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NIH & the scientific community: 30 years of partnership in adherence research

1974 – first Workshop on compliance held at McMaster University

1976 -- Sackett and Haynes’ publish “Compliance with Therapeutic Regimens,” based on McMaster conference

1980 – NHLBI holds Workshop on “Patient Compliance to Prescribed Antihypertensive Medication Regimens” - participants include R. Brian Haynes, Margaret Mattson, Howard Leventhal, Jackie Dunbar-Jacob
Examples of NHLBI Adherence-Related Workshops

1999 – NHLBI Working Group on “Adherence to Medical and Lifestyle Interventions”

2001 & 2002 – NHLBI/NCI Working Groups on “Qualitative Approaches to Adherence and Self-Care”

2009 – NHLBI Workshop on “Improving Delivery of Preventive Interventions in Clinical Practice: Practical Implications and Future Research Directions”
Examples of NHLBI-sponsored adherence initiatives

- Testing Interventions to Improve Adherence to Pharmacologic Treatment Regimens (OBSSR trans-NIH)

- Overcoming Barriers to Treatment Adherence in Minorities and Persons Living in Poverty (NHLBI, NCI)

- Trials Assessing Innovative Strategies to Improve Clinical Practice Through Guidelines in Heart, Lung, and Blood Diseases (NHLBI)

- Interventions to Improve Hypertension Control Rates in African Americans (NHLBI)
NHLBI funds many investigator-initiated studies to investigate and improve patient adherence

- Studies testing behavioral economics approaches to improving adherence to warfarin therapy
- Research examining self-regulation as a factor in promoting adherence
- Investigations of the use of innovative technologies and tools, including telehealth & remote measurement technologies, to improve medication adherence in patients with hypertension, high blood cholesterol and obesity
- Studies to improve self-management skills in youth with asthma
- Research teaching self-management skills and health care-seeking behaviors using telehealth tools in children and adolescents with sickle cell disease
Recent findings from NHLBI-funded research: What affects adherence?

- Depression is associated with poorer medication adherence in cardiac patients (M. Whooley; K. Davidson)

- Use of financial incentives, based on behavioral economics principles, improves adherence to warfarin & anti-coagulation control in small-scale pilot studies; this finding is being confirmed & extended in an NHLBI-funded RCT (S. Kimmel & K. Volpp)

- Use of motivational interviewing improves BP control in African American hypertensives in a clinical practice setting (G. Ogedegbe)

- Positive affect induction + patient education results in improved adherence to BP medications & BP control in African American hypertensives (M. Charlson & G. Ogedegbe)
PA 11-063: Translating Basic Behavioral and Social Science Discoveries into Interventions to Improve Health-Related Behaviors (R01)


- Trans-NIH Program Announcement lead by OBSSR in collaboration with NHLBI, NCI, NIDDK, NICHD, NCCAM, NIAAA, NIDA & ORWH

- Encourages highly innovative research projects that propose to translate findings from basic research on human behavior into effective clinical, community, and population-based behavioral interventions to improve specific health-related behaviors including dietary intake, physical activity, sun safety, adherence to medical regimens, smoking, tanning, or alcohol or substance use, abuse or dependence

- Supports projects in which interdisciplinary teams of basic and applied researchers collaborate to accelerate the translation of promising discoveries in basic behavioral and/or social science research by developing and refining novel health-related behavioral interventions
The purpose of the meeting was to explore the research potential of VR technologies for behavioral and neuroscience studies in diabetes and obesity, and the practical potential of VR technologies for regimen adherence, nutrition, physical activity and other behavioral lifestyle changes associated with diabetes and obesity.

Executive Summary at: http://www.nhlbi.nih.gov/meetings/workshops/vr.htm
Summary of key problems & issues for adherence interventions **

- Measurement issues
  - Definition of adherence outcomes
  - Adherence assessment
  - Self-report often used to define adherence
- Short duration of interventions and small sample sizes
- No Cost-effectiveness outcomes

- Typology – lack of tailoring
- Lack of generalizability
  - Comorbidity
  - Intensive nature of effective interventions
- Use of allied health professionals or practice resources

** Identified by G. Ogedegbe & J. Dunbar-Jacob for June, 2009 NHLBI Workshop on Implementation of Preventive Interventions