)	5.69 (1.18)	5.54 (1.39)

- a. Significant at .05 – Linear effect1
- b. Significant at .10 – Linear effect1*
- c. Significant at .05 – Quadratic effect2
- d. Significant at .10 - Quadratic effect2*



Applied Perspectives for Academic Mental Skills Training

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ABSTRACT

The positive impact of psychological skills training in academic settings has routinely been supported. Research has shown that students benefit both in terms of academic performance and psychological factors after extended training in mental fitness skills including goal setting, self-talk, relaxation, confidence, imagery, and concentration. Although research is plentiful, techniques and ideas for practical application are less accessible. This supplemental article offers simple and concrete implementation ideas that can be included in a classroom setting. Although age and academic level must be considered when implementing these ideas, instructors and their students may gain significant benefit as they progress through their academic careers.



In their research with First Generation College Students (FGCSs), Hammermeister and his colleagues found that a 30-hour mental fitness training intervention had consistent positive effects on psychological resilience as well as academic achievement as measured by grade point average (Hammermeister, Jordan, Briggs, Galm, & Pickering, 2012a, Hammermeister, Jordan, Briggs, Galm, & Pickering, 2012b). More specifically, the authors' revealed a number of important results in support of the current discussion:

- 1) Students with strong mental fitness skills (goal-setting, self- confidence, concentration, and motivation) were significantly more resilient; that is, they were much better able to bounce back after a difficult challenge or disappointing outcome (Hammermeister, et al, 2012a; 2012b)
- 2) After completing the mental fitness training intervention, students reported significantly higher levels of focus and commitment skills, reporting both more knowledge and more use of these skills over time. (Hammermeister, et al, 2012a).
- 3) Students categorized with strong mental skills were significantly better able to handle a variety of academic challenges, including fear of failing, worrying about

financial aid, worrying about college-related decisions, making friends, committing to study time, and feelings of acceptance and enjoyment at the university. (Hammermeister, et al, 2012b)

4) Students with strong mental skills had significantly higher GPAs than students classified as "emotionally fragile," and higher GPAs than those students classified with weak mental skills or "go with the flow" students. (Hammermeister, et al, 2012b)

5) Effective goal-setting is among the strongest mental skills contributing to higher academic GPAs. (Hammermeister, et al, 2012b)



Although the results obtained in the Hammermeister, et al. (2012a, 2012b) studies are specific to first generation college students, they support the results of a wealth of performance psychology literature suggesting that mental skills training enhances both psychological resilience (Hammermeister, Pickering, Holliday, Williams, Harada, Ohlson, Csoka, & Adler, 2010; Hammermeister, Pickering, & Lennox, 2011; Luther & Zelazo, 2003) and academic performance outcomes (Bork, 2008; Dendato & Diener, 1986; Morisano, Hirsh, Peterson, Pihl, & Shore, 2010; Stout, Thornton, & Russell, 1980). The simple fact is that performers who learn, understand, and apply mental fitness skills seem to outperform performers who don't.

Unfortunately, not every high school, community college, or university has access to the mental skills and study skills programming used in the Hammermeister, et al studies, or that has been available at the United States Military Academy since 1992 (C. Ohlson, personal communication, September 11, 2012). While it would be ideal to maximize the findings in the mental skills research by offering students a 30-40 hour course designed to prepare them for the rigors of academic work, most teachers lack the resources and expertise to implement such a program. However, there are a number of relatively easy ways to incorporate mental fitness training into a class without sacrificing valuable instruction time.



GOAL-SETTING

Hammermeister, et al's (2012b) study revealed that student effectiveness in goal-setting was the largest contributor to academic GPA, and was able to distinguish between GPA groups. In performance and sport psychology, goal-setting has been the most well-researched, and most useful, mental skills strategy for increased performance (Burton, Naylor, & Holliday, 2001; Locke & Latham, 2002). Locke and Latham (2002) proposed that effective goals influence performance in four ways: 1) They direct attention to important features of the task; 2) They mobilize effort; 3) They increase persistence in the face of adversity; and 4) They foster new learning strategies. Each of these four features has immediate relevance in academic settings, in which we encourage our students to study smarter not harder, consistently complete homework and practice problems, and ask questions when they don't understand a concept or problem. But not just any goal will work. To be effective, goals should be specific, measurable, challenging yet attainable with hard work that is realistic, and time-bound (Burton, Naylor, & Holliday, 2001).



TO GET EFFECTIVE GOAL SETTING WORKING IN THE CLASSROOM, CONSIDER IMPLEMENTING THE FOLLOWING:

1) CLASS MISSION STATEMENT

During the first week of class, have students come up with a class goal: something everyone agrees to. It could be to “earn an average class GPA of at least 2.75” or to “have at least 75 percent of students take and pass the SAT subject test for U.S. History.” Each of these goals conforms to the rules for effective goal setting, and has the potential to unlock students’ performance potential. Once the class has decided on their big goal, have them set smaller goals and develop action statements to keep them moving in the right direction. Let’s look closer at how the first goal might look once students have completed the process:

There is evidence to support that public goals, those that are posted and able to be seen by others, increase accountability and commitment (Weinberg, Burton, Yukelson, & Weigand, 2000). Once the class has finished with their mission and action plan, have everyone sign it to signify their support, and post it somewhere in the room where all can see it. Although it’s not something that will be read and reviewed every day, it’s a constant reminder of their commitment to the goal they set for themselves. As an instructor, you can reference it from time to time during the semester as a reminder.

Overall Goal: Earn an average class GPA of 2.75 or better

Subgoal #1: Each student completes and submits every assignment on time and to the best of his or her ability.

Subgoal #2: Each student is responsible for asking questions when they arise; ideally, during class so classmates may benefit from the answers.

Subgoal #3: Each student seeks to be a study partner and/or supportive classmate to help everyone earn at least a 2.75 GPA.

Action Plan #1: Classmates form study groups of 3-5 students. These study groups meet at least once a week during or after school to work on upcoming assignments.

Action Plan #2: Classmates arrive to class on time and ready to listen and learn, and are respectful of each other and the instructor.

Action Plan #3: We create a trusting environment in which classmates are honest about their strengths and weaknesses. When one of us is struggling, we are excited to help. When one of us is excelling, we are excited to share our understanding with our classmates.



2) ASSIGNMENT CHECKPOINTS

Break your larger assignments down into smaller chunks. Instead of providing a hard deadline, such as telling students that a term paper is due on the last Wednesday of the class and leaving it at that, set up smaller review deadlines for them. This not only helps them see the long-term goal (e.g. paper due date), but forces them to work with short-term goals during the process, which help to sustain motivation and effort. Below is one possible way to set assignment checkpoints for a term paper.

Checkpoints and timelines will certainly differ between types of assignments and course material. Consider adding modest point values to each checkpoint that can be added to the final paper score. This also helps students to set goals (“earn maximum points on each checkpoint”), which in turn enhance motivation and effort.

CHECKPOINT #1: Paper topic selection. Students submit a one-paragraph paper describing the chosen topic.

CHECKPOINT #2: References. Students submit references for review.

CHECKPOINT #3: Introduction/Thesis statement. Students submit the first two paragraphs of their paper for instructor review.

CHECKPOINT #4: Outline. Students submit a final outline of the showing headings and subheadings.

CHECKPOINT #5: Rough Draft. Students submit a rough draft for review.



3) HIGHLIGHT SELF-REFERENCED ACHIEVEMENT

Every student should be recognized for his or her personal level of improvement, rather than being affirmed only after reaching a uniform standard. If a student improves her test performance by 10 points from one exam to the next, recognize it. If a student's class participation becomes more insightful and meaningful over time, let him know how important his contributions have become.

Although class goals are important, it's the continued effort and striving by each individual that brings them to fruition. Reinforcing student effort can lead to additional motivation and increased academic confidence.



ATTENTION CONTROL

The ability to focus on relevant elements of a task consistently leads to increased performance (Zinsser, Bunker, & Williams, 2001). Although this result is repeatedly obtained in sport (Nideffer, 1976; Zinsser, et al, 2001), concentration skills and purposeful focusing strategies have been linked to both enhanced academic performance (Hammermeister, et al., 2012b) and resilience in military settings (Pickering, Hammermeister, Ohlson, Holliday, & Ulmer, 2010). The importance of concentration skills to enhanced performance levels is certainly not new. In 1976, Nideffer proposed that individual attention shifts along two dimensions: width (broad or narrow) and direction (internal or external). The resulting matrix reveals four attentional quadrants (broad/internal, narrow/internal, broad/external, and narrow/external); each one is essential for specific task requirements.



In a classroom setting, helping students to control their attention and apply the correct focusing strategy to the right task element is essential. Many times, students spend hours wondering how their score on an upcoming exam will affect their overall grade (broad internal) instead of studying the material itself (narrow external). Often, students may not know what's required or be able to distinguish relevant from irrelevant material. To help students focus their attention, implement the following:

1) HELP THEM TO IDENTIFY RELEVANT TASK COMPONENTS. *Use study guides, offer lecture slides, or draw attention to important, testable topics by setting them apart in bold or italics. Instructors might even state outright "the most important thing about this concept is..." When students are able to identify the essential material, they're better able to focus their study time.*

2) PROVIDE DETAILED GRADING RUBRICS. *Often, students write papers without any understanding of the standards by which they will be judged. Some instructors focus on content with grammar and spelling counting for relatively few points while other instructors use variable standards for content, grammar, spelling, and word choice. Students, then, are often left to guess at how their work will be graded. In terms of Nideffer's (1976) quadrants, this "guessing" leaves students stuck in a broad frame of mind, when their performance would be best enhanced if they knew exactly what to focus on—a narrow frame of mind.*

3) PROVIDE EXAMPLES OF GRADED ASSIGNMENTS. *In much the same way as grading rubrics, students benefit from understanding the standards and seeing*

them reflected in actual past student work. When an exceptional paper is submitted, ask the student if her work may be used as an example for future classes, being mindful of confidentiality laws by removing all identifying information. It's best to include instructor comments on the example assignment so that current students can learn from any mistakes and make any corrections to similar errors in their own work. If at all possible, have example assignments reflecting various levels of achievement – "A" papers as well as "B" and "C" level work.

4) BE AWARE OF STUDENT CONCENTRATION LIMITS IN THE CLASSROOM. *Van Blerkom (2009) suggests that learners are able to maintain high levels of concentration for no more than 45-50 minutes at a time. In an hour-long class, allow the first five minutes for students to settle into their seats, organize themselves, and prepare for the lecture. The final five minutes should be allotted for putting things away, collecting homework, and providing for classroom closure. Presenting new material or answering important questions at these times can significantly reduce the likelihood that material will be heard, understood, or learned.*



APPROPRIATE THINKING HABITS

Results of Hammermeister, et al.'s (2012b) research with first generation college students revealed that positive thinking habits were part of the "strong skills" student profile. In addition, positive thinking was the lowest mental fitness skill reported among those students classified with "weak skills." The importance of positive thinking to psychological resilience has also been supported (Luthar & Zelazo, 2003). It is important to note, however, that the term "positive" used here is better associated with the term "effective" and less with the terms "happy" and "rosy." Indeed, Seligman (1991) conceptualized this construct as "optimistic." That is, those who practice "positive thinking" or "learned optimism" have learned to think appropriately about success and failure and have likely developed effective coping strategies such that they acknowledge their personal role in success and learn from mistakes and adversity.



All of these concepts can be effectively distilled into the idea of academic self-efficacy. Bandura's (1994) defined self-efficacy as "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations." Bandura (1977) identifies four sources of self-efficacy, all of which can be incorporated into the classroom. The first self-efficacy source is Performance Accomplishments, which is defined as successful performance of a task. The more mastery experiences one has at a given task, the higher the level of self-efficacy. The next self-efficacy source is Vicarious Experience, or the efficacy gained through modeling. If students are able to see similar students perform at high levels, they develop the belief that they, too, can succeed at the task. The third self-efficacy source is Verbal Persuasion, which suggests that self-efficacy can be gained through the positive reinforcement and encouragement of others. Finally, Bandura suggests that Psychological and Physiological Arousal play a role in developing self-efficacy. Here, not only the intensity of emotions and physical reactions are important, but the individual's interpretation of them as well (Bandura, 1994). Academic self-efficacy has been shown to positively impact both student performance and adjustment to college (Chemers, Hu, and Garcia, 2001).




The most important thing about the concepts of positive thinking, learned optimism, and self-efficacy is that they are all teachable skills. Classroom instructors can help students to build their own self-efficacy in the following ways:

1) CREATE OPPORTUNITIES FOR SUCCESS AND MASTERY. *Incorporate a variety of assessment opportunities. Rather than just research papers and exams, include class discussions with revolving student moderators, student teaching opportunities, presentations, or out-of-class student projects. In this way, students are able to look forward with excitement to different elements of the course, utilize their strengths, and work on their weaknesses without feeling hamstrung by them. In addition, design instruction from simple to complex concepts, allowing students to demonstrate competence before moving on. Experiencing success in the simpler concepts enhances self-efficacy and helps to encourage effort on more difficult elements of the course.*

2) CONFRONT NEGATIVE/PESSIMISTIC THINKING HEAD-ON. *Students can often be overhead to say things like “I’m terrible at math,” or “I’m not good at writing papers.” As an instructor, you can help by pointing out that these types of thoughts are influencing their performance. If a student comes into a calculus class believing that he won’t be successful, consider how that affects the student’s willingness to listen, effectiveness at taking notes, willingness to ask questions, commitment to studying, etc. In essence, it becomes a self-fulfilling prophesy. The student believes she can’t be successful so she doesn’t put in the*

effort to be successful, which significantly hurts her success. Speaking to the student privately after class can create an opportunity to explain the importance of effective thinking habits, as well as offer additional assistance and reinforce the instructor’s belief that the student can, in fact, be successful. Instructors can also create a teachable moment out of this situation by asking the student, “what might be a more effective way to think about ___?” or “what might be different if you approached this assignment with the same attitude you have when you open Christmas presents?”

3) BALANCE POSITIVE COMMENTS WITH NEGATIVE COMMENTS WHEN GRADING ASSIGNMENTS. *The image of red ink on a returned assignment or exam is confidence-shaking for any student. The more red ink, the more critical feedback the instructor had. One way to engage Bandura’s sources of self-efficacy is to draw equal attention to positive elements of student work. Reinforcing what the student did correctly is just as important as offering areas for improvement. Not only does it make the criticism easier to handle, but it allows the student to increase self-efficacy overall by saying, for example, “I may still need work on comma splices, but I’m doing much better on structuring my argument. I can get even better next time.”*

A silhouette of a person performing a bicycle stunt against a dramatic sunset sky. The person is in mid-air, leaning forward, with the front wheel of the bicycle pointing downwards. The sky is filled with clouds, illuminated from below by the setting sun, creating a warm orange and yellow glow. The overall scene conveys a sense of challenge and achievement.

Mental fitness skills play an important role in academic performance (Bork, 2008; Dendato & Diener, 1986; Morisano, Hirsh, Peterson, Pihl, & Shore, 2010; Stout, Thornton, & Russell, 1980). Although students at many institutions may have the opportunity to learn and apply these skills through a dedicated course or program, like the Learning Enhancement Program's RS101 course at the United States Military Academy, the majority do not. In these cases, rather than lament that students haven't developed the psychological skills needed for academic success, instructors can implement skills training into their own classes without having to sacrifice coverage of important course material. Utilizing the principles of mental fitness training in this way not only helps students to succeed in class, but also starts them on the path toward applying these skills in future classes and their everyday lives.

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