

What Is Baseline? Collegiate Students In High-Stress Settings: A Concussion Policy Analysis

Abstract

Background: Concussion symptoms are nonspecific and may be related to other causes. Recovery expectations and timing of return to activity after a concussion are areas of the literature with lack of concrete, reproducible data. Symptom scores and timeline of return to activity at many institutions are based on having no symptoms at baseline with the current measurement tools. This assumption in the diagnosis and treatment of concussions may lead to prolonged return to activity, compounded concussion symptoms, and have unintended psychological and social sequelae. More baseline data is needed, according to the CARE Consortium Study which had over 27,000 collegiate participants, especially in military academies.

Local problem: During the high-stress initial training period at one mid-Atlantic military college, a no-symptom baseline is unlikely for first-year cadets. The potential overlap of concussion and typical baseline symptoms make diagnosis and release to activity a challenge for providers. On average, it takes two to three weeks longer for a first-year cadet to be fully cleared from a concussion in comparison to the rest of the student body. While it is typical to err in the overtreatment of concussions, prolonged diagnosis and delayed return to activities during this training period anecdotally correlates with psychological distress and higher attrition rates.

Methods: A baseline survey of first-year, non-concussed cadets was distributed in fall of 2018 over seven consecutive days to gather normative data for the symptom portion of the Sport Concussion Assessment Tool (SCAT 5). The goal for sample size was a 20% participation rate from first-year cadets. Data will be used to develop the status quo of baseline at the college which will inform a policy analysis using Bardach's Eight-fold Path. Policies from similar institutions will be compared using the Development Assistance Committee (DAC) evaluation criteria. If 50% of first year cadets have symptoms at baseline, policy change will be considered.

Results: 139 cadets responded to all seven days of the baseline survey, and the day of highest participation received 214 responses. Data analysis will continue throughout the spring of 2019.

Implications: Pending the results of the survey and policy analysis, it is likely that a policy change will be considered. Further research is warranted to assure safety and efficacy. This military college's baseline results are likely not isolated. Other military institutions and collegiate settings may want to consider development of normative baseline symptomatology to better inform their policy decisions.