



**Selected Evidence Points for Peer Support**  
**Program Development Center – Peers for Progress**  
**Department of Health Behavior and Health Education**  
**Gillings School of Global Public Health, University of North Carolina-Chapel Hill, and**  
**American Academy of Family Physicians Foundation**

The following is a summary of several articles that found appreciable evidence for peer support. These articles were assessed as part of a systematic review of peer support for complex health behaviors across a variety of health problems and published between 2000 and August, 2009. This review is being conducted through the Peers for Progress Program Development Center of the Department of Health Behavior and Health Education at the UNC Gillings School of Global Public Health. The authors of this systematic review are: Emily A. Elstad, MPH; Renée I. Boothroyd, PhD, MPH; Amy L. Henes, B.A., Gary R. Maslow, M.D., Katherine Nelson, MPH, and Edwin B. Fisher, PhD. An abstract of a presentation of this review to be included in the International Congress of Behavioral Medicine in Washington, D.C., in August, 2010 is appended to the end of this report.

**Asthma**

**A randomized controlled evaluation of the effect of community health workers on hospitalization for asthma: the asthma coach.** (Fisher EB, Strunk RC, Highstein GR, Kelley-Sykes R, Tarr KL, Trinkaus K, Musick J. Arch Pediatr Adolesc Med. 2009 Mar;163(3):225-32.)

Fisher and colleagues found that an asthma coach can reach low-income parents of African American children hospitalized for asthma and reduce rehospitalization among the children. Within 3 months of randomization to the asthma coach group, 89.6% of parents had at least 1 substantive contact with the coach, with an average of 21.1 contacts per parent over the 24-month intervention. The proportion of children rehospitalized was 35 of 96 (36.5%) in the asthma coach group and 55 of 93 (59.1%) in the usual care group ( $P < .01$ ).

**Improving Asthma-Related Health Outcomes Among Low-Income, Multiethnic, School-aged Children: Results of a Demonstration Project That Combined Continuous Quality Improvement and Community Health Worker Strategies** (Fox P, Porter PG, Lob SH, Boer JH, Rocha DA, Adelson JW. Pediatrics 2007;120:e902-e911.)

Using community health workers in an ethnically and geographically disparate population of economically disadvantaged school-aged children, Fox and colleagues demonstrated major improvements in asthma-related care processes and clinical outcomes. Cross-sectional data showed clinic-wide improvements in the documentation of asthma severity, review of action plans, health services use, and asthma symptoms. At follow-up in the longitudinal sample, fewer patients reported acute visits, emergency department visits, hospitalizations, frequent daytime and nighttime symptoms, and missed school days compared with baseline. More patients reported excellent or very good quality of care and confidence in asthma self-management. Closer adherence to the demonstration model was directly associated with better outcomes.

## **Blood pressure**

**The effectiveness of a community/academic health center partnership in decreasing the level of blood pressure in an urban African-American population.** (Levine DM, Bone LR, Hill MN, Stallings R, Gelber AC, Barker A, Harris EC, Zeger SL, Felix-Aaron KL, Clark JM. *Ethn Dis.* 2003 Summer;13(3):354-61.)

Levine and colleagues conducted a randomized clinical trial in African Americans and found that indigenous community health workers helped increase the control of high blood pressure. The primary results were a significant decrease in mean systolic and diastolic pressures and a significant increase in the percentage of individuals with controlled high blood pressure.

## **Breastfeeding**

**Can early postpartum home visits by trained community health workers improve breastfeeding of newborns?** (Mannan I, Rahman SM, Sania A, Seraji HR, Arifeen SE, Winch PJ, Darmstadt GL, Baqui A. *J Perinatol.* 2008 Sep;28(9):632-40.)

In a study of the effect of community health workers on alleviating breastfeeding problems in Bangladesh, Mannan and colleagues found that 6% of newborns who received home visit by community health workers within 3 days of birth had feeding difficulties, compared to 34% of those who did not. They concluded that counseling and hands-on support on breastfeeding techniques by trained workers within first 3 days of birth, should be part of community-based postpartum interventions.

## **Postpartum depression**

**The effect of peer support on postpartum depression: a pilot randomized controlled trial.** (Dennis CL. *Can J Psychiatry.* 2003 Mar;48(2):115-24.)

Dennis evaluated the effect of mother-to-mother peer support on depressive symptomatology among mothers identified as high-risk for postpartum depression. They found that telephone-based peer support among significantly decreased depressive symptomatology among new mothers.

**Effectiveness of a parent "buddy" program for mothers of very preterm infants in a neonatal intensive care unit.** (Preyde M, Ardal F. *CMAJ.* 2003 Apr 15;168(8):969-73.)

Preyde & Ardal examined evaluated the effectiveness of parent-to-parent peer support for mothers of very preterm infants in a neonatal intensive care unit. At 4 weeks after enrolment in the study, mothers in the intervention group reported less stress than those in the control group. At 16 weeks after enrolment, the intervention group reported less state anxiety, less depression, and greater perceived social support than the control group. Support from individual, trained peers was found to be effective in helping mothers deal with the stress of very preterm birth.

**Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised controlled trial.**

(Rahman A, Malik A, Sikander S, Roberts C, Creed F. Lancet. 2008 Sep 13;372(9642):902-9.)

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Community health workers known as “Lady Health Workers” are part of the system of primary care in rural Pakistan. Their normal activities include a strong focus on maternal and child health. They are attached to community-based primary health care teams attached to individual communities. In a cluster randomized design, 40 clusters were assigned to intervention and control, resulting in 463 mothers in intervention and 440 in control clusters. In the former, CHWs were trained to administer a cognitive behavioral intervention that also stressed a good deal of practical problem solving in women’s lives. In the control clusters, CHWs made an equal number of visits as part of pre- and post-natal care. The intervention reduced depression 6 mos post-delivery by over 50%, 23% prevalence in intervention and 53% in controls. At 12 mos, the effect was of comparable size, 27% vs 59%.

PMID: 18790313

**Cardiovascular disease**

**Evaluation of Salud Para Su Corazón (Health for your Heart) -- National Council of La Raza Promotora Outreach Program.** (Balcázar H, Alvarado M, Hollen ML, Gonzalez-Cruz Y, Pedregón V. Prev Chronic Dis. 2005 Jul;2(3):A09.)

Balcazar and colleagues tested the effectiveness of the promotora model in improving heart-healthy behaviors, promoting community referrals and screenings, enhancing information sharing beyond families, and satisfying participants’ expectations of the program. In particular, the promotores helped to promote heart-healthy behaviors among families. Promotoria has the potential to be integrated with a medical model of patient care for primary, secondary, and tertiary prevention.

**Prostate cancer-related depression**

**The impact of dyadic social support on self-efficacy and depression after radical prostatectomy.**

(Weber BA, Roberts BL, Yarandi H, Mills TL, Chumbler NR, Wajzman Z. J Aging Health. 2007 Aug;19(4):630-45.)

Weber and colleagues assessed the effects of one-on-one peer support at enhancing self-efficacy and decreasing depression in older men treated by radical prostatectomy for prostate cancer. At posttest, the treatment group had significantly higher self-efficacy than the controls and significantly less depression.

**Smoking cessation**

**Use of community health workers in research with ethnic minority women.** (Andrews JO, Felton G, Wewers ME, Heath J. J Nurs Scholarsh. 2004;36(4):358-65.)

Andrews and colleagues tested the effectiveness of a multi-component smoking cessation intervention in African American women residing in public housing. The used community health workers to

enhance smoking self-efficacy, social support, and spiritual well-being. The results showed a 6-month continuous smoking abstinence of 27.5% and 5.7% in the intervention and comparison groups. Changes in social support and smoking self-efficacy over time predicted smoking abstinence, and self-efficacy mediated 6-month smoking abstinence outcomes. The findings support the use of a nurse/community health worker model to deliver culturally tailored behavioral interventions with marginalized communities.

## **Type 2 diabetes**

**Improving diabetes care and health measures among hispanics using community health workers: results from a randomized controlled trial.** (Babamoto KS, Sey KA, Camilleri AJ, Karlan VJ, Catalasan J, Morisky DE. Health Educ Behav. 2009 Feb;36(1):113-26.)

Babamoto and colleagues evaluated the relative effectiveness of a CHW intervention among Hispanic persons with newly diagnosed type 2 diabetes, as compared with usual clinic practice in three inner-city health centers. Participants in the CHW group achieved greater improvements than did the controls in measures of health status, emergency department utilization, dietary habits, physical activity, and medication adherence and had 2.9 times greater odds of decreasing body mass index.

**Effect of a brief, regular telephone intervention by paraprofessionals for type 2 diabetes.** (Sacco WP, Malone JJ, Morrison AD, Friedman A, Wells K. J Behav Med. 2009 Aug;32(4):349-59.)

Sacco and colleagues evaluated the effects of a brief, regular, proactive, telephone “coaching” intervention delivered by paraprofessionals on diabetes adherence, glycemic control, diabetes-related medical symptoms, and depressive symptoms. Therapeutic mechanisms underlying the intervention’s effect on the primary outcomes were also examined. The intervention increased frequency of exercise and feet inspection, improved diet, reduced diabetes medical symptoms, and lowered depressive symptoms. Self-efficacy, reinforcement, and awareness of self-care goals mediated the treatment effect on depression, exercise, and feet inspection, respectively. A brief telephone intervention delivered by paraprofessionals had positive effects on type 2 diabetes patients.

## **Global Systematic Review of Peer Support for Complex Health Behavior**

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Extant reviews of peer and social support interventions are disease- and approach-specific (e.g., use of community health workers in diabetes management). Because there is limited evidence within any one disease, such reviews do not provide strong evidence for peer support. In contrast, a more general review of peer support across a range of health behaviors can lead to more solid conclusions about its effectiveness. We conducted a systematic review of research on peer support for complex health behavior (e.g., cardiovascular risk reduction) across a variety of health problems. An initial PubMed search of papers published between 1/1/2001 and 8/31/2009 and using cognates of “coach,” “promotora,” “peer support,” etc. identified 902 peer-reviewed articles. Of these, 595 articles were excluded as their titles indicated that they were not patient behavior programs (e.g. coaching for career growth among health professionals). The remaining 307 were reviewed to fit a broad definition of peer support: provided by a nonprofessional and addressing support for multiple health behaviors over time. Exclusion criteria consisted of: Interventions focused on isolated or single behaviors (e.g. cancer screening); interventions evaluating educational classes; and those without outcome data. The resulting 40 papers addressed: breastfeeding (6 papers); diabetes (5 papers), depression (5 papers), and asthma (4 papers), along with a variety of other health issues, and represented 8 different countries. Provisional rating of outcomes was: No evidence of benefit; Modest evidence of benefit (e.g., changes on self report measure of health behaviors or quality of life); and Strong evidence of benefit (e.g. statistically significant changes on objective clinical measure such as blood pressure or blood glucose, or on well validated psychological measure such as the CES-D). Of the 40 papers, 7 were scored as No, 15 as Modest, and 18 as Strong Evidence of Benefit. Further evaluation of effect sizes and weighting by sample sizes and adequacy of controls will be included in presentation at the Congress. This systematic review indicates that peer support is effective in promoting complex health behaviors across a variety of diseases and national settings.

To be presented at the International Congress of Behavioral Medicine, Washington, D.C., August, 2010.