

Caution in generalizing from null effects of a diabetes peer support intervention

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Disappointing results emerge from a recent paper posted online by the *British Medical Journal*, “Peer support for patients with type 2 diabetes: cluster randomized controlled trial.”¹ The paper is impressive in many ways, a cluster randomized design that followed 395 patients (192 in the peer support condition) recruited through 20 general practices in the Republic of Ireland. The intervention was comprised of nine group meetings led by trained peers and spaced over a two-year period. Outcome indicators included metabolic control (hemoglobin A1c), systolic blood pressure, total cholesterol and a measure of well being. There were no statistically significant differences between groups indicating an advantage to the peer support. The prominence of the report and its conclusion that “the results do not support the widespread adoption of peer support” raise concerns for the field. However, details of the intervention point up important differences from widely endorsed features of peer support and call into question the generality of these null findings.

A vast amount of evidence links social support to health and well being. Primates derive great advantage from the support of parents, kin and familiars.² Social support is strongly related to numerous health indicators³ and its absence, social isolation, has been estimated to be as lethal as smoking a pack of cigarettes per day.⁴⁻⁵ Reviews indicate widespread benefits⁶ and promising results of peer support interventions within important areas like diabetes management.⁷ Individual controlled studies indicate substantial benefits of specific peer support interventions, such as with “Lady Health Workers” reducing by half prevalence of post-partum depression in Pakistan⁸ or “Asthma Coaches” reducing rehospitalization for asthma by half among children with very low income, single mothers in the U.S.⁹ Peer support programs are numerous around the world, but are often poorly evaluated, reported, and disseminated. Thus, how to organize and deploy peer support remains elusive.

The paper by Smith and colleagues¹ shows null results in a cluster randomized evaluation of periodic diabetes information groups led by peers plus enhancements of clinical care, compared to enhanced clinical care alone. A number of features of the study may have accounted for the disappointing results. At entry, the clinical status of participants was not remarkable (e.g., mean HbA_{1c} = 7.2%), making demonstration of improvement difficult. Additionally, the enhancement of clinical care common to both conditions appears to have been appreciable, e.g., reduction of systolic blood pressure from 144 to 137 mm Hg in controls.

Most important, however, is the particular approach taken to operationalizing peer support in this study. The intervention itself focused on nine peer support group meetings spaced over two years. Based on the description of “Specific topics discussed in the peer support meetings” posted at BMJ.com, meetings addressed varied topics of interest to those with diabetes (e.g., heart and vascular disease, blood sugar levels, healthy eating, exercise, medications, foot care). “In general, the groups followed and discussed the planned topics”.p. 5,¹ However, meetings appeared not to include a focus on individualized plans for behavior change and follow up of these plans, a feature commonly observed to be important in achieving improvements in self management of diabetes and other chronic diseases.¹⁰⁻¹² The description of the “Peer supporter training,” also posted at BMJ.com, indicates there were two, 90-minute training sessions for the peer supporters. Communication skills and role play of them were covered only in the second session, which also addressed lifestyle and medication issues, confidentiality,

and support for the peer supporters. From the report, there appears to have been no contact with participants outside the group meetings. Those who failed to attend the meetings were contacted by study nurses and the study manager but apparently not by the peer supporters themselves.p. 5,¹

Was peer support achieved? Average attendance was only five of the nine meetings schedule over two years. Eighteen percent attended none. If an intervention was intended to provide peer support but was only modestly attended, one might question whether peer support has been provided sufficiently to be tested.

From this important and well designed study, one can conclude that spending time in an intervention led by a peer is not magic. Offering adults with diabetes the opportunity to meet in occasional groups led by a peer to discuss issues of common interest appears insufficient to effect improvements in clinical status or well being. However, features of peer support recognized in the field as important may not be well appraised by this study. In particular, focus on adjusting management plans to the specifics of individuals' lives, social and emotional support, linkage to clinical care, individualized contact, ongoing support, and other features common to successful peer support interventions¹³⁻¹⁶ do not appear to have been emphasized in the intervention reported by Smith and colleagues. Perhaps most important, the apparent limitation of contacts with the peer supporters to the nine structured meetings appears to have eliminated the easy availability of peer support often emphasized as a strength of social support interventions.¹⁷

It is surely correct that the results of the study of Smith and colleagues “do not [in and of themselves] support the widespread adoption of peer support”.(abstract) However, it would be a tortured interpretation of null findings to extend this observation to all of peer support. As indicated above, there are many reasons to believe that peer support is indeed highly effective. Rather than overwhelming that evidence, the present results point to the challenges in developing ways to deliver peer support that is responsive to the complex and dynamic set of emotional, practical, and social needs of people with diabetes. Peers for Progress (peersforprogress.org), a program of the American Academy of Family Physicians Foundation, is dedicated to promoting global exchange to identify effective and feasible peer support interventions. Surely the field needs the “future research” for which Smith and colleagues call, but the failure of this particular study should neither discourage that research nor efforts to find effective and efficient ways to bring peer support to the many who may benefit from it.

References:

1. Smith SM, Paul G, Kelly A, Whitford DL, O'Shea E, O'Dowd T. Peer support for patients with type 2 diabetes: cluster randomised controlled trial. *BMJ* 2011;342:d715.
2. Harlow HF. The nature of love. *American Psychologist* 1958;13:673-85.
3. Uchino BN. Social support and health: a review of physiological processes potentially underlying links to disease outcomes. *J Behav Med* 2006;29(4):377-87.
4. House JS, Landis KR, Umberson D. Social relationships and health. *Science* 1988;241:540-44.
5. Holt-Lunstad J, Smith TB, Layton JB. Social relationships and mortality risk: a meta-analytic review. *PLoS Med* 2010;7(7):e1000316.
6. Swider SM. Outcome effectiveness of community health workers: an integrative literature review. *Public Health Nursing* 2002;19:11-20.
7. Norris SL, Chowdhury FM, Van Let K, Horsley T, Brownstein JN, Zhang X, et al. Effectiveness of community health workers in the care of persons with diabetes. *Diabetic Medicine* 2006;23:544-56.

8. Rahman A, Malik A, Sikander S, Roberts C, Creed F. Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised controlled trial. *Lancet* 2008;372(9642):902-9.
9. Fisher EB, Strunk RC, Highstein GR, Kelley-Sykes R, Tarr KL, Trinkaus K, et al. A randomized controlled evaluation of the effect of community health workers on hospitalization for asthma: the asthma coach. *Arch Pediatr Adolesc Med* 2009;163(3):225-32.
10. Bodenheimer T, Davis C, Holman H. Helping Patients Adopt Healthier Behaviors. *Clinical Diabetes* 2007;25:66-70.
11. Bodenheimer T, Handley MA. Goal-setting for behavior change in primary care: an exploration and status report. *Patient Educ Couns* 2009;76(2):174-80.
12. Funnell MM, Brown TL, Childs BP, Haas LB, Hoseney GM, Jensen B, et al. National Standards for diabetes self-management education. *Diabetes Care* 2011;34 Suppl 1:S89-96.
13. World Health Organization. Peer Support Programmes in Diabetes: Report of a WHO Consultation 5-7 November 2007. Geneva, 2008.
14. Boothroyd RI, Fisher EB. Peers for progress: promoting peer support for health around the world. *Fam Pract* 2010;27 Suppl 1:i62-8.
15. Funnell MM. Peer-based behavioural strategies to improve chronic disease self-management and clinical outcomes: evidence, logistics, evaluation considerations and needs for future research. *Fam Pract* 2010;27 Suppl 1:i17-22.
16. Heisler M. Different models to mobilize peer support to improve diabetes self-management and clinical outcomes: evidence, logistics, evaluation considerations and needs for future research. *Fam Pract* 2010;27 Suppl 1:i23-32.
17. Fisher EB, Jr. Two approaches to social support in smoking cessation: Commodity Model and Nondirective Support. *Addictive Behaviors* 1997;22:819-33.