**MEASURING COLLECTIVE EFFICACY FOR Gender Equality and Empowerment (GEE) EFFORTS: A systematic review of literature**

**Introduction**

A robust and growing evidence exists on the value of women’s collectives as a means of improving women’s sexual and reproductive health, maternal and child health, and women’s safety from gender based violence (1-6), with stronger effects for more marginalised groups (5). This research builds upon research documenting the value of women’s collectives for their financial security and livelihood (7-9), as well as political participation (10). While much of this work comes from South Asia and involves collectives focused on financial inclusion, there is evidence of the value of patient collectives to promote higher quality patient centered care in higher income nations such as Germany, as well (11). Systematic review of the literature on the effectiveness of collectives highlights that the mechanism though which they achieve positive health, economic and social outcomes is via improved collective efficacy (12, 13). Unfortunately, too often quality measures are not used to assess collective efficacy in this research, despite the availability of such measures (12). Inadequate recognition of these measures may impede their use. To support the quality and use of best evidence measures for this important and growing area of work, we reviewed the literature and utilized expert input to identify measures of collective efficacy, and reviewed these measures for their psychometric properties and use cross-nationally.

**Methods**

We conduct a review of the literature assessing collective efficacy using a combination of approaches to identify quantitative measures of collective efficacy. This work was conducted as part of the larger Evidence based Measures of Empowerment for Research on Gender Equality (EMERGE) project, which focuses on identification and evaluation of quantitative measures of gender equality and empowerment assessed at the individual or household level (14).

For the purposes of this review, we defined collective efficacy as a social construct aimed at capturing perceptions of group connectedness and group capacity to achieve social welfare goals through organizing and collective action (15, 16). The value of the collective is often based in the group’s shared social marginalization and shared motivation for change. Core themes of collective efficacy include social cohesion, collective solidarity, informal social control (i.e., perceptions the collective can alter a harmful social structure or impediment), and collective action (13, 15-17). This approach allows for an intersectional lens of analysis and action, as it is often multiple forms of social marginalization affecting the collecting and requiring their informal collective to mobilize.

We engaged in two approaches to identify measures of collective efficacy. The first involved a systematic review of the peer-reviewed literature published from January 2009 to August 2020 using PubMed, Embase, PsychInfo, Sociological Abstracts, and Family & Society Studies Worldwide. The search strategy was prepared in consultation with all authors including a UCSD subject specialist librarian. The second involved input from experts working on collective efficacy and gender empowerment from the fields of public health and medicine, economics, psychology and sociology, across national settings. [For details on experts providing input into the EMERGE project, please see the EMERGE website.(14)] Based on expert input, additional published measures were identified, as were multi-national or multi-state surveys with measures of collective efficacy (or the above indicated variants). These again were reviewed by the trained research team on Covidence using double blind reviewers to ensure they met eligibility criteria given below.

*Inclusion*

* Evidence of any quantitative data analysis; including but not limited to psychometric properties e.g. reliability or validity
* Sample size of at least 100 participants
* Study conducted in a low- or middle-income country (check on the list shared)
* Women only groups or population sample

*Exclusion*

1. No quantitative data analysis; only provides qualitative data, case study, reviews of literature etc.
2. Sample size less than 100 participants
3. Non-English language article
4. Study conducted in the U.S. / non-LMIC
5. Clearly off topic (not collective efficacy)
6. Population groups that include men or men and women together.

All identified measures were then reviewed for the following information. This information was then tabled. We reviewed if psychometric testing was conducted on the measure. If not, we indicated N/A (not applicable), if so, we included the information in the data extraction table. We used Google forms to extract information for each paper after it had been screened in full for inclusion.

* Full citation of the study (including source of study, year of publication)
* Sample characteristics: Country, sample size, gender, age, education
* Name of measure
* Description of collective efficacy
  1. Authors definition (verbatim if possible)
  2. Type of collective efficacy (1 of 4 categories: social cohesion, collective solidarity, informal social control, and collective action)
  3. Dimensions (sub-categories or dimensions, number of relevant items): Name and number of dimensions
* Research question and Aim of study (whether measures development, mention key exposure and outcome)
* Findings from study
  1. Quantitative effect size, and main analytic methodology (e.g. OR, logistic regression)
  2. Psychometric Details (reliability, validity: include type of test and statistic)
  3. Key finding/main conclusion of the paper
* Psychometric Limitations:
  1. Formative, qualitative research limitations
  2. Missing information in paper
  3. Design biases e.g. selection bias, social desirability etc.
  4. Usability of measure e.g. brevity/length, readability, manual administration instructions, scoring details
* Quality of rating (STROBE)
* Notes (your interesting remarks to note)
* Reviewer initials

**References**

1. Orton L, Pennington A, Nayak S, Sowden A, White M, Whitehead M. Group-based microfinance for collective empowerment: a systematic review of health impacts. Bulletin of the World Health Organization. 2016;94(9):694-704a.

2. Prost A, Colbourn T, Seward N, Azad K, Coomarasamy A, Copas A, et al. Women's groups practising participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis. Lancet. 2013;381(9879):1736-46.

3. Brody CM, De Hoop T, Vojtkova M, Warnock R, Dunbar M, Murthy P, et al. Economic self-help group programs for improving women’s empowerment: A systematic review. 2015.

4. Saggurti N, Atmavilas Y, Porwal A, Schooley J, Das R, Kande N, et al. Effect of health intervention integration within women's self-help groups on collectivization and healthy practices around reproductive, maternal, neonatal and child health in rural India. PLoS One. 2018;13(8):e0202562.

5. Hazra, Etal. Parallel Paper to be Submitted with Lancet Paper 4.

6. Campbell C. Community mobilisation in the 21st century: Updating our theory of social change? Journal of Health Psychology. 2014;19(1):46-59.

7. Tripathy P, Nair N, Barnett S, Mahapatra R, Borghi J, Rath S, et al. Effect of a participatory intervention with women's groups on birth outcomes and maternal depression in Jharkhand and Orissa, India: a cluster-randomised controlled trial. Lancet. 2010;375(9721):1182-92.

8. Baqui AH, El-Arifeen S, Darmstadt GL, Ahmed S, Williams EK, Seraji HR, et al. Effect of community-based newborn-care intervention package implemented through two service-delivery strategies in Sylhet district, Bangladesh: a cluster-randomised controlled trial. Lancet. 2008;371(9628):1936-44.

9. Kumar V, Mohanty S, Kumar A, Misra RP, Santosham M, Awasthi S, et al. Effect of community-based behaviour change management on neonatal mortality in Shivgarh, Uttar Pradesh, India: a cluster-randomised controlled trial. Lancet. 2008;372(9644):1151-62.

10. Goss K, Heaney M. Organizing Women as Women: Hybridity and Grassroots Collective Action in the 21st Century. Perspectives on Politics. 2010;8(1):27-52.

11. Kofahl C. [Collective patient centeredness and patient involvement through self-help groups]. Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz. 2019;62(1):3-9.

12. George AS, Scott K, Mehra V, Sriram V. Synergies, strengths and challenges: findings on community capability from a systematic health systems research literature review. BMC health services research. 2016;16(Suppl 7):623.

13. Scott K, George AS, Harvey SA, Mondal S, Patel G, Sheikh K. Negotiating power relations, gender equality, and collective agency: are village health committees transformative social spaces in northern India? International Journal for Equity in Health. 2017;16:84.

14. EMERGE. Evidence-based Measures of Empowerment for Research on Gender Equality 2019 [Available from: <http://emerge.ucsd.edu/>.

15. Sampson RJ, Raudenbush SW, Earls F. Neighborhoods and violent crime: a multilevel study of collective efficacy. Science. 1997;277(5328):918-24.

16. Bandura A. Exercise of Human Agency Through Collective Efficacy. Current Directions in Psychological Science. 2000;9(3):75-8.

17. Batliwala S. Changing Their World: Concepts and Practices of Women's Movements. Toronto, Mexico City, Cape Town: Association for Women’s Rights in Development (AWID); 2012.