



Society for Prevention Research 30th Annual Meeting

Pre-Conference Workshop III

Date: Tuesday, May 31, 2022

Time: 8:30 am – 5:30 pm

Title: Introduction to Hybrid Effectiveness-Implementation Designs for Prevention Research

Presenter and Organizer:

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Presenters:

Dennis H. Li, PhD MPH
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Center for Prevention Implementation Methodology
Northwestern University Feinberg School of Medicine

Sara J. Landes, Ph.D.
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Center for Implementation Research University of
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Health QUERI
South Central Mental Illness Research Education and Clinical Center (MIRECC) Central
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Purpose of the workshop, including specific learning objectives.

This workshop will introduce prevention scientists to hybrid effectiveness-implementation designs. First, we will discuss the concept of “hybrid designs,” which combine elements of research on preventive effectiveness and implementation effectiveness. We will describe the rationale for using a hybrid design and describe Type 1, Type 2, and Type 3 variations:

- Type 1: Explore *implementability* of an intervention while testing its effectiveness
- Type 2: Test implementation strategies *during* effectiveness trials (simultaneous look at both)
- Type 3: Test implementation strategies while also documenting preventive intervention outcomes (evaluating them as they relate to uptake and fidelity)

We will also review trends in hybrid design use and newer thinking on specification, measurement, and reporting. New to this workshop is an updated typology for each type, which was recently developed to assist in the specification of hybrid designs and address long-standing misconceptions. An accompanying interactive tool will be presented. Attendees will also learn the research questions and potential research designs (e.g., cluster randomized trials, factorial design) germane to each hybrid type. The Implementation Research Logic Model (IRLM) will be used during the workshop to illustrate different hybrid study designs and for attendees to work on their own potential hybrid design in small groups.

By the end of the session, attendees will be able to

1. Define the 3 types of hybrid effectiveness-implementation designs.
2. Describe the rationale for selecting a hybrid design and one of the three types.
3. Use the provided tools to develop a hybrid design study for a research question

Relevance to conference themes, TNATF-identified themes, and/or ethical issues in prevention science.

The proposed workshop is consistent with the conference theme of equitable implementation. Special emphasis will be placed on ways that hybrid designs can further the goal of equitable implementation of evidence-based preventive interventions.

Target workshop audience, including the background attendees should have.

Prevention researchers who conduct effectiveness, implementation, pragmatic, or other later-stage translational research. Basic knowledge of implementation science concepts is strongly preferred but not required.

Materials to be provided to attendees.

Handouts of the new hybrid design typology, hybrid design seminal articles, and IRLM article and fillable forms.

Presenters:

All three presenters lead or co-lead large federally-funded studies using hybrid designs and each have taught courses that include hybrid designs. For example, Drs. Smith and Li are co-investigators and lead the implementation design of a hybrid Type 3 trial (link below). All three presenters also have peer-reviewed publications reporting the results of hybrid design studies. Drs. Smith and Landes lead/senior authored recent methodological papers on hybrid designs (citations below). Drs. Smith and Landes conducted a workshop on hybrid designs at the 2019 Annual Research Meeting (ARM) of AcademyHealth with hybrid design developer, Geoff Curran. All three presenters routinely provide consultation to investigators regarding the use of hybrid designs both within and external to their respective institutions. For example, Drs. Li and Smith provided training and consultation to more than 120 implementation research projects funded by the NIH under the *Ending the HIV Epidemic* (EHE) Supplement Projects mechanism and Dr. Landes provides similar expert consultation to projects funded by the VA QUERI. All of the presenters are actively engaged in and have a history of training investigators in implementation and prevention science methods.

Hwang S, Birken SA, Melvin CL, Rohweder CL, & Smith JD (2020). Designs and methods for implementation research: Advancing the mission of the CTSA program. *Journal of Clinical and Translational Science*, 4(3), 159-167.

Landes SJ, McBain SA, & Curran GM (2020). An introduction to effectiveness-implementation hybrid designs. *Psychiatry research*, 283, 112630.

Hybrid Type 3 trial: <https://doi.org/10.21203/rs.3.rs-104488/v1>

Outline of workshop, including (a) roles of presenters if more than one is listed, and (b) which aspects of instruction are hands-on.

Time	Topic	Presenter Lead(s)
9:00–9:30	Introductions	JDS, DHL, SJL
9:30–10:00	Background on Hybrids Hybrid Type 1 Designs: Intro and Examples	SJL
10:00–10:20	Hybrid Type 2 Designs: Intro and Examples	JDS
10:20–10:40	Hybrid Type 3 Designs: Intro and Examples	DHL
10:40–11:00	Break	
11:00–12:10	Contemporary Thinking and Trends in Hybrid Use New Hybrid Nosology Tool	SJL
12:10–1:30	Lunch	
1:30–2:00	Introduction to the IRLM for Hybrid Design Planning	JDS, DHL
2:00–2:30	Small Group <ul style="list-style-type: none"> • Pose Research Questions • Use Tool to Decide on Hybrid Design Type 	Moderated by JDS, DHL, SJL
2:30–2:50	Report Back and Large Group Discussion	
2:50–3:10	Break	
3:10–3:40	Small Group <ul style="list-style-type: none"> • Use IRLM to Specify Implementation and Clinical Outcomes • Use IRLM to Specify Implementation Strategy and Preventive Intervention Components 	Moderated by JDS, DHL, SJL
3:40–4:00	Report Back and Large Group Discussion	
4:00–4:20	Health Equity and Equitable Implementation in Hybrid Designs	JDS
4:20–4:40	Small Group <ul style="list-style-type: none"> • Select Research Design for Hybrid Study 	Moderated by JDS, DHL, SJL
4:40–5:00	Report Back and Large Group Discussion Wrap Up	

