

PRIORITY ISSUES FOR EVALUATING ADHERENCE RESEARCH

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for the
**Behavior Change Consortium Reach and
Translation Work Group***

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BCC Reach and Translation Workshop

Health Behavior Change Literature Review

PURPOSE:

Review the recent literature on intervention research in major health promotion journals concerning reporting on internal and external validity issues

SELECTION CRITERIA:

Controlled intervention study on smoking cessation, nutrition, or physical activity published from 1996-2000 in 10-12 leading behavioral medicine journals (chosen based on circulation, publication of treatment studies, general not specialty journal)

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RE-AIM LITERATURE REVIEW: CONTROLLED STUDIES 1996-2000 IDENTIFIED BY JOURNAL AND BEHAVIOR

| Journal | Nutrition | Exercise | Smoking | Multiple | Total |
|-----------------------|-----------|-----------|-----------|-----------|------------|
| Am J Health Promo | 3 | 2 | 4 | 1 | 10 |
| Am J Prev Med | 5 | 4 | 2 | 0 | 11 |
| Am J Pub Health | 10 | 3 | 10 | 0 | 23 |
| Ann Behav Med | 2 | 4 | 1 | 1 | 8 |
| Austr NZ J Pub Health | 0 | 0 | 2 | 0 | 2 |
| Can J Pub Health | 1 | 0 | 0 | 0 | 1 |
| Health Educ & Behav | 11 | 1 | 4 | 3 | 19 |
| Health Educ Research | 2 | 1 | 3 | 0 | 6 |
| J Beh Med | 0 | 1 | 1 | 0 | 2 |
| Prev Med | 8 | 5 | 8 | 5 | 26 |
| Other | 5 | 2 | 3 | 1 | 11 |
| Total | 47 | 23 | 38 | 11 | 119 |

RE-AIM DIMENSIONS AND DEFINITIONS

| | DIMENSION | DEFINITION |
|------------------|--------------------------|--|
| Individual Level | REACH | <ol style="list-style-type: none">1. Participation rate among eligible individuals2. Representativeness of participants |
| | EFFICACY / EFFECTIVENESS | <ol style="list-style-type: none">1. Effects on primary outcome of interest2. Impact on quality of life and negative outcomes |

RE-AIM DIMENSIONS AND DEFINITIONS (cont.)

| | DIMENSION | DEFINITION |
|---------------|----------------|---|
| Setting Level | ADOPTION | <ol style="list-style-type: none">1. Participation rate among possible settings2. Representativeness of settings participating |
| | IMPLEMENTATION | <ol style="list-style-type: none">1. Extent to which intervention delivered as intended2. Time and costs of intervention |
| Both | MAINTENANCE | <ol style="list-style-type: none">1. (Individual) Long-term effects of intervention (≥ 6 months)2. (Individual) Impact of attrition on outcomes3. (Setting) Extent of continuation or modification of treatment |

PERCENT OF STUDIES REPORTING ON RE-AIM DIMENSIONS Individual Level

| RE-AIM Dimension/Measure | Worksites (n=24) | Schools (n=32) | Health Care (n=36) | Community (n=27) | Average |
|----------------------------|---------------------|-------------------|--------------------------|---------------------|---------|
| REACH | | | | | |
| Participation rate | 88% | 59% | 69% | 88% | 76% |
| Representativeness | 9% | 7% | 28% | 11% | 14% |
| EFFECTIVENESS | | | | | |
| Behavioral outcome measure | 67% | 100% | 100% | 100% | 92% |
| QOL or negative outcomes | 0% | NR | 17% | 3% | 7% |
| MAINTENANCE | | | | | |
| ≥ 6-month follow-up | 4% | 26% | 86% | 30% | 36% |
| Attrition at follow-up | 54% | 74% | 87% | 100% | 79% |

PERCENT OF STUDIES REPORTING ON RE-AIM DIMENSIONS Setting Level

| RE-AIM Dimension/Measure | Worksites (n=24) | Schools (n=32) | Health Care (n=36) | Community (n=27) | Average |
|---------------------------------|---------------------|-------------------|--------------------------|---------------------|---------|
| ADOPTION | | | | | |
| Participation rate – site level | 25% | 15% | 11% | 11% | 16% |
| Representativeness of settings | 0% | 0% | 0% | 7% | 2% |
| IMPLEMENTATION | | | | | |
| Treatment Delivery * | 12% | 37% | 77% | 59% | 46% |
| Time or cost | 0% | NR | 31% | 63% | 31% |
| MAINTENANCE | | | | | |
| Setting continuation | 4% | 0% | 6% | 0% | 2% |

* Often from efficacy studies where treatment delivered by research staff

SUMMARY AND CONCLUSIONS

- ❖ Data are seldom reported on the external validity of our interventions. Particular attention is needed to the representativeness of participants, settings, and intervention agents.
- ❖ Adherence research should report results on reach, adoption, implementation, and maintenance, in addition to effectiveness.
- ❖ The actions and representativeness of intervention settings and agents are as important as the behavior and representativeness of subjects—and have received far less investigation.

RECOMMENDED PURPOSE OF FUTURE RESEARCH

To determine the characteristics of interventions that can:

- ❖ Reach large numbers of people, especially those who can most benefit
- ❖ Be widely adopted by different settings
- ❖ Be consistently implemented by staff members with moderate levels of training and expertise
- ❖ Produce replicable and long-lasting effects (and minimal negative impacts) at reasonable cost

RECOMMENDATIONS FOR RESEARCHERS

1. Study programs that reach large and representative portions of the population. Document reach to underserved populations.
2. Produce interventions that have training materials and can be implemented by a variety of agents. Report on implementation and outcomes across a range of interventionists.
3. Report on methods of recruiting settings, including exclusion rates, participation rates, and representativeness.

RECOMMENDATIONS FOR FUNDING AGENCIES

- 1. Support studies that investigate interventions in multiple (representative) settings, and report on mediator and moderator effects.**
- 2. Require standardized reporting on exclusions, participation rates, and representativeness of both participants and settings.**
- 3. Fund innovative investigations of ways to enhance program reach, adoption, implementation, and maintenance.**

RECOMMENDATIONS FOR FUNDING AGENCIES (cont.)

4. **Require a maintenance / sustainability phase in research projects.**
5. **Develop mechanisms to support development of capacity of organizations to implement programs, and study of long-term institutionalization.**