

Cross-Site BCC Research Ideas Proposed for Supplemental Funding From the Supportive Resources (aka Social Support) Group

Statement of primary research question (3-5 sentences):

For at least some people, social resources are believed to play a central role in shaping personal health and well-being. The aim of the proposed investigation is to draw upon the BCC's unique set of research sites and populations to determine how social resources relate to behavior change, health outcomes, and quality of life. For this project, social resources are defined both inter- and intra-personally, and include the traditional conceptualization of support defined by Sheldon Cohen (i.e., emotional, tangible, appraisal, belonging) as well as social environmental resources reflecting more distal factors (such as health care provider support, community support, neighborhood, and friends) and more proximal factors (e.g., family and personal support). In seeking to understand the role that supportive resources play in promoting personal well-being, it will be important to distinguish between its mediational value for initial and long-term effects.

Contribution of proposed activity to theory development/measurement enhancement (3-5 sentences):

Surprisingly little is known about the specific social resources that influence health and well-being. To understand how supportive relationships and resources affect health, the traditional notion of support must be expanded. Support can be obtained from proximal, personal sources (such as spouses, friends, and family members), as traditionally conceptualized, but also from more impersonal sources, such as television and one's community. At least two objective measures have been developed to measure interpersonal/social environmental support: the Chronic Illness Resources Survey and the UCLA Social Support Inventory. The UCLA is being collected by two BCC sites (Oregon Research Institute and Harvard); other sites may be using these or similar measures.

BCC's unique position to address this research question (2-3 sentences):

The BCC provides a unique opportunity to assess supportive resources as a mediator of lifestyle behavior change, maintenance of change across diverse populations and diverse interventions, health outcomes, and quality of life. It may be possible to distinguish different types of supportive resources that work for different types of behavioral lifestyle change, health outcomes, and well-being for different population groups. Alternatively, consistent patterns may emerge across different sites.

Shortcomings in the measurement of social resources have made it difficult to draw definitive conclusions. For example, the dependent measure of health used in most studies is self-reported symptomatology, which is highly subjective. The few studies that have included more objective measures of health have used relatively narrow, structural measures of support. Most BCC sites are collecting objective measures of physical health. This would be an opportunity to answer many questions about the health benefits of personal and social environmental supportive resources.

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Since many BCC sites have collected data regarding diet, exercise, or smoking, and health outcomes, this investigation provides an opportunity to analyze convergence/replication of measures of supportive resources among diverse populations, diverse lifestyle behaviors, and diverse interventions.

Specific research question and hypotheses (3-5 sentences):

The specific research questions are:

1. Are associations between various baseline measures of social support and change in various lifestyle behaviors (i.e., smoking, diet, exercise) similar in magnitude? Which measures of social support are most predictive of change in each health behavior, smoking, diet, physical activity?
2. What are the subtypes of social resources that are most predictive of behavioral lifestyle change, health outcomes and quality of life or well-being? Are these associations moderated by socio-demographic variables?
3. Which subtypes of social resources (proximal: e.g., emotional, tangible, appraisal, or belonging; social environmental: e.g., neighborhood, community, media) are most predictive of maintenance of lifestyle change, health outcomes, and quality of life or well-being?
4. Research questions stated in terms of mediation:
 - a. Does treatment enhance perceptions of social resources support? That is, do intervention conditions compared to controls show a greater increase in perceived social resources?
 - b. Do supportive resources influence lifestyle behavioral changes directly? That is, are changes in supportive resources related to changes in behavior?
 - c. Do supportive resources influence health outcomes through their effect on lifestyle change? That is, are associations between supportive resources and health outcomes mediated by health behavior change?
 - d. Do supportive resources effect health outcomes directly? Are changes in supportive resources related to change in health outcomes?
 - e. Mediation will be demonstrated if the association between intervention and outcomes, i.e., health outcomes and lifestyle change, diminish with the inclusion of supportive resources.

Sites (list BCC sites that will be involved --there must be a minimum of three. Also indicate if these sites represent any special populations.):

Deborah Toobert at Oregon Research Institute, Karen Peterson at Harvard, and Lisa Klesges at University of Tennessee have expressed interest so far. Six or seven BCC sites have indicated that they are using measures of social support, but we have not yet determined the compatibility of their supportive resource data.

Data (what general types of data will be collected and/or analyzed. Indicate if existing or new data is being proposed.):

Existing data -- including measures of supportive resources, and behavioral indicants of lifestyle change, health outcomes, quality of life, and well-being – will be used for the analyses.

For starters, these are some of the scales in use by BCC projects.

Social Resources:

1. Cohen perceived support (i.e., appraisal, belonging, esteem, and tangible)
2. Group cohesion
3. Network support
4. Total score from Medical Outcomes Study Support scale
5. UCLA scales of received support from (a) medical, (b) friends, (c) spouse/relatives, (d) organizations, and (e) negative interactions
6. Chronic Illness Resources Inventory
7. Sallis social support for exercise
- 8.

Behavioral Indicators:

1. Attendance at intervention (number of sessions attended)
2. Diet
3. Exercise
4. Smoking status
5. Stress management

Health Outcomes:

1. Weight
2. Lipids
3. Blood pressure

It is possible that projects not currently collecting social support data could add one of the more stable supportive resource measures at later assessment points.

Time frame (specify can be done immediately with existing baseline data and what might need to wait for outcome data, and how long proposed activities will take.):

Some of these questions can be answered immediately using existing baseline data. If we included questions about change in perceived support as a result of a support intervention, we would need to wait until the intervention has been delivered, and the data collected and cleaned. Similarly, to answer maintenance questions, follow-up data would be required. If paid staff were devoted to this task, the project would take approximately 6 months.

Analysis plans (all that is needed is a brief statement about overall analytical approach, identification of data analyst(s), whether this is to be done centrally or not, and coordination with data analysis and methods group):

Some of the questions would be answered using structural equation modeling techniques and others using multiple regression, with supportive resources as mediators/predictors of lifestyle or health outcomes as outlined above. Some of the questions involve mediational analysis. Lisa Strycker at ORI is an expert in structural equation modeling but there may be other sites interested in this. Lisa Klesges from the methodology group has expressed initial interest in this project.

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Research questions succinctly stated in terms of a test of mediation (As suggested by Baron & Kenny:

1. Is intervention related to change in social support?
2. Is change in social resources related to change in health behavior and health outcome?
3. Does association between intervention and outcomes, both lifestyle behavior and health outcomes, diminish when perceived support is included in the model.
9. Do changes in supportive resources, as result of support interventions, predict behavioral lifestyle change and health outcomes? If so, we should see that treatment produces an increase on the proposed mediator, supportive resources. It would be interesting to see the potential difference in magnitude of change in supportive resources between interventions specifically targeting this construct and those that did not. Might address question of generalized social interactions of behavioral interventions in general versus those targeting supportive resources.

Estimated Resources (direct dollars only) and brief budget justification (e.g., what % effort for what types of activities):

This project would require a research assistant to coordinate the data collection from sites, similar to the role Sue and Milena play at URI with the nutrition group project. Funds for a data analyst and for an investigator to prepare the manuscript also would be required. \$80,000-100,000.

Team leader/Team members:

Deborah Toobert, Karen Peterson, Lisa Klesges, Russ Glasgow, and Lisa Strycker.