

Validation of a Collaboration Readiness Assessment Tool for Use by Supplemental Nutrition Assistance Program–Education (SNAP-Ed) Agencies and Partners

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ABSTRACT

Objective: To evaluate content and face validity of a collaboration readiness assessment tool developed to facilitate collaborative efforts to implement policy, systems, and environment changes in *Supplemental Nutrition Assistance Program–Education* (SNAP-Ed).

Methods: Evaluation of the validity of the tool involved 2 steps. Step 1 was conducted with 4 subject matter experts to evaluate content validity. Step 2 used an iterative cognitive testing process with 4 rounds and 16 SNAP-Ed staff and community partners to evaluate face validity.

Results: Subject matter experts found that survey items appropriately matched the content area indicated and adequately covered collective efficacy, change efficacy, and readiness. Cognitive testing with SNAP-Ed staff and partners informed modifications and resulted in adequate face validity.

Conclusions and Implications: The ability to measure collaboration readiness will allow agencies and community partners that implement SNAP-Ed to target areas that facilitate collaboration efforts needed for policy, systems, and environment change and collective efficacy. Further cognitive testing of the tool with other populations is needed to ensure its applicability and usefulness. Evaluation of the reliability of the tool with a broad range of SNAP-Ed programs and community agencies is also recommended.

Key Words: assessment, collaboration, readiness, validation, SNAP-Ed (*J Nutr Educ Behav.* 2018;50:501–505.)

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INTRODUCTION

The Healthy Hunger-Free Kids Act of 2010 expanded *Supplemental Nutrition Assistance Program–Education* (SNAP-Ed) from a nutrition education program to an obesity prevention program. This legislation explicitly identified obesity prevention as a major emphasis and required comprehensive community and public health approaches for low-income

populations.¹ With these changes, the SNAP-Ed program adopted Policy, Systems, and Environmental (PSE) change strategies to allow for closer collaboration with community partners. This transition shifted SNAP-Ed from a direct education program to a community collaboration program and required SNAP-Ed programs to develop additional skills and tools. To address readiness to implement PSE changes, readiness resources were included in

the SNAP-Ed evaluation framework.² The framework contains a flowchart to guide the process of initiating activities with outside agencies. The flow chart follows a step-by-step approach with readiness resources to guide practitioners and planners.²

Although resources were provided in the framework, barriers to PSE implementation were present. One main item identified in a study conducted with SNAP-Ed and *Expanded Food and Nutrition Education Program* staff was a way to assess readiness of both SNAP-Ed agencies and community partners to collaborate to implement PSE changes.³ Collaboration for this study was defined as participants willingly working together in planning and decision making.⁴ Defining attributes of collaboration include trust and respect in collaborators, knowledge and expertise valued over role and/or title, joint venture, team working, share expertise, and participation in planning and decision making.⁵ Collaboration readiness (CR) refers to the willingness to work in collaboration to

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achieve common goals. Although organizational and community models of readiness for change exist in the literature, different components of readiness were measured.⁶ A comprehensive literature review of these readiness assessments found 4 domains to assess when planning and tailoring intervention strategies to communities: (1) climate that facilitates changes, (2) attitudes and current efforts, (3) commitment, and (4) capacity to implement change.⁷

Seeing where groups are willing to change, have capacity to make changes, and how to assist in joint efforts, will help make PSE changes.

To address the defining attributes of collaboration and provide a way to assess CR, the concepts of collective efficacy were used. Collective efficacy is social cohesion and willingness to act together for the common good.⁸ Collective efficacy for change refers to group members' shared belief in their collective capacity to organize and implement change.⁹ Components of collective efficacy include cohesion between similar groups, ability to work with diverse groups, leveraging resources, and ability and willingness to participate in policy and community change.¹⁰

Organizational readiness assessments focusing on collective and change efficacy of a single organization have been developed.^{9,11} Foster-Fisherman et al⁶ developed a community readiness assessment based on collective efficacy. However, a tool has not been developed to measure readiness levels of multiple organizations intending to collaborate. Because of a lack of available tools, a SNAP-Ed CR tool specific to SNAP-Ed programming was needed to identify current activity (ie, connections with other programs, sharing of resources, participation in policy and/or community change) and current activities in 6 environmental settings, including a separate section that evaluated development of activities that would lead to increased collaboration.

To assess CR among SNAP-Ed agencies and potential collaborating community partners, the researchers developed a CR assessment tool. The tool examined 5 areas of CR based on collective efficacy^{8,9}: (1) connections with similar programs, (2) connections with other diverse groups, (3) leveraging resources between groups, (4) group empowerment, and (5) engagement in political action and/or community change. Each of these 5 areas included 5 response category statements (yet to consider, considering, developing, acting on, and established), reflecting a progression in readiness using concepts of the transtheoretical model.¹² For example, in the area *Share resources with other groups*, the anchoring statement for the yet to consider level was *Not familiar with or not considering other groups' resources* (See [Supplementary Data](#)). The statement reflects the transtheoretical model precontemplation stage in that subjects are uninformed and not ready to take action in the foreseeable future.¹² These statements were similar to anchoring statements used to assess community readiness in the Children's Healthy Living readiness survey.¹³

The CR tools consisted of 3 sections: (1) an introduction on how to use the tool, (2) the assessment survey, and (3) examples of activities to increase collaboration (based on the level of readiness) and links to resources for example activities. The CR tools used respondents' self-assessed statements to obtain a CR level for each of the 5 readiness areas. Statements were mapped to a table providing examples of how to increase CR based on the group's readiness level. The purpose of this study was to evaluate content and face validity of the CR assessment tool developed to facilitate collaborative efforts to implement PSE changes in SNAP-Ed.

METHODS

Evaluation of validity of the CR assessment involved 2 steps. The researchers conducted step 1 with 4 subject matter experts (SMEs) to evaluate the tool's content validity.¹⁴ Step 2 used an iterative cognitive testing process with 16 SNAP-Ed staff and

community stakeholders to evaluate the tool's face validity.¹⁴ The interviewer had prior survey and interviewing experience, received oversight from researchers with qualitative expertise, and followed a modified script used in a previous face validation study.¹⁵ The same interviewer conducted both steps.

The collaboration readiness tool is useful for evaluating progress or assisting with planning efforts.

Step 1

The first step involved consultation with SMEs. To evaluate content validity, it is recommended that ≥ 2 SMEs evaluate each item.¹⁶ The tool was evaluated by 4 doctoral-level SMEs with expertise in change efficacy, readiness, collective efficacy, community collaboration, and cognitive testing. The SMEs had an average of >10 years' experience in readiness tool and survey development. In addition, SMEs had >5 years' experience in SNAP-Ed program evaluation. Before the interviews, the tools were sent to the SMEs. During interviews, the SMEs were asked to review anchoring statements for relevance to readiness, determine whether the 5 areas focused on collective efficacy variables, indicate whether each survey item appropriately matched the content area indicated, and indicate whether any areas pertinent to collaboration and readiness were not covered in the 5 areas. Once the interviews were completed, suggested changes were made to the tool.¹⁴

Initially, 2 CR tools were developed. One was intended for SNAP-Ed program staff and the other was for community agencies. Both tools examined the same 5 CR areas and contained 5 response statements. The difference between the tools was in the wording of the response statements. The CR tool for SNAP-Ed program staff was tailored to program activities whereas the tool for community agencies was more general. For example, in the readiness area *Share*

Table. Respondents in Validation Process, by Cooperative Extension Region (n = 16)

Participant	Southern	Western	Northeastern	North Central
Community partner	3	2	0	0
Supplemental Nutrition Assistance Program–Education agency staff	3	4	2	2

resources with other groups, the statement under *acting on* for the SNAP-Ed tool was *Occasional use of resources outside SNAP-Ed programs/funding* and the community agency tool stated *Resources have been obtained and/or allocated*. The SMEs found the tools to be similar and suggested the 2 tools be combined; this suggestion was adopted. The combined tool was reviewed by 2 researchers to cross-check modifications. The resulting assessment tool was used for face validation (step 2).

Step 2

The second step consisted of iterative cognitive testing with potential end users of the tool. Cognitive testing was employed to ensure that survey questions captured the intent of the question and made sense to respondents.^{17,18} Participants were identified using purposive sampling, allowing for deliberate selection of respondents to determine the most appropriate wording and survey formatting. Researchers asked SNAP-Ed agencies and partner community groups to participate to ensure potential users of the survey understood the tool. Participants from the 4 cooperative extension regions in the US (southern, western, north central, and northeastern¹⁹) were recruited to minimize regional language variation in wording of the tool. Eleven SNAP-Ed agency staff and 5 community partners participated in the study (Table).

The institutional review boards at University of Hawaii at Manoa and University of Tennessee Institute of Agriculture approved the recruitment e-mail explaining the study that was sent to potential participants by members of the Regional Nutrition Education and Obesity Prevention Center of Excellence–PSE Change Center.

Interested individuals were asked to contact the interviewer to set up a time to conduct testing. Interviews (n = 16) were conducted by telephone (n = 15) or face-to-face (n = 1) and took 40–90 minutes, with the average interview lasting 55 minutes. Other than telephone number and/or e-mail address, no personal information was obtained from participants. The study was approved by the Institutional Review Boards at the University of Hawaii and the University of Tennessee.

Structured interview questions were used. These questions were specifically designed to reveal cognitive processes related to how respondents think about and answer the CR assessment statements. Three techniques were used: (1) concurrent think-aloud technique, (2) paraphrasing, and (3) probing.¹⁷ Respondents' thought process was explored through the response to the following statements: *Look at the first statement. Then look at the responses and respond as you generally would*. For the paraphrasing technique, respondents were asked to restate the item in their own words using the following statement: *Now go back to the statement and tell me in your own words what the statement means to you*. In probing to clarify their responses further, the following questions were used: *What do you mean by that?* and *Is there a better word we could use?* These techniques were applied to each readiness-level statement in all collective efficacy and change efficacy areas.

The iterative process consisted of 4 rounds of interviews conducted by the first author (JB). Written notes were taken during interviews. Once an interview was completed, suggested changes were sent to the participant to ensure accuracy of the revision. After participants concurred with the changes, modifications were made to the survey before the next interview.

To confirm modifications were appropriate, after each round of interviews the modified tool was reviewed by 2 additional researchers (JB and RN). Testing continued until no additional modifications were suggested.^{15,17,20} Sixteen interviews were conducted from October, 2016 through January, 2017.

The collaboration readiness tool helps find what can be done, identifies gaps, and makes sure activities will work with the community.

RESULTS

In step 1, the SMEs found the CR tool to be relevant to CR and that survey items appropriately matched content areas indicated; they also found that the 5 readiness areas adequately covered CR. Some important modifications from SMEs included streamlining questions (for example, the statement was changed from *Group is actively involved in evaluating and improving efforts and demands accountability to Group feels confident they can continue doing the changes*). The SMEs changed the scoring system scale from 1 to 5 to a letter scale (A through E) to lessen the feeling of respondents of being judged on readiness. After step 1 was completed, the interviewer contacted each SME with the final survey. Based on agreement by all 4 SMEs, the CR assessment tool was determined to have content validity.¹¹

The first round of cognitive testing resulted in elimination of the empowerment area of the tool. Respondents found this area to be redundant because it was embedded in statements among other areas, and some

staff and community partners thought it could be construed as being judgmental. Alternate wording was considered, but after consultation with the other researchers, the empowerment area was removed from the survey.

During the first round, concurrent think-aloud technique stimulated inclusion of examples in the anchoring statements specific to SNAP-Education program terminology. For instance, participants had difficulty responding to the readiness area worded as *Links with diverse groups and agencies in various settings*. Participants thought they might be at a level of readiness for 1 setting and at a different level for another. Changes to the survey to address this included breaking readiness areas into separate environmental settings as defined by the *SNAP-Education Evaluation Framework and Interpretive Guide*.² Interviews further revealed the need to provide examples of specific groups associated with each environmental setting. To maintain consistency, the same examples of groups used in the *SNAP-Education Evaluation Framework and Interpretive Guide* were used in the survey. Once these changes were made to the survey, participants were able to comprehend the readiness area quickly and identify their readiness level for each setting.

The second round focused on clarification of wording to be more applicable to SNAP-Education implementing agencies and partners. Paraphrasing anchoring statements and readiness area wording by participants prompted changes. For example, the readiness area of leveraging resources changed from *Ability to leverage resources with other groups to Share resources with other groups*. This changed the readiness area to be more collaborative and inclusive of all resources. As changes were made to the survey questions, participants shifted focus to the survey instructions. Participants suggested changes to the introduction to make it easier to read and to be less judgmental of their readiness to collaborate with SNAP-Education.

In round 3, few changes were made to the survey. Changes consisted of clarification of the purpose of the tool and a process to implement the tool. Round 4 consisted of simple

formatting changes; it was concluded that changes to the tool had been exhausted. The resulting CR tool can be found in the [Supplementary Data](#).

DISCUSSION

The 2-step validation process took rigor and practical application into consideration to develop an understandable theory-based CR tool for use by both SNAP-Education implementing agencies and partners to measure collaboration and provide a tool to facilitate it. The iterative process of validation honed the CR tool and refined key features unique to the SNAP-Education program while remaining grounded in readiness theories.^{8,9}

To achieve accurate survey responses, it is necessary for users to have a clear understanding of survey items.^{15,21,22} The objective of cognitive testing is to reveal the thought processes involved in interpreting a survey statement and arriving at an answer. The iterative process of cognitive testing clarifies the text so that respondents understand the meaning and interpret survey statements correctly.¹⁸ The qualitative validation of this tool considered the meaning of survey statements to potential users. The systematic qualitative method for validation resulted in a tool that SMEs found to have content validity and sample participants considered to have acceptable face validity.

The ability to measure CR will allow agencies and community partners that implement SNAP-Education to target areas that facilitate collaboration efforts necessary for PSE change. The inclusion of examples of strategies to increase CR was well received by participants because it provided a course of action and resources for collaborative activities. One study found that increasing skills in identified readiness areas built community and increased collaboration.⁴ Other studies found that goals and outcomes of collaborative groups varied based on the stage of development of the collaboration and required varying tasks to increase collaborative capacity.^{11,23}

This tool is limited by its specific development for SNAP-Education. All participants were affiliated with the program

either directly as SNAP-Education staff or indirectly as a community partner. The face validity of the tool may not be acceptable outside the SNAP-Education program and may need modifications for use in other populations. The small number of community agency participants and the lack of involvement of community agencies from the northeastern and north central regions limits representation and may affect face validity. In addition, the focus of this study was to establish a tool with acceptable face validity, and the researchers did not conduct reliability testing.

IMPLICATIONS FOR RESEARCH AND PRACTICE

The CR tool was developed for use by SNAP-Education programs and their community partners to work together to implement SNAP-Education PSE changes to prevent obesity in low-income communities. The tool contains unique features that facilitate practitioners' collaborative efforts. The tool's focus on collective efficacy, readiness-level based collaboration strategies, and methods aimed at increasing collaboration may apply to various community groups' collaborative efforts. Further cognitive testing of the tool with other populations is needed to ensure its applicability and usefulness. Evaluation of the reliability of the tool with a broad range of SNAP-Education programs and community agencies is also recommended.

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SUPPLEMENTARY DATA

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