Implementation science and equity: A path

ANA A. BAUMANN, PHD
ASSISTANT RESEARCH FACULTY
BROWN SCHOOL OF SOCIAL WORK
EMAIL: ABAUMANN@GWBMAIL.WUSTL.EDU
TWITTER: @BAUMANNANA
Acknowledgements

**Funding:** P50 CA-19-006; 3U01HL13399403S1; UL1TR00234; 5U24HL136790-02

Please engage in the conversation!

**Twitter:** @BaumannAna

#imspci
Equity and Implementation Science
Frameworks

RESEARCH
Conceptual framework of equity-focused implementation research for health programs (EquiR)
J.E. Esteva-Schnellebach1, N. Garzon-Ojuela1,2,3, V. Elia4, L. Revolta5, N. Tran1 and E.V. Langlois1

METHODOLOGY
GRAIDs: a framework for closing the gap in the availability of health promotion programs and interventions for people with disabilities
James H Rimler1, Kerri A Vanderbilt2, Linda G Bandin1,2, Charles E Drum3, Karen Luken4, Yolanda Suarez-Falkau5 and Ian D Graham6

METHODOLOGY
The health equity implementation framework: proposal and preliminary study of hepatitis C virus treatment
Eva N. Woodward1,3, Monica M. Mathieu1,2, Uchenna S. Uchendu4, Shari Rogal6,7 and John E. Kirchner1,2,8

Resources, Frameworks, and Perspectives
The Health Equity Framework: A Science- and Justice-Based Model for Public Health Researchers and Practitioners
Amy Peterson, PhD1,2, Vignetta Charles, PhD1,2, David Young, MBA1,2, Karin Goyle, PhD1,2

Evaluation and Program Planning
Content from available at ScienceDirect
Evaluation and Program Planning
journal homepage: www.elsevier.com/locate/epplan

An Extension of RE-AIM to Enhance Sustainability: Addressing Dynamic Context and Promoting Health Equity Over Time
Pronah A. Anderson, David A. Schromm, and Eleanor E. Grisman2

Twitter: @BaumannAna
Methods
Covid-19, implementation science and equity

Using implementation science to mitigate worsening health inequities in the United States during the COVID-19 pandemic

Structurally vulnerable neighbourhood environments and racial/ethnic COVID-19 inequities

COVID-19 and the other pandemic: populations made vulnerable by systemic inequity

Twitter: @BaumannAna
Implementation science and healthcare equity: A path

Baumann and Cabassa BMC Health Services Research
https://doi.org/10.1186/s12913-020-4975-3

(2020) 20:190

BMC Health Services Research

DEBATE

Reframing implementation science to address inequities in healthcare delivery

Ana A. Baumann† and Leopoldo J. Cabassa∗†

Twitter: @BaumannAna
Key Point

Infusing implementation science with an equity approach can produce valuable knowledge to help reduce inequities in healthcare delivery
Determinants of Healthcare Inequities

Cultural Context

Health Care System Factors
- Health services organization, financing, and delivery
- Health care organizational culture, quality improvement

Patient Factors
- Beliefs and preferences
- Race/ethnicity, culture, and familial context
- Education and resources
- Biology

Clinical Encounter
- Provider communication
- Cultural competence

Provider Factors
- Knowledge and attitudes
- Competing demands
- Bias


Twitter: @BaumannAna
Be careful with the silent assumptions

CULTURAL ADAPTATION FIELD: “All that is needed is to culturally adapt interventions”

HEALTHCARE DISPARITIES FIELD: “Focus on testing the efficacy and effectiveness of interventions in minority communities”

IMPLEMENTATION SCIENCE FIELD: “One size fits all: Just scale up interventions, it will improve the quality of care for everyone”

Twitter: @BaumannAna

Implementation Science and Healthcare Disparities Research

Improve the quality and outcomes of services

Make treatments generalizable

Emphasize contextual factors and multi-level approaches
Reframing Implementation Science to Address Healthcare Inequities

Twitter: @BaumannAna
Visualizing Health Equity: One Size Does Not Fit All

**Equality**

- A person in a wheelchair rides a bike.
- A person rides a bike.
- A person rides a bike.
- A person rides a bike.

**Equity**

- A person with a physical disability rides a bike.
- A person rides a bike.
- A person rides a bike.
- A person rides a bike.

© 2017 Robert Wood Johnson Foundation. May be reproduced with attribution.
Implementation
Outcomes
Feasibility
Fidelity
Penetration
Acceptability
Sustainability
Uptake
Costs

Service
Outcomes
Efficiency
Safety
Effectiveness
Equity
Patient-centeredness
Timeliness

Patient
Outcomes
Satisfaction
Function
Health status/symptoms

What?
QIs
ESTs

How?
Implementation Strategies

CONTEXT

1. Focus on reach from the very beginning

2. Design and select interventions with implementation in mind

3. Implement what works

4. Develop the science of adaptations

5. Use an equity lens for implementation outcomes

Twitter: @BaumannAna
Focus on reach from the very beginning
Underrepresentation of Hispanics in Clinical Trials for Common Mental Disorders (2001-2010)

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Whites (%)</th>
<th>Hispanics (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD</td>
<td>58%</td>
<td>5%</td>
</tr>
<tr>
<td>Major Depression</td>
<td>62%</td>
<td>19%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>37%</td>
<td>1%</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>71%</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>61%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Underrepresentation matters

Original Investigation | Health Policy
Trends in Clinical Research Including Asian American, Native Hawaiian, and Pacific Islander Participants Funded by the US National Institutes of Health, 1992 to 2018
Lani N. Bido, MPH, Yuniie Takata, PhD, Kari-lyn K. Sakuma, PhD, MPH, Veronica L. Irvin, PhD, MPH

EDITORIAL-THEMED SECTION
Underrepresentation of the elderly in clinical trials, time for action

Racial Disproportionality in Covid Clinical Trials
Daniel B. Chastain, Pharm.D., Sharmon P. Osae, Pharm.D., Andres F. Henao-Martinez, M.D., Carlos Franco-Paredes, M.D., M.P.H., Joannna S. Chastain, Pharm.D., and Henry N. Young, Ph.D.

Contemporary Clinical Trials Communications 19 (2020) 100630
COVID-19 disparities: An urgent call for race reporting and representation in clinical research
Hala T. Borno a,*, Sylvia Zhang b, Scarlett Gomez b
* Department of Medicine, Division of Hematology/Oncology, University of California San Francisco, San Francisco, CA, USA
b Department of Epidemiology and Biostatistics, University of California San Francisco, San Francisco, CA, USA
Focus On Reach From The Beginning

Communities
Settings
Providers
Clients

Processes

What?
QIs
ESTs

How?
Implementation Strategies

Implementation Outcomes
Feasibility
Fidelity
Penetration
Acceptability
Sustainability
Uptake
Costs

Service Outcomes
Efficiency
Safety
Effectiveness
Equity
Patient-centeredness
Timeliness

Outcomes

Institute of Medicine Standards of Care

Patient Outcomes
Satisfaction
Function
Health status/
symptoms

Implementation Research Methods

Attention to Reach

• **Who recruits:** Use of peer specialists to deliver intervention. They bring trust, credibility, hope, and feasibility

• **Where you recruit:** issues of trust, safety, access

• **How you recruit:** word of mouth, using technology
Design and select interventions with implementation in mind
WHAT?

QIs

ESTs

Design and Select Interventions with Implementation in Mind

- Partner with stakeholders from the very beginning
- Focus on end-users at all levels
- Consider the ecology of practice

Twitter: @BaumannAna
Design and select interventions with implementation in mind

- conduct the intervention development process with, for, and in the community

- **User-center design:** grounding the development of the intervention in the ultimate individuals and settings that will use the intervention
  - Attention to:
    - Flexibility and complexity
    - Cost
    - Feasibility

Twitter: @BaumannAna
Implement what works and develop strategies to help reduce inequities in care
Implement what works

We have interventions that decrease disparities

BUT

They are not being implemented in usual care
Implement What Works: The Role of Implementation Strategies

HOW?
Implementation Strategies

- Increase trust, partnerships and ownership
- Build capacity, resources collaborative networks
- Advocacy, Allyship, Cultural Humility

Twitter: @BaumannAna
Which strategies could help promote equitable healthcare delivery?
Develop the science of adaptation
Adaptation

Can we all agree that adaptation happens?

**AND**

Adaptation is important if we are to address disparities

Because of the unique sociocultural context;
Threat to social validity
Adaptation: Decision and Process Frameworks

Iterative Decision-making for Evaluation of Adaptations (IDEA): A decision tree for balancing adaptation, fidelity, and intervention impact

Christopher J. Miller PhD1 | Shannon Wiltse-Stirman PhD2 | Ana A. Baumann PhD3

Towards a comprehensive model for understanding adaptations’ impact: the model for adaptation design and impact (MADI)

M. Alexis Kirk1,2, Julia E. Moore2, Shannon Wiltse-Stirman3 and Sarah A. Brinker4

A scoping study of frameworks for adapting public health evidence-based interventions

Cam Escowery1, Erin Lebow-Skeleley2, Hallie Udelson3, Elaine A. Boing4, Richard Wood5, Maria E. Fernandez5, Patricia D. Mullen5

Using the collaborative intervention planning framework to adapt a health-care manager intervention to a new population and provider group to improve the health of people with serious mental illness

Leonardo J. Calvo5,6, Amanda P. Genes7,5,8, Olivia Meier5,5,9,15,6, Luisa Capettel10,11, Richard Younge12,13,14,20,21,22,9,15,6, Jennifer Mancilla-Koch15,6, Jean-Michel Labadie5

Parent Management Training—Oregon Model (PMTO™) in Mexico City: Integrating Cultural Adaptation Activities in an Implementation Model

Ana A. Baumann, Brown School of Social Work, Washington University in St. Louis
Melanie A. Doan-Diaz Rodriguez, Utah State University
Nancy C. Amador, Instituto Mexicano de Psiquiatría Ramón de la Fuente Muñiz
Marion S. Forcacht, Oregon Social Learning Center
J. Rubén Parra-Carmona, Michigan State University
Adaptation: Tracking Framework and Methods

Qualitative Reports of How and When Therapists Adapt Children’s Evidence-Based Practices during Community Implementation

Miya L. Barnett, Lauren Brookman-Frazee, Juan Carlos Gonzalez, Chanel Zhan, Adriana Rodriguez, Nicole A. Stadnick & Anna S. Lau

Systematic, Multimethod Assessment of Adaptations Across Four Diverse Health Systems Interventions

Borsika A. Rabin, Marma McCreaqht, Catherine Battaglia, Roman Aylal, Robert E. Burke, Paul L. Hess, Joseph W. Frank and Russell E. Glasgow

Journal of Consulting and Clinical Psychology

Provider Fidelity and Modifications to Cognitive Processing Therapy in a Diverse Community Health Clinic: Associations With Clinical Change

Louanna Marques, Boston Medical Center, Boston, Massachusetts, and Boston University School of Medicine
Debra Kagan, University of Washington
Louise E. Dixon De Silva, University of California, Los Angeles

Sarah E. Valentine, Boston Medical Center, Boston, Massachusetts, and Boston University School of Medicine
Margaret Anne Mackinnon, Star Craft LLC, Brookline, California

Emily M. Ailes, Massachusetts General Hospital, Boston, Massachusetts

Sonnali M. Suresh, New York University Langone Medical Center, New York, New York

Twitter: @BaumannAna
Science of Adaptation

Adaptation

WHAT?
QIs
ESTs

HOW?
Implementation Strategies

Context

Impact

• Implementation, services and/or client outcomes

Twitter: @BaumannAna

Sources: Cabassa & Baumann (2013); Rabin et al., 2018; Stirman et al., 2017
Use an equity lens for implementation outcomes
Using an equity lens

The same intervention and implementation strategy has different acceptability & feasibility depending on the context.
Use an Equity Lens for Implementation Outcomes

**Implementation Outcomes**
- Feasibility
- Fidelity
- Penetration
- Acceptability
- Sustainability
- Uptake
- Costs

Twitter: @BaumannAna
Considerations for global inequities in healthcare delivery

Challenge in finding the balance between a global response to address inequities in healthcare delivery while respecting and understanding the unique systems of care across countries.
### In summary: Future Areas of Inquiries

<table>
<thead>
<tr>
<th>Achieve</th>
<th>Reconfigure</th>
<th>Expand</th>
<th>Invest in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve inclusion and representation</td>
<td>Reconfigure the intervention development and refinement process</td>
<td>Expand the science of adaptation Place equity at the center of implementation studies</td>
<td>Invest in implementation trials that focus on enhancing equity in healthcare deliver</td>
</tr>
</tbody>
</table>

Twitter: @BaumannAna
Thank You!
Ana A. Baumann, PhD
Washington University in St. Louis
abaumann@gwbmail.wustl.edu
Twitter: @BaumannAna
Antiracism Implementation (name TBD) Group

CONSORTIUM FOR IMPLEMENTATION SCIENCE FORUM: HARNESING IMPLEMENTATION SCIENCE TO PROMOTE HEALTH EQUITY

NOVEMBER 19, 2020
Quick Agenda:

General overview of:
- The history of the group
- Data
- Our next steps and how you can get involved
History of the Group

It all started with an open classroom, and a tweet

Implementation science is an inherently community-based and action-oriented field.

We must reflect, respect, and serve the communities within which evidence-based interventions are designed and delivered.

We believe that it is our job to not just account for, but to actually intervene and correct structural inequity and injustice through implementation research and practice.

Today we explicitly selected some examples from our Black peer scientists to highlight in our slides. This is not enough. We recognize that we need to do more. We need to listen more. The problems are deeply rooted and complex.

We hope that, as a field, we are able to have these difficult conversations and act faster to address issues of racism and discrimination.

Ana Baumann & Rebecca Lengnick-Hall 6-4-20

https://youtu.be/C2LbySYn7O8
Our history:

We are a group that initially convened in Spring of 2020, in light of the striking racial inequities in COVID-19 experienced by Black Americans and the racial injustices, violence, and police brutality amplified through the deaths of Breonna Taylor, Armaud Arbery, and George Floyd, and has grown with the collective wisdom and input of over several implementation scientists.
Data Collection Efforts to Date

5 meetings, including 2 meetings with Black stakeholders only
4 surveys, with two ongoing surveys

All the data and documentation is available here:

https://docs.google.com/document/d/1j1U14O0161pLflvDKIFdb9ipiGFVhRfSqeBLdfLN9lw/edit?usp=sharing
<table>
<thead>
<tr>
<th>Action Items</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>evidence-based models for truly and meaningfully integrating community into the design and implementation of community-level interventions</td>
<td>28.57%</td>
<td>26</td>
</tr>
<tr>
<td>examine and develop recommendations on how implementation frameworks could explicitly incorporate/evaluate racism and discrimination</td>
<td>19.78%</td>
<td>18</td>
</tr>
<tr>
<td>identifying anti-racist evidence-based practices and policies and support the dissemination/communication of these to policymakers</td>
<td>14.29%</td>
<td>13</td>
</tr>
<tr>
<td>develop anti-racism best practices for IS professional organizations (e.g., hiring practices; creating cultures of inclusion)</td>
<td>12.09%</td>
<td>11</td>
</tr>
<tr>
<td>make equity and anti-racism lens in our peer review/grants</td>
<td>7.69%</td>
<td>7</td>
</tr>
<tr>
<td>create a list of intersectional articles between implementation science and social justice</td>
<td>6.59%</td>
<td>6</td>
</tr>
<tr>
<td>examine Editorial Boards of journals that publish implementation science studies and provide recommendations for including Black peers as part of the boards</td>
<td>4.40%</td>
<td>4</td>
</tr>
<tr>
<td>create a code of ethic for the field</td>
<td>4.40%</td>
<td>4</td>
</tr>
<tr>
<td>examination of defunding of Police departments</td>
<td>2.20%</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>91</strong></td>
</tr>
</tbody>
</table>
The group continues to grow

And we continue to learn.

*We conceptualize this group – and our materials, including examining our values, Mission Statement and activities - as iterative, reflexive, reflective and a living space. That is, not only we will think together, but we will act together, empowered by collective action.*
Today’s Organizational Team

Sarabeth Broder-Fingert, MD, Associate Professor of Pediatrics, Boston University School of Medicine

Cory Bradley, Postdoc Research Associate, Washington University in St. Louis

Rachel Shelton, ScD, MPH, Associate Professor, Columbia University

Nadine Jackson McCleary, MD, MPH, Assistant Professor of Medicine, Dana-Farber Cancer Institute.

Pamela Denise Long, MS, BHS, OT, Director of Organizational Development and Applied Research Company Name Alive and Well Communities

Atia Thurman, MSW, Associate Director of the Clark-Fox Policy Institute; Manager of Brown School Initiatives, Washington University in St. Louis

Ana A. Baumann, PhD, Research Assistant Professor, Washington University in St. Louis
Mission Statement: A Draft

We believe that implementation science is justice- and action-oriented. As such, implementation science has a critical role in actively identifying opportunities and taking action to be anti-racist throughout our science, institutions and communities.

As a grassroots collective of practitioners, researchers, providers, and community members, we aim to hold ourselves accountable to the principles and practice of anti-racism. This accountability includes our work and footprint as scholars, who are actively engaged in research and practice in the field of implementation science, to ensure that we actively and collectively dismantle structural racism and its particular manifestation—anti-Black racism. We seek to bring change to our field including research enterprises and other structures of knowledge production, organizations and institutions, as well as collaborations with stakeholders thereby promoting systems-wide dissemination of justice. We are committed to vigorously advocating for the abolition of racism through the multiple capabilities our roles in the field of implementation science afford us.
Community of Practice

A “group of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.” A community of practice has three essential components: a domain (an area of focus/purpose), a community (a place for “belonging,” personal/professional development & capacity building), and a practice (the tools for knowledge sharing/creation and the outputs of the community).

Today

Two surveys:

◦ Mission Statement:
  https://wustl.az1.qualtrics.com/jfe/form/SV_3a7gpZlMUCWyp7f

◦ Community of Practice:
  https://wustl.az1.qualtrics.com/jfe/form/SV_aYjxTMFaDLXTQu9