Healthy Coping in Diabetes:

A Guide for Program Development and Implementation

DIABETES INITIATIVE
A National Program of the Robert Wood Johnson Foundation

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A Guide for Program Development and Implementation

A report of the

Diabetes Initiative National Program Office

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Acknowledgment of support: This Guide is a product of the *Diabetes Initiative* National Program Office, at Washington University School of Medicine, St. Louis, Missouri, and the University of North Carolina at Chapel Hill with grant support from the Robert Wood Johnson Foundation ® in Princeton, New Jersey.

Acknowledgements

The NPO gratefully acknowledges the grantees of the *Diabetes Initiative*, who provided real-world models for integrating healthy coping into diabetes self management. They are: *Campesinos Sin Fronteras*, Somerton, Arizona; Center for African American Health, Denver, Colorado; Community Health Center, Inc., Middletown, Connecticut; Department of Family and Community Health, Marshall University School of Medicine, Huntington, West Virginia; Galveston County Health District, Texas City, Texas; Gateway Community Health Center, Inc., Laredo, Texas; Holyoke Health Center, Inc., Holyoke, Massachusetts; *La Clinica de La Raza*, Oakland, California; MaineGeneral Health, Waterville, Maine; Minneapolis American Indian Center, Minneapolis, Minnesota; Montana-Wyoming Tribal Leaders Council, Billings, Montana; Open Door Health Center, Homestead, Florida; Richland County Health Department, Sidney, Montana; and St. Peter Family Medicine Residency, Olympia, Washington. Descriptions of their individual projects, including many of their approaches to promoting healthy coping, are available at the website of the *Diabetes Initiative*, http://www.diabetesinitiative.org.

A number of individuals have provided helpful comments on earlier versions of this Guide. We wish to thank representatives of grantees of the *Initiative* who provided helpful comments on drafts of the Guide, including Lourdes Rangel, Gateway Community Health Center, Inc., Laredo, Texas; Joan Thompson, PhD, *La Clinica de La Raza*, Oakland, California; Natalie Morse and Alison Jones Webb, MaineGeneral Health, Waterville, Maine; and Sally Hurst, Marshall University, Huntington, West Virginia. We wish also to thank Lana Vukovljak and Margaret Maloney from the American Association of Diabetes Educators for their helpful comments.

The authors wish especially to thank Evette J. Ludman, PhD, Senior Research Associate in The Center for Health Studies of Group Health Cooperative in Seattle, Washington. From her extensive experience in programs addressing diabetes and depression and related areas of health promotion, Dr. Ludman provided the *Diabetes Initiative* valuable expert consultation in developing activities related to healthy coping and provided helpful comments on drafts of this Guide.

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Guide to the Guide

This Guide is designed for managers of diabetes self-management programs, diabetes educators, and others implementing self-management programs who are interested in learning more about how they can better incorporate strategies to address negative emotions and enhance healthy coping into their work. Throughout the Guide, "program managers" is intended to refer to those responsible for guiding program development and implementation. "Practitioners" refers to the wide range of individuals including diabetes educators, community health workers, nurses, physicians, psychologists, counselors, and others who may deliver healthy coping interventions through their work with individuals, groups, or communities.

- For program managers, the goal of the Guide is to introduce the range of approaches that addresses negative emotions and may enhance healthy coping in adults with diabetes. The objective is to help program managers increase their knowledge of healthy coping approaches in order to expand existing services or develop new programs for dealing with negative emotions.
- For practitioners implementing self-management programs, the goal of the Guide is to provide an introduction and overview of diverse approaches with enough detail to help practitioners determine which may be especially suitable for incorporation into their own work.

In no way does the Guide provide sufficient detail to enable one to become competent in delivering any particular healthy coping strategy. Rather, it aims to acquaint the professional with a sense of how intervention approaches may be used and key features in their application, along with identification of sources of further information.

In the pages that follow, we describe a variety of approaches to address negative emotions and promote healthy coping in individuals with diabetes. In addition to providing broad descriptions of each approach, we comment briefly on the nature and strength of the evidence base supporting the effectiveness of the approach by citing research conducted with individuals who have diabetes and other chronic illnesses. We also provide program examples from the *Diabetes Initiative* of the Robert Wood Johnson Foundation to illustrate how some of these approaches have been integrated into real-world settings. Implementation considerations are included to guide program managers, educators, and counselors as to whether a particular intervention approach may be useful in their setting and with their population. Additional resources such as web links are also provided for those interested in more detailed information about particular approaches.

This Guide was developed by the National Program Office of the *Diabetes Initiative*. It is informed by the research and patient education literature as well as the experiences of the fourteen grantees of the *Initiative* and their varied and innovative approaches to enhancing services for healthy coping. Healthy coping applies to all aspects of diabetes, thus making it important to integrate interventions that address negative emotions and healthy coping into diabetes self management programs. It has become clear that doing so is quite feasible and ultimately beneficial to program recipients, while providing professional satisfaction for those expanding their programs in these directions.

Both program managers and practitioners may feel wary of entering the realm of psychological and psychiatric problems, negative emotions, and other psychological issues—"We don't handle those things!" However, it has become obvious that we *do* handle "these things" because they are part of the day-to-day experience of those living with diabetes. The very model of self management used in diabetes and care of other chronic diseases—identifying needs, setting goals, teaching skills, appropriate clinical care, follow-up and support—is emerging as a key model in treating mental illness. Thus, many readers of this Guide are already familiar with approaches to self management that are also helpful in dealing with the range of negative emotions experienced by those with diabetes. We hope this Guide will help you expand the skills you bring to this work.

Tips for Practice

At a number of points in the Guide, "Tips for Practice" provide detailed suggestions for key implementation steps. Many of these include suggestions for how to present ideas for healthy coping in a way that helps individuals accept the new ideas rather than causing them to become defensive or resistant. These tips alert readers to important features of interventions they may be considering.

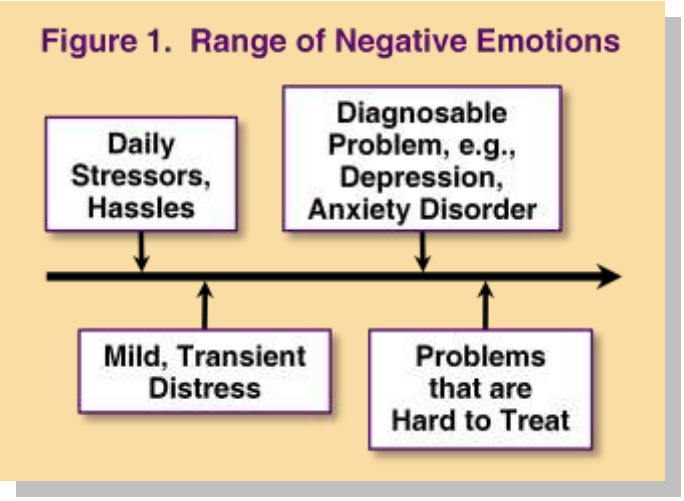
At the same time, these tips also provide information that may be of use to managers. A common challenge in any area of organizational or program management is knowing when to "drill down" and explore the details of an operation to assure its success. Managers of diabetes care programs will not routinely immerse themselves in the details of interventions for negative emotions. However, their ability to drill down effectively when necessary requires some feel for nuances of programs that may be critical to their success. Thus, the "Tips for Practice" may assist program managers in making more informed decisions about recruiting appropriately trained individuals, understanding problems that may emerge, and knowing how best to monitor program approaches for effectiveness.

Introduction

Emotions play an important role in diabetes. For some time, this has been apparent to clinicians and patient educators—as well as those with diabetes and their families—and is widely reported in research literature.[1] The central role of emotions and healthy coping in diabetes management has been well recognized by the American Association of Diabetes Educators through its inclusion of "Healthy Coping" among its AADE7™ Self-Care Behaviors (http://www.diabeteseducator.org/ProfessionalResources/AADE7/). The interplay between emotions and diabetes can be complex. Not only can poor metabolic control and the complications that come with it induce an array of negative emotions, but negative emotions can in turn hinder a person's ability to manage diabetes and maintain metabolic control.

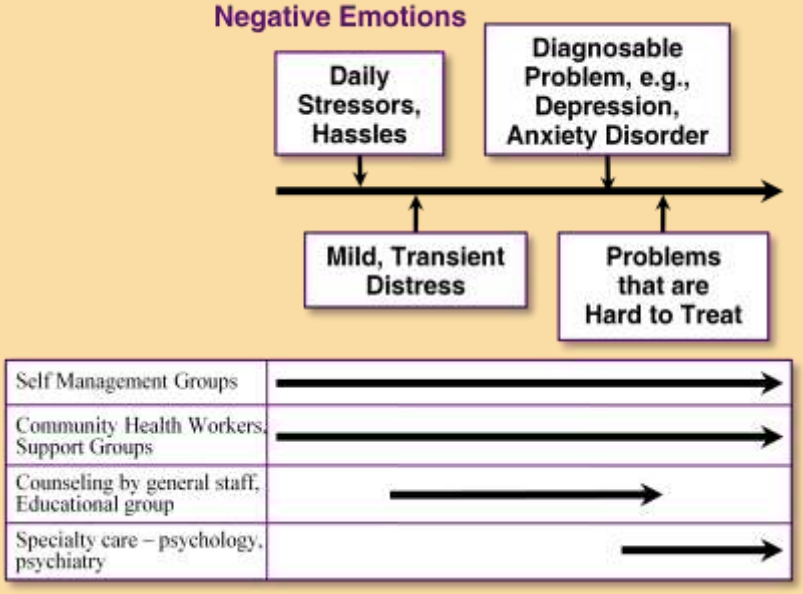
The types of negative emotions and problems with coping that occur in diabetes cover a wide spectrum. Depression is widely acknowledged to be a major problem in diabetes. Not only are people with diabetes more likely than the general population to experience clinical depression, but depression is also likely to interfere with diabetes management and affect processes related to metabolic control. But it is not just depression! Anxiety, frustration, stress, concerns about diabetes and its complications and anger are some of the many other negative emotions that make living with diabetes more difficult.

In addition to variety of negative emotions, individuals with diabetes may experience these with varying degrees of severity. Manifestations may range from anxiety over day-to-day events to mild transient distress related to being diagnosed with diabetes to more serious psychopathology (Figure 1). These manifestations may wax and wane over the course of the many years that people live with diabetes. Thus, it is to be expected that, through the course of living with diabetes, most individuals will experience some negative emotions that will interfere with management of their diabetes. Successful coping with negative emotions, however, will almost always enhance diabetes management and quality of life.



Despite an increased awareness of the importance of emotions for all individuals living with diabetes, the best way to address emotional factors in diabetes care and patient education has remained elusive and presents substantial challenges for service providers in community and primary care settings. However, as research in this area emerges, a variety of approaches to promoting self management and healthy coping have been identified that may be helpful in enhancing emotional status, quality of life, metabolic control, and clinical status.[1] Many approaches can be adapted for use across the range of types and severity of disorders. These approaches can be delivered in a variety of care settings and through different channels (Figure 2). Some channels, such as traditional diabetes self-management programs delivered in primary care and community settings, may address the entire range of negative emotions and may improve quality of life and emotional status, regardless of the severity of individuals' negative emotions.

Figure 2. Intervention Approaches for Addressing Negative Emotions



Enhanced attention to coping with negative emotions within traditional self-management programs (e.g., by adding a module on techniques for coping with stress and negative emotions), and/or providing ongoing follow-up and support (e.g., through the use of community health workers or support groups) may result in further improvements in emotional status. Although all of these approaches are often referred to as "stress management" interventions, they actually are a diverse array of approaches that parallel the diversity of the type and severity of negative emotions seen in individuals with diabetes. Other approaches are more appropriate for specific and severe emotional problems. For those, it may be beneficial to make psychological or other counseling services available within a care setting or to enhance referral resources for specialty care (psychological, social work, and/or psychiatric services).

As will become clear through the pages of this Guide, healthy coping may be promoted across the entire range of self management programs. At the same time, it includes very specific interventions such as Cognitive Behavioral Therapy or meditation. Adding complexity, some approaches to healthy coping have both broad and specific applications. For example, problem solving is an approach found in almost every self-management intervention. At the same time, it is also a distinctive type of psychotherapy for emotional problems. The same kind of breadth applies to stress management and cognitive behavioral approaches. Although this breadth and confusion of boundaries may make the field seem somewhat chaotic, it is an important feature of healthy coping interventions. Indeed, it reflects the problems being addressed; that is, the many ways in which our emotions, stressors, and barriers to important behaviors affect all areas and dimensions of our lives.

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Screening and Assessment for Emotional Health Problems

Overview

A common first step in developing a comprehensive management strategy for addressing negative emotions and problems with healthy coping is screening to identify the problem(s). Initial screening is frequently followed by further assessment to document the extent and severity of problems that are identified.

Screening generally involves evaluating individuals to determine the likelihood that they have a specific condition or characteristic. Its primary purpose is to detect and identify conditions for which early treatment will result in better outcomes and better overall health. Additionally, screening may aid program managers in determining the prevalence and severity of a condition in their client population so that needed services can be planned and offered.

Screening for emotional health problems typically involves assessing whether individuals experience various negative emotions or engage in behaviors that are common indicators of emotional health problems. Screening helps identify those with increased levels of distress who would benefit from more in-depth evaluation of the issue and contributing circumstances, e.g., unusual or ongoing stressful life events, social isolation, etc.

Clinical judgment is an important element of screening and may take the place of, or precede, the use of formal screening tools. As part of ongoing health care, clinicians screen by observing changes in a patient's behavior, function, or mood or by hearing concerns expressed by the patient, their family members, or others on the patient care team. To confirm their clinical observations, clinicians may use a semi-structured approach, such as conducting a case history interview, which involves taking a full personal and social history with specific questions determined as the interview progresses. Alternately, the assessment format may be highly structured with the administration of one or more standardized questionnaires. These questionnaires may be completed via interview by a trained professional or through a self-administered questionnaire given to the patient. Such instruments usually have a threshold score above which individuals are likely, with some known level of certainty, to have the emotional health problem to a degree that impacts functioning and quality of life. Regardless of the format or degree of structure, the clinician's assessment skills and judgment play an important role in arriving at a full understanding of the problem.

Whatever the specific tools or methods that are used, a critical condition for putting a screening and assessment program into place is that services are available to clients who are identified as having emotional health problems. Unless such services are in place and accessible, screening is liable to arouse awareness of need without any means of addressing that need. The remaining sections of this Guide outline a variety of different types of services and interventions that can be used in conjunction with screening and assessment.

Evidence Base

Based on the weight of evidence in the literature[1], the U.S. Preventive Services Task Force updated its screening recommendation in 2002 to include an endorsement of depression screening in adults "in clinical practices that have systems in place to assure accurate diagnosis, effective treatment, and follow-up."[2]

For individuals with diabetes, emotional health screening is especially appropriate due to the range and prevalence of negative emotions commonly experienced. The American Diabetes Association's *Standards of Medical Care in Diabetes—2008*[3] asserts that diabetes self- management education "…should address psychosocial issues, since emotional well-being is strongly associated with positive diabetes outcomes".[3 pp.S21-22] They go on to specify that:

- "Assessment of psychological and social situations should be included as an ongoing part of the medical management of diabetes.
- Psychosocial screening and follow-up should include, but is not limited to, attitudes about the illness, expectations for medical management and outcomes, affect/mood, general and diabetes-related quality of life, resources (financial, social, and emotional), and psychiatric history.
- Screen[ing] for psychosocial problems such as depression, eating disorders, and cognitive impairment [is needed] when adherence to the medical regimen is poor.
- . . . It is preferable to incorporate psychological assessment and treatment into routine care rather than wait for identification of a specific problem or deterioration in psychological status."[3p.S23]

A great many screening tools have been developed and validated for assessing emotional health problems in adults.[4] Many of these have also been widely used with individuals with diabetes, in both primary care and community settings. Screening tools for a variety of aspects of emotional health, including general emotional health issues such as depression and anxiety as well as diabetes-specific issues, are listed and described in the Resources section, with specific references and links for those desiring more information.

Implementation Considerations

Screening is typically quick, flexible, and easy to implement. Many screening instruments for emotional health issues can be adapted to different formats (e.g., self-administered questionnaire, telephone interview, in-person interview); for example, the Patient Health Questionnaire-9 (PHQ-9)[5], originally a self-administered questionnaire, has been successfully implemented by telephone.[6] Many available interview-based screening tools do not require extensive training by those administering them and require only basic interviewing skills (e.g., the Geriatric Depression Scale).[7] Therefore, screening for emotional health problems can be included in most diabetes self-management interventions, even those operating with very limited resources. Further assessment and treatment is usually provided by mental health professionals specifically trained in these methods, such as psychologists, psychiatrists, clinical social workers, or other mental health providers. If programs do not have the resources internally to conduct further assessment or treatment for individuals scoring above pre-defined thresholds, referral mechanisms to appropriate providers should be in place. In addition, a protocol should be developed and instituted in conjunction with mental health providers, specifying what should be done when evidence of serious

problems such as suicide risk is uncovered during routine screening.

Program managers also should consider the number and types of emotional health issues and negative emotions for which they wish to screen. Once a decision is made to screen and instruments selected, a protocol for screening should be developed so that the practice of screening becomes routine and individuals previously screened get reassessed periodically. These decisions will be based on a number of factors including resources available for referral or intervention, clinician observation of needs, and mental health consultation regarding most appropriate screening tools for those conditions. Some screening tools, such as the Center for Epidemiologic Studies—Depression scale (CES-D)[8] or Beck Depression Scale[9], are limited to symptoms of depression, while other scales, such as the PHQ[4], have separate modules that each screen for different conditions and may be used individually or together. Other tools have been specifically developed for use with individuals with diabetes to assess problems with coping or sources of stress or anxiety (see Resources).

Program Approaches Used in the *Diabetes Initiative*

In the *Diabetes Initiative*, many sites screen patients for depression using the PHQ-9 questionnaire[5]. This instrument was chosen in part because the first two questions serve as a screener; and only those who answer yes to either question complete the rest of the questions. In most sites the questionnaire was administered at the beginning and end of a group self-management course or at various stages during medical follow-up. For patients who scored in the depressed or moderately depressed range, sites had a systematic plan for follow-up by nurse, primary care provider, case manager, and/or community health worker/ *promotora*. In one site, for example, the PHQ-9[5] was administered during the 2nd and 9th weeks of a 10-week diabetes self-management course. All who scored over 5 on the PHQ-9 were passed on to providers for review. At the providers' discretion patients could be referred back to the *promotora* for follow-up and support by phone and encouragement to enter group classes or support groups for those dealing with depression. The initial review of PHQ-9 scores by the *promotoras* also included provision for scores indicating urgency. If the score was over 15, the patient would be referred to the charge nurse who would see that the patient's medical records were brought to the attention of their provider. If the patient's responses indicated suicidal thoughts, the patient would be walked to the nurse's station and seen by the provider that same day. Other sites referred patients to specially designed resources for emotional health problems, including support groups and behavioral health specialists.

Resources: Commonly Available Screening Tools

Measures of:	Length	Administration	Web Source/ Availability	Documentation	Comments
Overall Emotional Health					
Patient Health Questionnaire (PHQ)	4 pages; 88 items	Self-administered or verbally by a trained administrator	http://www.phqscreeners.com/pdfs/FULLPHQ/English.pdf	(Spitzer, Kroenke, Williams, 1999)[4]	Screens for eight conditions: major depressive disorder, other depressive disorder, panic disorder, other anxiety disorder, alcohol abuse/dependence, somatoform disorder, bulimia nervosa, and binge eating disorder. Some items can be skipped based on responses to previous items.
SF-36	36 items	Self-administered	http://www.sf-36.org/wantsf.aspx?id=1	(Ware & Sherbourne, 1992)[10] (Ware et al., 1995)[11]	Assesses eight aspects of health-related quality of life: physical functioning, social functioning, physical role limitations, bodily pain, emotional well-being, emotional role limitations, energy and fatigue, and general health perceptions. A summary measure (the Mental Component Score) can be formed to summarize overall mental health status.
SF-12	12 items	Self-administered	http://www.sf-36.org/wantsf.aspx?id=1	(Ware, Kosiniski & Keller, 1996)[12]	Assesses the same aspects of quality of life as the SF-36, but with fewer items.
Depression					
Patient Health Questionnaire-9 (PHQ-9)	9	Self-administered or verbally as part of a clinical encounter	http://www.depression-primarycare.org/clinicians/toolkits/materials/forms/phq9	(Kroenke, Spitzer & Williams, 2001)[5]	Part of the larger PHQ. First two questions can be used for screening.
WHO-5 Well-Being Index	5	Administered as part of a clinical encounter	http://www.who-5.org/	(Bonsignore et al., 2001)[13](Bech et al., 2003)[14] (Primack, 2003)[15] (Shea et al., 2003)[16]	Assesses mood, vitality, and general interests; low score suggests evaluation for depression using Major Depression Inventory
Beck Depression Inventory (BDI)	21	5-15 min; self-administered or verbally by a trained administrator	http://harcourtassessment.com/HAIWEB/Cultures/en-us/Productdetail.htm?Pid=015-8018-370&Mode=summary	(Beck et al., 1961)[9] (Beck, Steer & Garbin, 1988)[17] (Richter et al., 1998)[18] (Naughton & Wiklund, 1993)[19]	The full BDI consists of 21 items and has been revised several times. It assesses general life satisfaction, mood, relations with others, self-esteem, appetite, and libido. Shorter versions (e.g., 13 items) are also available.

Measures of:	Length	Administration	Web Source/ Availability	Documentation	Comments
Center for Epidemiological Studies Depression (CES-D)	20	10 min; self-administered or verbally as part of a clinical encounter	http://www.chcr.brown.edu/pcoc/cesdscale.pdf	(Radloff, 1977)[8] (Naughton & Wiklund, 1993)[19]	Assesses four dimensions of depressive symptoms: depressed affect, positive affect, somatic complaints, and interpersonal problems.
Zung Self Assessment Depression Scale (SDS)	20	10 min; self-rating scale, best used in conjunction with the active participation of a health care professional or clinician during or immediately following a client interview	http://healthnet.umassmed.edu/mhealth/ZungSelfRatedDepressionScale.pdf	(Zung, 1965)[20] (Naughton & Wiklund, 1993)[19]	Assess affective, cognitive, behavioral, and physiological symptoms of depression.
Geriatric Depression Scale (GDS)	30/15	10-15 min; no mental health expertise required to administer	http://www.stanford.edu/%7Eyesavage/GDS.html	(Yesavage et al., 1983)[7] (Sheikh & Yesavage, 1986)[21] (Sheikh et al., 1991)[22] (Wancata et al., 2006)[23]	Assesses five dimensions of depressive symptoms: sad mood, lack of energy, positive mood, agitation, and social withdrawal.
Stress/ Distress					
General Health Questionnaire (GHQ)	60/30/12/8	2-10 min, depending on version used; self-administered	http://www.gp-training.net/protocol/docs/ghq.doc and http://shop.acer.edu.au/acer-shop/group/SD/28;jsessionid=31000582165DEDA139DE2B859A28DF65	(Goldberg et al., 1976)[24] (Goldberg & Hillier, 1979)[25] (Tarnopolosky et al., 1979)[26] (Banks, 1983)[27] (Naughton & Wiklund, 1993)[19]	Detailed user's guide to all versions of the GHQ is available.[28] Specific aspects of emotional health that are assessed vary by GHQ version. Areas covered include depression, anxiety, social impairment, somatic symptoms, and insomnia.
Perceived Stress Scale (PSS)	10	Self-administered or verbally as part of a clinical encounter	http://www.mindgarden.com/docs/PerceivedStressScale.pdf	(Cohen, Kamarck & Mermelstein, 1983)[29] (Cohen & Williamson, 1988)[30]	Assesses the degree to which individuals perceive different aspects of their lives as unpredictable, uncontrollable, and overwhelming.
Diabetes Specific Stress/ Distress					
Problem Areas in Diabetes Scale (PAID)	20	Self-administered or verbally as part of a clinical encounter	http://www.musc.edu/dfm/RCMAR/PAID.html	(Polonsky et al., 1995)[31] (Welch, Jacobson & Polonsky, 1997)[32] (Watkins & Connell, 2004)[33]	Assesses overall diabetes-specific emotional distress.
Diabetes Distress Scale (DDS)	17	Self-administered or verbally as part of a clinical encounter	Items available in Polonsky et al.[34]	(Polonsky et al., 2005)[34] (L. Fisher et al., 2007)[35]	Assesses four types of distress: emotional burden, physician-related distress, regimen-related distress, and interpersonal distress.

Measures of:	Length	Administration	Web Source/ Availability	Documentation	Comments
Questionnaire on Stress in Patients with Diabetes (QSD-R)	45	Self-administered	http://www.musc.edu/dfm/RCMAR/QSDR.html	(Herschbach et al., 1997)[36] (Garratt, Schmidt & Fitzpatrick, 2002)[37]	Assesses eight types/sources of stress: leisure time, depression/ fear of failure, hypoglycemia, treatment regimen/diet, physical complaints, work, partner, and doctor-patient relationship.
Appraisal of Diabetes (ADS)	7	Self-administered	http://www.musc.edu/dfm/RCMAR/ADS.html Items available in Carey et al.[38]	(Carey et al., 1991)[38] (Garratt, Schmidt & Fitzpatrick, 2002)[37]	Assesses individuals' overall appraisal (thoughts and feelings) of their diabetes.
Diabetes Quality of Life					
Diabetes 39	39	Self-administered or verbally as part of a clinical encounter	http://www.musc.edu/dfm/RCMAR/D39.html	(Boyer & Earp, 1997)[39] (Watkins & Connell, 2004)[33] (Garratt, Schmidt & Fitzpatrick, 2002)[37]	Assesses five aspects of quality of life: energy/mobility, diabetes control, anxiety/worry, social burden, and sexual functioning.

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Problem-Solving Approaches

Overview

Problem solving is a popular and flexible approach that can be used to address the gamut of negative emotions, regardless of type and severity. Virtually all education and self-management programs for individuals with diabetes incorporate problem-solving techniques. Problem-solving techniques are generally applied in a series of steps:

1) Specifying the problem
2) Generating alternative ways of dealing with the problem
3) Choosing from the alternatives
4) Implementing the chosen alternative
5) Reviewing results
6) Recycling to previous steps as necessary.[1]

This kind of a problem-solving model applies widely, from improving eating patterns to dealing with emotional, relationship, or psychological issues that may interfere with illness self-management and healthy coping. Problem solving is also a type of psychotherapy discussed in greater detail in the *Problem-Solving Therapy* section of the Guide.

Evidence Base

Although problem-solving strategies have been an integral part of diabetes self-management approaches for the past 40 years, no studies are available that have compared self-management interventions with and without problem-solving components. However, there is clear evidence that a problem-based approach to diabetes self-management education does result in improvement in diabetes-related health outcomes.[2] Using an empowerment-based problem-solving model, Anderson *et al*.[3] reported that participants made improvements in a personal sense of empowerment and diabetes-related attitudes in addition to those in clinical measures (hemoglobin A1c and cholesterol), weight, and perceived understanding of diabetes. Additionally, participation in the *Lifelong Management* program (an extension of the empowerment program described above) resulted in improvements in psychosocial measures such as quality of life as well as further improvements in some clinical measures.[4] In summary, problem-solving techniques are a part of almost all diabetes self-management interventions that have been shown to increase quality of life and improve clinical status.[5]

Implementation Considerations

Problem-solving strategies can be a helpful component of many health coping approaches. That a particular individual may be in psychotherapy or may have serious psychological problems should not, in and of itself, be cause for avoiding problem solving in a group educational setting. Health educators and group members can be very helpful by promoting problem solving and encouraging individuals to use problem solving to enhance their healthy coping. The application of this clear and useful approach and the facilitation of it by the support of intervention leaders or, perhaps, fellow group members may be quite beneficial.

A frequent choice for program planning and implementation is whether to focus on problem solving around key diabetes management practices, such as the AADE7™ Self-Care Behaviors or whether to focus on problems identified by participants—starting "where participants are." The latter is emphasized, for example, in the Stanford Chronic Disease Self-Management Program in which work on problem solving begins with problems that the participant identifies, whether or not they are directly related to diabetes or other health issues. This issue is of particular concern in diabetes in which there is a direct relationship between disease management and behaviors such as healthy eating and physical activity. Thus, it is often thought of great importance that problem-solving strategies in diabetes should address key behaviors for disease management. In practice, this tension is often resolved by addressing key management behaviors with care to explore individual goals, barriers, and strengths as a way of framing a personalized approach to the behavior with which the individual feels a high degree of ownership.

Tips for Practice

Individuals will occasionally bring up personal or relationship issues that are more complicated or more distressing than can be dealt with in patient education or self-management groups. The most frequent indicators of this would be the inability of an individual to cooperate in specifying problems that can be addressed and/or obvious distress such as crying, becoming especially anxious, or, on some occasions, expressing anger toward other group members. When educators or group leaders feel problems are not being well addressed with problem solving, they should talk with the individual outside the group to (a) encourage a referral to more specialized care, (b) encourage the individual to take up the issue with their counselor if they are receiving counseling, (c) gently propose an agreement to leave the particular issue outside group discussion, or, perhaps, (d) encourage the individual to consider that the group "may not be right for you" and help the individual find alternatives.

Program Approaches Used in the *Diabetes Initiative*

Most sites implemented a group or family-based self-management education program that included problem solving as a major tool in putting self-management goals into daily practice. Among these, many sites used the group-based Stanford Chronic Disease Self-Management Program (http://patienteducation.stanford.edu/). In this program, workshops teach the basic concepts of problem solving and then allow adequate time over the course of six weeks of classes to practice and refine problem-solving skills. Participants share their action plans with the group both before and after putting them into practice and gain help from the group if action plans are not achieved.

In addition to group problem-solving classes, a number of programs also included problem solving through one-on-one counseling with providers, *promotoras*, case managers, dietitians, or diabetes educators.

Resources

Chronic Disease Self-Management Program:
http://patienteducation.stanford.edu/programs/cdsmp.html

Nezu AM. *Solving Life's Problems: A 5-Step Guide to Enhanced Well-Being.* New York: Springer; 2006. This is a guide for individuals to help them solve problems in daily life by one of the leaders in the field.

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Cognitive Behavioral Approaches

Overview

As with problem solving, cognitive behavioral approaches include both a type of psychotherapy (Cognitive Behavioral Therapy) and a general strategy applicable in a wide variety of self-management programs and interventions. Together, these include efforts to help people identify how their perceptions and thoughts about their experience may exacerbate their emotional reactions. Thus, for example, the belief that one must never disappoint another person, or misperceiving a matter-of-fact correction by a supervisor as a severe rebuke, may lead to substantial distress.

At their core, cognitive behavioral approaches share a key assumption, that the ways in which we view and describe our experience influence how we feel and how we behave. Thus, Cognitive Behavioral Therapy may entail helping someone who is depressed understand how a tendency always to see the glass as " half-empty" may be responsible for a good deal of negative affect and may be changed to result in perceptions and behaviors that lead to greater happiness. At the same time, a cognitive behavioral strategy in a support group may entail all members of the group trading observations about how tendencies to see the glass as "half-empty" contribute to annoyances and bad feelings in everyday life. Cognitive Behavioral Therapy is described in a separate section of this Guide along with other more clinical approaches. Here we will describe the general cognitive behavioral approach to understanding negative emotions and how it may be employed in a variety of healthy coping interventions.

Much psychological research over the past thirty years has identified ways in which our views of situations govern our response to them. For example, individuals who grow up in situations in which many experiences are unpredictable and in which there is a substantial frequency of harsh or critical experiences may end up expecting harsh treatment in new situations. Not uncommonly, they may approach those situations with behaviors that tend to evoke what they expect. We are all familiar with the individual who approaches what others experience as a benign or even a positive setting with a "chip on their shoulder" or in a combative stance that elicits negative responses from others. Similarly, the individual who was mildly rebuked by his boss and proceeds to describe in vivid detail how he had been "clobbered by the old man" is likely to end up feeling worse about the experience than were he to have described it in terms of "getting a little negative feedback."

Our figures of speech are rich with examples of these kinds of cognitive "distortions" of our experience. Thus, we use expressions like "making mountains out of molehills," or "borrowing trouble" to refer to people who seem to see modest challenges as serious threats or defeats. Clearly there is a convergence of psychological research and our everyday experience here. We all are aware of a human tendency to view our realities in ways that make our responses to them more distressing than they need be.

An important component of cognitive behavioral approaches is behavioral activation, in which individuals are coached to increase the frequency of activities and behavior patterns that are pleasurable in their daily lives. Self-management or healthy coping programs may adopt this approach by encouraging participants to monitor activities and behavior patterns that are associated with pleasure and positive emotions versus those

that generally lead to distress. Individuals can then be encouraged to find ways of increasing the former.

Evidence Base

As described in the separate section on Cognitive Behavioral Therapy later in this Guide, there is a large amount of evidence supporting its utility. Additionally, a review of healthy coping in diabetes[1] found that cognitive behavioral strategies have been employed in a variety of effective interventions. In addition to being common ingredients in general self-management programs,[2, 3] they were included in support groups for adults,[4] coping skills training for those beginning intensive insulin treatment,[5] and stress management for adolescents with type 1 diabetes.[6]

Implementation Considerations

Cognitive distortions and negative expectations along with their negative effects on mood and behavior arise frequently in self management. Individuals may feel pessimistic about their ability to manage healthy eating or follow a treatment plan and may then react with despair and a tendency to give up in response to minor setbacks. Unrealistic expectations for oneself or others can also get in the way. For example, unrealistic expectations that family members will always act cooperatively may lead individuals to become discouraged and lose track of their progress when family members sometimes fail to be as helpful as they might. Discussion of how negative or unrealistic expectations can exacerbate these patterns can help avoid them or reduce their impact. Training to conduct such discussion, in individual or group education or counseling, is available in many diabetes education protocols and training resources, several of which are identified below. Although the core idea of cognitive behavioral strategies—learning not to "make mountains out of molehills"—is almost common sense, people may have trouble accepting this truism when it comes to their own behavior. Self-management participants who are otherwise open and constructive may become defensive and resistant when asked to see how their own assumptions or beliefs are contributing to some of their own problems. Thus, although cognitive behavioral strategies may sound like common sense, it requires a fair amount of skill to help people apply these to their own behavior.

Some studies indicate that behavioral activation may be as effective as the more cognitive approaches that focus on changing ways of viewing problems. [7-9]

Program Approaches Used in the *Diabetes Initiative*

The use of cognitive behavioral approaches to aid healthy coping of *Diabetes Initiative* participants was applied broadly through diabetes self-management classes, support groups, and during group medical visits. Cognitive behavioral approaches are included in the Chronic Disease Self-Management Programs as “cognitive symptom management techniques” including positive self-talk. At one site, a mental health professional led a depression group and used cognitive behavioral approaches to help participants’ improve problem-solving skills

Tips for Practice

A common challenge in applying cognitive behavioral approaches is the reluctance of individuals to accept that their ways of viewing problems contribute to their distress. "Well anybody would be upset if …" is a common type of response to the educator's pointing out how the way one views some event may contribute to the distress it evokes. There are three fairly straightforward approaches to getting around this reluctance to see how the ways in which we view things influences our feelings about them and can be changed.

1. **In working with individuals**, the educator can introduce the topic in general, talking about ways in which others exhibit this kind of pattern, and then slowly turning attention to how the individual might also be doing that. However, this should be done with caution. If resistance is encountered, the educator is well advised to back off and return to the matter on another day, perhaps with a modest suggestion that the individual think about the topic raised with a view toward discussing it again in the future.

2. **Self-monitoring** approaches can be used to facilitate individuals' awareness of their tendencies to distort their experiences with the cognitions they apply to them. One can have individuals keep track of (a) situations that upset them, (b) how they felt or reacted, and (c) ways in which they viewed those situations that led to their feelings. A simple example of such a self-monitoring form is below. The goal of such self monitoring is to teach the distinction between how we view and feel about the situation versus the situation itself. Once that distinction is made, it becomes possible to discuss how there might be other ways of viewing the situation and how these might lead to other reactions or feelings.

Day/Date/Time	Situation	How I felt	Ways in which I viewed the situation that led to my feelings.

3**. In groups,** it is sometimes relatively easy to raise the possibility of cognitive distortions of our experience. It is fairly straightforward to raise this as a general discussion point, talking about "making mountains out of molehills" or other figures of speech common to the group, and talking about how this is a frequent tendency. One can then reflect how it is often more difficult to see this in oneself than in others and ask for volunteers to suggest ways in which they think they may be distorting some of their experiences in ways that distress them. Once the first example is drawn from the group, others follow more easily and individuals can join the discussion as they are comfortable doing so. The leader can then naturally avoid confronting those who are not yet comfortable exploring these aspects of their emotions.

These types of approaches can be adapted to behavioral activation. Individuals can monitor Day/Date/Time of different activities or behaviors, how they felt during or after them, and how they might increase those associated with pleasure and decrease those associated with distress. Especially when individuals may find themselves unable to make changes in their routines, group discussion can be especially helpful in identifying ways to increase pleasurable activities and behaviors.

Consistent with the evidence for behavioral activation, an important point of cognitive approaches is that they are cognitive *behavioral* approaches. Simply pointing out ways in which individuals are distorting their experience generally does not lead to important change. Rather, individuals need further coaching in identifying alternative ways of viewing their circumstances and opportunities to practice those alternative approaches, gain feedback on their efforts, revise and extend their plans, etc. It may seem strange but for people who, for example, respond to mild criticism as a cruel rebuke, identifying alternative ways of viewing and responding to mild criticism and developing them as new habits is not simple. Thus, standard principles of specifying the new behavior, practicing it, trying it, getting feedback, and continuing the process are all helpful for those trying to learn new ways of viewing situations that have been distressing to them in the past.

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Communication Skills

Overview

Effective communication requires a set of skills that enable a person to convey information so that it is received and understood. Effective communication is two-way, involves active listening, reflects accountability of both speaker and listener, utilizes feedback, and is clear.

Communication skills encompass a broad range of therapeutic and patient education approaches that include, for example, assertion training, social skills, and training couples in communication to benefit marriages and enhance ability to cope with marital stressors, such as the disease of one of the partners. This wide range of areas makes it hard to characterize communication skills in general. At the same time, the breadth of the field makes attention to communication ubiquitous in many patient education and healthy coping interventions. There are a number of points in which communication skills enter into diabetes management and healthy coping. Of course, patients' ability to communicate effectively with physicians and other members of their diabetes care team underlies much of their self management and health care. More directly related to healthy coping, communication is important in gaining from family and friends the cooperation needed to implement self-management plans that affect daily routines and interactions, such as diet, recreational activities, etc. Dealing with stressors, family issues, or issues in relationships with friends or co-workers are all advantaged by communication skills that can achieve shared views of problems and plans for addressing them.

Evidence Base

Much current research in the field focuses on communication skills of professionals in their interactions with patients. Reciprocally, strong evidence has indicated the value of teaching patients skills for interacting more effectively with professionals in medical and similar encounters.[1] A prime example of this showed that coaching patients with diabetes about how to raise questions and concerns in medical encounters led to improved metabolic control.[2]

State-of-the-art models for communication training of couples and families include skills for self awareness, speaking, listening, conflict resolution, and communication styles.[3] A substantial amount of literature has addressed the importance of communication within families, especially families of youth with diabetes. This is predicated, in part, on extensive literature linking family communication and related factors to diabetes management.[4, 5] A review of healthy coping interventions in diabetes found evidence that these types of interventions achieved improvements in both quality of life and metabolic control. [6]

Implementation Considerations

Program managers can examine self-management programs for opportunities to enhance training in effective communication. Programs like the Chronic Disease Self-Management Program (http://patienteducation.stanford.edu/) include information and skill building for improving communication in general and also for communicating with healthcare providers. Existing educational classes can be supplemented with materials on these topics if they are not already included. For example,

"Ask Me 3" (http://www.npsf.org/askme3/IOM.php) is one approach to encouraging more effective communication between patients and providers that can be easily integrated.

As described in "Tips for Practice," a key component of all communication is sensitivity. Accordingly, teaching communication skills should include appreciable attention to nuance and sensitivity. Programs that promote any single approach to communication or relationship problems as a panacea or easy solution should probably be avoided. Similarly, teaching communication skills requires good judgment and social sensitivity on the part of program leaders. Program managers should select those who show poise and sensitivity in their own behavior and have good reputations in the community.

Program Approaches Used in the *Diabetes Initiative*

A number of *Diabetes Initiative* projects incorporated communication skill training in their diabetes self-management classes. One site included a module on "How to talk to your provider"; another used a similar module—"Developing Partnerships with Your Health Care Team and Community". Specific tools, such as "Ask Me 3", have been used to encourage patients to communicate with providers and increase their understanding of the information provided. In many sites, participants of self-management classes also rehearsed "I" messages (versus a more accusatory "you" message; see "Tips for Practice" for more details) for dealing with significant others about their diabetes, their worries and fears, and to elicit support. They also learned how to set priorities for themselves, the importance of being able to say "no," and effective ways of doing so. In one site, a case manager taught patients how to advocate for themselves; participants then practiced these skills during support group sessions. Sites with large American Indian populations incorporated Talking Circles into their self-management programs. Talking Circles are traditionally used by groups to facilitate egalitarian communication and sharing. The diabetes program found they also reduced feelings of isolation and promoted healthy coping.

Tips for Practice

There are a wide variety of strategies and approaches to communication training, assertiveness training, "I" language, etc. Cutting across all of these is the importance of social sensitivity; how to frame a comment, how assertive to be, how much to emphasize one's own sense of discomfort in articulating a problem. These require judgment regarding how the relationship, the past experience of the parties with each other, the setting, the emotional or relationship issues at hand, etc., all frame the current interaction. The importance of sensitivity is clear by simply reflecting on how uncomfortable we feel when someone is dealing with us in a wooden or highly rehearsed manner that ignores the "real time" features of the interaction. Consequentially, communication skills training needs to place strong emphasis on sensitivity to social cues that are often quite subtle.

Problem-solving skills and communication skills are closely related to each other. In problem solving, a central concern is the ability to communicate one's sense of a problem and to gain others' cooperation in addressing it and executing the solution. Reciprocally, communication skills training often uses a problem-solving structure of pinpointing and identifying a communication problem, examining alternatives for coping with it, rehearsing and trying one of the alternatives, etc.

One popular approach to communication skills is learning how to voice problems in a manner that focuses attention on problem solving instead of making others feel put upon. A blaming, accusatory manner focuses attention on the other person and thus elicits their efforts to defend themselves rather than to deal with the problem. One core tactic in this area is coaching people on expressing their feelings and their vulnerabilities (e.g. "I felt frightened when you said …") rather than accusations (e.g. "Why would you say…?"). A useful tactic in this area is "I" language in which the individual is coached to begin statements with "I" followed by a verb expressing feeling (e.g., "I worry…," "I get frightened…,") thus facilitating the rest of the sentence addressing personal feelings rather than what the other has done wrong.

Another common approach in communication skills is assertion training. At the heart of assertion training is learning to recognize and express one's own feelings and needs. In many cultures, this is especially a challenge for women given their socialization to place others' needs always before their own.

Assertion has sometimes been confused with aggression or argumentativeness. This is an unfortunate misunderstanding. Good assertion skills articulate one's own needs in the context of recognition of others' needs and a willingness to cooperate to meet both sets of needs. Key in this is the concept of appropriate escalation of self assertion, beginning with clear but nondemanding clarification of one's own needs and moving toward more forceful insistence on these only in response to others' failure to cooperate.

Critical to communication training and teaching social skills is rehearsal. Fortunately this is usually quite convenient to arrange whether in individual counseling or group programs. Role playing of interactions and rehearsal of approaches until individuals have a firm hand on their skills is important.

Individuals vary considerably in their comfort in role playing. Several guidelines are helpful to minimize this and to make role playing most effective. One is to keep role plays very specific around a particular point in an interaction, not the whole interaction. This will help keep the focus on specific skills and, in a group program, will keep the attention of other participants from drifting. In group settings, it is helpful to enact a rule that feedback after each role play should focus on (a) what the individual did well and (b) what they could do more of. Mistakes generally do not need to be identified – most of us entering this kind of training or counseling have already had quite enough of our mistakes pointed out to us!

Resources

Jakubowski P and Lange AJ. *The Assertive Option: Your Rights and Responsibilities.* Champaign, IL: Research Press; 1978. This is a classic in the field and does a fine job of teaching not only how to be assertive but how to adjust the level of assertion and self representation to the specifics of the situation.

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Support Groups

Overview

Support groups are comprised of people with common conditions, such as diabetes, who meet on a regular basis to address challenges related to living with that condition. Support groups provide a forum for participants to both give and receive emotional and practical support, both of which can support healthy coping.[1] Participants learn how to handle challenges that arise, cope with changes, and maintain healthy behaviors. While they are therapeutic for participants, support groups should not be confused with therapy groups, which are led by trained mental health professionals who treat a small number of people together to address psychological problems.

There is a great deal of variety in support groups. Depending on the focus, goals, and the audience, support groups may be professionally or peer led, open to anyone interested or closed to a particular group, time-limited or ongoing. Some are structured around a series of relevant topics; others are less structured and more responsive to the immediate concerns of the group. Support groups are generally organized to meet at regularly scheduled times, e.g., weekly, biweekly, or monthly and offered at no cost. Meetings typically last about 1 - 2 hours, and many are scheduled during evenings or weekends to fit around working hours. Groups vary in size; the goal is that they be small enough for everyone to contribute and feel comfortable sharing with one another.

In addition to face-to-face support groups, people now have the opportunity give and receive support virtually via online social networks. These are places on the Internet, generally called forums and message boards, where people with similar interests or common health conditions "meet" anonymously, pose questions, and exchange information. Internet support services have several advantages over traditional face-to-face support groups in that they are available 24 hours a day, are inexpensive, and can involve a greater number of participants.

Evidence Base

Support groups for diabetes have been reported since the 1970's, although emotional health was not often the direct target. Many of those early groups, although called support groups, combined education and support for treatment plans and didn't report the effects of those on stress.[2] Initial reports on support groups and their effects on emotional health had mixed results. A study by Hanestad and Albreksten comparing people with diabetes who attended a support group for six months with control subjects concluded that participation in a support group did not increase self-assessed quality of life.[3] Maxwell *et al*. reported that diabetes education as well as diabetes education combined with participation in a support group can lead to an improvement in physical, social, and mental health; however, participants who also attended a support group did not show greater improvement in these health aspects than those who only received diabetes education.[4]

Several other studies have demonstrated both objective and subjective improvements in knowledge and emotional health among people with diabetes as a result of participation in a support group. In one study, older diabetic patients participated in either an educational program alone or an educational program followed by 18 months attendance in a support group. A 2-year follow-up revealed that participants who attended both the

diabetes educational program and the 18 months of support group sessions showed a better overall quality of life than those who had education alone, including less depression and affective disturbances, and also maintained the knowledge learned from the educational program.[5]

In addition to enhancing the effects of diabetes education and improving quality of life, participation in a support group can also provide individuals with an opportunity to express feelings and concerns that are often unaddressed in a clinical setting. A survey conducted among adults with diabetes who were members of Diabetes UK indicated that sixty percent of the members found it easier to talk to another person with diabetes than to a doctor or nurse. Additionally, fifty-five percent of the members agreed with the statement that 'Doctors don't encourage people to talk about their feelings'.[6] In his examination of support groups, Kelleher notes that communicating feelings that are not typically discussed either with medical professionals or in the home, but which are encouraged in support groups where other members have similar experiences and concerns, can reduce the notion that one's issues are unique and therefore frightening.[7] By recognizing that others experience similar situations and reactions, one can get a sense of legitimacy for his or her own feelings. Thus, support groups may provide participants with an opportunity to treat emotional factors that coincide with chronic disease that might otherwise go unresolved.

Although the notion of Internet support services is relatively new, research indicates that the use of Internet support groups is beneficial as a means of decreasing isolation and garnering a sense of support, thereby facilitating healthy coping to the wide range of potential users. Barrera *et al*. reported significant increases in support on a diabetes-specific support measure and a general support scale for Internet users who received a social support intervention as compared to those who received diabetes information only.[8] Another study found that participants reported greater hopefulness and perception of ability to cope with diabetes after participating in an online discussion group.[9]

Implementation Considerations

Before developing a support group, there are some key decisions program managers will want to make about the purpose and format of the group. Initially, managers may want to do some assessment of needs and preferences among the intended audience, investigate currently available options, and discuss with key team members their level of interest and support for establishing support groups. Before investing in a long-term plan for face-to-face groups, managers may want to consider a pilot meeting with members of the intended audience to gauge the level of interest and discuss guidelines for future activities, including frequency of meetings, facilitation, use of guest speakers, group membership, etc. As with any new service of program activity, planning needs to be done with full awareness of resource needs and availability of resources to support it. Providing access to Internet support groups may be somewhat easier and may simply involve developing a resource list of reputable on-line diabetes support groups that are available and appropriate for the patient population.

Whether or not diabetes programs add a support group component, it is important to recognize that other program services and activities provide support for participants. For example, group education and exercise classes, medical group visits, walking clubs, etc. all provide opportunities for participants to give and receive support.

Program Approaches Used in the *Diabetes Initiative*

All of the *Diabetes Initiative* sites recognized the importance of group support in fostering healthy coping. However, the characteristics of the support groups varied markedly among the project sites. Some met as frequently as twice a week while others met only once a month. Some support groups were run in conjunction with or as follow-up to diabetes self-management education classes; others, like the Native American Talking Circles, were independent of other program components. At sites that did not host support groups, local diabetes support groups were promoted and participants referred to them.

An underlying goal for the support groups was to provide a friendly, non-threatening and supportive environment for sharing successes and challenges. Specific topics covered at support group meetings varied and in many cases were determined by the current needs of attendees. Meetings frequently included discussions related to goal setting, information and resources for further support, self esteem, unresolved challenges, and mental well-being. The leadership of support groups was variable with some groups led by *promotoras*, others led by mental health professionals, and still others co-led by diabetes educators, health professionals and/or *promotoras*. Family and community members were frequently invited to participate and share their support.

Importantly, group support fostering healthy coping at *Diabetes Initiative* sites was not limited to support groups. A number of sites fostered peer support and healthy coping through their diabetes self-management education classes, diabetes dinners, breakfast clubs, walking clubs, exercise classes, group medical visits, and other group activities involving program participants.

Resources

Support Group Leadership Training Resource Manual available at: www.diabetesinmichigan.org/HMenuSupportGroups.htm.

Farris Kurtz L. *Self-Help and Support Groups: A Handbook for Practitioners*. Thousand Oaks, CA: Sage Publications, Inc.; 1997.

Miller JE. *Effective Support Groups*: How to Plan, Design, Facilitate and Enjoy Them. Fort Wayne, IN: Willowgreen Publishing; 1998.

Diabetes forums, e.g.,

- http://www.diabeticnetwork.com/community/
- http://www.dlife.com/diabetes-forum/
- http://www.diabeticconnect.com/discussions/categories
- http://www.diabetesfiles.com/forums/

Diabetes community message boards, e.g.,

- http://community.diabetes.org/n/forumIndex.aspx?webtag=adaindex
- http://groups.msn.com/Diabetes/messageboard.msnw
- http://boards.webmd.com/webx?14@@.5983f881
- http://messageboards.ivillage.com/iv-bhgendiabete

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Stress Management

Overview

If there is one word that applies most broadly to the entire field and numerous areas of healthy coping, it is "stress." Stress is used to describe anxiety, worry, depression, conflict, and a host of other negative emotions. It is also used to describe a variety of experiences and symptoms, such as feeling jittery, feeling distracted, etc., as well as a variety of external challenges or problems such as difficult supervisors or coworkers, major demands, family illness or other family problems, etc. What, then, is "stress management"?

Stress management usually entails a comprehensive approach to dealing with stressors that includes three core approaches:

1) How to appraise stressful events realistically.
2) Strategies for coping with stressors to reduce them.
3) Strategies like relaxation for reducing responses to stressors.

A useful distinction in the field of stress management is that between stressor and stress. A stressor is the external event or situation that is upsetting or challenging to us, such as a belligerent colleague, an unreasonable deadline, etc. Stress is our response to the stressor. An important component of stress management is distinguishing between stressors that should be eliminated or managed and stress responses in oneself that need to be reduced or redirected. This is expressed in numerous observations of folk wisdom, such as the Serenity Prayer: "Grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference."

If we are having repeated conflicts with a friend, a coworker, or a family member, it is often worthwhile to discuss and try to reduce or avoid those conflicts. Not to address the problem will probably lead to a continuing deterioration of the relationship and, perhaps, its dissolution altogether. On the other hand, repeated conflicts with the boss or an individual who is unlikely to be responsive to our efforts to change things may be wisely left to run their course. In such cases, we may help ourselves by learning strategies such as how to maintain a healthy perspective on the situation. Alternatively, strategies such as relaxation or meditation may help control or minimize our stressful reaction to a situation we cannot change.

Evidence Base

To determine if group-based stress management can improve glucose metabolism in type 2 diabetes, Surwit and his colleagues randomized 108 adults with diabetes to a five-session education program with and without stress management.[1] Evaluation over the following year included hemoglobin A1c, and measures of stress, anxiety, and psychological health. Stress management was associated with small but significant reduction in hemoglobin A1c. Others have also reported benefits of stress management in terms of hemoglobin A1c.[2] A randomized controlled trial among patients with cardiovascular disease found reductions in blood pressure and several other cardiovascular risk factors.[3]

Implementation Considerations

Because "stress" is used so broadly and to describe so many emotions and concerns, this entire Guide really can be seen as providing strategies for coping with stress. Program managers may elect to incorporate one or more of these into existing self-management education classes or to offer a program

specifically for stress management, especially if clinical observation or screening indicates that stress is a major barrier to a self management for the population served.

Most stress management programs include teaching skills (a) for coping with or reducing stressors and (b) for reducing our own stress responses. Problem-solving strategies, described elsewhere in this Guide, provide a good overall approach for coping with stressors. Within this approach, specific skills that may be useful include communication and assertion skills. Skills for managing or reducing our own stress responses include the cognitive behavioral strategies also described in this Guide, along with a number of key approaches described in the section on Mind-Body Techniques, such as deep muscle relaxation, meditation, or yoga.

Much stress management training may be incorporated in individual education or counseling or may be formalized in group programs. Well-developed models for group programs that teach skills for managing one's own stress responses and for coping directly with sources of stress include the *LifeSkills* program of Williams and Williams (http://www.williamslifeskills.com/), and the stress management programs of Schneiderman and his colleagues at the University of Miami, developed for individuals with diabetes as well as those with HIV/AIDS, cancer, and other serious illnesses.[4]

Program materials for sessions on stress management that can be presented on their own or as part of other self-management programs have also been developed by the National Diabetes Education Program: http://www.diabetesmonitor.com/b233.htm and http://www.diabetesatwork.org/_files/I-d02_lp.pdf

Program Approaches Used in the *Diabetes Initiative*

Various stress management techniques were used by *Diabetes Initiative* grantees. One site incorporated a social worker with skills in social assessment and stress management into the medical group visit to improve delivery of psychosocial and emotional support. Several sites used their Chronic Disease Self-Management Program to address stress. Others incorporated a module on stress management in their self-management classes or developed support materials for a stand-alone intervention on managing stress (see Resources below).

Tips for Practice

In their program, *LifeSkills,* Williams and Williams have developed a helpful guide for distinguishing between situations in which individuals should try to cope with or reduce stressors and those in which they should focus on their own reactions to the stressor. Following the model "I-A-M-Worth it," the individual asks four questions about a stressor: (1) Is this IMPORTANT to me? (2) Are the thoughts and feelings I'm having APPROPRIATE? (3) Is the situation MODIFIABLE? (4) When I consider the needs of the other people and myself, would it be WORTH it to act to change or reduce the stressor? If the answers are all "yes," then it makes sense to try to cope with or change the stressor. If the answer to any of the four questions is "no," then the response should be to reduce one's own stressful reaction.

Two areas especially require good judgment and wisdom in those implementing stress management programs. The first concerns the distinction between circumstances in which it is appropriate to reduce or cope with the stressor and circumstances in which it is appropriate to focus on one's own stress response. In making this distinction, it is important not to communicate that one's stress is one's own fault or problem. That there may be nothing I can do about a stressor—and therefore, that I may best focus on my own stress response—does not mean that the stressor is my fault. The second concerns the appraisal of a stressor as unchangeable. Considering concepts of empowerment and patient advocacy, we should think twice about deciding a stressor is something we cannot change. It can often be remarkably helpful to individuals or groups to learn that stressors they thought were unchangeable could actually be reduced through their own efforts.

Popular media and a number of "pop psychology" books and promoters sometimes portray a message that, if we just adopt a particular perspective, learn a simple skill, or recognize some verity, it is easy to live stress-free and happy. In serious stress management programs, it is important to make clear that the experience of stress is sometimes inevitable. It is not one's fault to be unable to control or eliminate a stress response. When a situation or person is harmful, hostile, or abusive, there may be limited opportunities for us to change it and we may be unable to keep ourselves from responding with negative emotions or stress. It is important in such cases that the individual not blame him- or herself for the inability to manage a response to a difficult situation. Along these lines, it is important always to remember that individuals may, at times, need assistance in dealing with stressors. Those running self-management programs will quickly realize the frequency with which participants encounter serious and troubling stressors. Programs staff should have well developed community resources identified to which they may refer participants who need help in dealing with difficult situations.

Resources

The *LifeSkills* program of Williams and Williams (http://www.williamslifeskills.com/) teaches skills for managing one's own stress responses (e.g., relaxation skills) as well as for coping directly with sources of stress such as in relationships or at work. Information at the website provides details of resources for individuals and for those interested in gaining training to implement *LifeSkills.*

Penedo FJ, Antoni MH, Schneiderman N. *Cognitive-Behavioral Stress Management for Prostate Cancer Recovery Facilitator Guide*. New York: Oxford University Press, 2008. This manual describes a stress management program for prostate cancer patients but the skills and approaches are readily applicable to those with other diseases such as diabetes.

Surwit RS, Bauman A. *The Mind-Body Diabetes Revolution: The Proven Way to Control Your Blood Sugar by Managing Stress, Depression, Anger and Other Emotions*. New York: Marlowe & Company; 2005. This is a very useful book by a leader in the field that is especially strong in its approaches to stress management.

Resources on the *Diabetes Initiative* website include *SONRISA: A Curriculum Toolbox for Promotores / Community Health Workers to Address Mental / Emotional Health Issues Associated with Diabetes*, and *Strengthen Your Spirit: Self Assessment and Tools for Healthy Coping of Negative Emotions*, a manual offering techniques for dealing with negative emotions and stressors that can affect diabetes management. These and other resources are available in the Healthy Coping Resources section of the *Diabetes Initiative* website:
http://diabetesinitiative.org/resources/topics/HealthyCoping.html

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Physical Activity

Overview

Physical activity is widely accepted as a key part of diabetes self management because of its significant influences on metabolic control and health outcomes. In recent years, physical activity has also been increasingly recognized for its beneficial effects on various aspects of emotional well-being, including depression, anxiety, stress, mood, general well-being, self-esteem, and sleep quality.[1, 2] It is likely that physical activity has an effect on emotional well-being in two ways: 1) by improving metabolic control and physical health, which leads to improved emotional health and quality of life, and 2) by directly and more immediately improving emotions and mood. Thus, program managers might consider including program components, described below, that directly facilitate moderate physical activity as one component of healthy coping.

Evidence Base

Several systematic reviews[1, 3, 4] summarizing hundreds of studies found positive effects of physical activity and exercise on various aspects of emotional well-being in many different populations. Many of these studies consist of randomized, controlled trials (i.e., experiments) that provide very strong evidence of its beneficial effects. One review of this literature[1] concluded that physical activity: a) is effective in the treatment of clinical depression; b) reduces current feelings of anxiety (i.e., state anxiety) as well as individuals' tendencies to react in anxious ways (i.e., trait anxiety); c) improves subjective well-being and affect (i.e., mood); d) improves self-esteem; and e) may improve sleep quality. This review, among others cited above, indicates that physical activity can be useful in improving various aspects of emotional well-being in both general populations and individuals with mental disorders. Thus, increasing physical activity among individuals with diabetes can be expected to yield emotional health benefits in addition to physiologic ones.

Although their psychological benefits have not been assessed, walking clubs and teaching participants to use pedometers are approaches that have been shown to be effective methods for increasing physical activity among people at risk for diabetes[5] or with diabetes.[6] Thus, as noted above, the broad literature documenting emotional benefits from a wide variety of physical activities strongly suggests these would have similar benefits among those with diabetes.

Implementation Considerations

Implementing a physical activity component within a diabetes self-management program is generally not difficult. Most existing diabetes self-management curricula provide information and support for increasing physical activity.

One of the common ways is to offer group physical activity classes or begin a walking club. These both take advantage of peer support as an aid to getting patients started and continuing to participate in regular physical activity. Another easy-to-implement approach is supplying pedometers and teaching participants how to use them to track the number of steps they walk daily.

Program managers will need to consider the age, health and existing fitness levels of participants when designing physical activity intervention components. For most participants, moderate activity such as brisk walking will be appropriate. However,

programs in which participants are younger and have few comorbidities may want to explore opportunities for participants to exercise at local fitness facilities. If the program includes a heterogeneous patient population, including those with contraindications to performing certain activities, programs and goals will need to be individually tailored. This may require additional resources or consultation with an individual's health professional. For example, appropriate activities need to be identified for participants with neuropathy and/or foot ulcers who should refrain from weight bearing activity such as long walks.[7] A fitness professional can provide this guidance. For individuals wanting to begin a vigorous physical activity program, medical clearance should be recommended. Furthermore, it is imperative that all participants be taught how to manage their blood glucose in conjunction with physical activity (e.g., avoid exercising when blood glucose is too low,[7] adjusting food intake and/ or insulin dose to account for increased energy expenditure, etc.).

In order for any of these physical activity options to successfully engage participants, there must be safe and secure places for participants to walk and exercise. The program manager should assess community capacity for physical activity, provide a list of places/resources to participants and if necessary, advocate for increasing community capacity. The *Move More Replication Guide* provides examples of how to develop opportunities in the community as well as manage a peer support program to promote physical activity (http://movemore.org).

Program Approaches Used in the *Diabetes Initiative*

All *Diabetes Initiative* sites recognized the benefits of exercise and physical activity on physical and emotional health. Many sites developed support groups or clubs that focused on walking and/or other types of physical activity. Some of these groups met as often as three times a week while others met only once every other week. Most programs also incorporated learning about physical activity and doing some activity during educational classes or self-management group sessions. Education and skill building focused on learning about the benefits of physical activity to overall diabetes management as well as on goal setting and action planning to increase physical activity. Sites usually enhanced the physical activity component of support groups and education classes with one-on-one sessions for participants with a certified diabetes educator, physician, nurse, case manager, *promotora*/lay health educator or, in some cases, even a fitness instructor to follow up and reinforce messages. At one site, physicians used exercise prescription pads. Several community-based programs provided pedometers, walking maps, activity logs, lists of other physical activity resources and places for activity such as indoor walking facilities. In addition to building community capacity for physical activity, one site also focused on lay health educators to provide encouragement and support for ongoing physical activity and to direct patients back to primary care providers if problems occurred. Finally, most sites used various communication strategies to reinforce and promote physical activity. These included print materials, web based resources, outreach in person or via telephone by physically active peers, social marketing messaging, weekly motivation emails to sustain motivation, or an exercise video.

Resources

U.S. Department of Health and Human Services: Physical Activity Guidelines for Americans: http://www.health.gov/PAGuidelines/guidelines/default.aspx

American College of Sports Medicine: Physical Activity and Public Health Guidelines: http://www.acsm.org/AM/Template.cfm?Section=Home_Page&TEMPLATE=/CM/HTMLDisplay.cfm&CONTENTID=7764

American Heart Association: Exercise (Physical Activity), Mental Health, and Mental Ability: http://www.americanheart.org/presenter.jhtml?identifier=4550

U.S. Department of Health and Human Services: Physical Activity Fundamental to Preventing Disease: http://aspe.hhs.gov/health/reports/physicalactivity

"Move More": Helping people exercise more and eat well: http://movemore.org or on the *Diabetes Initiative* website at http://www.diabetesinitiative.org/resources/tools/MoveMoreReplicationKit.html

National Heart Lung and Blood Institute, Obesity Education Initiative: Guide to Physical Activity: http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/phy_act.htm

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Mind-Body Techniques

Overview

In recent years, there has been growing interest in mind-body techniques for alleviating both mental and physical health problems. Acknowledging that an individual's mind, body, and behavior all influence one another, mind-body techniques attempt to leverage these interactions to improve physical and emotional health.[1]

Mind-body techniques encompass a wide variety of approaches from well-established interventions that are implemented by professionals in conventional practice settings to those with much more limited supportive data that are offered by individuals with differing backgrounds in varied settings.[1] In this section, we describe a variety of approaches that are increasingly used to support health and have come to be considered part of the larger field of complementary and alternative medicine. These approaches can be used alone, in combination with each other, or in combination with conventional medical and self-management interventions.[2] Many are incorporated into programs offered for stress management.

- **Breathing techniques** are fundamental to many of the other mind-body approaches and are also used alone as a method to reduce tension and induce relaxation. Breathing exercises are the easiest and most basic of the relaxation techniques. There are a number of exercises (e.g., diaphragmatic breathing, roll breathing, alternate nostril breathing) that teach controlled deep breathing and focus on the breath to reduce stress.[3]
- **Progressive Muscle Relaxation** has a long history in stress management and related interventions[4]. It involves sequential tightening and relaxing of different muscle groups.[2] The aim is to increase awareness of the effects of stress on muscles and to distinguish that feeling from that of relaxed muscles. With that knowledge, participants are taught to relax muscles in times of stress to release tension and induce calmness. Like breathing techniques, Progressive Muscle Relaxation is easy to teach and easy to learn.
- **Guided imagery or visualization** uses the power of imagination to evoke positive emotional or physical responses. Visualization can be self-guided or guided by another person (live or previously recorded). When used to reduce stress, participants are generally guided to visualize a peaceful nature scene or to see themselves as capable individuals in control of their health and well-being. Because the underlying premise is that relaxing thoughts promote relaxation in the body, participants are encouraged to use these images when feelings of stress or anxiety arise.[3]
- **Meditation** encompasses a variety of techniques or practices intended to focus attention and quiet the mind. While meditation techniques have been practiced for centuries and were historically practiced to achieve spiritual growth, they are increasingly used to promote health and well-being without regard to specific spiritual or religious beliefs.[2] Meditation is a state of concentrated attention on a single subject such as one's breath, an image, or a sound. There are many

techniques and styles of meditating, all sharing the goal of focusing and quieting the mind. For example, in transcendental meditation, a common form of meditation practiced in the Western world, participants repeat a word or phrase (called a mantra) to help maintain a concentrated focus. When the mind is quiet, the body also becomes quiet, which brings physical and mental calmness.[1, 2, 5]

- **Yoga** means "union" in Sanskrit, the language of ancient India where yoga originated thousands of years ago. It refers to the union of the mind, body and spirit. Classical yoga includes ethical disciplines, physical postures, breath control and meditation. Historically an Eastern spiritual practice, it is now becoming popular in the West, where it is also being used to address some physical disorders and support relaxation as well as overall health and well-being. There are many styles of yoga. Hatha, a popular style in the US, emphasizes the physical postures integrated with breathing techniques.[1]
- **Tai Chi** or Tai Chi Chuan is a traditional Chinese practice that combines deep diaphragmatic breathing and relaxation with gentle movement. According to Chinese philosophy, tai chi improves the flow of "chi" (or "qi"), the vital life energy that is believed to sustain health. Participants are taught a series of slow and synchronized movements that resemble a dance. Tai chi is designed to exercise the body, mind and spirit. As people move through tai chi forms, they are gently working muscles, focusing concentration, and breathing deeply, all of which lead to relaxation. (http://nccam.nih.gov/health/taichi/#3)
- **Hypnosis** involves a centering of attention on a focal point or object of concentration and dissociation from other things in the environment. Individuals undergoing hypnosis are also usually in a state of heightened suggestibility and more likely to accept outside information or instructions without question or criticism.[2] Many hypnosis strategies use this heightened suggestibility and vividness to focus attention on imagined rehearsal of behaviors the individual is trying to develop, e.g., managing ones response to a particular stressor.

  An important consideration is the widely held expectation that hypnosis will somehow magically lift unwanted desires or habits from individuals with very little effort on their part. There is very little evidence to support this view. Program managers are urged to avoid those who may offer hypnosis services, sometimes with fee-splitting proposals, as panaceas for all those who smoke, are overweight, worry too much, etc.
- **Clinical Biofeedback** uses electronic monitoring and feedback devices to teach people to control and relax their breathing, heart rate, or other body functions over which they do not typically have conscious control.[1] A biofeedback device measures the body's responses to stress, such as changes in skin temperature, heart rate, blood pressure or muscle tension. For example, an electromyogram (EMG) uses electrodes or other sensors to measure muscle tension. Showing people when their muscles are tensed can help them identify the feelings of tension and learn to relax those muscles. In temperature biofeedback, sensors are attached to the person's fingers or feet to measure skin temperature. A low skin temperature reading may indicate stress, so such a reading can serve as a prompt to begin relaxation techniques.

(http://www.diabetesselfmanagement.com/articles/Diabetes_Definitions/Biofeedback).

In addition to these, some consider prayer to be a mind-body technique. Although these distinctions may be somewhat arbitrary, we have described prayer along with other approaches related to religion and spirituality in a separate section of this Guide.

Evidence Base

A recent systematic review of research conducted with a variety of patient populations found promising evidence for mental health benefits (e.g., improved quality of life and mood; reduced anxiety) of various mind-body approaches, including relaxation training, biofeedback, guided imagery, hypnosis, and various forms of meditation.[5] Research on several of the mind-body approaches and their application to specific audiences, such as those with diabetes, is still modest. However, as Western medicine becomes more aware and accepting of such approaches, the evidence supporting their efficacy is growing.

Several studies have also investigated the effects of mind-body approaches on the health and well-being of individuals with diabetes. A study by Surwit[6] suggests that mind-body approaches to stress management can be meaningful additions to a comprehensive treatment program for patients with type 2 diabetes. This study used progressive muscle relaxation training as well as instruction in the use of cognitive and behavioral skills to recognize and reduce physiological stress levels. The adverse health consequences of stress were reduced as evidenced by reductions in hemoglobin A1c. In another study, Mindfulness Based Stress Reduction, a form of meditation, let to a decrease in measures of depression, anxiety, and general psychological distress among patients with type 2 diabetes[7]. Evaluations of yoga interventions have supported their efficacy with regard to improvements in mood, stress, and quality of life in a variety of populations.[8] One small randomized controlled trial of biofeedback found reductions in anxiety among individuals with diabetes.[9]

In addition to studies investigating the effects of mind-body techniques on healthy coping, several studies provide evidence for the use of mind-body techniques to improve clinical health status of individuals with diabetes[10-17]. These improvements in clinical status of individuals with diabetes can reasonably be expected to have a positive effect on healthy coping.

Implementation Considerations

The variety of mind-body approaches and providers can make it challenging for administrators to know which services to offer and how to tell who is qualified to provide them. Generally, the mind-body techniques are not protected or restricted by licensure or certification. Thus, it may be difficult to evaluate the credentials of those holding themselves out as expert in yoga, relaxation training, or meditation. This creates a dilemma for administrators. On the one hand, there are individuals with no formal training or certification for their work who are nevertheless skilled and responsible instructors in many of these techniques. On the other hand, there are practitioners who are poorly trained and poorly skilled who should be avoided. Until they feel confident in their knowledge of the local network of providers to recruit carefully, administrators are well-advised to recruit carefully from trusted sources.

Considerable evidence[18] suggests that many of the mind-body techniques—yoga,

meditation, relaxation, massage—share common effects on stress and related processes. Because of this and the fact that there is little research that one or another approach is specifically effective for people with diabetes, decisions about which approach to adopt may be based on factors such as consumer demand or preference, availability of people trained in specific approaches, complexity of adding new dimensions to programming, upfront costs, resource needs, etc.

Another consideration is adaptability of specific approaches to group versus individual formats; e.g., yoga, tai chi, relaxation, and guided imagery may be more amenable to a group approach than biofeedback and hypnosis. Group activities, however, also require larger physical space than strategies incorporated into individual self-management education.

Program Approaches Used in the *Diabetes Initiative*

In programs of the *Diabetes Initiative*, one site partnered with a local fitness center to incorporate yoga and tai chi into its diabetes self-management program. At another site, certified diabetes educators referred participants to a local clinic where yoga was available. General diabetes self-management education and skill building classes incorporated mind-body techniques such as diaphragmatic breathing, progressive muscle relaxation, and guided imagery. Mind-body techniques at one site were incorporated into group medical visits. Another site incorporated mind-body techniques through referral to a nurse-led program that taught relaxation and meditation in a weekly series of group classes.

Resources

National Center for Complementary and Alternative Medicine (NCCAM; part of the National Institutes for Health) general website: http://nccam.nih.gov. This site contains further descriptions of specific mind-body approaches.

NCCAM's Time to Talk website: http://nccam.nih.gov/timetotalk/. This site contains links to patient and provider toolkits to facilitate discussion of mind-body approaches.

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Spirituality and Religion

Overview

Spirituality and religion play important roles in many people's lives. Surveys suggest that most people describe themselves as spiritual, typically defined as believing in a higher power or engaging in a search for meaning and appreciation of life.[1] While spirituality does not necessarily imply participation in organized religion or religious practices, many Americans also report high levels of religious practice such as prayer or attendance at services.[2]

Many patients with diabetes feel that spirituality, religion, and prayer play an important role in facilitating management of the condition.[3-5] Also, for many patients, engaging in prayer may be one way in which they cope with their illness and other sources of stress in their lives. A recent national survey found that 66% of adults with diabetes in the U.S. reported engaging in prayer, [2] compared to just 50% of adults without diabetes. Other studies found that 28% of individuals with diabetes pray specifically with regard to the condition [6] and that prayer is a primary coping mechanism for diabetes among African American women.[7] Recent research also suggests that many patients with diabetes desire relationships with their health care providers that attend to issues of spirituality.[8-10] Acknowledgment by providers that prayer, religion, and spirituality are important to patients' health is an integral part of providing culturally sensitive care.[11]

In light of this research, and a growing base of evidence that religious or spiritual beliefs and practices exert a protective effect on emotional health[12-14], there is increasing desire among health care providers and diabetes self-management programs to address aspects of religious beliefs and spirituality as a means of encouraging healthy coping.

In the past, incorporating spirituality into health care delivery has been somewhat controversial and seen by many as inappropriate. Additionally, some providers are uncomfortable in this realm and feel poorly prepared to enter it.[15, 16] However, norms surrounding this issue have begun to change in recent years, and there is growing acceptance and interest in actively encouraging patients to draw on their spiritual or religious beliefs to help them cope with chronic illnesses such as diabetes. A recent study of physicians across specialties found that the majority believed that religion/spirituality helps patients cope, induces a positive state of mind, and provides emotional support via participation in religious activities and groups.[17]

Evidence Base

The results of several large systematic reviews indicate that various aspects of religion and spirituality, including prayer, are associated with better mental health, including higher levels of various dimensions of psychological well-being (e.g., life satisfaction, optimism, positive affect) and lower levels of depressive symptoms.[12-14, 18, 19]

A recent review focused on the effect of prayer on general health.[20] It found that more frequent prayer is related to better physical and mental health outcomes. The review suggested that more frequent prayer may lead to an increased sense of empowerment and psychological well-being.

Although most studies have shown positive effects on emotional health, it should be noted that religion and spirituality also may have negative effects on well-being. Masters *et al.* reported that more frequent prayer may also lead to passive, less constructive coping.[20] Along these lines, beliefs that one's health is out of one's hands or a matter of fate may discourage efforts in self management or receipt of needed medical treatments. Other studies suggest that those who believe in an unforgiving God or blame God for some unwanted circumstance suffer more anxiety and depression. People may experience added emotional distress if they are led to believe their health problems result from a religious or spiritual failure on their part. There are also subtle psychological consequences for people who are not part of dominant religions in a community; they may feel less accepted, or even ostracized, and have fewer social networks. [21, 22]

Research is emerging that addresses specific ways to integrate spirituality and religion into healthy coping interventions for individuals with diabetes or other chronic illness. One study with cancer patients[23] evaluated a brief, patient-centered inquiry that was aimed at eliciting discussion about spirituality and religion. Specifically, the interview introduced the topic of spirituality/religion in a neutral, inquiring way, and then tailored follow-up questions and discussion based on patients' initial reactions and interest in delving more deeply. For those who were open to discussing the topic, providers probed patients to help them identify ways in which their spirituality might help them cope better, asked about available resources, and offered assistance in connecting patients to further resources if desired. Patients who received the spirituality inquiry reported improved satisfaction with care, quality of life, and well-being, which suggests that simply opening the door to discussion about these issues might lead to better coping with the illness. Of course, more research is needed to evaluate specific intervention components like these in patients with diabetes.

Implementation Considerations

Before attempting to address spiritual components of coping among patients or program participants, it is important that staff and providers are comfortable with such discussions and the approaches used by the program. It is also important that staff and providers are aware of religious and spiritual resources available in their community. Hospital chaplains may be a good source of information as well as support and training for project staff.

Another way in which programs might incorporate faith and spirituality into efforts to encourage healthy coping is to use faith-based organizations as a setting for diabetes self-management education and their leaders and members as deliverers of intervention components. This approach allows participants' faith and spirituality to be addressed implicitly in many different aspects of diabetes self-management education activities, as demonstrated in A New DAWN, a church-based program for African Americans with type 2 diabetes in North Carolina,[24] and in the examples described in Program Approaches.

In many settings, a particular religious practice and culture is sufficiently widespread and shared by all members of a community that its practices and discourse are central to the daily lives of individuals within the community. It is nevertheless important to

maintain sensitivity to all levels and varieties of spirituality or religious practice within the population served, so as not to compromise the ability of the program to reach those who may not share the dominant beliefs or practices. In particular, it is important to be sensitive to heavy-handed efforts to promote or impose a particular spiritual perspective, either on the part of program leaders or participants. This may sometimes take the form of a proffered simple solution to all problems based on a singular practice or belief. Even within communities with a broad consensus about spiritual concerns, there is still likely to be considerable, if unexpressed, variation in particular areas. Thus, any dogmatism will limit the reach or effectiveness of programs. It can also cause distress among those who do not follow the path of the majority.

Whether the assessment is formal or informal, programs should be prepared to address the needs identified. The responses by the program might include: 1) supporting patients' engagement in the religious or spiritual practices they report as being helpful, 2) referring patients to appropriate faith-based supports in the community, such as spiritual advisors, clergy, or religious groups, or 3) referring them to programs that include mind-body approaches, such as those discussed in the previous section. Self-management programs may incorporate components that address the spiritual dimensions of health. If not, staff should be prepared to suggest community resources to interested patients.

Tips for Practice

While it is not the role of clinicians or educators to promote specific religious practices or spiritual beliefs, there are several ways in which program coordinators and health care providers might attempt to improve healthy coping by addressing the spiritual dimension of their patients' health. One is to consider incorporating a spiritual assessment into the program. There are formal assessments, such as HOPE[25], INSPIRIT[26], FICA[27], and others[28], or staff could simply initiate discussion about spirituality and faith using questions such as the following taken directly from several studies.

- "When dealing with a serious illness, many people draw on religious or spiritual beliefs to help cope. It would be helpful to me to know how you feel about this."[23]
- "How has your religious or spiritual history been helpful in coping with your illness?"[4]
- "How has your belief system been affected by your illness?"[4]
- "Would you like to discuss the religious or spiritual implications of health care?"[29]
- "What role does your faith play in regaining your health?"[30]
- "What aspects of your religion/spirituality would you like me to keep in mind as I care for you?"[29]

Program Approaches Used in the *Diabetes Initiative*

Sites of the *Diabetes Initiative* incorporated faith and spirituality into their programs in a number of different ways. One was to have providers and other staff deliver presentations related to diabetes self management in faith-based settings. Another was to conduct outreach and program activities in churches and other faith-based settings. These included holding support and walking groups and other self-management classes at church settings, providing self-management resource materials at church functions, and recruiting people from faith-based settings to become peer leaders and "health liaisons" so that they became a local resource and support for program participants. The third way that faith and spirituality were addressed was by acknowledging their influence in self management and developing program models accordingly. For example, the one site serving an American Indian population developed a holistic program based on a "Circle Model" that included intervention components to support the physical, mental, emotional and spiritual aspects of health.[31]

Resources

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Psychotherapy and Medication for Healthy Coping

The previous sections of this Guide have described approaches to healthy coping that may be included in self-management programs for general groups of those with diabetes. Here, the Guide shifts focus to interventions that are usually provided by specialty or referral resources such as counselors, psychiatrists, psychologists, or social workers.

In addition to all the ways in which healthy coping can be promoted through self management and related approaches, diabetes self-management programs are increasingly utilizing counselors, psychiatrists and psychologists as referral resources for psychotherapy and specialty care. Of course, psychotherapy and psychiatric medication have evolved out of concern for psychopathology, not diabetes management. However, growing recognition of the two-way street between diabetes management and general quality of life has prompted increased interest in taking advantage of psychotherapeutic services to improve management of diabetes and other chronic diseases and in recognizing that psychotherapy needs to take into account the management of chronic disease if it is to be fully effective in promoting emotional well-being.

Program managers who are considering making referrals for psychotherapy or psychiatric care for their clients with more severe emotional problems should note that there is considerable overlap in the specific procedures of Cognitive Behavioral Therapy, Problem-Solving Therapy, and related behavioral and other contemporary psychotherapies such as Solution-Focused Brief Therapy and Interpersonal Therapy. Frequently, therapists experienced in one will be experienced in the others. Identifying licensed counselors, psychiatrists, psychologists, and social workers should ensure appropriate use from among these.

The next three sections of the Guide cover two areas of psychotherapy that are prominent in services for those with chronic disease—Cognitive Behavioral Therapy and Problem-Solving Therapy—and use of Psychopharmacologic Medications.

Resources

The Association of Behavioral and Cognitive Therapies offers a selection of over 40 fact sheets for individuals that include depression, stress, and a wide variety of other common psychological and mental health problems, from ADHD to marital distress to worry. These are available at: http://www.aabt.org/dMembers/?m=mMembers&fa=FactSheets

Professional Counseling Resources

Credentialing

http://psychologytoday.com/pto/credentials.html
Summary: This link describes the range of credentials and licenses that program managers might look for when seeking the right professionals (therapists, psychologists and counselors) to provide emotional health services.

Types of Counseling Professionals

http://www.psychologytoday.com/pto/phd.html
Summary: A rough field guide to the differences between psychiatrists, psychologists, counselors and coaches etc.

Finding Local Counselors and Therapists

http://therapists.psychologytoday.com/rms/prof_search.php
Summary: This link features a directory that can help program managers find qualified emotional health providers in their local area. It allows one to search by zip code and by emotional health topics including chronic illness.

http://locator.apa.org/
Summary: This link features a directory that can help program managers find qualified psychologists in their local area. It allows one to search by zip code or city/ state.

http://mentalhealth.samhsa.gov/databases/default.asp
Summary: This locator provides comprehensive information about mental health services and resources and is useful for professionals, consumers and their families, and the public. Information can be accessed in several ways.

Integration of Mental Health Care in Primary Care Settings

http://www.psychservices.psychiatryonline.org/cgi/content/full/53/2/143
Summary: Article in *Psychiatric Services:* Economic Grand Rounds on the business case for high-quality mental health care.

http://mentalhealth.samhsa.gov/publications/allpubs/SMA06-4195/chapter12.asp
Summary: A publication on the introduction of mental health care in primary care settings from the National Mental Health Information Center's Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration (SAMHSA).

http://mentalhealth.samhsa.gov/publications/allpubs/SMA06-4195/chapter13.asp
Summary: A publication on the primary care/behavioral health interface from the National Mental Health Information Center's Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration (SAMHSA).

http://www.nimhe.csip.org.uk/silo/files/design-primary-48pppdf.pdf
Summary: This guidebook is designed to assist those wishing to plan, organize and manage primary care mental health services.

http://gucchd.georgetown.edu/programs/ta_center/TrainingInstitutes/SpecialForums/Integrating%20Mental%20Health%20Services%20into%20Primary%20Care%20Settings.pdf
Summary: This paper presents the issues and recommendations from the Special Forum on Integrating Mental Health Services into Primary Care Settings.

http://www.integratedprimarycare.com/Air%20Force%20Manual/primary%20care%20practice%20manual.pdf
Summary: This manual introduces the clinician to the roles and responsibilities of a behavioral health consultant (BHC), which describes any mental health provider who 1) operates in a consultative role within a primary care treatment team, and 2) offers recommendations and care delivery for behavioral interventions and/or psychotropic medications.

http://www.depression-primarycare.org/clinicians/toolkits/ (sign in/ registration required)
Summary: The MacArthur Foundation Initiative on Depression and Primary Care has created a Depression Tool Kit, which is intended to help primary care clinicians recognize and manage depression. (Section III C—Referral to psychological counseling).

http://www.depression-primarycare.org/clinicians/re_engineering/
Summary: Re-engineering practices: The Three Component Model (3CM™) is a specific clinical model for depression. The 3CM™ is a systematic approach that includes tools, routines, and a team approach to patient care. The three components include the prepared primary care clinician and practice, care management, and a collaborating mental health specialist. Training materials for each component are available at this website.

http://www.icsi.org/guidelines_and_more/guidelines__order_sets___protocols/behavioral_health/depression_5/depression__major__in_adults_in_primary_care_4.html
Summary: Guidelines for addressing major depression in adults in primary care.

Cognitive Behavioral Therapy

Overview

Cognitive Behavioral Therapy (CBT) has gained much prominence as a psychotherapy for depression and other problems. It has been developed over the past 30 years, starting with the work of Aaron Beck who developed it as a treatment for depression (and is also well know as the chief developer of the widely used Beck Depression Inventory)[1-3]

In CBT, individuals are coached on changing habitual patterns of responding to challenges or problems through a variety of strategies, such as acting more assertively, socializing, seeking out new relationships, confronting sources of stress, etc. CBT includes important behavioral therapy approaches of breaking down skills into manageable components, rehearsal of skills, attempting applications in real life, review and trying again, etc.

As efforts at changing behavioral approaches to challenges are pursued, cognitive barriers almost always emerge (e.g., "I couldn't say that. What if they said 'no'?"). At this point, cognitive strategies come into play and individuals are helped to identify assumptions or ways they are processing information that hamper efforts to change. In addition to identifying problematic assumptions, they are coached on identifying alternative assumptions and, very importantly, practicing those alternatives just as one would practice any other new behavior. Continuing the example of fear that others may say "no," the individual may be helped to see that the response of "no" is not always a terrible thing and to rehearse how they can put "no" in perspective *and* to act accordingly. Thus, the cognitions and behaviors are intertwined and, indeed, the cognitions are changed the same way one would change other behaviors, through identifying alternatives, learning how to do them, practice, and feedback and revision.

As discussed earlier in this Guide, elements of CBT are also widely incorporated into self-management programs in a variety of settings. In those programs, the same types of cognitive barriers to behavioral change often emerge and are addressed through helping individuals by the same steps of identifying problematic ways of viewing oneself and the world, identifying alternatives, skill learning and practice, and application and review.

Evidence Base

A number of studies indicate CBT is often as or more effective than medication in treatment of depression, especially with respect to minimizing drop-outs or likelihood of stopping therapy, as well as in terms of efficacy.[4, 5] In addition to treating depression, CBT is now widely used for a number of other psychological problems, including anxiety, stress, and general problems of adjustment.

Several reviews[6, 7] concluded that cognitive behavioral interventions have benefits on mood and metabolic control, showing promise of improvements in course and outcome. A randomized trial compared patient education alone with patient education followed by 10 weeks of individual CBT. The CBT group achieved greater remission of depression and lower glycated hemoglobin (GHb).[8] Other findings of studies of behavioral approaches to healthy coping have included improvements in fear, acceptance of chronic disease, and improved work experience through an intervention that utilized several cognitive behavioral strategies

in improving dysfunctional health beliefs.[9]

General understanding of CBT sometimes puts more emphasis on the "cognitive" than the "behavioral." The idea that depression can be alleviated by correcting faulty ways of viewing problems has great popularity. However, recent evidence indicates that the "behavioral" may be as effective as the "cognitive". Behavioral activation is a common component of CBT in which individuals are helped to identify activities that are pleasurable and coached on increasing these in their daily lives. Some studies indicate this may be as effective as the more cognitive components of therapy and that both are as effective as medication.[4, 5, 10]

Implementation Considerations

Implementing CBT requires a fair amount of experience and skill. Most of us have tried to persuade a family member or friend to see "the glass half full" or to stop "making mountains out of molehills." While we all recognize the wisdom of such advice in the abstract, when it comes to our own problems or conflicts, it is much harder to let go of engrained ways of seeing things. Training manuals in the field provide approaches to learning how to do this effectively.

As problems become more complicated or profound, helping individuals develop alternative ways of looking at them also becomes more complicated. Resistance to changing well entrenched ways of viewing things may increase. Distress in response to suggestions of change about long-held beliefs and perspectives in areas that are troubling may be substantial. Thus, applying CBT to appreciable psychopathology such as depression or anxiety disorders is probably best pursued by those with substantial clinical training in these approaches. Those with such training will generally have backgrounds in counseling, nursing, psychiatry, psychology, or social work. However, when choosing among individuals in such fields, program managers are also well advised to inquire regarding specific training or experience in cognitive behavioral approaches.

Nevertheless, as noted in the earlier section on cognitive behavioral approaches in self management, CBT is a common ingredient in many self-management and supportive interventions and can be safely and effectively employed by professional and nonprofessionals in these types of programs.

The emerging evidence supporting behavioral activation[10] has implications for program management. A counselor who encourages greater engagement in pleasurable activities among those with complicated emotional problems may often encounter resistance and difficulties requiring considerable skill on the counselor's part. Still, the apparent utility of encouraging pleasant activities points to the feasibility of such approaches being promoted by health workers who don't have expertise in psychotherapy or counseling and as a routine component of self-management and healthy coping interventions.

Program Approaches Used in the *Diabetes Initiative*

In the *Diabetes Initiative*, several sites referred participants with depression and diabetes to a mental health professional for individual counseling or therapy based on CBT or similar models, such as Solution-Focused Brief Therapy that emphasizes identification of specific, concrete, short-term goals and assistance in moving toward the achievement of those goals.

A frequent problem with referral is lack of coordination of care and failure to ensure that

patients follow through with referrals. One site addressed these problems through a pragmatic approach including collaboration among the mental health provider, the primary care provider, and the diabetes educator. This included the mental health providers documenting all encounters in the medical chart. By utilizing the same chart and log, each provider was able to review and reinforce the goals of the other, thereby emphasizing the comprehensive, unified nature of the self-management goal setting process.

Resources

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Problem-Solving Therapy

Overview

Problem-Solving Therapy endeavors to frame individual psychological challenges in terms of personal and interpersonal problems and then to use problem-solving strategies for addressing them. In the context of considerable psychopathology, this may sound like taking complex psychological issues and over-simplifying them as simple problems of everyday living. This is not at all the case. Instead, Problem-Solving Therapy works with individuals to find the fundamental problems that underlie their symptoms or complaints. Thus, considerable skill is required on the part of the clinician in this initial analysis and problem-identification phase of the therapy.

In the course of analyzing a psychological issue to identify key problems on which to focus, consideration is given to individuals' priorities, why their presenting complaints are important and stressful to them, and how they would like their daily experiences or key relationships to change in order to reduce their distress. For example, one may enter therapy with concerns about feeling stressed, anxious, or sad. Therapy then will begin with exploring how those feelings are related to more basic or subtle problems in one's day-to-day functioning, relationships, or activities. For example, feelings of general anxiety may be identified as resting on chronic tensions in a relationship or one's job performance. Problem-Solving Therapy would then proceed to focus on developing ways to handle those specific problems, trusting this would lead to a reduction in the anxiety that motivated entry into therapy in the first place.

Once problems are identified, Problem-Solving Therapy proceeds along a path not unlike that of other self-management interventions: specifying problems, brainstorming approaches to addressing them, developing skills to execute chosen approaches (through role playing, observation of others, rehearsal and feedback, etc.), trying initial phases of planned new problem-solving strategies, reviewing results, revising plans, learning additional skills, and extending those plans.

Evidence Base

Problem-Solving Therapy has received research support in studies of therapy for individuals with varied problems[1] as well as depression.[2] Among adults with diabetes, comprehensive psychotherapy that was "problem-focused" but used a variety of strategies (including cognitive behavioral techniques, body awareness, relaxation, and attention to social support) led to improved ratings of problem severity and improved metabolic control relative to control groups.[3] Additionally, the Pathways Study[4] found improvements in depression and patients' global ratings of well-being among those receiving Problem-Solving Therapy and/or psychiatric medication.

Implementation Considerations

As noted in the earlier section on problem-solving approaches, there is no sharp dividing line between Problem-Solving Therapy and inclusion of problem solving in self-management programs. The distinction probably rests more on the complexity of the individual's problems as they may require the

kinds of nuanced and individualized attention available in psychotherapy that are not available in most self-management groups.

An advantage of Problem-Solving Therapy is its ability to address the range of problems that those with diabetes often face, from modest exaggerations of day-to-day problems to substantial psychopathology. Those skilled in Problem-Solving Therapy will most frequently be found among licensed counselors, nurses, psychologists, or social workers.

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Psychopharmacologic Medication

Overview

For individuals with emotional health problems, psychotropic medication is often helpful in reducing symptoms. Much evidence indicates psychotropic medications are most effective when used in conjunction with other intervention approaches such as those discussed in this Guide (e.g., Cognitive Behavioral Therapy, Problem-Solving Therapy, mind-body techniques). In this regard, treatment of mental health problems is much like treatment of diabetes. Medications can make important contributions, but their benefit is greatly enhanced by the patient's self management.

The use of psychopharmacologic medication is usually overseen by a psychiatrist or primary care provider (physician, nurse practitioner, or physician assistant) and initiated after an individual has undergone screening and assessment.

The type and dose of medication that is appropriate depends on the specific type of problem and severity of the problem. Oftentimes, individuals must try several different types of medications for a few weeks or months before seeing an improvement in symptoms.

Evidence Base

There are a number of medications available that have been shown to effectively treat a variety of emotional health problems[1] of varying intensity[2], and these medications can be expected to be similarly effective in adults with diabetes. Several trials of antidepressant medication have also directly tested the efficacy of some of these medications in individuals with diabetes, with favorable results. For example, treatment with fluoxetine has been shown to be superior to placebo in treating depression among individuals with diabetes.[3] Sertraline has also been shown to prevent recurrence of major depressive disorder in individuals with diabetes[4], although there is some evidence it is more effective among younger patients than older patients.[5]

Implementation Considerations

An important trend in treatment of psychological and emotional problems is that practitioners are increasingly recognizing the importance of self management and counseling in addition to pharmacologic treatment. Diabetes provides an instructive model for the integration of medical care with patient education, counseling, and assistance in self management. It makes no more sense to provide medication without patient education to an individual with newly diagnosed depression than to provide only insulin and syringes and a return appointment in three months to an individual with newly diagnosed diabetes! Thus it is important that medications for psychological problems be combined with supportive services, such as counseling or patient education and self-management programs. In the case of those with diabetes, it may be that this can be accomplished through diabetes self-management programs, support groups, etc. It is sometimes thought that such services are not feasible in busy, overburdened and under-resourced primary care settings. However, a review of practices in this area among nine participating sites of the *Diabetes Initiative* found that all nine were able to provide both screening and medication as well as psychosocial supportive services, often including group or individual therapy, for those with depression.[6]

As noted in Tips for Practice, diabetes or medications used to treat diabetes may alter how other medications are metabolized. Those prescribing psychopharmacologic medications or those to whom patients are referred should be familiar with diabetes and its treatment.

Program Approaches Used in the *Diabetes Initiative*

Diabetes Initiative projects used a variety of approaches to provide medication and referral to mental health services. Generally these began with screening through self-management programs such as a routine administration of the Beck Depression Inventory or PHQ-9 during individual visits and/or in group self-management programs. Those who screened positive would then be referred to nursing or medical staff. In some cases, the level of referral (e.g., note in chart versus immediate notification of clinical staff) was based on apparent severity of screening result. Upon referral, individualized medical treatment was generally arranged by clinical staff. This could include prescriptions by primary care providers and/or referral for specialty psychiatric care if available to the program. In all nine sites that collaborated in a review of their approaches to addressing depression, psychosocial interventions were available in addition to medication.[6]

Tips for Practice

Although treatment with psychopharmacologic medication often yields improvements in emotional health status, there are some special issues in prescribing medication for individuals with diabetes.[1] First, providers need to consider the potential for interactions with other medications the patients might be taking for diabetes and any other conditions they have, and avoid combinations of medications that cause serious side effects or reduce the efficacy of one another.[1] On a related note, providers should consider the total number of medications that patients are taking and whether the risks associated with introducing additional medication (increased side effects, drug-drug interactions, increased risk of noncompliance) may outweigh the benefits. In some cases, depression manifest as "noncompliance" may be better dealt with by simplifying the treatment regimen, not complicating it.

Providers should be mindful of changes in the way psychopharmacologic medications are metabolized in individuals with diabetes. Older adults generally metabolize drugs differently than younger adults, often more slowly so as to require a lower dose than younger patients.[1] Combining older age with diabetes adds complexity to planning medication. It is essential that patients with diabetes who are prescribed psychopharmacologic medication are followed closely by a health care provider knowledgeable in pharmacologic treatment of emotional health conditions so that changes in the regimen can be made appropriately.

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General Implementation Considerations

This Guide presents an array of strategies for supporting healthy coping in diabetes management. Some are appropriate for the general population; others for those with more complex mental health conditions. In this section, we present some planning steps and general considerations for program managers wishing to include in their diabetes management programs elements that promote emotional health and healthy coping. In most settings, depression and anxiety will be important issues for healthy coping programs to address. Planners might pursue the following steps:

1. With your project staff and/or clinical team, review your current programs and services to see which aspects currently support emotional health.
2. Gather additional data from those you serve or review existing data to determine the types/ levels of programs and services most needed. This might include a review of stress or depression inventories administered as part of your service, a review of chart notes for stress-related complaints, surveying a sample of the population you serve, talking with providers, etc.
3. Establish a goal for the outcome you would like to achieve, including depth and breadth of services, improvement in patients, etc.
4. Consider your available resources, including staff (availability and expertise), financial resources, costs of possible services, space for programming, etc.
5. Consider resources already in your community. You may want to plan your own programs to complement those already available to your population from other providers or community organizations.
6. Determine where opportunities exist for program enhancement (i.e., what are your options given existing programs and resources?).
7. Start by trying your intervention on a small scale and assessing it (e.g., Do people participate? Do participants and providers think it's helpful? Are there observable improvements that could be documented?). With this as a start, continuing quality improvement efforts can grow the program over time.

Programming to promote healthy coping among people with diabetes can be approached incrementally. The levels of programming require different investments of time and resources. Depending on your resources, needs, and goals, you may begin with the approach that is easiest in your setting, then work toward developing resources to accomplish a multi-faceted approach. A sequence of gradual addition of services and quality improvement might take the following form:

Work with Existing Programs and Services

Begin incorporating healthy coping strategies, assessments, or new information into existing programs and services. For example, if people are meeting for walking or physical activity, the educator might discuss the impact of physical activity on managing stress (as well as helping with weight control and blood sugars). Clinical sites may take the first step and initiate routine screening for stress/depression. Educational materials on diabetes and depression might be placed in waiting

rooms, meeting locations, or given directly to patients and program participants. A component on relaxation and breathing techniques may be added to a diabetes education curriculum. These approaches do require an awareness of the issue and commitment on the part of staff, but are otherwise inexpensive and can be put in place relatively quickly.

Add New Programs

Managers might decide to add new programs or services that specifically address emotional health, or add new components to existing ones. A common example is establishing support groups. These may be open and unstructured, or specific to groups with the same diagnoses. For example, at *La Clinica de La Raza*, a program of the *Diabetes Initiative*, the mental health specialist on the team started a group for people who had both clinical depression and diabetes. In Gateway Health Center, people who finished the 10-week diabetes self-management course had the option of continuing to meet regularly in an open support group with others who had graduated from the class. Other options include offering classes that teach a variety of mind-body techniques or a specific approach such as yoga. These options assume staff (or contractor) expertise and resources to support new interventions.

Develop Referral Resources

If there are behavioral health specialists available in your system or community, developing referral relationships with them can greatly expand the scope of your program. The system of referral for clinical evaluation or services should include feedback from the specialist provider to determine if the referral was complete and if there is additional information critical to the medical aspects of a patient's care. Within the same healthcare system, all providers may be able document on the same chart so they can reinforce each other's treatment goals. For non-clinical services, such as yoga classes, support groups, self-management classes, etc, it is helpful if program staff become aware of reputable services in the community, establish relationships with those service providers, and actively refer patients to them as appropriate. Referral relationships can take time to develop and sustain but don't require additional staff or space resources to implement.

Final Thoughts

Across the approaches noted here, an important perspective is recognition that when it comes to emotional health and healthy coping, there is no "one size fits all." Some people "wouldn't be caught dead pouring out their hearts in a group." Some may find individual counseling very threatening, and others may be uncomfortable with ideas and practices they associate with social changes they don't like. As noted several times in this Guide, individual willingness to accept services for healthy coping may be as important as its efficacy. To reach all those who need help, it is especially important that programs include a range of services and delivery modes. It is hoped that this Guide provides choices to help programs develop that range of healthy coping services.

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