



Effects of HIV/AIDS Training on Patient Care and Provider Practices

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Importance of HIV/AIDS Training

- Training and retraining in HIV/AIDS care are critical for health care providers to learn about state-of-the-art developments and perspectives.
- The call for training has been well-articulated.



Some Evaluation Issues

- Particular focus has been on immediate change in trainee knowledge, attitudes, and beliefs – often due to practical considerations.
- How do trainees integrate training materials and information into ongoing clinical practice - - in the long-term?
- How do trainees use what they learned to change their own practice standards, those of their organization, or both?



Study Background

- In 1994, the Health Resources and Services Administration funded 27 national demonstration projects for innovative models for HIV/AIDS care.
- Key Goals:
 - Link “hard-to-reach” individuals and groups to primary health care services
 - Evaluate results of providing HIV health services using a managed care model
 - Address treatment adherence and continuity of care issues
 - Explore the importance of enabling services, such as substance abuse treatment and mental health counseling in HIV care
 - Build infrastructure for services
 - Assess the impact of training on systems of health care delivery



Participating “Training” Projects

- Cook County MCH/HIV Integration Project
- University of Colorado
- Emory University
- Health Initiatives for Youth
- Metro DC Collaborative
- University of Mississippi
- State University of New York
- University of Texas
- University of Washington



Goals of Training Projects

- Build a comprehensive system of HIV counseling and testing for pregnant women
- Increase willingness of rural providers to deliver HIV-related services
- Increase capacity to deliver comprehensive and appropriate HIV care in correctional settings to inmates
- Provide TA and other informational resources for providers working with youth
- Reduce care barriers for women with HIV
- Train urban specialists and rural primary care clinicians using distance learning
- Increase ability to offer comprehensive care and reduce perinatal HIV transmission
- Provide training that is oriented toward women, children, and families living with, or affected by, HIV
- Teach physicians about neuropsychiatric disorders affecting HIV/AIDS patients



Method

- Sites provided a contact list [75 names] to the national evaluator
- Common criteria were used -- recent trainees who had participated in high intensity, “modal” trainings
- 218 health care providers [75.7% women]
- Interviewed 8.23 months [SD = 6.08 months] after their last training [some site differences]



Participants, Background [I]

- 40.1 years old [18 to 78 years]
- 54.6% Caucasian, 20.2% African American, 12.8% Latino, 6.4% Asian American
- 18.3% had a doctorate/professional degree, 25.2% had a master's degree, 33.0% had a bachelor's degree
- Sample included nurses, program directors, medical doctors and specialists, case managers, social workers, support staff, educators/trainers, counselors, outreach workers, and others from diverse organizational environments



Professional Background [II]

- 4.19 years in current position
- 5.93 years as an HIV/AIDS service provider or administrator
- 82.1% provided direct services to clients
- 56.4% provided education or training to others on topics related to HIV/AIDS
- 32.1% were program administrators



Interview Format [I]

- About 45-minutes; by telephone
- Provided basic background information, rated the training, and described specific, concrete examples about how the training affected them in a number of domains concerning patient care and system change
- Perspectives on HIV/AIDS: Asked how, if at all, the training session[s] affected how they think about HIV



Interview Format [II]

- Providing Patient Care: Three questions about how the training experience[s] affected how trainees:
 - provide services to patients;
 - communicate with their patients and/or their families about care options; and
 - make referrals.



Interview Format [III]

- **Systems Change:** Four questions about how the training experience[s] affected how:
 - the system offers care;
 - educational or training opportunities are developed;
 - collaborations among service agencies are encouraged; and
 - HIV-related care is provided at the large scale.
- Did existing procedures, guidelines, and care change as a function of the training?



Training Effects — Overall

- 83.4% recommended the training to at least one other person
- 52.1% recommended the training to several others
- 73.4% training they attended as either “very valuable” or “extremely valuable”
- Ratings did not relate to the time since the training [$r = -.08$]



Open-Ended Responses

- Coded by independent raters in three ways:
 - For general themes;
 - For patient care change; and
 - For change in system functioning.
- Adequate to high reliability achieved for each coding type.
- Multinomial regressions were used to predict different types of responses from trainee background characteristics.



General Themes Identified for Selected Questions [I]

- How You Think about HIV/AIDS:
 - Specific Information about Patient Care
 - Insight and Validation
 - General Information about HIV
 - Heightened Awareness about HIV/AIDS
 - Changed Attitudes and Beliefs
 - Greater Comfort, Confidence, and Compassion in HIV Care
 - Already Knowledgeable [the “Resistant Trainee”]
 - No Effect



General Themes Identified for Selected Questions [II]

- How You Provide Care to Your Patients:
 - More Knowledge about How to Treat Patients
 - Greater Compassion
 - Protocols and Procedures
 - Greater Comfort and Confidence
 - No Effect



General Themes Identified for Selected Questions [III]

- Large-Scale Policy and/or Attitude Change
 - More Knowledgeable and Able to Provide Sensitive Care
 - Implemented Substantial Policy Change
 - Heightened Awareness
 - Provided a Framework for Discussion
 - Implemented [or in the process of implementing] Smaller Policy and Procedural Change
 - Change in Attitudes and Beliefs
 - No Effect



Change in HIV/AIDS Care

- Patient Care Change: Changes in how provider-patient interactions proceed due to the training
- Systems Change: Changes in policies and/or procedures due to information acquired during the training
 - For systems, impact extends beyond the single trainee to affect behavior of several individuals at the larger level.
- We used logistic regression models to predict presence or absence of these types of examples from trainee characteristics.



Examples of Patient Care Change [I]

- “It really changed my point of view. I was more narrow-minded before. I feel that I’m more compassionate, more open-minded. I don’t judge anymore like I used to.”
- “Since the training, I do HIV testing once a week. The training affected the way I give results and counseling – I am more confident and prepared. I know what I am doing better now and can concentrate more on the client than on what I am doing.”



Examples of Patient Care Change [II]

- “It provided some clinical direction to treatments for some problems not in the normal provision of care. I carry around the booklet that was given to us in the training as a constant referral source when seeing patients exhibiting AIDS-related mouth problems.”
- “It changed my approach to patients regarding counseling and testing. It is now done at the first prenatal visit and done routinely.”



Patient Care: Key Findings

- For nearly all interview items, at least 25% of trainees provided clear examples of patient care change.
- 82.1% of the trainees mentioned at least one instance of patient care change during the interview.
- Trainees providing an example rated the training experience as more effective.
- Direct service providers gave patient care examples in treating patients, educating patients and families, and making referrals.
- Program administrators gave patient care change examples at the system level [in establishing collaborations, creating educational opportunities, and providing care at the broad-level].



Examples of Systems Change [I]

- “Now, we do more referrals because in the training we learned about different services, such as housing, the Ryan White CARE Act, and the psychological issues patients may experience. We now know that we can utilize social workers to identify resources in the community.”
- “It helped greatly. We now have access to professionals and people who just deal with HIV/AIDS. We have specialists in that area we didn't have before.”



Examples of Systems Change [II]

- “The rounds improved the way care is delivered a lot. The staff work together more as a group. The staff looks at things differently and talks about behavioral situations that arise. I learned how to speak to another staff member when a behavioral situation arises.”
- “There is better collaboration between the medical and dental department of the prison. Medical staff is more willing to help with the referrals.”



Examples of Systems Change [III]

- “We now have a policy on pre- and post-test counseling in the obstetrics department which was implemented as a result of our newly formed task forces. We were able to get the pharmacy to change its policy of the disbursement of medications so mothers could get all doses up front at once for the newborn syrup.”



System Functioning: Key Findings [I]

- Trainees gave more systems examples when asked directed questions about it [last part of the interview]:
 - 20.5% -- “How did the training affect how the system, in general, can offer other education or training opportunities?”
 - 42.9% -- “How did the training affect how the system, in general, encourages establishing collaborations among service agencies?”
- 55.5% mentioned at least one instance of systems change during the interview.
- Trainees who noted systems change examples were much more likely to view the training in a positive light



System Functioning: Key Findings [II]

- Program administrators gave examples related to
 - patient referrals;
 - collaborations with other service agencies;
 - provision of care and services.
 - Administrators were equally likely as others to give system-level examples.
- Direct service providers gave examples related to how the system offered health education and provided care.



System Functioning: Key Findings [III]

- Physicians gave examples related to referral patterns of their health care system and in the way the system provided care.
- Responses pointed to systems integration for the agency and a general streamlining of care resulting in reduced patient burden.



Designing HIV/AIDS Educational Programs

- As expected, for certain domains some trainees indicated that the training had no discernable effect — due to lack of opportunity for change or simply no shift or improvement.
- A small subset of trainees were unconvinced that any training could possibly improve their current knowledge base [the “resistant trainee”].
- It is important to understand why HIV/AIDS training may work for some, but not others.
- What features of the training and trainees affect what is carried over the long-term?



Additional Research Questions

- Impact of Training Attributes on Immediate Ratings
 - Training Quality
 - Provider Confidence [Skills, Knowledge, Comfort]
- Impact of Trainee Characteristics on Immediate Ratings
 - Training Quality
 - Provider Confidence [Skills, Knowledge, Comfort]
- Relation Between Immediate Ratings and Long-Term Interview Outcomes

A. Areas of Planned Impact

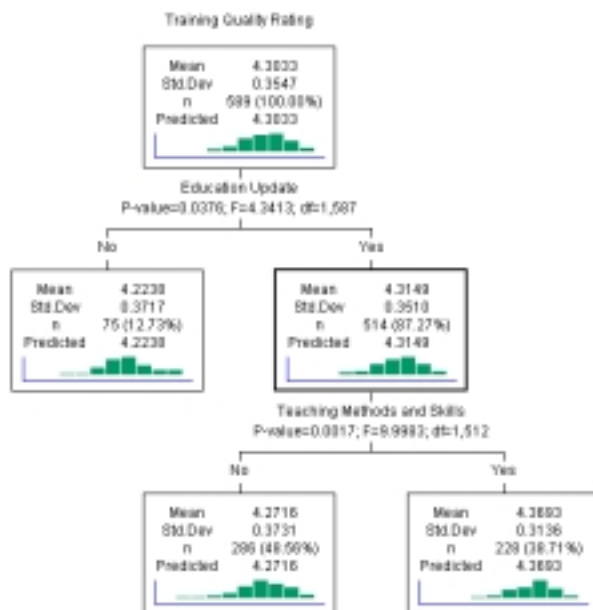


B. Discussion Topics During Training

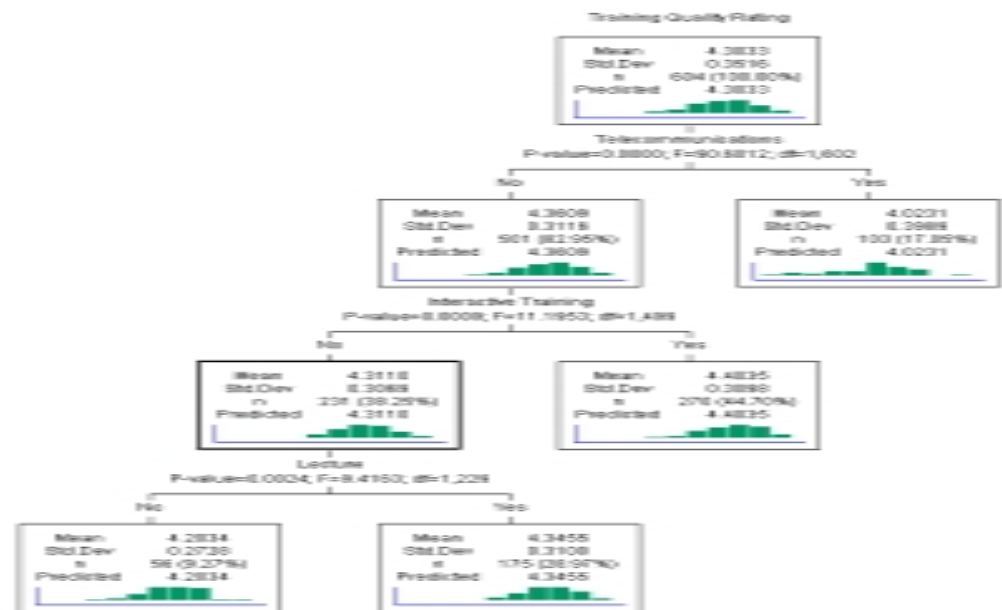


CHAID Diagrams Predicting Training Quality from Training Purpose and Content

C. Intended Purpose of Training



D. Training Methods





Conclusions

- Our cross-cutting study shows evidence for the lasting value of HIV/AIDS training experiences and integration of training concepts into daily clinical practice through patient care and system functioning.
- Trainees viewed their experiences as very helpful and useful in their work — in the long-term — and could provide concrete examples about how the training changed care provision and system functioning.



More Conclusions

- Some Methodological Limitations:
 - Demand;
 - Equating self-report of behavior with actual provider-patient behavior; and
 - Intervening training and clinical experiences.
- Trainee characteristics in several cases were associated with the types of examples that trainees provided.
- Increased collaborations fostered by information disseminated during the training led to change in clinical practice, open communication, discussion, and education about HIV.



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