Psychosocial Characteristics of Optimum Performance in Isolated and Confined Environments (ICE)

Lawrence A. Palinkas, Ph.D.1, Kathryn E. Keeton, Ph.D.,2 Camille Shea, Ph.D.,3 and Lauren B. Leveton, Ph.D.4

1School of Social Work, University of Southern California, 2EASI/Wyle, 3USRA 4NASA - Johnson Space Center

Objectives


The Behavioral Health and Performance (BHP) Element identified research gaps within the Behavioral Medicine Risk, including: (i) 1) psychosocial characteristics that predict success in ICE environments, and (ii) characteristics that are most malleable; and (iii) specific countermeasures that could enhance malleable characteristics.

Materials and methods

The review of the literature on isolated and confined environments was modeled after the format used by the Cochrane Library. Details on the search strategy, description of selection criteria for studies to review, and review methods.

Results

Table 1: Quantity, quality and fidelity of studies reporting associations between psychosocial characteristics and performance

Table 2: Prioritization of predictors by performance category

Conclusions

Despite the wealth of research on psychosocial characteristics in isolated and extreme environments, the evidence supporting any one particular characteristic as a predictor of performance is quite limited.

Qualitative studies provided greater evidence for a number of characteristics, with a range of more than one-third possessing data that could be used to identify a statistical effect.

The number of associations supported by more than two studies was 15 (4.5% of all associations).

The most robust associations, based solely on statistical effects and/or fidelity scores, were between emotional stability and age, education/career experience and length of experience, and between overall performance and education/socioeconomic status/cultural background, personality, and high need for achievement and high motivation.

Table 3: Countermeasures for Performance Enhancement

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For further information

Please contact Lawrence A. Palinkas, Ph.D., School of Social Work, University of Southern California, Los Angeles, CA 90089-0451 or palinkas@usc.edu.