

Peer Support in Health Care and Prevention: Cultural, Organizational, and Dissemination Issues

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Abstract

As reviewed in the article by Perry and colleagues (2014) in this volume, ample evidence has documented the contributions of peer support (PS) to health, health care, and prevention. Building on that foundation, this article discusses characteristics, contexts, and dissemination of PS, including (a) fundamental aspects of the social support that is often central to it; (b) cultural influences and ways PS can be tailored to specific groups; (c) key features of PS and the importance of ongoing support and backup of peer supporters and other factors related to its success; (d) directions in which PS can be expanded beyond prevention and chronic disease management, such as in mental health or interventions to prevent rehospitalization; (e) other opportunities through the US Affordable Care Act, such as through patient-centered medical homes and chronic health homes; and (f) organizational and policy issues that will govern its dissemination. All these demonstrate the extent to which PS needs to reflect its contexts—intended audience, health problems, organizational and cultural settings—and, thus, the importance of dissemination policies that lead to flexible response to contexts rather than constraint by overly prescriptive guidelines.

INTRODUCTION

Major reviews (29, 43, 55, 96, 101) including that of Perry and colleagues (76, in this volume) document that peer support (PS) provided by “community health workers” (CHWs), “lay health advisors,” “*promotores*,” “patient navigators,” and individuals with a number of other titles can make important contributions to health, health care, and prevention. If individuals spend even an aggregate six hours per year with professionals and clinicians, that leaves 8,760 hours per year (averaging in leap years) that they are “on your own.” It is for those 8,760 hours per year that patient education, self-management programs, community resources, and PS can be especially helpful (32). PS can link people who share knowledge and experience, provide emotional, social, and practical assistance for how to achieve and sustain complex health behaviors, help people cope with the stressors that so often accompany health problems, and help them get the care they need (16, 20, 24, 52, 93).

As Perry and his colleagues (76) conclude in their review, “one of the key challenges for the future is to learn how large-scale CHW programs can become as effective as possible in improving the health of the populations they serve. . . . In the United States, as the Patient Protection and Affordable Care Act is fully implemented in 2014, increased opportunities will become available to test the effectiveness of approaches . . . that incorporate CHWs. . . .” This recognition of the contributions of PS, the growing opportunities for its dissemination, and the press of health challenges around the world evoke calls to action and formal policy recommendations for the implementation of PS programs (6, 18, 44). This article identifies and characterizes current knowledge regarding cultural, organizational, and implementation issues central to social support and its widespread dissemination through PS programs.

FUNDAMENTALS

Figure 1 depicts a 1950s study familiar to most who have taken an undergraduate course in psychology. Harry Harlow showed that, although a wire surrogate mother was the source of food, young monkeys spent more time on a warmer, more cuddly terrycloth surrogate. Counter to thinking that affectional bonds are based on association with food and other necessities, Harlow argued from this and a series of similar studies that “contact comfort” and the relationships that provide it are of value in and of themselves, not as derivative of other needs (50).

Research shows that social support has direct impacts on objective indices in health and that it is important in and of itself, not just because it may be associated with other good things, such as education and access to care. Among healthy volunteers, Cohen (22) showed that variety of social ties was associated with less susceptibility to common cold and related symptoms following exposure to rhinoviruses. Among women with ovarian cancer, high levels of reported social support were associated with lower levels of factors associated with invasive and metastatic growth (63). Even more fundamentally, evidence indicates the impacts of social ties on epigenetics and genetic expression (66), leading now to the developing field of “social genomics” (90). These demonstrations of fundamental roles of social connections are reflected in major epidemiological reviews (54, 55) showing that the effects of social isolation on mortality are similar to those of cigarette smoking.

That social support is of value in and of itself and directly influences important biological processes has important implications for PS programs. In addition to their benefits through improved health behaviors, they may provide benefit through direct influences on disease processes. Thus, in addition to PS promoting self-management and behavior change, it may often be of value for supporters simply to be available and to provide emotional support to those they help (46).



Figure 1

Picture from studies of Harry Harlow and colleagues (50) demonstrating the fundamental preference for “contact comfort” provided by a terrycloth-covered surrogate mother, relative to a wire surrogate providing food. As described in the text, this and other studies of Harlow showed that the value of contact comfort from one’s own species is fundamental among primates, not derivative of other needs, such as for food.

CULTURAL ISSUES

Cultural values and norms influence how social support is construed and provided. Kim and colleagues (60) reviewed differences in social support in collectivist and individualist cultures. In collectivist cultures, the family or group is committed to supporting its members, and the individual can expect that her/his needs will be anticipated and cared for without having to request support directly. Because the group is obligated in this way, however, the individual may be discouraged from bringing forth personal problems that would impose an obligation on and burden the group. In such a setting, sharing personal problems might cause an individual to lose face or may impact relationships negatively. Accordingly, those in collectivist cultures are thought to prefer implicit support in which support is provided through presence and shared activity but with few overt acts of support and without the recipient overtly seeking or asking for it. Reflecting these characteristics of collectivist cultures, Kim and colleagues (60) showed that, relative to European Americans, Asians and Asian Americans were reluctant to ask explicitly for support and preferred and also benefited more from implicit support.

Cultures also differ in encouragement of autonomy versus mutual responsibility. Dutton (30) studied this difference in terms of preference for more directive support in cultures encouraging mutual responsibility versus more nondirective support in cultures encouraging autonomy. Representing cultures encouraging mutual responsibility, Russian young adults interpreted directive, unsolicited support (49) from family more positively than did European American young adults who represented cultures encouraging autonomy. At the same time, European Americans’ satisfaction with support was associated with its level of nondirectiveness.

Culture may influence the roles of different channels and sources of support. For example, in a PS program for people with diabetes in Cameroon (32), participants reported being comfortable discussing emotional issues with their supporters, issues they would not feel comfortable discussing with family or professionals. Similarly, participants in a program in China reported substantial emotional support from PS groups, but they would have been reluctant to burden their families with their concerns and would not discuss them with friends because of perceived stigma (109).

The role of religion or spirituality is also pronounced in some cultures. In South Africa (87), the Diabetes Buddies program served women who often attributed their disease to a sin committed or having been a victim of witchcraft and who emphasized the importance of “trusting God” as a critical coping mechanism. Therefore, the program incorporated singing and praying when starting and ending sessions. Within African American and Latino communities, participants in PS interventions have also expressed the need for spirituality and faith-based support (e.g., 70).

SPECIFIC GROUPS AND THEIR NEEDS

Different groups may have needs for specific types or features of social support. For example, recent immigration and levels of acculturation to new cultures have been found to influence levels of perceived social support. Su & Hynie (95) discuss the disruption of social networks and the high levels of stress resulting from migration in a study of Chinese mothers living in Canada. When families migrate, they tend to do so because the parents are seeking a “better future” for their children. However, the newly arrived parents themselves end up having fewer people in their support system, adding to the stress of moving to a new place. These mothers reported high levels of stress and low levels of social support (95).

Wasserman and colleagues (104) examined cervical cancer screening as a health issue associated with recent immigration among Latinas in North Carolina. Lower utilization of preventive health services among those recently arrived in the United States is attributable partly to the lack of an established social support system, particularly in areas where Latino immigration is a relatively new phenomenon. Results from the study showed that the *promotores* were an effective liaison between those who had recently immigrated and preventive health services. Need for assistance with accessing services among those recently immigrated was also reflected in a review by Ayala and colleagues (4). They found that *promotora* programs in central and northeast regions of the United States in which Latino immigration is relatively recent were more likely to include “educator-plus-bridge” services to link recipients with clinical and community resources as well as to provide education.

Older adults who migrate to join their families face stresses related to both aging and acculturation. Blair (8) employed CHWs serving as community ambassadors to provide social support to South Asian older adults who had recently migrated to the United States. Intrafamilial acculturative stress shaped the way in which families interacted with social services. Community ambassadors performed a hybrid of familial and professional roles through which they navigated the sensitive space between elders, their adult children, and community resources. They used their hybrid status to conduct outreach and serve as guides to social services.

In the United States, veterans of the Iraq, Afghanistan, and Vietnam wars have a variety of needs to which PS may be pertinent. Among these are disproportionate rates of posttraumatic stress disorder, mood disorders, suicide, substance abuse, and chronic health problems. PS has been an acceptable strategy to promote treatment entry and adherence and to improve clinical outcomes (45). In Vet-to-Vet, a PS program for veterans with chronic mental health problems, program satisfaction and recovery orientation were associated with duration and frequency of program participation (5). In another project, veterans with diabetes were provided initial

self-management education and then taught basic strategies for encouraging each other through phone contacts. They were also given free web-based phone services for dyadic telephone support but that also protected the confidentiality of their actual phone numbers. Relative to controls who also received the self-management education, those in the dyadic support group showed significantly and substantially greater improvements in blood sugar control (53).

ISSUES AROUND TYPE OF SUPPORT

Well-accepted distinctions have emerged among types of social support, including tangible, informational, or emotional support (23). For example, several studies have found that emotional support was especially associated with better adjustment among cancer patients (3, 78).

In addition to distinctions according to type of support, research has also characterized support in terms of how it is given and received. Such distinctions have led to studies of support that is problematic (85, 97), unwanted (72), negative (88), or overprotective (25). In this vein, research has distinguished directive support, in which the provider assumes responsibility (e.g., “Does all the food shopping for me”) and tells the recipient what he or she should do or feel (e.g., “Look on the bright side”), in contrast to nondirective support, in which the provider cooperates with the support recipient (e.g., “Cooperates to choose a restaurant where I can get what I need to eat”) and accepts the recipient’s feelings (e.g., “I can understand how upsetting that must be”). Research has documented benefits of nondirective support in terms of disease management (including metabolic control among adults with diabetes), healthy lifestyles, adaptive coping, and quality of life (37, 49, 74, 94). In contrast, directive support is either unrelated to or, often, negatively associated with these outcomes (37, 49, 103).

Recognizing different types of support raises the possibility that personality differences may influence the type of support individuals prefer or find most helpful. For example, a follow-up study of lung cancer patients who had quit smoking prior to surgery found relationships among psychological reactance (resistance to external influence), type of social support, and urges to resume smoking (102). Those who scored high on a measure of reactance and also reported high directive support for smoking cessation also reported high appetitive urges to smoke (i.e., expectations of positive consequences). However, if those who scored high on reactance reported low levels of directive support, they reported relatively low appetitive urges. Thus, individuals who are especially resistant to influence or control may be especially sensitive to the counterproductive influences of directive support.

One fairly robust individual difference around which PS might be tailored is attachment style (12). Those with avoidant attachment styles might be approached in a very low-key, nonintrusive manner until they begin to engage with a supporter, whereas great care for consistency and reliability would be important in providing support to those with anxious ambivalent styles. In general, however, there has been little research on tailoring PS to personality differences.

Returning to the general advantages of nondirective over directive support, striking findings were those of Gabriele and colleagues (41) in a study of email intervention for weight loss. The medium of email provided opportunity for careful construction of messages that reflected directive or nondirective approaches. Directive support included concrete, specific advice, a standard order of weekly lessons, and specific diet and physical activity goals to achieve losses of 1–2 lb per week. In contrast, nondirective emailed support was “. . .structured to heighten participant choice such as in the order of lessons, encouraging the participant to identify objectives and goals, and, whenever possible, in presenting several alternatives for addressing obstacles rather than one specific recommendation” (p. 255). Over 12 weeks, weight loss among females (the number of males was too small to analyze separately) was greater in the directive than in the nondirective

condition [covariate adjusted mean kilograms lost (standard error) = 4.76 (0.63) and 2.19 (0.67), respectively, $p = 0.01$].

The finding that directive support may sometimes be beneficial recalls Richard deCharms's (27) work on personal causation. In this, deCharms described how circumstances and especially level of structure or direction of behavior engender feelings of being either an origin or a pawn. An important feature of this relationship between structure/direction and origin/pawn is that it is U-shaped; too much or too little structure each makes people feel like pawns. Moreover, determining what constitutes too much or too little structure is influenced by the individual's skill and experience. In areas in which an individual is skillful, heightened structure will provoke feelings of being a pawn. On the other hand, facing a challenge for which the individual has little experience or few skills, lack of structure will also create feelings of being a pawn. Put positively, individuals feel like origins when the level of structure is well tuned to their own level of skill and the challenge they face.

That type of support should reflect the recipient's skill and experience appeared to be the case in the lifestyle condition of the Diabetes Prevention Program (DPP). Participants reported relatively high levels of directive support from staff early in the program (39). However, these reports diminished as the program progressed and support became more predominantly nondirective. Directive support may be important early in the process of changing behavior patterns when concrete instruction and perhaps direct assistance may be of value. One could extend these observations to suggest, for example, that individuals recently diagnosed with chronic disease may benefit from more education-focused, directive, or tangible support in developing self-management skills. In contrast, those for whom the challenge is not skill acquisition but skill maintenance and application may benefit more from nondirective support oriented toward motivations and barriers (39). Similarly, the processes of change identified by Prochaska and his colleagues (79) reflect a more nondirective approach for those in precontemplation, contemplation, and maintenance but a more directive approach for those in preparation and action.

CHARACTERISTICS OF GOOD PEER SUPPORT

There is no prescription for what makes an ideal supporter. When recruiting, programs generally look for people who have a strong desire to help the community or are interested in being useful and engaged, are available and have time to spend, are approachable and like to talk with others, are broad-minded, do not see others' problems as simple or feel there is only one way to solve them, and are willing to utilize backup from professionals (91). For interventions intended to assist disease management, the role of the supporter is not to provide the expertise of a professional, but instead to provide support and encourage problem solving around the specific tasks of managing the disease. In such cases, prospective peer supporters need to be able to understand management plans at the level of a well-informed patient.

Peer Support Is Meant to be From "People Like Me"

Similarity between peers and those they support is often taken as part of the definition of PS. This includes similarity by diagnosis, e.g., peers with diabetes helping those with diabetes, peers with breast cancer helping those with breast cancer, etc. However, dissemination of PS programs may require questioning of this assumption. First, consider multimorbidity. The adult with one chronic disease and no other appreciable medical problems is uncommon. Rather, co-occurring obesity, hypertension, arthritis, cardiovascular disease, diabetes, and joint problems, as well as depression or other psychological problems are common. From this perspective, matching the supporter to the

recipient's clinical profile would pose enormous challenges. The alternative, separate supporters for each problem, would no doubt be unfeasible and unacceptable to the recipient.

Scalability is likely also enhanced if programs provide support for a variety of preventive and disease-management tasks, not just a single disease category. For example, a successful PS program in a Federally Qualified Health Center in Denver (106) focused on underserved groups and included a range of services in PS: "community-based screening and health education, assistance with enrollment in publicly funded health plans, referrals, system navigation, and care management" (p. 8). Such a broad range of PS is likely to be facilitated by a varied group of supporters.

Teams of supporters with varying characteristics provide opportunity for flexible assignment on the basis of characteristics important to a particular individual. In the Circles of Care intervention for African Americans with advanced cancer, PS teams were found to be superior to individual supporters for patients with serious illnesses (48). One successful PS intervention (99) gave low-income adults with diabetes their choice of peer coach. Patients were provided a set of 23 "baseball cards," each with a picture and, on the reverse, a description of the coach written by the coach him- or herself. Many patients picked a coach with similar ethnicity as themselves. That participants were given a choice of coach rather than assigned a coach perhaps contributed to the positive outcome of the study, improved glycemic control among those with peer coaches compared with usual care.

Although matching is often thought to be important, PS interventions have been successful without matching by diagnostic category. In the area of mental health, for example, the successful "Lady Health Worker" intervention for postpartum depression in Pakistan (81) was implemented by women who were generally from the same villages as recipients but did not necessarily share a history of depression. Similarly, successful support for adults who had lost at least one family member in the December 2004, tsunami in India was implemented by volunteers who were experienced in providing supportive services but who had not themselves lost a family member (100).

Although matching by diagnosis may not be necessary, there may be situations in which it is important, such as among individuals with nonprevalent diseases whose management is especially challenging. Individuals with type 1 diabetes, for example, may have a sense that their unique challenges would limit their trust in supporters who had not "walked in my shoes." This viewpoint is sometimes expressed in social media even with appreciable hostility toward those with type 2 diabetes (e.g., "The Type 1 Versus Type 2 Diabetes War"; see http://www.huffingtonpost.com/riva-greenberg/the-type-1-versus-type-2_b_611662.html). Similarly, parents of children newly diagnosed with type 1 diabetes consistently reported that only parents raising children with the disease can understand their experiences (84). Among cancer patients, one qualitative study found preference for matching by severity in order to avoid anxiety or guilt, if paired with those with a worse prognosis, or envy, if paired with those with better health status (89).

For those with pronounced and disease-specific needs, however, matching can also have detrimental effects. Commenting on null results of a PS program for elderly adults with heart failure, Dracup (28) observed that, for such individuals, "often frail, and struggling with multiple symptoms," talking to a peer with similar self-management and morbidity challenges may be an additional burden. In such cases, a peer supporter unmatched on frailty may be more able to carry the burden of maintaining the relationship.

Matching on the basis of clinical problem may reflect an inappropriate assumption that individuals' clinical problems control their views of themselves and their preferences in PS. Depending on the population and the nature of the problems faced, it may be more important that supporters are seen as possessing similar demographic characteristics, coming from the same community, facing similar obstacles (e.g., recent widowhood), etc. A 68-year-old with arthritis and diabetes may be more concerned about recent retirement than about her/his diagnoses and so may find greater

compatibility in a supporter matched according to life stage than according to clinical features. However, a highly threatening diagnosis or burdensome treatment may be the most salient current feature of an individual's life and so may be a crucial point of similarity in a potential supporter.

Finally, programs should also consider the abilities of the peer supporter. Supporters with good communication skills and time to get acquainted with those they help may connect successfully across wide divides of personal circumstance. Flexibility in assignment of supporters may be the critical factor.

ORGANIZATIONAL ISSUES

PS is often organized through community settings (105). Implementation through community-based organizations, however, does not preclude linkage of PS with clinical care. One *promotora* program among migrant farm workers was successful in developing linkages with a local community health center to enhance clinical services for participants (57). Reciprocally, in PS programs implemented through health care settings, supporters may provide natural linkages from those settings to the communities they serve. They may also represent their communities in activism to address health issues within the health care organization as well as with governmental and health system policy makers (56).

PS can play a major role in linking clinical and community resources. For example, a statewide, public-private initiative, the Vermont Blueprint for Health, utilizes interdisciplinary community health teams to "provide a crucial link between primary care and community-based prevention of chronic disease" (7, p. 384). Supporters provide practical assistance, such as helping patients complete insurance applications, follow treatment plans, work toward personal health goals, and manage stress. They may also accompany patients to appointments or help them find transportation or child care.

Success in achieving organizational acceptance and integration of PS into health systems can also include challenges. Institutional recognition and financial support can be accompanied by a greater emphasis on regulations and protocols. Greater institutional access can also compromise the position of the supporter in the community, distancing them from the contexts they were initially chosen to reflect (83). If taken too far, integration may create supporters who more closely resemble or identify with the clinical team than with those they are intended to serve. Organizations, and the entities funding them, must recognize the valuable contributions of supporters who share contexts with patients and must find ways to implement programs that cultivate that shared context.

MENTAL HEALTH AND PSYCHOSOCIAL ISSUES IN PEER SUPPORT PROGRAMS

Both the social isolation or lack of a confidant that often accompanies psychopathology and distress (35) and the importance of simple social contact and emotional support discussed at the beginning of this article (50) suggest that simple, frequent, affirming, and pleasant contact from a supporter may be especially helpful to those with emotional distress. The US Centers for Medicare and Medicaid Services (CMS) have recognized the value of PS in mental health and encouraged flexibility in state Medicaid programs' reimbursement and facilitation of PS.

Patients with chronic conditions experience heightened prevalence of mental health and psychosocial issues. Depression has been most extensively investigated, especially as it coexists with diabetes. Individuals with diabetes are twice as likely to suffer from depression as are those without diabetes, and Anderson et al. (1) estimated that the prevalence of elevated symptoms of depression among individuals with diabetes is 31%. Among patients with coronary heart disease, 15%–20%

are estimated to meet criteria for major depression (62), and an additional 20% are estimated to have elevated symptoms of depression (9). Among cancer patients, the prevalence of anxiety is estimated to be 10%, and the prevalence of any mood disorder is estimated at 38% (67).

In addition to their centrality to quality of life, coexisting psychological problems compromise self-management as well as disease processes. Among patients with diabetes, depression is associated with poor glycemic control and decreased adherence to medical treatments (42). Fortunately, the integrated treatment of depression and diabetes can improve both (10). Similarly, treating depressive symptoms among patients with coronary heart disease has improved cardiovascular biomarkers such as heart rate variability and markers of inflammation (9).

In addition to psychological problems complicating other health problems, they are also themselves objects of PS. In a striking cluster randomized evaluation in Pakistan, Lady Health Workers implemented a cognitive-behavioral, problem-solving intervention (80) for women who met criteria for major depression during the third trimester of their pregnancies. Relative to controls, the intervention substantially reduced depression 12 months postpartum [OR (odds ratio) = 0.23, $p < 0.0001$] (81). In India, lay health workers delivered PS for depression, anxiety, and other mental health problems that included education about psychological problems and ways of coping with them (e.g., deep breathing for anxiety symptoms) as well as interpersonal therapy (26). The lay health counselors received backup from primary care providers and monthly consultations from psychiatrists. Results included a 30% decrease in prevalence of depression and other common mental disorders, 36% reduction in suicide attempts or plans, and reductions in missed work days (75).

A population-based study in Georgia evaluated Medicaid enrollees who initiated claims for both community mental health and PS services. A comparison group that had initiated claims for only community mental health services was matched by gender, race, age, urban/rural residence, and principal diagnosis. Those who had received PS were more likely (OR = 1.345) to achieve crisis stabilization than those in the comparison group. Those who did not achieve stabilization were still less likely to be hospitalized (OR = 0.766) (61).

REACHING THE “HARDLY REACHED”

PS may be an especially effective strategy for reaching the “hardly reached.”¹ “Asthma Coaches” pursuing a nondirective, flexible, stage-based approach were able to engage 89.7% of mothers of Medicaid-covered children hospitalized for asthma. The Coaches sustained that engagement, averaging 21.1 contacts per parent over a two-year intervention. Of those randomized to this Asthma Coach program, 36.5% were rehospitalized over the two years, relative to 59.1% randomized to usual care ($p < 0.01$) (38).

In a successful PS intervention for diabetes management among patients of safety net clinics in San Francisco (99), participants were categorized as low, medium, or high medication adherence at baseline. PS led to greater reductions in HbA1c than did controls across all groups, but the differential impact of PS was greatest among those initially in the low adherence group (68). In the dyadic support intervention among veterans with diabetes, described above (53), improvements in blood glucose measures were especially pronounced among those with *low* initial levels of diabetes support (p for interaction < 0.001) and among those with *low* health literacy (p for interaction < 0.05) (77).

¹Barbara Rimer (personal communication) has suggested that those frequently characterized as “hard to reach” are better described as “hardly reached”; the problem lies not in their personal characteristics but in the frequent failure of interventions to engage them.

Another way to think about disparities is to analyze their socioeconomic determinants. If a program were to reduce the effect of low income status on some important outcome, for example, then it would have reduced disparity related to low income. Along these lines, evaluation of the Lady Health Worker intervention for postpartum depression in Pakistan examined the role of financial empowerment. In the absence of the Lady Health Worker intervention, low financial empowerment was a strong predictor of postpartum depression. The intervention, however, eliminated this relationship of low financial empowerment with depression (82) or, in other words, reduced the impact of this source of disparity.

DISSEMINATION ISSUES

As mentioned at the outset of this article and in the review by Perry and colleagues (76, in this volume), key challenges now entail building on studies of efficacy to extend PS interventions to populations. Among the many issues such widespread dissemination raises, these next sections address development of a disseminable model or template of PS, cost-effectiveness, opportunities in the United States through the Affordable Care Act, expansion of the range of health issues PS interventions address, backup of peer supporters, models for providing ongoing support for coping with lifelong health conditions, and quality control.

Dissemination by Identification of Key Functions

As noted above, the field of PS has experienced sharp disagreements over whether supporters need to have the same disease or have dealt personally with the health challenge of those they will help. Similarly, sharp disagreements have occurred over whether supporters have to be “true” volunteers or may be paid stipends or salaries, each of which might compromise dissemination in at least some settings.

These issues provided a challenge to the global mission of Peers for Progress (<http://www.peersforprogress.org>), a program of the American Academy of Family Physicians Foundation. To guide its promotion of PS in health care and prevention across different nations with their varied cultures and health systems, Peers for Progress initiated a consultation organized through the World Health Organization (WHO) in 2007 (108). Representatives from more than 20 countries encouraged a view that, although PS programs would have to be tailored to individual health systems, cultures, patient populations, etc., key aspects of PS could nevertheless be generalizable across the different settings. Accordingly, Peers for Progress has pursued a strategy of defining PS not by specific implementation protocols or details but according to key functions of support (36). This follows a strategy of “standardization by function, not content” (2, 51). The four key functions are (a) assistance in daily management; (b) social and emotional support to encourage management behaviors and coping with negative emotions; (c) linkage to clinical care and community resources; and (d) continual support because chronic disease is extended over time, usually to the end of life (11, p. i64). These become a template for planning and evaluating PS programs to tailor support according to the needs and strengths of a specific setting or health challenge (32). The hardiness of this approach was demonstrated when applied in programs in Cameroon, South Africa, Thailand, and Uganda, and in the benefits these programs achieved across clinical, self-management, and quality-of-life indicators (32).

In addition to key functions of PS, there are important characteristics of how PS is delivered (33, 40). These include an emphasis on empowerment and the encouragement of self-efficacy. In most cases, PS should also take a person-centered approach, not only addressing clinical issues or prevention but also reflecting an individual’s values, interests, and other problems, e.g., problems

with an adolescent child that may take precedence over personal health. This notion reflects the wide variety of social, economic, and community stressors that influence chronic disease management. In the Asthma Coach intervention that reduced hospitalizations among children with asthma, described above (38), Coaches' contact records indicated discussions of a variety of stressors and other issues with 90.6% of parents, including stress around moving residence (39.6% of parents), social service resources (34.4%), housing (11.5%), illness or other problems of the parent (24.0%), and new jobs (6.3%).

Cost-Effectiveness

In a recent study evaluating PS in a primary care safety-net system in Denver, Colorado, primary and specialty care visits increased and urgent, inpatient, and emergency care decreased (106). These shifts in consumption resulted in a \$14,244 reduction in monthly uncompensated costs. The costs of running the PS program were ~\$6,229 per month, and the ROI was \$2.28:\$1.00. The use of a PS intervention saved this clinic \$95,941 annually (106). This study and additional evidence for the cost-effectiveness of PS is summarized in **Table 1**. As the reader can see, appreciable evidence for the cost-effectiveness of these interventions is emerging from a variety of settings and types of application.

Table 1 Examples of cost-effectiveness of peer support^a

Setting	Program description	Cost-effectiveness indicators
Denver Health, primary care safety net for Denver, Colorado (106)	Supporters provide outreach and services to underserved neighborhoods and special populations such as pregnant women. These services include screening, health education, assistance with benefits, navigation, referrals, and management of chronic diseases and conditions	Primary, specialty care visits increased Urgent, inpatient, and emergency care decreased \$14,244 reduction in monthly uncompensated costs. Monthly cost of PS program ~\$6,229 ROI = \$2.28:\$1.00 Yearly savings to clinic = \$95,941
Diabetes Initiative of the Robert Wood Johnson Foundation (17)	3 of 4 projects in cost analysis emphasized PS	Cost per QALY = \$39,563, well below the \$50,000 per QALY criterion for good value (107)
PS project for children with asthma, covered by Medicaid in Chicago (64)	3–4 PS home visits over 6 months and liaison with care team	ROI = \$5.58:\$1.00
Lifestyle modification program for low-income Latino adults with type-2 diabetes (13)	5 CHWs and a nurse educator provide home visits to reinforce progress and enhance cues for self-management, classroom self-management education, and individual counseling regarding progress and barriers in self-management, as well as reminders regarding upcoming classes and activities	Cost-effectiveness ratio = \$10,995 to \$33,319 per QALY relative to usual care Intervention particularly cost-effective for adults with high blood sugar levels (HbA1c > 9%)
Prevention of psychiatric rehospitalization among those hospitalized ≥ 2 times in 18 months for schizophrenia, schizoaffective disorder, other psychosis, bipolar disorder or major depressive disorder (91)	Recovery mentors self-identified with history of mental illness and provided support without aiming for any specific goal and used own experience as basis for support. Frequency jointly decided by mentors and individual participants	Over 9 months: Reduced hospitalizations: 0.89 ± 1.35 versus 1.53 ± 1.54 , $p < 0.05$ one-tailed Fewer hospital days: 10.08 ± 17.31 versus 19.08 ± 21.63 , $p < 0.05$ one-tailed

^aAbbreviations: CHWs, community health workers; PS, peer support; QALY, quality-adjusted life year; ROI, return on investment.

Amid reservations about the affordability of new interventions, we might consider longstanding PS programs in several nations with modest resources for their health systems. In the Thai health system, Village Health Volunteers have operated since the 1960s, helping communities address a number of health challenges ranging from dengue fever to maternal and child health issues to mental health (21). In Pakistan, the late Prime Minister Benazir Bhutto instigated the “Lady Health Worker” program in 1994 (81). This program has trained more than 110,000 women to provide maternal and child health services to 70% of Pakistan’s rural and low-income urban populations (69).

Affordable Care Act Opportunities for Peer Support

In the United States, health care reform through the Patient Protection and Affordable Care Act (ACA) presents new opportunities for the systematic development and expansion of PS programs. Section 5313 of the ACA formally recognizes the role of “community health workers” in health promotion and education, disease management, patient navigation, health literacy improvement, and advocacy. Integrated into primary and community-based care, CHWs have the potential to improve the quality of health care delivery, lower health care expenditures, and reduce health disparities (65, pp. e1–2).

The ACA authorizes new funding streams to expand and sustain CHW programs. It aims to build CHW workforce capacity through grants to promote the community health workforce (Section 5307) and the community health center fund (Section 10503). ACA provisions also support the inclusion of CHWs in reimbursable services, such as patient navigator programs (Section 3509) (58).

A key strategy by which the ACA seeks to achieve its objectives is the formation of comprehensive, coordinated, interdisciplinary, patient-centered health teams. This philosophy is represented in the patient-centered medical home (PCMH), recognized as an effective framework to improve the quality of primary care (19).

Complementary to integrated primary care and PCMHs, the ACA also calls for “chronic health homes” to provide supportive, self-management, and care integration services to Medicaid beneficiaries who have multiple chronic conditions or a serious mental health condition (71). In particular, ACA specifies that these health homes provide comprehensive care management, care coordination, health promotion, comprehensive transitional care/follow-up, patient and family support services, and referrals to community and social support. Clearly, PS can contribute to each of these.

In both the PCMH and chronic health home models, CHWs can play a valuable and unique role on the health team. With their firsthand knowledge of the patient’s community and culture, CHWs can inform the development of a tailored patient care plan. Furthermore, CHWs can help patients implement their care plans by providing ongoing education and support and linking patients to medical and community resources.

The ACA can provide the initial funding to launch health home initiatives, but it will be up to the states to establish sustainable funding to reimburse CHW services. A growing number of state Medicaid programs have demonstrated their support for PS-based interventions by allowing them to qualify as billable services (92).

Expanding the Range of Peer Support Interventions

Most PS interventions have focused on prevention or on chronic disease management. However, emphases of current health care reform on reducing costs in areas of high and unnecessary health

care utilization, shifting care to primary care, and promoting integrated care models such as the PCMH all point to new opportunities for PS interventions. For example, patient adherence to rehabilitation and to demanding regimens is critical following major medical procedures such as joint replacement or organ transplantation. PS that addresses adherence, provides emotional support and encouragement amid the often slow pace and frustrations of recovery, and encourages appropriate contact with care providers has potential to produce substantial cost savings.

Current initiatives of CMS penalize health care providers who fail to meet targets for rehospitalization rates among patients hospitalized with congestive heart failure, myocardial infarction, or pneumonia. The Robert Wood Johnson Foundation sponsored a major study of patients' and professionals' views of the issues surrounding rehospitalization (86). This review identified the following key objectives and strategies:

- Plan for discharge earlier,
- Offer more intense education for new diagnoses,
- Flag high-risk patients and provide case management,
- Use a multidisciplinary approach to discharge,
- Check in with patients with chronic conditions,
- Encourage follow-up care, and
- Encourage patients to reconnect with their PCPs.

Clearly, PS can contribute to each of these, from helping patients and families understand and participate in early planning for discharge to identifying needs for clinical care (e.g., in response to weight gain among heart failure patients) to promoting appropriate primary care.

Backup of Peer Supporters

Substantial evidence (e.g., 98) and resources (<http://www.peersforprogress.org>) are available to guide training of supporters. Equally important, though, is the backup and ongoing supervision they receive. Challenges supporters face include dealing with emotional distress, unresponsiveness from those they seek to help, and acute and unexpected social, psychological, or medical problems, as well as, in some programs, issues surrounding death and dying. Some may experience doubts about the ways they can reach patients as well as concerns about providing misinformation or not enough information to their mentees (15). In the case of managing delicate or unexpected issues with their mentees, supporters have also noted that having a backup plan and team in place adds a sense of security to their work (15).

There is little published research or discussion of backup and supervision of supporters. Accordingly, we interviewed representatives of several programs regarding this issue, including programs from Hong Kong, China; Melbourne, Australia; San Antonio, Texas; and Durham, North Carolina. **Table 2** presents the results of these interviews.

Backup and supervision are also critical to quality control of PS programs and avoidance of the spread of misinformation or harmful errors in PS. Recognizing this need, the National Standards for Diabetes Self-Management Education and Support of the American Diabetes Association and the American Association of Diabetes Educators (47) specify key elements of ongoing supervision and support for “lay health and community workers and peer counselors or educators”:

... a system must be in place that ensures supervision of the services they provide by a diabetes educator or other health care professional and professional back-up to address clinical problems or questions beyond their training. (p. S102)

Table 2 Sources of backup for peer supporters^a

Program	Program population	Backup team/resources	Method of contact	Backup provided
ALMA Durham, NC	Latinas suffering from depression and anxiety	Project coordinator	Email, phone, or in-person	Consultation and logistic support
		Staff psychologist	Upon referral	Emotional support
		<i>El Futuro</i> ^b	Schedule appointment	Referral for behavioral health services
Care Companions San Antonio, TX	Hispanic and Caucasian adults over age 50 with diabetes	Clinic health coach	Phone or in-person	Available to answer clinical questions
		RN educator	Phone or in-person	Available to answer clinical questions
PEARL Hong Kong, China	Adults with diabetes	DM nurse specialist	Phone	Available to answer clinical questions
		Project coordinator	Phone or email	Logistic support. Available to answer nonclinical questions
Australasian PFP Melbourne, Australia	Adults with diabetes	Diabetes educator	Teleconference	Available to answer clinical questions
		Dietitian	Teleconference	Available to answer nutrition questions
		Psychologist	Teleconference	Emotional support
		Community resources	Website and workbook	Resource materials

^aAbbreviations: ALMA, Amigas Latinas Motivando el Alma; DM, diabetes mellitus; PEARL, PS Empowerment And Remote Communication Linked by Information Technology; Australasian PFP, Australasian Peers for Progress; RN, registered nurse.

^b*El Futuro* is a nongovernmental organization that specializes in mental and behavioral health for Latinos.

Ongoing Support

Substantial research indicates that the duration of interventions is often predictive of their success (e.g., 31, 73) and that sustained behavior change requires sustained support for that change. One study among Mexican American adults with diabetes tested an extended intervention with 12 weekly education sessions plus 14 biweekly support group sessions—a total of 26 sessions—spread over 9 months. This approach was compared with a compressed intervention with 11 sessions over the same 9 months. At the 12-month follow-up, the extended group showed greater maintenance of benefits than did the compressed group (14).

The importance of ongoing support is endorsed, for example, in the National Standards for Diabetes Self-Management Education and Support (47), which call for diabetes self-management support to help individuals “implement and sustain the behaviors needed to manage” diabetes. Peers can provide the kind of ongoing support that is needed for sustained self-management of chronic disease. However, because most health-promotion interventions, including those focusing on PS, are rarely evaluated for more than one year, the literature provides few models for how PS can be extended to address the lifetime needs of patients with chronic disease. The Robert Wood Johnson Foundation Diabetes Initiative examined this issue with the leaders of its 14 self-management projects and identified the following key components of ongoing support: on-demand, proactive, personal connection, motivational, consistent in key messages, not limited to diabetes, and inclusive of a wide range of resources and settings (33). A behavioral economic

analysis of social support also suggests that pleasantness and ready availability may be as important as expertise in ongoing support of health behaviors (46). In addition to these features, peer supporters' familiarity with individuals' communities and perspectives, skills in enhancing motivation, and general interest in others all point to the role of PS as a strategy for ongoing support.

Considering that ongoing support, like chronic disease, is lifelong, no one model or method is likely to meet the needs of every person. People need choices among which to find the type of support they need and that fit with their circumstances and preferences. These preferences are also liable to change over time, again suggesting the importance of alternatives. Rather than a best PS program, it will be important to develop varied models of ongoing support that combine resources such as group medical visits, web- and e-health resources, face-to-face and telephone contacts, mutual or dyadic support, etc. Intensity might also be titrated by recipient choice and/or need (e.g., recent widowhood, retirement, or change in clinical status). From this perspective and considering the reality that different people will react positively to different offerings, it may be more important that services include a variety of good practices rather than a limited number of "best practices" (34).

Quality Control and Regulation

A number of universities now provide training and certification for CHWs, and a number of states (e.g., Texas; see <http://www.dshs.state.tx.us/mch/chw/chwdocs.aspx>) offer certification through state agencies (59). Certification of supporters appears to be emerging as an important consideration in reimbursement for their services. However, certification can provide barriers to entering into the PS workforce.

Certification and licensure are often thought of as ways to ensure the quality of independent practice. Peer supporters, however, are rarely deployed as independent practitioners. So, certification may not be a good fit for peer supporters and their identities as individuals who have not been professionalized but have retained their "peerness." An alternative to certification of individual peer supporters would be standards and regulations and, perhaps, certification of programs that utilize peer supporters. Such standards might include regular supervision and available backup to handle emergent or complex situations beyond supporters' skill levels. As described above, the National Standards for Diabetes Self-Management Education and Support of the American Diabetes Association and American Association of Diabetes Educators (47) take this approach by specifying the responsibilities of PS programs and the organizations that house them to provide monitoring, supervision, and backup to peer supporters. This then leaves those programs with considerable flexibility to recruit, train, and deploy supporters according to those programs' objectives and settings. Such flexibility in recruiting and hiring is also of value in PS programs providing job ladders and opportunities, especially in disadvantaged communities.

Certification of peer supporters is likely to receive increasing attention in coming years. What appears most important is that, whatever paths to certification may emerge, they should not lead to peers losing their peerness or adopting the trappings of professionalism. Neither should certification be implemented in a way that it becomes a barrier to flexible development of PS programs and creation of opportunities for individuals to become supporters, including as a step to further vocational development.

SUMMARY AND CONCLUSIONS

Moving beyond demonstrations of the effectiveness of PS, broad dissemination of PS programs may be guided by understanding both the essential characteristics of as well as the contexts that surround social and peer support. This includes how social support is fundamental among

primates and how its key characteristics may guide delivery of PS. It also includes the contexts of PS programs, the ways individuals' social and cultural circumstances may shape them, and the organizational and policy factors that govern them.

The emergent findings supporting the benefits of PS, along with developing policies such as in the ACA, all create opportunities. To take advantage of these, it is important that research and development of PS programs consider the kinds of cultural, individual, social, behavioral, organizational, and policy contexts discussed here. Because PS is an intervention linking individuals with diverse social, community, health care, and other resources, PS itself must be tuned to that diversity. With no one-size-fits-all model, PS programs must be molded to capture important contexts surrounding individuals. Were policies, well intentioned to be sure, to enforce a single or limited number of best practices, the very strength of PS in reflecting socioecological contexts might be severely reduced. Instead, we hope this article helps elucidate the ways in which PS—capitalizing on a fundamental characteristic of human beings—is shaped by its contexts. We also hope it encourages policies that provide flexibility in fitting programs to their contexts and, so, increasing their benefits to public health.

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