

What is the idea behind peer-to-peer support in diabetes?



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Practice Points

- Peer support in diabetes is where people with diabetes assist each other using their own experience. There are a variety of ways in which this can happen.
- Peer support in diabetes is believed to lead to improved quality of life and improved self-care, but the evidence that it is associated with improved clinical outcomes is unclear, and trials are currently underway to test this.
- Support can use any medium (e.g., face-to-face, by telephone or on the internet).
- Support can be directive, nondirective or a mix of both.
- While nonprofessionals can educate others with diabetes, this is not peer support.

SUMMARY Peer support has been proposed as a means of improving the physical and mental health of people with diabetes, but what is 'peer support'? A literature review revealed that use of the term is a recent phenomenon that has gained momentum over the last two decades and refers to a plethora of interventions. Two dimensions are apparent: the nature of the support given (lying between instructing and confounding) and the interpersonal relationship created (lying between paraprofessional and companion). There is a clear tendency to confuse peer support with educational or self-management programs, and tension exists where imposed structures can inhibit the inherently unstructured nature of peer support. However, peer support can act as a useful adjuvant to service provision, providing that the flexibility inherent in allowing patients to negotiate the meaning of their experiences together is maintained.

Over the last decade, diabetes is increasingly being acknowledged as a global health problem of epidemic proportions [1,2]. The number of those living with the condition is predicted to double between 2000 and 2030 [3]. Health services in low-, middle- and high-income

societies will consequently struggle to cope with the rise in demand for diabetes care. It has been suggested that the poorest economies will need more than 4 million health workers just to obtain a basic level of care [4]. Since self-management is seen as crucial in diabetes [5],

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one response to this need is the promotion of support for people with diabetes from others with the condition. Indeed, the perception of an intrinsic value of patient-to-patient contact is supported by the International Diabetes Federation, which endorses organizations for, and run by, people with diabetes across 160 countries [2].

The sharing of experiences of illness between patients is not new, and support has existed through local 'self-help', 'support' and 'mutual support' groups for many years [6]. Additionally, it is common for health professionals to overhear patients spontaneously comparing notes about a given drug, symptom or even just sentiments that they may have about their condition. The idea that patients can accrue sufficient skills and information not only to be able to take greater control of their own health, but also offer a significant resource for others is now well established. Since Lorig and colleagues' early work in the 1970s based at Stanford University (CA, USA) and culminating in the Chronic Disease Self Management Program [7], there has been a vast number of relevant initiatives globally, including the UK's Expert Patient program [8]. Such initiatives suggest that patients with chronic conditions are best placed to decide how their conditions should be managed day-to-day. However, such interventions are led by health professionals, and as such tend to encompass both patient experience and biomedical knowledge, with an emphasis on the latter [9].

By contrast, 'peer support' tends to be used to emphasize greater mutuality, implying benefit is less related to imparting knowledge *per se* and more about sharing strategies to navigate services, emotional reactions and psychological difficulties [10]. The value of such an approach is often expressed through a broad concept of 'experiential knowledge', which serves to collect together these various elements and emphasize how they are embedded in the everyday lives of people with a condition. However, the proposal that such interactions between patients might have some 'biomedical' value and might be the basis for a behavioral intervention is still in its infancy. During the last decade, the suggestion that patient-to-patient interactions might serve as a useful supplement to conventional care has slowly gained momentum across a variety of contexts as diverse as cancer [11], depression [12], heart disease [13], HIV prevention [14] and

breastfeeding [15]. Since 2003, such proposals have most often been grouped under the term 'peer support' [16]. In 2007, WHO held a consultation to reflect upon its global growth in the care of people with both Type 1 and 2 diabetes. Part of this reviewed evidence in the literature on diabetes care [17–21] in order to then consider those areas that needed to be clarified before peer support could be recommended [22].

Despite this growing interest, the lack of a singular definition and the plethora of emerging models of peer support have complicated the picture for many clinical practitioners. Of particular significance is the overlap some peer support programs have with existing self-management interventions for chronic diseases [23]. Consequently, the aim of this article is not to define 'peer support', since it argues that no single definition would adequately contain its multiple uses, but rather to consider the varied meanings of the term 'peer support' as used in the established literature. The conceptual model derived from this discourse analysis is intended to aid future development of peer support initiatives.

General discourse analysis approach

Since diabetes peer support is still at an early stage of development we decided the most appropriate strategy to review research to date was to adopt a general discourse analysis approach – that is, to look at the emergence of the concept in order to chart its varying uses and meanings [24,25]. Using such an approach allowed exploration of the variety of assumptions and values contained within the term that practitioners may not be aware of [26]. This enables critical reflection, essential to developing peer support enquiry and practical application. Consequently, we did not pursue a traditional systematic review search technique, as our aim was to explore the breadth of uses to which the single term 'peer support' has been applied. While systematic reviews provide excellent objective summaries of available data on a focused topic, it has been recognized that this strength becomes a weakness when trying to assess discursive and narrative trends [27].

In order to generate a dataset of papers appropriate to our aim, we searched two online databases (first Medline and then ISI Web of Knowledge to confirm saturation) for articles containing the term 'peer support' in the title that were published in English in peer-reviewed

journals. This provided a dataset for our general analysis of 'peer support'. We then repeated the search and added 'diabetes' in order to create a diabetes-specific subset. We did not include a lower date restriction in order to secure the broadest historical overview available, and included all papers published up to and including 30 November 2010. We also repeated the searches using the terms 'lay assistant' and 'peer facilitator'.

Abstracts of the returned papers were read to confirm that some form of peer support was discussed. A random sample was then scrutinized in order to identify a set of preliminary themes that were then refined by two of the authors to establish reliability. The themes chosen were attempts to define peer support, discussion of modes of delivery, concern over risk and governance issues, and any stipulation of education or training. These preliminary themes were then applied to all the papers using a common extraction template. The findings reported below represent the main features of an emerging discourse that underlie these four themes.

The searches identified 501 papers between 1968 and 2010. It is clear that the popularity of the term 'peer support' in scientific discourse is relatively recent, as can be shown by looking at the frequency of citations (Figure 1). Only 17 papers explicitly discussed the use of peer support in diabetes care. Searches for 'lay assistant' and 'peer facilitator' returned no relevant articles.

Peer support: general trends & current models

Throughout the current healthcare literature on peer support – in systematic reviews [11,13,28], general overviews [18] and a widely cited concept analysis by Dennis [16] – we found that the term 'peer support' was often used uncritically, assuming that it necessarily described the same thing. On further examination, it is clear that this literature refers to an extremely varied group of studies, most of which do not present the interventions tested as 'peer support' *per se*. Moreover, these studies differ greatly in the nature of patient interactions promoted, what therapeutic value is ascribed to them, and how the intervention is assessed and reported by the researchers. To illustrate this general variance, we turn to Heisler's overview of peer support in relation to diabetes care [17]. Using a wide range of examples, Heisler classifies peer

support intervention into five broad categories (Table 1).

Is all peer support actually peer support?

Despite considerable variation, Heisler suggests that all the studies included in her analysis qualify to be listed because they accord with Dennis' universal definition of peer support: peer support, within the healthcare context, is the provision of emotional, appraisal and informational assistance by a created social network member who possesses experiential knowledge of a specific behavior or stressor, and similar characteristics as the target population, to address a health-related issue of a potentially or actually stressed focal person [16].

However, it is not at all clear that the five types of peer support that Heisler describes map onto this definition. Indeed, if as Dennis suggests 'experiential knowledge' is of central importance, it is difficult to see how, for example, an education program led by a health professional to impart clinical information might qualify.

To cement this point, we need to look specifically at two of the studies Heisler cites. First, under the face-to-face self-management category, she includes a study by Anderson *et al.* that trialed an education program focused on patient empowerment for those with diabetes [29]. The intervention consisted of six weekly sessions

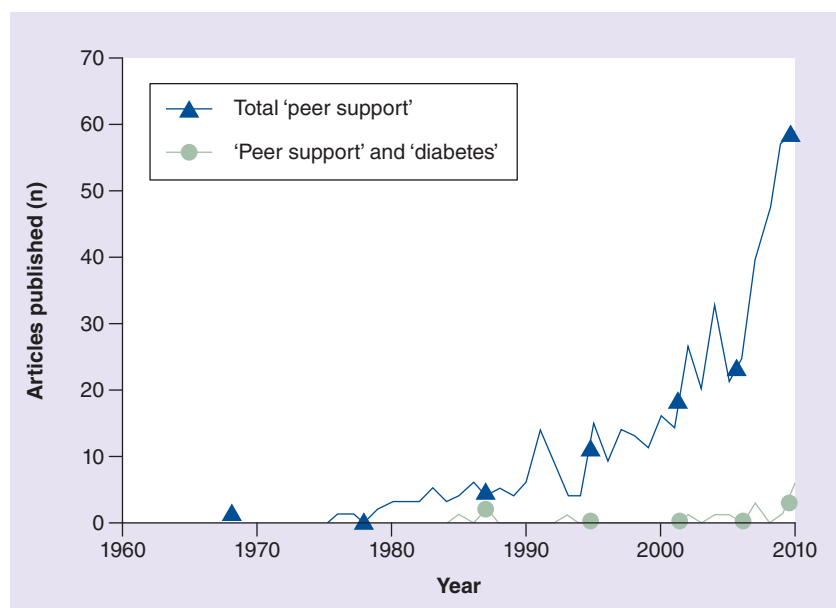


Figure 1. Articles with 'peer support' in their title listed on Medline and ISI Web of Knowledge.

Table 1. Existing peer support models.	
Peer support model	Intervention content
Face-to-face self-management programs	Structured education programs, often delivered by a health professional, sometimes with ‘peer’ involvement, carried out over a number of weeks. Focus on self-management, empowerment and self-efficacy. Training is provided
Peer coaching	One-to-one sessions conducted by a coach or mentor who shares experience of the condition with the patient. Focused on listening and problem solving. Peers trained in these areas
Community health workers	Community health workers act as ‘bridges’ between often-marginalized communities and the health professions. The core requirement is that the community health worker is of the same community, but not necessarily with the same condition. They act as facilitators. They are provided with training
Telephone-based peer support	Patients given the ability to converse privately with other patients in an unstructured way. Often have the ability to flag-up conversational issues for health professionals to follow up on. Typically, no training is required/offered
Web- and email-based peer support	Patients communicate in an unstructured way via email or message board. Typically, no training is required/offered
Data taken from [17].	

facilitated by a diabetes educator who structured the nature of interactions using ‘empowerment theory’. Although much of the learning was achieved through others with diabetes, the facilitator targeted gaps in knowledge and misconceptions. By contrast, Heisler also includes a study under the web- and email-based peer support category by Zrebiec that examined, over a 6-year period, the use of internet discussion boards that were only moderated by health professionals after posts were made [30].

These two studies illustrate the breadth of the content used by Heisler in the survey. At one extreme, health professionals design and facilitate structured education curricula based on biomedical knowledge mediated by other peers in the group, while at the other, forums for open, unstructured discussion between patients are promoted to share individual experience. As we found in all of the literature reviewed, by amalgamating such variation under a single term, the ambiguity of the concept is unavoidably reproduced. Furthermore, different conceptualizations of peer support and the varied roles assigned to the peers are conflated with the different media through which they are delivered. In this way, the use of the specific term ‘peer support’ currently encompasses wide variations relating to both content and form.

Peer support for people with diabetes

Extending our discourse analysis, the breadth of meanings used in the general literature was largely reflected in the diabetes-specific literature. For example, one study even used peer support to describe support from networks of family and friends, and not other diabetes

patients [31]. Studies and analysis papers largely agree on desired outcomes – namely, improved HbA1c and self-management, weight loss, lowered cholesterol and better quality of life. However, investigators and academics use peer support to refer to both education-based interventions that guide people on what to do, as well as unstructured encounters that support people with diabetes to make their own decisions by sharing experiences. A paper by Fisher *et al.* parallels this contrast as one between ‘directive’ and ‘nondirective’ support [32]. Table 2 summarizes the variety of ‘peer support’ we uncovered in the literature.

As Table 2 shows, papers that deploy a mixture of directive and nondirective approaches to peer support predominate in the diabetes literature. Indeed, the incidence of purely directive or nondirective approaches is low, with just one study in each category. As with the general literature, ‘peer support’ is used to describe a plethora of interventions that conceive relationships and content in different ways. Sometimes, the knowledge of the peers is emphasized, while in others that of the clinician takes precedence; sometimes peers are free to structure the interaction, while in others it is led by a health professional.

Three of the studies identified in Table 2 report improved biomedical outcomes. One study found an improvement in self-care and self-efficacy. A further three studies observed positive patient experiences through the use of qualitative data. This demonstrates the limited nature of the peer support literature in diabetes, but does point to the potential for benefit. A crucial weakness is a lack of descriptive information about the nature and content of the

Table 2. Diabetes-specific peer support papers.

Study (year)	Type	Description of peer support	Reported benefit	Ref.
Directive peer support				
Bryant and Vaughan (1993)	Descriptive report	Details the creation and operation of a support network for blind people. Structured committees, information services, publications and equipment supply form the core of the service	No benefit reported	[35]
Peer support combining directive and nondirective approaches				
Wilson <i>et al.</i> (1987)		Intervention targeted non-insulin-dependent elderly people, providing them with either diabetes education, diabetes education and peer support, or no intervention (control)	Reduction in weight and levels of glycosylated hemoglobin reported in the peer support intervention group	[36,37]
Pratt <i>et al.</i> (1987)		Peer support understood to be a self-help group in which patients discuss the issues they face, facilitated by a peer supporter trained in group dynamics		
Paul <i>et al.</i> (2007)	Pilot study/ study protocol	Intervention aimed at Type 2 diabetes patients. Peer support delivered in a group setting involved the sharing of experiences and unstructured discussion. Results from the pilot study suggested that patients would prefer a more structured approach. Protocol study for full RCT. 'Peer support' understood to be the provision of a structured program of mixed education and discussion	Qualitative findings from the pilot study reported positive experiences of the intervention among participants	[21,38]
Clark (2010)	Summary	Overview of a special supplement for family practice on peer support. Represents the variety of contributions and mirrors the mixture of directive and nondirective approaches	Not reported	[39]
Simmons <i>et al.</i> (2010)	Systematic review	Varieties of peer support in New Zealand reviewed. The National Association, regional centers, research initiatives and patient clubs are all described. Each of these represents a different approach, varying from structured lay education to nondirective interaction	No quantitative measures were used, but qualitative assessment suggested that common themes emerged across the interventions referred to. These included the need for careful leadership, the right organizational structure and careful balancing of needs during sessions between those at different stages of diabetes	[19]
Fisher <i>et al.</i> (2010)	Analysis	Defines peer support in functional terms as offering: assistance in managing and living with diabetes in daily life; social and emotional support; and linkage to clinical care. Suggests that it is vital for interventions to allow for adaptation to local sociocultural environments. Introduces the directive/nondirective dichotomy, suggests that while nondirective approaches are associated with better glycemic control, both are useful	Not reported	[32]
Heisler (2007)	Analysis	Identifies a broad range of types of peer support that can be used in diabetes based on the modality of delivery: face-to-face self-management programs; peer coaches; community health workers; telephone-based peer support; and web- and email-based peer support. Does not focus on the type of relationships they encourage	Not reported	[17]
Heisler <i>et al.</i> (2010)	RCT	RCT comparing peer support with nurse care management. Patient sessions initially introduced and facilitated by care managers and research associates. Patients receive training in communicating with peers. Subsequently, patients are encouraged to engage in 'reciprocal peer support' in pairs, using the telephone	Improved HbA1c (mean reduction: 0.29%) and an increase in diabetes social support among peer support group	[40]

RCT: Randomized controlled trial.

Table 2. Diabetes-specific peer support papers (cont.).

Study (year)	Type	Description of peer support	Reported benefit	Ref.
Peer support combining directive and nondirective approaches (cont.)				
McPherson <i>et al.</i> (2005)	Study	Peer supporters – called ‘buddies’ – used on a one-to-one basis with an initial face-to-face meeting followed by titrated phone contact. A nondirective approach. Peer supporters were those who had a ‘proven’ behavior change record and were matched to peers based on “the responses to the initial interview and client’s coping skills, weight, HbA1c, blood glucose monitoring and incorporation of routine exercise”	Positive patient experiences reported, but no clinical benefit	[41]
Dale <i>et al.</i> (2007/2009)	Study protocol/exploratory RCT	Type 2 diabetes patients with elevated HbA1Cs were invited to participate. RCT design with three arms: control, usual care plus peer support or usual care plus nurse support. Peer support delivered in the form of motivational interviews over the telephone after specific training in this technique was provided to peers	No benefit reported	[42,43]
Heisler and Piette (2005)	Feasibility study	Study recruited poorly controlled diabetes patients at a Veteran’s Affairs center. They were matched to other patients based on their management needs and given access to an interactive toll-free telephone system with which to call one another. Patients were given ‘rudimentary’ training in how to talk to their peers	Reported increased self-care self-efficacy and positive patient experiences	[44]
Moldovanyi (1985)	Descriptive report	Teenagers with diabetes were invited to a ‘Teen Day’ at a local hospital. The program was facilitated by health professionals who encouraged the teenagers to talk among themselves about their experiences of diabetes, the effects it has on their lives and their willingness to talk to others about it. Parents and siblings were also invited to attend	No benefit reported	[45]
Nondirective peer support				
Murrock <i>et al.</i> (2009)	Pilot study	Female Type 2 diabetes patients attended two dance sessions a week for 12 weeks. No structured education was provided and peer interaction was nondirective	Reduction in weight and systolic blood pressure	[46]
Miscellaneous				
Pendley <i>et al.</i> (2002)	Study	Describes peer support in terms of support received by Type 1 diabetic adolescents from their networks of family and friends not from other diabetes patients	Not reported	[31]
RCT: Randomized controlled trial.				

interventions and the interactions they contain. Since, if we are to apprehend, implement and evaluate peer support in diabetes practice, it is vital that we build more detailed accounts of what actually takes place when peers meet in different settings.

Discussion

As stated earlier, this article does not intend to complicate the field of diabetes peer support, or peer support more broadly, by offering another definition. Instead, discourse analysis has been used to sketch out the scope of the concept as it has been used in the literature. This has demonstrated that the conception of peer support currently refers to a wide range of roles and interactions, institutional settings and activities. Importantly, the interactions between the 'peers' and those they support vary considerably. In some, the peer is elevated and separated from recipients and specifically educated in areas predefined by the health professionals as important. In others, the peers encounter one another as equals in a more mutual relationship, through interactions that are a much less structured.

This variation, represents a tension that runs throughout literature on peer support in healthcare settings and one that the emerging diabetes literature has so far inherited. On the one hand, healthcare professionals seek to promote certain techniques and knowledge, thereby restraining the 'peers' and those they support. On the other, they are committed to the idea that those who share knowledge about their conditions are in possession of 'experiential knowledge' and modes of relating that can be of enormous benefit, but that clinicians lack. Consequently, those involved in peer support should be as free from medical direction as possible. However, as this article has shown, it is not clear that such 'experiential knowledge' is always the driver of peer support interventions.

This tension has also been alluded to in the literature on peer support for a number of other conditions. For example, a Japanese study of a social network site for those with depression found that unchecked associations between members could in some instances lead to the amplification of the condition, rather than its alleviation [12]. This example seriously questions the safety of unguided peer support interventions. In contrast to this, a study of support provided by patients who underwent

coronary artery bypass surgery found that with only modest training, supporters, who they described as 'similar others', were able to exert a beneficial impact on the long-term recovery and wellbeing of people having similar surgery [10]. Taken together, such findings suggest that medical professionals are right to exercise caution when constructing peer support interventions and enlisting patients as partners in the task of care. While relating to conditions other than diabetes, such studies offers us an important point of comparison that deepens our understanding of the socially mediated benefits and risks of peer support, especially given the limited nature of the diabetes-specific peer support literature.

The point, of course, is that peer support, however it is conceived and delivered, is always going to be a compromise between these two aspects: the responsibility and compassion that health professionals and institutions have for ensuring patients are given accurate information and appropriate care; and the need to withdraw from peer interactions in order to allow them to develop. However, rather than view the directive/nondirective dichotomy as a continuum, our analysis demonstrates that within the concept of peer support, both the limits of being a peer and of the support offered need to be considered independently. To be a peer, individuals should not be given so much direction that they become, in reality, para-professionals who act as extensions of the existing medical staff. However, if no framework is provided to guide the sharing of experiences by those with a condition, potential 'peers' serve only as illness companions, offering little more than subjective views. Similarly, the notion of support can be considered to lie between the poles of offering unequivocal instruction, through degrees of education, to that of confounding the circumstances of others with poorly informed advice. **Figure 2** summarizes how peer support lies at the intersection of these two dimensions.

Although in our diagram, peer support is presented as occupying a definitive position intersecting two different dimensions, it is important to recognize that even within the category there are always going to be variations. We do not intend to explicate precisely what might constitute the boundaries of peer support because these are determined by the specific details and context of each initiative [4]. In addition, even within the same peer support program, it is

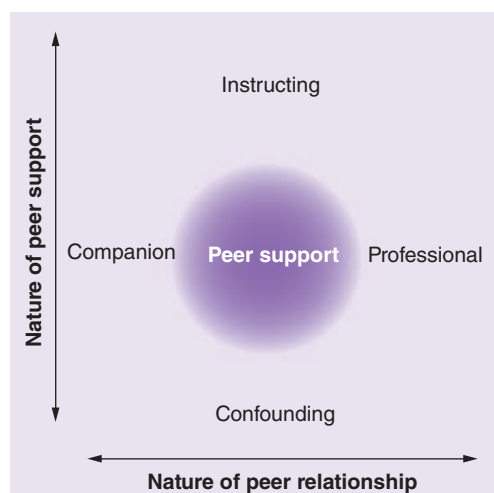


Figure 2. Locating peer support.

likely that individual peers will adopt different places in the schema, and beyond this, within a particular interaction, the role of the peer may well alter from one moment to the next. Rather than view such disparities as problematic, or a cause for concern over intervention fidelity, we would argue that this lack of precision arises from the very nature and potential value of peer support itself. In other words, it is the inherent variation and flexibility of social engagement that constitutes peer support and that ultimately offers benefit to others.

Finally, our model of peer support does not equate it with the content or mode of intervention delivery as earlier papers have done. While both of these factors are crucial, we want to stress the need to understand the nature of the relationships fostered; something that is absent in both the general and diabetes-specific literature. In particular, we emphasize the significance of the kinds of knowledge allowed into a peer interaction and how the peer supporter is mandated. It may be that through peer support, patients are able to access informational, practical and emotional support (categories emphasized in Dennis's definition), but what our model is concerned with is the manner in which this occurs.

Conclusion

Our discourse analysis of peer support suggests both a conflation of mode of delivery and content, and also a tension between directive and nondirective approaches. To make sense of the diverse use of the term over a relatively recent period, we therefore, separated out the concepts

of 'peer' and 'support', and posed them as two axes along which individual interventions can be plotted. Our schema is intended to be useful for the development of any peer support initiative by teasing these apart.

Although the term 'peer support' is becoming an accepted part of diabetes care [33], given the variation in its usage, a clearer understanding of its place within existing behavioral interventions needs to be crafted. This needs to acknowledge, perhaps unlike other theory-based interventions, that the dynamics of flexibility and variability are at the heart of the intervention; allowing patients to negotiate the meaning of their experiences together is the very thing peer support seeks to enable; and overly structured educational programs obfuscate this when they create knowledge-focused, as opposed to support-focused, environments.

We have claimed that while no definitive concept of 'peer support' should be advanced, it can nonetheless be said to occupy the territory between paraprofessionals and illness companions; and between those who offer instruction based on expert knowledge, and those who offer *ad hoc* and sometimes unhelpful comments based solely on personal experience. Furthermore, we argue that if, as many have claimed, peer support is to be rooted in 'experiential knowledge' it must resist becoming another vehicle for health professional assertions, without producing relationships that disrupt routines of care. Between the instructing paraprofessional and the confounding companion, there is space for the supportive sharing of experiences by peers facing similar challenges.

Future perspective

Trials are currently underway to test the usefulness of peer support approaches for people with diabetes [34]. We expect that as more peer support studies are completed, a wide range of benefits will be found for those with diabetes.

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The authors have no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties.

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