THE AMAZON MYTH

Natick Study Stretches Science

In a news report about a recently- completed **Army Women's Strength** Study, Army Times concluded that *"Women can be as tough as men if they are trained right."* (February 12, 1996). Fort Bragg's Paraglide newspaper enthused, *"One of the oldest myths surrounding the question of women in the military has been that females simply lack, in general, the physical stamina to sustain the most demanding tasks, including combat. But Army research is challenging that stereotype."* (April 4, 1996)

The hype has been caused by the preliminary report of a study conducted by the A**rmy Research Institute of Environmental Medicine** in Natick, Massachusetts, and funded with $144,000 dollars inserted in the 1995 defense budget by **Rep. Patricia Schroeder** (D-CO).

Announced in February of 1995, the five-month study chose 41 civilian women, and subjected them to extensive Olympic-style conditioning far more demanding than the "body-shaping" routines typically practiced by women at health clubs. Among other things, the women did running, hiking with backpacks and barbells 90 minutes a day, five days a week.

At the beginning of the study, only 24 percent of the women were able to lift 100 pounds onto a truck bed's 52- inch height. At the end of five months, nearly 80 percent of the women were able to lift the weight successfully. The women also improved their two-mile back-packing speed, toting a 75-pound pack at 4.44 mph, after initially walking at 2.5 mph.

Conclusions Unjustified

But **William J. Gregor Ph.D**., a retired Army Lt. Colonel and noted expert in the field of military initial entry training, has said that reported results do not provide sufficient support for inflated conclusions. According to Dr. Gregor, the Natick study only demonstrates that some women, if given specialized training, will achieve at minimal strength levels normally achieved by untrained men. Broader inferences are not justified, due to several flaws in the experiment's methodology and conclusions:

1. The report presents little data on the physical characteristics of the women who participated in the study. Natick spokesmen did announce, however, that 24 percent of the women could lift 100 pounds before training began, and that aerobic efficiency levels were above normal averages for women. It is therefore reasonable to conclude that the test subjects began the study larger and stronger than most women, and generalized conclusions about the effects of specialized training are merely speculation.

2. The Natick study did not include a control group of men for comparison. It is of little consequence to argue that women become stronger with specialized physical training, if the same amount of time and effort might have produced even more improvement among a comparable group of men.

3. Tests reported do not include entrance and physical performance tests normally done before and after initial entry training. Had standard tests such as the Army Physical Fitness Test (APFT) been performed, direct comparison with numerous previous studies would be possible.

4. With regard to aerobic capacity, necessary for long-term endurance under physically-demanding conditions, the women ended the study with an average aerobic uptake corresponding to the Army's minimum entrance standard for men.

5. The only other reported measure of performance that can be compared to Army standards is performance on the standing long jump, an event in the physical aptitude examination (PAE). The Natick women's average achievement, somewhat short of 6.0 feet, would have put them at the bottom 40 percent of women entering ROTC and West Point, and at the very bottom when compared with men.

Nothing in the Natick study refutes an abundance of evidence presented to the **1992 Presidential Commission** by numerous experts in the field of physiology and military physical training, as summarized in the Commission's official findings:

- Female dynamic upper torso muscular strength is approximately 50-60 percent that of males.

- Female aerobic capacity is approximately 70-75 percent that of males. At the same marching velocity and carrying the same load, the average women works at a higher percentage of her aerobic capacity and is more susceptible to fatigue than the average man.

- Given the gap between male and female potential, if a woman is achieving a level of fitness equivalent to the male population in a small squad, she is at the upper end of her potential and he is at the bottom end of his potential.

- Women begin losing bone mass at an earlier age than men, and are more susceptible to orthopedic injuries. This leads to the conclusion that women initially selected for the combat arms would not survive to career-end.

Dr. Gregor concludes that if the Army provides concentrated additional training to female applicants for very heavy physical military occupational specialties, the result would be only a marginal increase in unit performance. He adds that if additional manpower is needed in very heavy MOS's, it would be better to lower the male entrance body fat standard to 24 percent and devote a small training program to improving their performance.

Answers to questions asked by the Natick study are already known, and they do not support the unrealistic theory that women can be just as strong as men, given a little extra training.

If that were the case, there would be no need to “enhance” women's training achievement scores in order to compensate for differences in physical strength. If the Natick study is conclusive, then gender-norming must go.

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