Exercise 1: Identifying systematic reviews from the abstracts

Instructions:
Read the two abstracts that follow and the methods section for the second article and answer the following questions:

1. One of these is a systematic review and one is not. Which is the systematic review?
2. How much of the information given did you have to read before you were sure that one of the citations used systematic search methods?

Citation 1

Abstract
There are ~1 million people in the United States living with HIV/AIDS, and >50,000 new infections occur each year. With an estimated 13% of all new infections occurring among young people aged 13 to 24 years and an increasing number of perinatally infected youth surviving to adulthood, there is now an increasing need to transition both perinatally and behaviorally infected youth to the adult health care setting. Recently, pediatric providers and professional societies have prioritized the development of transition programs for adolescents with chronic disease to address the many challenges these youth face in the process. Although multiple position papers have called for continuous, coordinated, culturally appropriate, compassionate, family-centered transition programs for youth with special health care needs and have recognized the need for evidence-based models, few data exist on what strategies are most effective. To date, published data on health care transition for HIV-positive youth are limited and include only 2 studies, which considered behaviorally infected youth. In this state-of-the-art review, we discuss the unique transition challenges to consider for this population, including socioeconomic and health insurance status, the special role of the pediatric or adolescent provider as family, stigma and disclosure issues, cognitive development and mental health issues, medication adherence, and sexual, reproductive, and gender health concerns. Future research will need to include the experiences of transition in low-resource settings and examine clinical outcomes and factors that may predict success or failure of the transition process.

PMID: 2193054
Citation 2


Abstract

The relationship between adherence to antiretroviral therapy (ART) and virologic outcomes in HIV+ children, adolescents, and young adults has been notably understudied, with much of the extant research focused on specific sub-literatures, such as resource-limited regions, specific clinical outcomes and time frames. The authors sought to better characterize the relationship between adherence to ART and virologic functioning along various sample and methodological factors. The authors conducted a meta-analysis of thirty-seven studies and utilized a random effects model to generate weighted mean effect sizes. In addition, the authors conducted meta-ANOVAs to examine potential factors influencing the relationship between adherence and three categories of clinical outcomes, specifically Viral Load (VL) <100, VL < 400, and continuously measured VL. The analyses included 5,344 HIV+ children, adolescents, and young adults. The relationship between adherence behaviors and virologic outcomes varied across different methods of measurement and analysis. The relationship between adherence and continuously measured VL was significantly larger than for dichotomously-coded VL < 400 at Qb (20.69(1), p < .0005). Caregiver self-report indices elicited very small to small magnitude effects across both VL < 100 and VL < 400 outcomes and combined informant reporting (youth/adolescent and parent) produced significantly larger effects than caregiver report alone with adherence and VL < 400 outcomes at Qb (9.28(1), p < .005). More recently published trials reported smaller relationships between adherence and categorical clinical outcomes, such that year of publication significantly negatively correlated with VL < 100 (r = -.71(14), p < .005) and VL < 400 (r = -.43(26), p < .02). The data suggest that the magnitude of the relationship between ART adherence and virologic outcomes among heterogeneous samples of HIV+ children, adolescents and young adults varies across virologic outcomes and may be affected by moderating sample and methodological factors. Methodological and research recommendations for the interpretation of the current findings as well as for future HIV adherence related research are presented.

PMID: 22411426

Methods Section of the Full-text Article

**Primary Search Strategy and Information Sources**

Publications were eligible for selection if they included data on the associative relationship between adherence to antiretroviral medications and virologic outcomes in children, adolescents, and young adults (defined broadly between the ages of 0–25 years) with HIV. Apart from single n or case series studies, almost all study designs were initially considered, including randomized clinical trials, matched studies, quasi-experimental studies, descriptive and observational cohort studies.

The authors performed a systematic search of electronic medical and psychological bibliographic databases, including Pubmed, MEDLINE, EMBASE, OVID, Cochrane Clinical Trials Register, and PsycInfo to identify relevant peer-reviewed publications. The searches were limited to human studies published from 1996 (designated start of highly active antiretroviral therapy (HAART) era) to July 2011. Search terms were crossed and included: highly active antiretroviral therapy, antiretroviral, antiretroviral agents, ART, HAART, HIV, adherence, nonadherence, compliance, treatment, virology, viral load (VL), viremia, immunology, CD4, intervention, pediatrics, child, adolescent, and young adult. In order to maximize identification of relevant articles, the authors also examined the reference and bibliographic lists of all identified studies (as well as relevant meta-analyses and review articles) for pertinent papers and contacted authors and academic and/or HIV list serves in order to inquire about unpublished manuscripts and/or studies that were ongoing or recently completed. Finally, various conference proceedings (e.g., National Institute of Mental Health/International Association of Physicians in AIDS Care-International Conference on HIV Treatment Adherence, International AIDS Conference, International AIDS Society Conference on HIV Pathogenesis, Treatment, and Prevention) from mid-2008 to current also were examined for relevant abstracts.