In the original edition of their landmark text on manic-depressive illness, Goodwin and Jamison asserted that “instability is fundamental to bipolar disorder.” (p 594). Indeed, one of the most prominent features of the disorder is its propensity to recur. Our own work has placed particular emphasis on the connection between specific kinds of instability and the recurrence of illness episodes. We have argued that psychosocial stressors (as well as otherwise innocuous life events that nonetheless retain the capacity to alter the patterning of daily life) may have destabilizing effects on the body’s natural rhythms. We believe that life events which may appear harmless (or even beneficial) from a psychological perspective may still be linked with considerable changes in daily routines. These disruptions can, in turn, place substantial stress on the body’s capacity to maintain stable biological rhythms (particularly sleep-wake, energy, alertness, and appetite rhythms) that are usually synchronized in the absence of an affective episode. In most individuals, such rhythms will restabilize shortly after the destabilizing event. However, in individuals who are vulnerable to mood disorders, a period of pathological entrainment of circadian rhythms—otherwise labeled as an episode of depression or mania—may ensue.

In addition to frequent recurrence, bipolar illness is characterized by absence of full recovery between episodes, as well as by suboptimal interepisode functioning. Treating bipolar disorder, then, presents challenges not only in terms of resolving acute episodes, but also in preventing symptomatic recurrence and assuring complete recovery between episodes in terms of both symptom remission and restoration of functioning. For example, a woman with bipolar disorder who works two highly stressful and time-consuming jobs might find that decreasing her workload considerably leads to a marked reduction in her depressive symptoms. Alternatively, it is also possible that her less...
demanding schedule may lead to chronic understimulation and lack of routine. Coupled with the strain of diminished economic resources and lowered self-esteem due to the loss of a key social role, this change in employment status might set the stage for a lengthy period of depression and functional impairment. Thus, in considering various “social engineering” interventions for patients with bipolar disorder, it becomes paramount for clinicians to remain attentive to the dual tasks of ameliorating current affective episodes and preventing new ones, while also encouraging their patients to strive to live fully rewarding lives.

The role of circadian rhythms

The external environmental cues that set the body’s circadian “clock” are referred to as zeitgebers or “time-givers” by those who study circadian rhythms. These external cues, in turn, entrain a cascade of neurohormonal events, such as diurnal patterns of cortisol and melatonin secretion, which are key components of circadian physiology. The principal, and arguably most influential, zeitgeber is the rising and setting of the sun. However, our modern society is no longer governed by the availability of natural light, as artificial light sources are readily available 24 hours a day. By extension, social factors such as the timing of meals, work schedules, the schedules of other family members, and even, to some extent, the timing of television programs can all have a substantial influence on an individual’s social rhythms and, in turn, on their circadian rhythms. It is our belief that all of us are susceptible to the disruptive effects of changes in any of these important social time cues, and that these changes manifest themselves to varying degrees of temporary cognitive or somatic distress. Take jet lag, for example. Many of us have experienced the fatigue and malaise associated with the adjustment to a new time zone, but for most of us, these feelings generally dissipate quite rapidly.

Interpersonal and social rhythm therapy

Our research group has had a long-standing interest in the association between mood disorders and the circadian system. As a result, we developed a therapeutic intervention for bipolar disorder that sought to prevent the recurrence of new affective episodes through indirect regulation of the endogenous circadian system. The idea behind this approach, which we called interpersonal and social rhythm therapy (IPSRT), was that if we could somehow increase the regularity of patients’ daily routines (specifically, their often erratic sleep/wake cycles, meal times, and times of rest versus activity) we could thereby help strengthen their
otherwise vulnerable circadian systems. IPSRT directly incorporates social rhythm theories into the framework of interpersonal psychotherapy, initially developed by Klerman and colleagues for the treatment of unipolar depression. Specifically, IPSRT is geared toward stabilizing patients’ routines while simultaneously improving the quality of their interpersonal relationships and their performance of key social roles. Through this approach, IPSRT aims to improve patients’ current mood and level of functioning and to provide them with the skills necessary to shield them from new affective episodes. Although IPSRT was originally developed for individuals with bipolar I disorder, it now appears that IPSRT can be utilized in the treatment of both bipolar I and II disorders. For patients with bipolar I disorder, acute affective symptoms are managed primarily through pharmacological means, with IPSRT used mainly as an adjunctive treatment to help regularize routines and improve social relations and role performance. However, it now appears that IPSRT can be used as monotherapy for patients with bipolar II disorder of moderate symptom severity (Swartz HA et al, unpublished data), or can be combined effectively with pharmacotherapy when such treatment is indicated. Regardless of the subtype of bipolar illness, we would argue that one key to managing mood symptoms lies in the regulation of social rhythms. For individuals with bipolar disorder who are being treated with mood-stabilizing medications, recurrence vulnerability appears to occur via three main pathways: (i) nonadherence to medication; (ii) presence of a stressful life event; and (iii) disruptions in social rhythms. IPSRT was designed with each of these potential vulnerability factors in mind, making it a targeted approach to treating this frequently recurring illness. Patients are provided with guidance and training on how to maintain a consistent medication schedule, an opportunity to discuss how they feel about the disorder itself and express their grief and/or anger over what we have frequently referred to as the “lost healthy self,” and a chance to come to grips with the often debilitating effect the illness has had on their lives. As a result, IPSRT often helps patients accept the life-long nature of their illness, reduces the denial commonly associated with the disorder, and thus facilitates medication adherence. The behavioral component of IPSRT focuses on evaluating the degree to which the timing of a patient’s routines varies throughout any given week. To do this, we utilize a self-report charting instrument called the Social Rhythm Metric (SRM), which allows the patient to keep track of when he or she goes to bed, gets out of bed, eats, goes to work, makes social contacts, etc. Table I shows an adapted

| ID: | Adapted SRM-5 | Initials: |
|-----|---------------|-----------|
| **Directions:** | | |
| • Record the ideal (or target) time you would like to do these daily activities | | |
| • Record the time you actually did the activity each day | | |
| • Record the people involved in the activity: 0 = Alone; 1 = Others present; 2 = Others actively involved; 3 = Others very stimulating | | |
| **Day and Date:** | **Activity** | **Target time** | **People** | **Time** | **People** | **Time** | **People** | **Time** | **People** | **Time** |
| | Out of bed | | | | | | | | | |
| | First contact with other person | | | | | | | | | |
| | Start work/school/ Volunteer/ family care | | | | | | | | | |
| | Dinner | | | | | | | | | |
| | To bed | | | | | | | | | |
| | Rate ENERGY LEVEL each day from -5 to +5 | | | | | | | | | |
| | - 5 = very slowed, fatigued / + 5 = very energetic, active | | | | | | | | | |

Table I. Adapted SRM-5.
Clinical research

version of the SRM-5. After reviewing the SRM with the patient, we then strive to help him or her make the timing of such routines more regular, ideally varying by no more than an hour. This often needs to be done quite gradually, especially when specific routines vary by many hours over the course of a week. When this is the case, we might choose to focus on just one routine, such as when the patient gets out of bed, attempting, by successive approximation, to approach an out-of-bed time that does not vary by more than an hour from day to day. Once reasonably regular routines are established, we review with the patient possible triggers to rhythm disruption that may surface in the near future (ie, house guests or vacations) and work on strategies for maintaining the greatest amount of regularity despite the presence of these possible disruptions. Thus, IPSRT attempts not only to increase the stability of these rhythms, but also to increase the patient’s awareness of how easily these rhythms can be disrupted and how to manage in the face of such potential disruptions.

This behavioral approach to rhythm regularity is then interwoven with work on the four main problem areas targeted by Klerman and colleagues’ interpersonal psychotherapy: unresolved grief, role transitions, role disputes, and interpersonal deficits. By addressing these interpersonal and social role issues with the patient, it is our hope that the number and severity of such stressors will decrease, thus making it easier to maintain the routine regularity stressed in the behavioral component of the treatment while at the same time enhancing self-esteem and social support. Indeed, there are several reasons why the reduction of interpersonal and social role stress is vital to achieving wellness in individuals with bipolar disorder. First of all, stressful events have the capacity to impact the circadian system via increases in autonomic arousal that can, in turn, alter sleep-wake cycles, timing (and amount) of food consumption, and normal circadian patterns of release of other hormones. Second, regardless of the level of stress incurred, events of any size or severity can lead to significant changes in daily routines. Even a seemingly benign event, such as a child joining a sports team and needing to be at school an hour earlier for practice, can be difficult for someone struggling with bipolar disorder. Third, major life stressors such as moving house or getting a divorce can not only have a negative psychological impact on the individual, but may also disrupt social rhythms.

Four phases of IPSRT

IPSRT is implemented in a series of four phases. Regardless of the patient’s clinical state at the beginning of treatment (either in an acute episode or remission) the first phase of treatment is always a focused history-taking. During this phase, the clinician seeks to establish the correct diagnosis and then to assess the linkage between acute episodes and interpersonal issues and social routines in the patient’s history, thus developing the foundation for treatment. In addition to taking a detailed history, the clinician also takes the time to provide the patient and involved family members with education about the nature of bipolar mood disorder, being particularly careful to take into consideration what he or she may already know about the illness.

Also part of this initial phase of treatment is an information-gathering process that we refer to as the Interpersonal Inventory (II). Through this semistructured interview, the therapist assesses the nature and quality of the patient’s current and past interpersonal relationships. Once these evaluations have been made, the clinician then proceeds to appraising the regularity of the patient’s social routines by using the SRM. The initial phase concludes with the selection of an interpersonal problem area (unresolved grief, role transition, role disputes, or more pervasive interpersonal deficits), upon which the patient and the clinician both agree. The combination of the history-taking and the II should allow the clinician and patient to reach a consensus about which of these four problem areas is most closely linked to the onset of the most recent mood episode. This focus then, becomes the initial jumping-off point for the interpersonal part of the therapy. Depending upon the severity and duration of the patient’s past psychiatric history, as well as the complexity of the patient’s current interpersonal relationships and level of insight into his or her own illness, this initial phase of treatment can last anywhere from three to five sessions.

Once the first phase of treatment is completed, the clinician moves on to the second or intermediate phase of therapy. The focus of this phase of the intervention involves helping the patient establish more regular daily social routines and resolve the interpersonal problem area specified in the initial phase of treatment. During this phase of IPSRT it is most common to conduct weekly sessions. However, depending upon the patient’s clinical status, more or less frequent sessions may be
more appropriate. In the two large trials of IPSRT conducted to date, this phase has typically required 10 to 12 sessions; however, in a small open study of bipolar disorder complicated by full-criterion borderline personality disorder, a much longer intermediate phase—of the order of 9 to 10 months—was required to achieve mood stability.19

The next phase of treatment, continuation or maintenance IPSRT, focuses on building up patients’ confidence in their capability to use the skills learned in the acute phase of treatment to maintain their current euthymic mood, level of functioning, and social rhythm regularity. The objective is for the patient to be able to maintain regular social rhythms despite the probable occurrence of stressors such as job changes, vacations, and other unexpected life events. Additionally, the patient is encouraged to continue to improve the quality of his or her interpersonal relationships and keep the level of interpersonal distress at a minimum. Techniques that are commonly used for accomplishing these interpersonal goals include communication analysis, which allows the therapist and patient to identify problem areas in communication to help the patient interact more effectively with significant others; role-play, which allows the patient a safe environment in which to practice expressing emotions and self-assertion; and decision analysis, which helps patients to reflect on the potential risks and benefits of alternate choices and options with regard to a specific problem. More detailed explanations of IPT techniques and strategies can be found in the manual for interpersonal psychotherapy.14 Treatment frequency generally decreases from weekly, to biweekly, and eventually to monthly sessions as the patient moves from acute to maintenance therapy.

When termination of treatment is deemed appropriate (or is otherwise necessitated by outside factors such as financial constraints or logistical challenges) the clinician and patient will begin work on the final phase of treatment which focuses on impending termination. This can typically be accomplished within three to five monthly sessions. If it is not considered clinically appropriate to stop treatment completely, this final phase can also be utilized to further decrease the frequency of sessions to little more than occasional booster sessions when necessary.

IPSRT can also be successfully implemented simply as a short-term treatment, in which case the initial phase is more condensed and the work on the interpersonal problem areas must be more concentrated. Despite the shortened overall duration of treatment in this case, it is still advisable that treatment frequency be reduced near the end, so as to still allow for at least three to four bimonthly sessions to accomplish the necessary termination steps.

Case example

The following is a detailed example of how IPSRT is utilized in the treatment of a patient with bipolar I disorder.

Presenting problem

Anne is a 35-year-old separated woman who began IPSRT while in the throes of a particularly severe depression that had had its onset 4 months previously. Anne had been working as a waitress at a local restaurant, with a schedule that varied widely: she never had a consistent day off, and she was frequently scheduled for lunchtime shifts one day followed by evening shifts the next. She had recently moved out the home she shared with her estranged husband and she was having great difficulty making ends meet, with the rental fees of her new apartment and the need to buy a car of her own.

As Anne’s depression worsened, she found herself struggling with disrupted sleep and a lack of motivation which began to negatively impact her work. She began showing up late for her shifts, and the fatigue stemming from her erratic sleep schedule caused her to make several mistakes with her customers. Soon she was in serious jeopardy of losing her job, the prospect of which sparked intense financial anxiety.

Case formulation and course of treatment

The therapist’s detailed history-taking revealed the following information. While Anne had a rather protracted history of brief but severe manias, this appeared to be one of very few depressions Anne had experienced in her life. Additionally, Anne had married young (at age 20) and had, for all intents and purposes, moved directly from her parents’ home into the home she shared with her husband. She had never actually lived alone, and was finding her new circumstances as frightening as they were difficult.

Anne’s therapist could see that there were several factors that would need to be addressed in order to help Anne out of her depression. First, Anne’s schedule was
far too erratic. In order for Anne to be able to regulate her daily routines, there had to be a routine established to begin with. Second, it appeared to the clinician that Anne’s primary interpersonal problem was the role transition from being a married woman to a single one and the challenges of self-sufficiency that came along with it. The particularly stressful life event of her marital separation was also the impetus for her current disordered state of affairs, so work focused on ameliorating her interpersonal stress would be fundamental to achieving stable social rhythms. Once Anne’s therapist had completed the history-taking and interpersonal inventory, she and Anne moved into the intermediate phase of treatment. Anne’s therapist first began problem-solving with Anne about how to make her schedule more consistent at work. After discussing the nature of Anne’s relationship with her supervisor (good until she had started missing work), her therapist suggested she talk with her supervisor about requesting set shifts on a weekly basis. While Anne knew that, because of the nature of the restaurant business, it would be nearly impossible for her to have the same days off each week, she agreed that her boss might be somewhat receptive to the idea of at least making her shifts take place during the same times each day, especially if it meant this would help her to be a more reliable employee. With Anne’s history of mania, her therapist suggested that she avoid the late-night shifts if at all possible. Anne’s supervisor was in fact amenable to her requests, and upon successfully obtaining a more stable work schedule, Anne and her therapist then went to work on regulating her sleep schedule. Using the SRM as a guide, Anne and her therapist agreed on set times when Anne would go to bed at night and get up in the morning, aiming to have these times vary by no more than an hour, even on her days off. Anne’s therapist offered her education on sleep hygiene, and explained how getting better sleep would not only help her mood, but would also make her less clumsy and forgetful at work, thereby alleviating some of her work-related stress and worry. While this behavioral work was being done to help regulate Anne’s social rhythms, her therapist was simultaneously working with her on her role transition to being a single woman and dealing with the stress and loneliness she felt as a result of her marital separation. Her therapist stressed the importance of creating a solid support network to help her through this difficult time, encouraging Anne to find ways to express her feelings about her current situation. Anne’s therapist knew from the II that Anne maintained a good relationship with her parents and had at least two female friends from high school with whom she remained close; however, she rarely saw either her parents or these girlfriends because she felt too depressed to leave her apartment other than to drag herself to work. She encouraged Anne to visit her parents on one of her days off and to make some arrangements to see one of her friends on the other day. Anne noted a link between getting herself to her parents’ house and improvement in her mood. She also found that after doing something with her friends, she felt better as well. Her therapist then drew the connection between her increased socializing and her improved mood. As Anne continued to work on regularizing her daily routines and improving her satisfaction with her interpersonal relationships, she felt her depressive symptoms begin to dissipate. Anne’s therapist remained cognizant of Anne’s history of mania, and kept a careful eye out for any signs that Anne’s mood disorder was not actually remitting, but rather was cycling into an episode of mania. She stressed that it was important for Anne to not become too overstimulated (especially considering the often hectic nature of her job), in the hopes of preventing a manic recurrence. Anne remained in the acute phase of treatment for approximately 22 weeks, and then moved into the maintenance phase of treatment. After three biweekly sessions, Anne and her therapist moved to monthly sessions where they focused on maintaining Anne’s routine regularity and strove to stay ahead of any potential pitfalls to her progress, particularly the stress of impending divorce proceedings. Efficacy of IPSRT IPSRT has been supported empirically through two large studies involving the therapy in combination with pharmacotherapeutic interventions in the treatment of bipolar disorder. The first of these studies involved 175 patients with bipolar I disorder who presented for treatment while in the midst of a depressive, manic, or mixed episode. In this two-phase study, these individuals were randomly allocated to four acute and maintenance treatment sequences: acute and maintenance IPSRT (IPSRT/IPSRT), acute and maintenance intensive clinical management (ICM/ICM), acute IPSRT and maintenance ICM (IPSRT/ICM), or acute ICM and mainte-
nance IPSRT (ICM/IPSRT). Patients were seen weekly during the acute phase and then progressed to biweekly and finally monthly sessions during the maintenance phase. Therapy lasted approximately 55 minutes, while ICM sessions, which focused primarily on psychoeducation about bipolar disorder and addressing any issues with medication side effects, were roughly 25 minutes in duration. The maintenance phase lasted for 2 years. Initial analyses revealed no differences among conditions in terms of time to stabilization, likely due to the strong pharmacological impact on time to remission. After controlling for significant covariates of survival time (marital status, significant medical comorbidities, and comorbid anxiety disorders) we found that individuals who received acute IPSRT survived longer without a new episode, regardless of the nature of their maintenance treatment (P=0.01). Patients who received acute IPSRT achieved significantly higher regularity of social rhythms than those individuals assigned to acute ICM (P≤0.001) and the degree of protection that IPSRT subjects received from the therapy was correlated with the extent of increase in their social routines (P≤0.05). From this study, we concluded that IPSRT was an effective adjunct to the pharmacological treatment of bipolar disorder, primarily in the preventative capacity.

IPSRT was also studied as one of three intensive psychosocial treatments in the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD). This multisite investigation involved 15 different academic centers in the United States and examined four disorder-specific psychosocial approaches to the treatment of bipolar disorder in conjunction with protocol-driven pharmacotherapy on time to recovery and the likelihood of remaining well following an episode of bipolar depression. A total of 293 individuals with bipolar I or II disorder were randomly allocated to intensive psychotherapy (n=163) or collaborative care (CC, n=130), a brief psychoeducational intervention. Intensive psychotherapy was given weekly and then biweekly for up to 30 sessions over 9 months, according to the manuals for family-focused therapy (FFT), IPSRT, or cognitive-behavioral therapy (CBT). CC consisted of three face-to-face sessions over 6 weeks and the provision of a workbook and videotape outlining the essential elements of each of the three intensive treatments. The primary outcomes of interest were time to recovery from depression and the proportions of patients classified as well during each of 12 study months. Patients assigned to intensive psychotherapy had significantly higher year-end recovery rates (64% vs 52%) and shorter times to recovery than did patients in CC control conditions (hazard ratio =1.47; 95% CI =1.08–2.00). Patients in intensive psychotherapy were 1.58 times (95% CI =1.17–2.13) more likely to be clinically well during any study month than those in CC. Post-hoc comparisons of the individual intensive therapies to CC indicated significant benefit of IPSRT with respect to time to remission. There was also an advantage of intensive psychotherapy in terms of improved relational functioning.16

**Summary**

A small, but consistent, body of data now suggests that an intervention designed to regularize patients’ social rhythms, and presumably thereby their circadian rhythms, has significant positive effects on the course of bipolar disorder. In our original maintenance trial, that effect was observed for the impact of acute treatment on long-term survival without a new mood episode, while in the STEP-BD trial acute IPSRT had a positive effect on time to remission of bipolar depression. Additional studies are under way to explore IPSRT as treatments for bipolar disorder in adolescents and as monotherapy for bipolar II disorder.

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