Definition Matters: Assessment of tolerance to the effects of alcohol in a prospective cohort study of emerging adults

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Introduction and Aims: Tolerance to the effects of alcohol is an important element in the diagnosis of alcohol dependence, however there is ongoing debate about its utility in the diagnosis of alcohol use disorders (AUD) in adolescents and young adults. This study aimed to refine the assessment of tolerance in young adults by testing different definitions of tolerance and their associations with longitudinal AUD outcomes.

Design and Methods: Emerging adults across Australia (N = 565, mean age = 19) completed clinician administered SCID-IV-RV assessed for AUD criteria across 5 interviews over 2.5 years. Tolerance definitions were operationalised using survey-type response (yes/no), clinician judgement, different initial drinking quantity and percentage increase thresholds, and average heavy consumption metrics. Outcomes were incident AUD and AUD persistence over the study period.

Results: The (i) SCID-IV-RV clinician judgement, (ii) an initial drinking quantity threshold of 4-5 drinks and 50% minimum increase, and (iii) 50% increase only were the tolerance definitions more strongly associated with any new onset of AUD across the 4 follow-up time points than other definitions. Average heavy consumption definitions of tolerance were most strongly associated with persistent AUD.

Conclusions: If clinician administered semi-structured interviews are not possible, including initial drink and percentage change thresholds may improve the efficacy of change-based tolerance as an indicator for new onset AUD diagnosis in self-report surveys of young adults. However, if interested in predicting persistent AUD, average heavy consumption-based indicators may be a more suitable way to operationalise tolerance than self-reported change-based definitions.

Implications for Practice or Policy (*optional*)**:**

Implications for Translational Research (*optional*)**:**