

慈濟大學 109 學年度 碩博士班、博士學位學程暨碩士在職專班 招生考試命題紙

科目：研究方法

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一、以下資訊來自 Sussman et al., (2012). One-Year Outcomes of a Drug Abuse Prevention Program for Older Teens and Emerging Adults: Evaluating a Motivational Interviewing Booster Component. *Health Psychology*, 31(4), 476-485. 請根據這些資訊，回答以下問題：

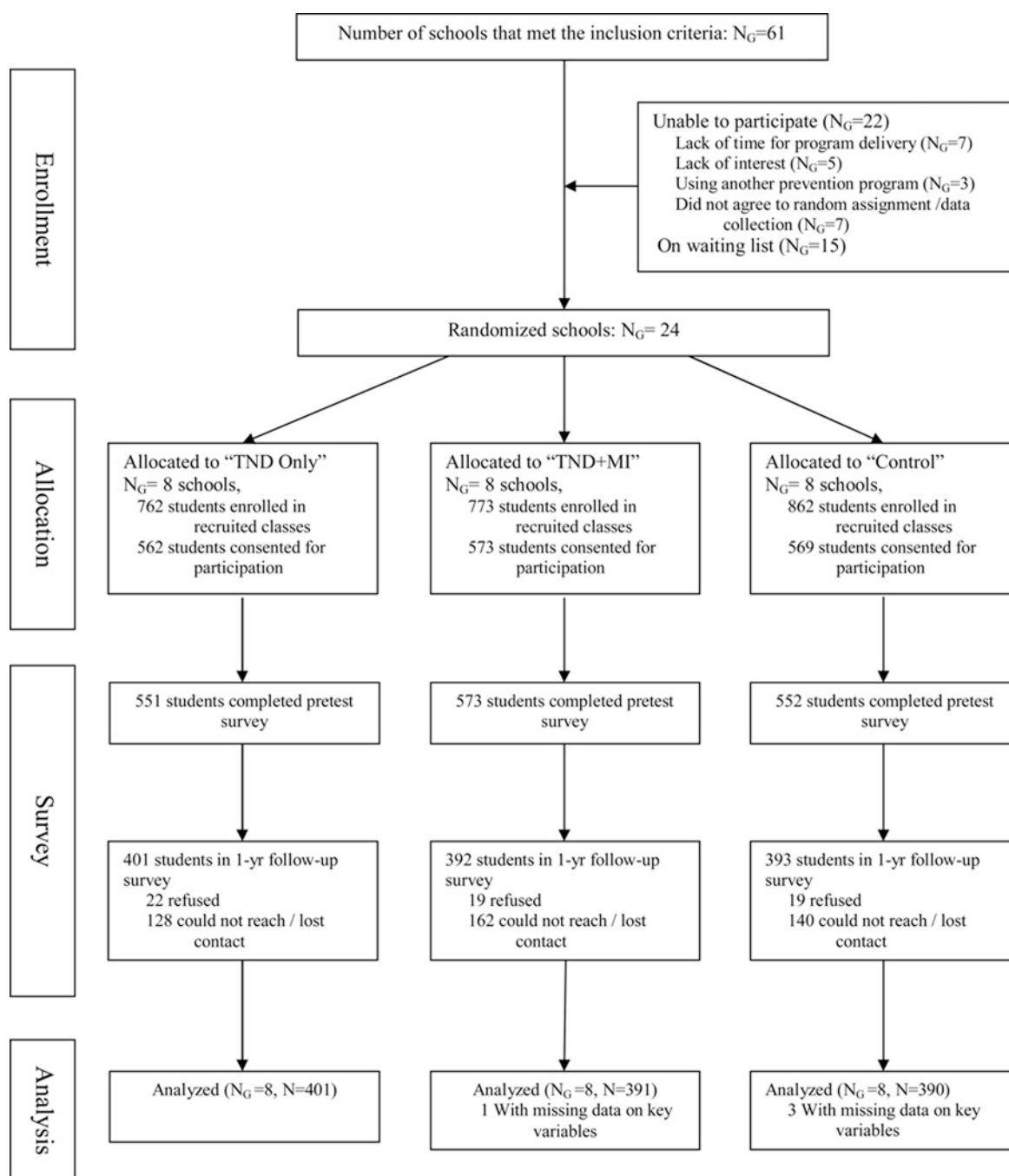
原文摘要：**Objective:** The present study tested the efficacy of motivational interviewing-based booster sessions for Project Toward No Drug Abuse (TND), a 12-session school-based curriculum targeting youth at risk for drug abuse. In addition, generalization of effects to risky sexual behavior was assessed. The 1-year outcomes evaluation of the project is presented. **Method:** A total of 24 schools were randomized to one of three conditions: standard care control (SCC), TND classroom program only (TND-only), and TND plus motivational interviewing booster (TND + MI). A total of 1186 participants completed baseline and 1-year follow-up surveys. Following the classroom program, youth in the TND + MI condition received up to 3 sessions of MI in person or by telephone. Effects were examined on 30-day cigarette, alcohol, marijuana, and hard drug use, as well as measures of risky sexual behavior (number of sex partners, condom use, having sex while using drugs or alcohol). **Results:** Collapsed across the 2 program conditions, results showed significant reductions in alcohol use, hard drug use, and cigarette smoking relative to controls. These effects held for an overall substance use index. The MI booster component failed to achieve significant incremental effects above and beyond the TND classroom program. No effects were found on risky sexual behavior. **Conclusions:** While the program effects of previous studies were replicated, the study failed to demonstrate that an adequately implemented MI booster was of incremental value at 1-year follow-up.

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研究流程圖 (原文 Figure 1)



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- (1) 根據你對研究主題的理解，說明研究者為何要安排三種課程的分組。(10分)
 - (2) 摘要指出有效樣本人數有 1186 人，請說明研究者如何計算樣本人數。(10分)
 - (3) 根據摘要的描述，說明 motivational interviewing booster 是否有效。(10分)
 - (4) 根據研究者的總結 “Collapsed across the 2 program conditions, results showed significant reductions in alcohol use, hard drug use, and cigarette smoking relative to controls.” 這樣的分析結果能否充分支持研究者的結論，請說明你的看法。(10分)

二、虛無假設顯著檢定 (Null-Hypothesis Significance Tests) 是社會科學常用的推論統計方法，虛無假設是相對於研究者預期能被分析結果確認的對立假設。請以你最有印象的研究範例，說明如何設定虛無假設。(15分)

三、判斷分析結果是否顯著之前，研究者要先確認應該採用雙尾檢定 (two-tailed) 或單尾檢定 (one-tailed)。請說明兩種檢定在推論統計程序的意義，以及使用的時機。(10分)

四、現在許多報告規範要求研究者要報告效果量 (effect size)，請設定一個比較兩組差異的研究情境，說明研究者要如何運用效果量做為結論的依據。(10分)

五、任何根據推論統計的結果做出的結論都有犯錯的風險。請說明研究者必須面對那些風險，有什麼控制風險的措施。(25分)