

Remission From Depression Comorbid With Chronic Illness and Physical Impairment

Carolyn L. Turvey, Ph.D.

Dawn M. Klein, M.S.W.

This case presentation describes psychotherapy for depression in a man suffering multiple chronic illnesses and severe functional impairment. Pharmacologic treatment of patients with depression and comorbid medical illness is associated with poorer response and higher rates of relapse when compared to patients with no comorbid medical illness (1). Therefore, a trial of psychotherapy alone or pharmacologic treatments combined with psychotherapy are often recommended (1, 2).

The psychotherapy described herein occurred in the context of a treatment development research project that aims to develop new methods to treat depression in heart failure patients. Although there are some studies of psychotherapy in cardiac patients, support for efficacy is mixed (3–5). Two large multisite clinical trials have examined psychotherapy for patients with cardiac conditions: the Enhancing Recovery in Coronary Heart Disease Patients (ENRICH) (3) trial and the Canadian Cardiac Randomized Evaluation of Antidepressant and Psychotherapy Efficacy (CREATE) (4) trial. ENRICH examined the effectiveness of cognitive-behavioral therapy in postmyocardial infarction patients. The ENRICH investigators found only a 2-point difference between the intervention and control groups on the Hamilton Depression Rating Scale (HAM-D) postintervention. The CREATE trial examined the use of interpersonal psychotherapy in patients with coronary artery disease. CREATE found that patients who received interpersonal psychotherapy experienced a significant decline in depressive symptoms, with 43% experiencing a decline of 50% or greater on the HAM-D. However, their improvement was not greater than that of patients randomly assigned to the clinical management condition, who had a 50% response rate.

The treatment used in this case study is novel in three ways that may enhance the efficacy of psychosocial interventions in patients with chronic cardiac conditions. First, in light of the considerable research demonstrating the relation between functional impairment and depression (6–8), strategies that address specifically the connection between impairment and mood are being developed. Comparable to prior treatment development in pain or bereavement, we aim to identify common problems among chronically ill elder patients that contribute to or exacerbate major depression. Second, the therapy uses a hybrid model combining techniques from interpersonal psychotherapy (9, 10) and behavioral activation (11–13). The treatment development will test whether combining the two models to address both the emotional and behavioral sequelae of impairment will improve efficacy. The third unique aspect of the therapy is that it is conducted primarily by telephone. Many chronically ill patients are homebound and are not able or not willing to make weekly visits to a geographically remote medical center.

Case Presentation

“This therapy aims to address this complex comorbidity so that physically impaired elders can reverse the depression-disability spiral and build a satisfactory life for themselves.”

“Mr. R” was a 56-year-old man who lived with his common-law wife. He was a farm hand all of his adult life until he was forced to receive disability 8 years before due to chronic medical conditions. He suffered from hypertension, insulin-dependent diabetes, chronic obstructive pulmonary disease, congestive heart failure, arthritis, and obesity. He also suffered repeated bouts of gout. Although there were many causes for his physical condition, he did report smoking between one to five packs of cigarettes a day for 37 years. He stopped smoking at age 51, when he received a partial tracheotomy to treat severe sleep apnea by increasing oxygenation. During the therapy, he did not use an assistive

voice device but was able to speak clearly by placing his finger over his tracheotomy tube. Mr. R consented to participate in the treatment development study and also provided separate permission for the presentation of the therapy material in a public case conference.

Mr. R met full criteria for major depression based on a Structured Clinical Interview for DSM-IV (SCID) (14) interview at the start of the study. His HAM-D (15) score was

22, and his Beck Depression Inventory (BDI)-II (16) score was 33, consistent with moderate to severe depressive symptoms. On the physical function subscale of the Medical Outcomes Study Short Form (17), he scored a 10 of a possible 100, indicating severe impairment. His primary complaint was that he had nothing that he enjoyed doing and he felt useless. He reported both cognitive and neurovegetative symptoms of depression, including depressed mood, anhedonia, feelings of worthlessness, low energy, troubled sleep, and poor concentration. Mr. R did not recall being depressed before this current episode, which started around the time he went on disability, approximately 8 years before. The current episode fluctuated between periods of major depression or chronic subsyndromal depression with no 2-month symptom-free period. He stated that in the past, when he faced difficulties such as divorce or financial difficulties, he would "throw himself into" his work. At the start of the study, he was taking 60 mg/day of citalopram and reported taking that dose for at least a year. In the past, he had a brief trial of fluoxetine but discontinued it after 1 week because he felt the medication made him too jittery and tense. He had no treatment history for depression before this episode, and he had never participated in psychotherapy. He reported no current or prior problems with alcohol or substance abuse.

Ms. R reported that his depression worsened about 15 months before starting the study. His lung condition combined with a severe episode of gout left him incapacitated. He was no longer able to accomplish what few tasks he continued to enjoy, such as gardening. He spent most of his time indoors watching television. Although his medical condition gradually improved, his mood remained very depressed for the past year, and his functioning was severely compromised. By his report, the onset and deepening of his depression was closely tied temporally to a decline in function. Loss of sexual function also contributed to his depression, although he was clear that this was minor issue compared to the loss of recreational or household maintenance activities.

The Depression-Disability Spiral

The problems faced by Mr. R are becoming increasingly important as chronic disease and its accompanying physical impairment are now the predominant form of medical illnesses in late life. Among Medicare beneficiaries, 82% suffer a chronic illness, and 64% of those suffer two or more chronic illnesses (18). Patients with chronic illness have a 41% increase in recent psychiatric disorders, and the prevalence rates of comorbid depression typically range between 20% and 30% (19, 20). The causes of depression in medical illness are likely multifactorial and include cognitive, physiologic, temperamental, and psychological components. However, a growing body of research demonstrates that physical impairment is one of the strongest contributors to depression in medical illness.

Research conducted in both epidemiologic and clinic-based studies indicates that the association between depression and physical impairment is more significant than that of depression and illness. Braam et al. (6) conducted a meta-analysis of a multinational epidemiologic study of depression in Europe (EURODEP) and found that the

strength of the association between depression and physical impairment ranged between 0.16 and 0.37, whereas the association between depression and chronic illness ranged between 0.08 and 0.20. Zeiss et al. (8) conducted a series of logistic regressions in which the significant association between depression and medical illness was no longer significant after controlling for physical impairment. Longitudinal studies have confirmed that functional impairment is an independent predictor of the onset of depression (7) and, conversely, that depression exacerbates physical impairment. This has been labeled the "depression-disability spiral" (21), in which patient decline accelerates rapidly because of reciprocal malignant effects.

Investigators have also examined what types of impairment are most closely tied to depression. Rovner et al. (22) found that patients suffering macular degeneration who were dissatisfied with the performance of valued activities were almost 2.5 times more likely to become depressed within 2 months compared to patients reporting satisfaction. Katz and Yelin (23) also found that decline in activity performance predicted depressive symptoms longitudinally in a sample of elders suffering rheumatoid arthritis. However, they found this association was far stronger for decline in recreational activities and social interactions than for activities like home maintenance or cooking or shopping. Lastly, Duke et al. (24) examined the longitudinal impact of onset of a medical illness in a sample of 250 older adults. Older adults who found replacements to lost activities reported fewer depressive symptoms 1-year after illness onset than those who did not replace activities. This difference remained significant even after control for baseline differences in mood and optimism.

The therapy described in the treatment development study was a 12-session weekly psychotherapy. The first, sixth, and final sessions were conducted face to face in the patients' homes and lasted approximately 1 hour. All other sessions were conducted by telephone and lasted approximately 30 minutes. Telephone sessions occurred at approximately the same time each week to mimic face-to-face therapy frequency and timing. At the first session, there was some discussion of the patient's comfort talking about personal issues on the telephone and how to maximize open discussion. The therapist asked Mr. R to try to arrange to be alone and free from distractions, such as the television or reading material, when talking on the telephone. Mr. R was also told that long periods of silence may occur on the telephone during a session and that he need not feel awkward about this.

The therapist was the principal investigator (C.L.T.), a clinical psychologist, with 11 years of experience posttraining. Because the therapy occurred as part of a research project, the patient did not pay for the therapy. All Beck Depression Inventory-II assessments were self-reported and completed by the patient with the paper-and-pencil standard form. A research assistant conducted the follow-up HAM-D 21 assessments, except for the 4-month posttreatment assessment, which was conducted by the therapist.

Grief and Loss and Role Transition

Mr. R had a repeated pattern in which he would become determined to return to his prior level of functioning. He would often set unrealistic goals and set out to accomplish them. For example, the summer before, he decided he would build a deck onto the back of his house. He would overexert himself and then repeatedly find himself incapacitated for several days or a week. This pattern occurred often enough that he became very discouraged and stopped setting activity goals entirely. At the start of the study, his primary activities were watching television and caring for his 18-month-old grandson.

One challenge was helping Mr. R come to terms with his impairment without triggering hopelessness or despair. Patients struggling with impairment tend to perceive such discussions as persuasion to “give in to the illness” or to “give up on life.” It is therefore essential that the therapist makes clear that maximizing function is the goal of the therapy and that it aims to help the patients find more successful ways of achieving their goals. In Mr. R's case, the therapist gently, but firmly, pointed out that his setting unrealistic goals actually precipitated his withdrawal and decline in function—precisely what he was trying to avoid.

The therapeutic plan initiated for Mr. R made use of two focal problem areas used in interpersonal psychotherapy to help patients come to terms with their functional impairment. The first was grief and loss, referring, in this context, to grief over their prior level of functioning. In order to facilitate this discussion of functional loss and acceptance of impairment, we have developed written materials that emphasize the emotional and behavioral consequences of refusing to adjust expectations. One key phrase from the materials states:

Of course, it is important to do as much as you can do. However, it is also important to accept that there are some things you can no longer do. If you do not accept these changes, you may be spending a lot of your time feeling angry, frustrated, and helpless. If you do accept these changes, then you will be freer to focus your energy on developing a new life for yourself.

Mr. R spontaneously responded to this phrase, stating that it “hit the nail on the head.”

The goal of this therapy module is to help patients learn how to readjust their expectations so they set goals that they will not inevitably fail to achieve. Because chronic illness is progressive, the patients will need to readjust their expectations repeatedly. Our goal was to convey not only the need to change expectations but also the skill of observing oneself when struggling physically and adjusting expectations accordingly. Therefore, we also discussed how Mr. R may need to continue to adjust his expectations according to the inevitable fluctuations of the illness course.

The psychoeducational materials on role transition discussed the interpersonal consequences of becoming functionally impaired. Although the therapist was prepared to discuss a broad range of interpersonal consequences re-

lated to functional impairment, Mr. R focused primarily on two issues: 1) the difficulty of asking for help from others and 2) concerns about being a burden. These are common problems and are all the more troubling if the patients have to rely on adult children rather than on their spouses. This may be due to cultural taboos about interfering with a child's independence.

The therapist began by discussing Mr. R's shame and embarrassment about being impaired. As is often the case, simply discussing the shame helps to diffuse it and to improve the patient's self-image, and Mr. R did respond positively. For example, through discussions with his wife, he learned that she wished he would ask for help more often, but whenever she approached him, he would rebuff her brusquely. He did so because he was embarrassed about needing help to accomplish what were once simple tasks. When she withdrew and stopped offering help, he mistook her silence for lack of support or concern, and he was unaware of how he actually contributed to her behavior.

The discussion of impairment within the interpersonal psychotherapy framework of grief and loss and role transition occurred primarily in the first four sessions. At that point, the therapist and patient started to lay the groundwork for the behavioral activation tasks.

Setting Individualized Behavioral Goals

Mr. R's cycle of overexertion followed by exhaustion is very common among patients with severe physical impairment. In his case, it was due to his inability to set realistic goals. Setting realistic and attainable goals is essential to the success of behavioral activation. However, we have found that for patients who have yet to accept their current level of functioning, the decision about what is a “realistic” goal can be very emotionally charged. When setting obtainable goals, patients are forced to face the degree of their impairment, which can often lead to despair.

One of our recommendations that patients find difficult to follow, despite its benefit, is asking patients to stop comparing their current rate of accomplishment with how much they could accomplish in the past. Patients are prone to obsessively berate themselves with what is often an idealized memory of prior functioning. For example, Mr. R recalled working 16-hour days continuously as a farm hand, yet only later acknowledged that this was only in brief spurts often followed by periods of complete exhaustion. Nonetheless, when observing his current behavior, he focused only on how he used to work 16-hour days. In our therapy, we ask patients to define their “new normal” by readjusting their expectations for day-to-day activities and using these new expectations as their standard for comparison.

Behavioral Activation for Physically Impaired Patients

In setting behavioral goals with Mr. R, the therapist discussed the importance of pacing himself to maintain sustained behavioral activities. This issue was so common

that we developed a therapy module called “pacing yourself,” which gives patients strategies to find the right balance of activity in their lives. For example, the therapist instructed Mr. R to use ranges when setting goals. Instead of setting a goal of seeding the garden in a single afternoon, he was advised to aim to seed the garden in the next 3 to 5 days. Likewise, prioritization of goals was emphasized. Instead of attempting five goals, he should aim to accomplish one to two of his goals. The therapist asked him to be completely honest in determining which priorities were absolutely necessary. For example, cleaning is not necessary, while eating is required. In short, his goal setting needed to take into account that his functioning can vary widely depending on health status and that he should not be ashamed to fall short in meeting a goal when he was feeling physically tired.

Mr. R defined two behavioral goals based on activities that were very meaningful to him in the past, gardening and collecting stamps and coins. To do both, he would need some ongoing support from his wife when his energy failed or when more physically taxing tasks arose. In the past, he hesitated to ask for help because he felt these were his own hobbies and, therefore, not worth burdening others. When he could no longer do these hobbies entirely on his own, he gave them up. During therapy, he solicited help from his wife and was able to successfully sustain both activities.

The initial goal setting focused on purchasing materials needed to garden and adapting the garden so that it would not be overly taxing. As the therapy progressed, Mr. R spontaneously set more ambitious goals but was able to pace himself to accomplish them. By the end of the therapy, he maintained a small 20-row vegetable garden. During days when he had low energy and could not go outside, he would work on collecting stamps and coins, a hobby he had put aside many years ago. This was critical because hot summer days can be very difficult for people with cardio-respiratory problems, and they often have to stay inside during these times. Mr. R's wife agreed to take over the outside chores on the days when he could not complete them—although by the end of the intervention, these were few and far between.

Maintaining Remission and Unexpected Complications

For the most part, Mr. R was able to maintain his improvement in mood and functioning for the remainder of the 12-week therapy. However, two unanticipated issues arose, both requiring some interpersonal therapy on assertiveness and communication skills. At the start of the therapy, Mr. R provided approximately 30 hours of child care to his grandson, a burden that he increasingly resented as his functioning improved. His stepdaughter attended school three nights a week but was otherwise unemployed. The perception within the family was that, since he was homebound, he was always available for childcare. We discussed setting appropriate boundaries with his stepdaughter so that he could provide some care

but not the majority of it. He needed to reaffirm that he was the grandparent, not the parent. Throughout the rest of the therapy, Mr. R was able to maintain this boundary, although his stepdaughter would test it from time to time.

Mr. R's mood also dropped when he became afflicted with painful and severe gout of the hand. In the past, these episodes lasted months, in part due to Mr. R's hesitancy to demand timely attention from his doctor and adequate pain management. With some guidance, he was more assertive in obtaining adequate medical attention, and the episode impaired his function for little more than 2 weeks.

At the end of the therapy, Mr. R had established a daily routine that contributed greatly to his sense of purpose. His scores on the depression scales gradually declined. At the postsession six assessment, he scored a 10 on the HAM-D 21 and a 22 on the BDI-II. The total score on both his posttreatment HAM-D 21 and BDI-II were 1. His Short Form 36 score increased from 10 at baseline to 40, indicating that his functioning improved. His antidepressant treatment dose did not change during the therapy. His remission of depressive symptoms was sustained. Four months after treatment, Mr. R scored a 3 on the HAM-D 21 and on the BDI-II as well. Mr. R had learned to cope with his limited physical ability and to build a new life for himself within the confines of his impairment. He had established clear boundaries with his stepdaughter and felt more comfortable negotiating with his physicians proactively to maximize his quality of life. In the last session, he stated clearly what he needed to do to maintain his functional and mood gains. Appreciative of the intervention, he stated he wished he had something like this when he first experienced significant impairment.

Discussion

In many ways, Mr. R was the ideal candidate for this type of intervention. He reported his main way of coping in the past was to work harder and “pull himself up by his bootstraps.” With the onset of his disability, this form of coping was no longer available to him, and his continued bouts of overexertion only made matters worse. Moreover, his self-worth was based entirely on his physical accomplishments.

To date, we have developed four booklets to accompany the intervention, titled “Changing Roles” (role transition), “Coming to Terms with Physical Impairment” (grief and loss), and “Pacing Yourself” and “Getting Active” (behavioral activation). Although clearly based in theory, patients seem to value how well these materials capture the phenomenology of being impaired. Our hope is that by addressing the emotional challenges for these patients as specifically as possible, we can improve the effectiveness of psychotherapy in chronically ill patients.

The case of Mr. R also illustrates the need for the broader theoretical model provided by interpersonal psychotherapy. The issues around childcare and exacerbation of a comorbid illness were not anticipated in the therapy model that focused primarily on coping with physical impairment. Since the therapy was based in the broader the-

ory of interpersonal psychotherapy, other techniques, such as communication and assertiveness skills could be harnessed to address these issues.

The course of Mr. R's recovery was not uniform. After the initial improvement in mood, he suffered low mood related to conflict over childcare and relapse of a painful and limiting comorbid physical condition. Prior work on depression in late life has described a propensity for relapse in older and frail adults (25). This has been our experience as it appears our patients suffer a remarkable amount of negative life events, be it relapse of a comorbid condition, a change in a spouse's health, or intergenerational conflict. Although therapists can address each individually, patients also may benefit from some discussion of managing multiple stressors.

The conflict between Mr. R and his stepdaughter was related to his medical illness and impairment. We have seen this pattern in a considerable number of our homebound elder patients. The family assumed that Mr. R had nothing better to do than childcare because he was homebound. Given his low self-worth, he was initially happy to serve some role in the family, and his relationship with his grandson was one of the most satisfying aspects of his life. He did not anticipate that his responsibility would grow to a 30-hour-a-week commitment, and he started to have serious concerns for his grandson's welfare because his own impairment limited his caregiving abilities. Although socioeconomic reasons may underlie some of these arrangements, in most of the patients we have seen, the parents are available to provide care; they simply chose to delegate care to a homebound elder. More open discussion and awareness of this problem is needed so that grandparents can feel empowered to protect their free time and energy for their own pursuits.

This case provides further evidence for the effectiveness of telephone therapy. Mr. R was clear that he would not have pursued therapy even though it would have been an obvious adjunct given that his antidepressant did not bring about full remission. Reimbursement for telemedicine is improving, particularly for those in medically underserved areas (26). We prefer a combination of face-to-face and telephone visits that could also be accomplished by conducting telephone therapy with monthly or bi-monthly clinic visits. This model would probably improve retention and clinical response in patients who may need an entire day to recover from a trip to a geographically distant medical center.

This type of intervention may also be adapted appropriately by nurses providing home care to impaired patients or by nurse care managers working in a chronic illness management program. We have combined this depression intervention with a standard illness management program conducted by nurses in a veteran population. We are testing its efficacy relative to standard illness management alone in reducing both psychiatric and cardiac morbidity.

Because chronic illness is becoming the predominant medical presentation in late life, more and more people

will be faced with extended periods of impairment. They will need to find their "new normal" and pursue it with as much vigor and enthusiasm as they did during their healthier lives. This therapy aims to address this complex comorbidity so that physically impaired elders can reverse the depression-disability spiral and build a satisfactory life for themselves.

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