The Bonny Method of Guided Imagery and Music (GIM) is a music-activated and music-supported exploration of consciousness facilitated by a trained GIM therapist. The music used in the classical form of GIM is specially sequenced music of the Western classical genre “designed to stimulate and sustain a dynamic unfolding of imagery experiences” [1]. Rather than the therapist directing the experience, the imagery emerges spontaneously from the client’s imagination during the 30- to 45-minute music program. During the music the therapist and client engage in an ongoing dialogue about what the client is experiencing. The therapist’s responsibility is to support the client’s engaging as fully as she or he is able with the experiences that arise. A full session lasts 1.5–2 hrs.

In the more than 40 years since its inception, therapeutic and personal growth benefits have been reported for a wide variety of adult clinical and nonclinical populations [2]. The purpose of this paper is to summarize the existing evidence for GIM with medical populations and for effecting change in physiology. In addition, the authors seek to offer a possible vision for the future for GIM and its modifications.

The Bonny Method of Guided Imagery and Music for Individuals

Helen Bonny [3] conducted the first experimental study of the effects of individual GIM sessions by working with 24 adults who had mild to moderate “neurotic” symptoms. She randomly assigned one of two conditions, either GIM or verbal psychotherapy, to each participant. Client need determined the number of sessions with a limit of 60 hours. Bonny found that the GIM participants required fewer hours of sessions in order to meet their therapeutic goals. They also spoke of the holistic effect,
with GIM therapy having positively impacted areas of their lives beyond those specifically targeted for therapy. Six months later, 5 of the 12 participants in the comparison group had re-entered therapy, while none of those in the GIM group had done so.

In subsequent years, GIM therapists have published reports of GIM with a variety of populations. Case studies related to individuals with psychiatric disorders and issues include reports of GIM for individuals with addiction [4], with dissociative identity disorder [5], and who are survivors of abuse [6–10]. Case studies related to other medical conditions have included descriptions of the GIM process for individuals in the post-adjuvant phase of cancer treatment [11–12], a man with AIDS [13], individuals in palliative care [14–15], and women during pregnancy [16].

Two case studies have suggested physical changes related to medical conditions. Pickett [17] reported two case studies of young women with severe bleeding due to uterine fibroid tumors. One woman used her series of sessions to reconcile herself to the fact that she would not be able to bear children. The other experienced a remission of her tumors following life changes suggested by her imagery. Working with a man who had been in pain for 25 years due to ankylosing spondylitis, Merrill [18] described the series of 12 sessions after which the client reported that he was “virtually pain-free” (p. 25). These two case reports have served to stimulate further research into GIM for medical populations and the effects on GIM on human physiology.

GIM for individuals with cancer has been the focus of two research studies. In a randomized controlled trial Burns [19] studied the effects of ten weekly GIM sessions in eight women with cancer. Even in this small sample those in the GIM group reported significantly lowered total mood disturbance and significantly increased quality of life by posttest, each with a large effect size. Through systematic qualitative inquiry, Bonde [20] studied the perceived outcome from a series of GIM sessions in six adults with cancer. Categories of outcome shared by all six participants include (a) new perspectives on past, present, and future; (b) enhanced coping; (c) improved mood and quality of life; (d) enhanced hope; (e) increased self-understanding; and (f) love of music (p. 140).

Addressing a different medical population using a semiotic analysis, Short and colleagues [21] found that six cardiac rehabilitation patients used a series of six GIM sessions to elucidate and facilitate their recovery. The weekly sessions began 6–12 weeks after coronary artery bypass grafting. In keeping with the findings of Bonde [20], Short et al. found that participants gained a new perspective and that they commented positively on the music used.

Körlin and Wrangsjö [22] reported results of a repeated measures study of the effects of a series of individual GIM sessions in 30 adults, ages 19–62, with “self-actualizing needs, interpersonal difficulties, or psychiatric symptoms” (p. 6). They found significant ($p < .01$) reduction in total depression, anxiety, and total psychiatric symptoms as measured by the Hopkins Symptom Checklist-90-Revised (HSCL-90-R) and in interpersonal problems as measured by the Inventory of Interpersonal Problems. They also reported a significant increase in well being as measured by the Sense of Coherence Scale. There was a small effect size for anxiety and medium to large effect sizes for interpersonal problems, sense of coherence, and total psychiatric symptoms.

Experimentally exploring effects of the Bonny Method in one of the populations with which Helen Bonny originally developed GIM, Heiderscheidt [23] designed a randomized controlled trial to study the effects of a series of GIM sessions on interpersonal problems, sense of coherence, and levels of secretory immunoglobulin-A in 19 adults in an inpatient chemical dependency unit. The 10 experimental participants received a weekly GIM session for the duration of their stay for a total of 4–7 sessions, while control participants received treatment as usual on the inpatient unit. Analyses of covariance revealed that the GIM group showed significant decrease in the Cold, Domineering, and Nonassertive subscales of the Inventory of Interpersonal Problems and an increase in the Manageability subscore of the Sense of Coherence Scale, but no significant overall change in any of the three variables.

Several studies have explored the effects of a series of individual sessions on physiological variables. In the first experimental study to measure a physiological outcome, McDonald [24] randomly assigned one of three conditions–GIM, verbal psychotherapy, or control—to 30 adults with essential hypertension who were not taking antihypertensive medication. The GIM and verbal psychotherapy groups each had six weekly sessions. Measuring blood pressure in triplicate at pretest, posttest, and follow-up, McDonald found that both systolic and diastolic blood pressures were significantly lowered by posttest and continued to be significantly lower at the 6-week follow-up, while neither measure significantly changed in either the verbal therapy or control group.

Working with another population coping with a chronic disease, Jacobi and Eisenburg [25] reported a repeated measures study examining the results of a series of 10 weekly, individual GIM sessions in 27 adults, ages 26–78, with rheumatoid arthritis. They found significant decreases not only for depression as measured by both the Center for Epidemiological Studies Depression Scale
Adaptations and Modifications of The Bonny Method of Guided Imagery and Music for Individual and Group Contexts

From the outset Helen Bonny intended that there could be variations in the way GIM sessions with individual clients could be conducted. In her case study of John she [31] described how in the fifth session John worked well with Holst’s Mars from the Planets Suite, and to maintain his focus Helen repeated the same selection of music several times for “some 20 minutes” (p. 216). She also was clear that the music could be changed if the client’s imagery or emotional state required it.

Early studies explored adapted and modified forms of the individual GIM sessions. Blake [32] was the first to write about adapting GIM for veterans with posttraumatic stress disorder (PTSD). She developed a specific modification termed Directed Imagery and Music to guide the imagery experience for the client. This differs from the traditional Bonny method approach where the imagery is generated spontaneously by the client.

Goldberg et al [33] adapted the process for a client with brain damage who presented with poor short-term memory, poor control of impulsive behavior, periods of rage, social isolation, and lability of mood. In the final session (Session 6) the therapist adapted the method by using non-classical music and directing the imagery for the client so that she could experience being in control of a boat’s journey as its captain. Following this session the client’s social skills improved markedly.

Goldberg [34] also described adaptations to the traditional GIM procedure for psychiatric patients in short-term care receiving individual sessions and group sessions. GIM was adapted for individual clients by intentionally building “defense maneuvers” (p. 22) through supportive images, which were necessary to help the patients defend against ego disintegration. Group GIM sessions were adapted to suit the short-term nature of treatment and frequent changing of group membership.

Other typical adaptations are to shorten the length of the session, use short pieces of music, and use music from non-classical music genres [35–37]. Ritchey Vaux [38] described adaptations to the standard length GIM session to fit the modified schedule of the 50-minute hour used in verbal psychotherapy. She advocated using short selections of music (approximately 15 minutes) and the client’s drawing the mandala at home. Ritchey-Vaux also adapted the GIM method by alternating verbal sessions with GIM sessions.

More recent developments in the adaptation and modification of the individual form of the Bonny Method have been studied through controlled trials. The largest and the Depression subscore of the HSCL-90-R, but also for anxiety and total psychiatric symptoms on the HSCL-90-R. Moreover, pain as assessed by the McGill Pain Questionnaire was significantly decreased (p < .01) and improvements were shown in two indicators of joint function: joint count and 50-foot walking speed. However, there was no significant change in morning stiffness or in serum assays relevant to the rheumatoid arthritis disease process: C-reactive protein, rheumatoid factor, or erythrocyte sedimentation rate. These results must be considered with caution, since there was no control group to monitor change due to factors other than the intervention across the time frame of the study.

Two studies have examined effects of a series of GIM sessions on both mood and levels of a stress hormone in healthy adults. McKinney and colleagues [26] investigated the effect of a series of six weekly, individual GIM sessions on levels of depression and beta-endorphin levels in eight healthy subjects, who were randomly assigned to either a GIM or a wait-list control condition. Mood was measured pre and post the series, using the Profile of Mood States (POMS). The experimental group demonstrated significantly lower scores on the Depression/Dejection scale of the POMS than the control condition (p < .05). There were no significant differences, however, between the conditions on levels of beta-endorphin.

Extending the findings of McKinney et al [26], McKinney and colleagues [27], reported a randomized controlled trial of the effects of a series of six bi-weekly (fortnightly) Bonny Method sessions on mood and cortisol levels in 28 healthy participants. Measuring mood using the Profile of Mood States and cortisol levels from serum samples at pretest, posttest, and follow-up. McKinney et al [27] found that depressed mood, fatigue, and total mood disturbance all significantly declined by posttest in those in the GIM group with large effect sizes, a change that was sustained at 6-week follow-up, and levels of serum cortisol decreased significantly by follow-up with medium effect size. They found a strong correlation between pretest to follow-up changes in mood and change in cortisol level over the same time period. These findings have health implications for people under chronic stress, since prolonged elevation of cortisol levels is associated with a number of chronic conditions, including cardiovascular disease [28], diabetes [29], and impaired immune function [30].

Each of these studies has enrolled a small sample; therefore, replication and extension are needed. Nevertheless, together they present compelling evidence that a series of individual Bonny Method sessions may effect desired change in both psychological and physiological variables across a wide variety of populations.
trial to date [39] studied 134 participants with complex PTSD through a cohort design. Participants were in one of four conditions: the Bonny Method GIM with adaptations or modifications as needed, Psycho-dynamic Imaginative Trauma Therapy (PITT), a wait-list control condition, and a follow-up group who had completed their GIM sessions at least one year prior to follow-up testing. Those in both therapy conditions (Bonny Method with adaptations and PITT) fared significantly better in reducing symptoms of Complex PTSD and dissociation and increasing quality of life when compared to the controls, and the Bonny Method with adaptations was superior to PITT. Scores for those in the follow-up cohort showed that improvements resulting from GIM were sustained at one-year follow-up.

Working with a different population, Beck et al [40] examined the impact of a series of six modified GIM sessions on salivary cortisol, mood, perceived stress, well being, and work readiness in 20 adults, ages 30–57, who were on disability due to work stress. Modifications to the classical GIM method included a longer premusic discussion and a short selection of music, often not from the classical tradition. The randomized controlled trial revealed significant reduction of anxiety, depression, and total mood disturbance, all with large effect sizes, as well as a significant decrease in resting levels of salivary cortisol with a medium effect size. No significant change was found in either salivary melatonin or testosterone. Perhaps most relevant for this population is that those in the GIM group had a significant increase in well-being and 83% of the total sample were ready to return to work after the six-session series.

An adapted form of the Bonny Method was employed in Martin’s [41] mixed method study of five University students who identified as having performance anxiety. She used standard measures of performance anxiety including the Kenny Music Performance Anxiety Inventory, the Cox-Kenardy Performance Anxiety Questionnaire and a Social Phobia Inventory. Martin devised a series of six modified GIM sessions with a set theme and music selection for each. Outcomes demonstrated a trend for decreasing performance anxiety; however, a longer period of GIM was thought necessary. Martin also interviewed participants and found rich data including images of mastery, relaxation, interesting symbols of strength or protection, barriers or walls that transformed, and significant colors.

A more recent study by Trondalen [42] explored the Bonny Method as a health resource for professional musicians and music students who live with performance anxiety. Using a Resource-Oriented GIM approach, Trondalen incorporated a semi-structured interview in the study. Ten participants received five Bonny Method sessions, mostly conducted fortnightly. The data set from the imagery, drawings, verbal conversation and semi-structured interview were analyzed using open coding [43]. Results suggested Resource-Oriented GIM was a creative health resource that was developed through a strengthening of identity and nurturing of personal and professional resources.

Summer [44] studied a modified form of the Bonny Method in her research into music-centered dialogue and repeated music selections. She interviewed six participants following music-centered GIM sessions using the Bonny Method of GIM with two modifications: (1) repeated music – the music program included repeated hearings of the same piece; and (2) music-centered guiding – instead of verbal interventions that focus primarily on imagery, the interventions focused primarily on engagement with the music. After the GIM session Summer interviewed each participant. Analysis of the transcripts of the six GIM sessions and six interviews yielded 13 recurrent themes that represented a synthesis of the clients’ perspective. Two simultaneous, interdependent, relational processes were found to occur during the music in GIM – the music relation and the self-relation. When the client’s relation towards the music deepened, there was a concomitant transformation in the self-relation through a projection-re-introjection cycle resulting in a reconstructive transformation of consciousness. Summer highlighted that when repeated music and music-centered guiding are used, the intention of the therapist is to establish the music as the primary therapeutic agent of the GIM session.

GIM has been modified in multiple ways to suit the needs of different clinical populations and for different purposes. The emerging literature suggests that these modifications not only meet client needs with positive outcomes, but also offer flexibility for various settings and versatility without sacrificing clinical effectiveness.

Evidence for Group GIM

In Group Music and Imagery (GrpMI), a number of people come together, usually with a common cause (e.g., recovery from cancer treatment, or a community group). GrpMI can be practiced as a sole session or in a series of sessions. There is a discussion, and a theme emerges from the group members. The therapist provides a relaxation induction for the whole group and chooses the music to match the theme. In most GrpMI sessions there is no guiding; however, some therapists have used a directed approach to guiding [45–47] or have encouraged group members to dialogue throughout the music [48].

Moe and colleagues [46–47] studied “restitutional factors” for nine people with schizophrenia,
Evidence of Physiological Effects from a Single Experimental Session

Several research studies have examined human physiological effects during a single GIM or music and imagery session. McKinney and colleagues [50] investigated the effect of a single music and imagery session on plasma beta-endorphin, a stress hormone in the periphery, in 78 undergraduate university students. They randomly assigned one of four conditions, (a) music imaging, (b) silent imaging, (c) music listening, and (d) assessment only control, to four groups of participants. Blood samples were taken pre and post the intervention. Unlike GrpMI, there was no opening discussion, although there was a relaxation induction for the music imaging and silent imaging groups. The music selection used for the music imaging and music listening groups was Ravel’s *Introduction and Allegro for harp, flute, clarinet, and string orchestra*. Results revealed a significant pre-post decline in beta-endorphin only in the music and imagery group; no other group demonstrated any significant pre-post difference, even though the silent imaging group also received the relaxation induction and the music listening group heard the same musical selection. The authors suggested that the combination of selected classical music and spontaneous imagery was “synergistic” (p. 96) and positively affected physiology in healthy adults.

In an early EEG study Lem [51] studied EEG tracings of 27 participants listening to one selection of GIM music (Pierne’s *Concertstücke for Harp and Orchestra*). The participants listened to the music without dialogue and reported imagery at the conclusion of the music. Lem created an intensity spectrograph of the Pierne’s *Concertstücke for Harp and Orchestra* and averaged the graphed brain-wave activity of the 27 participants. There were different graphs for posterior and anterior views. He laid these averaged graphs of brain activity across the spectrograph of the music and explored relationships between the music and brain activity. Brain activity increased during moments of sudden and unexpected changes, such as the very soft harp cadenza towards the end of the piece. Lem explained that this finding has implications for how GIM therapists might guide clients, in particular, that changes in the music may be sufficient to stimulate new imagery and that guiding at those points may interfere.

Lem [52] then studied skin conductance responses to two full music programs designed by Bonny: *Relationships and Nurturing*. Fifty healthy adults (female = 39) listened to the full music programs (unguided), and Lem measured change in autonomic arousal evident in skin conductance graphs as an indicator of emotional response. Participants reported their imagery at the

Schizoaffective, and schizotypal conditions who participated in 23–32 GrpMI sessions over approximately 6 months. Each session had three phases: (1) a preliminary conversation with the group, (2) short music listening experience commencing with 2 minutes of relaxation, and some guiding during the music, and (3) a closing conversation. Patients listened to 10 minutes of music either lying or seated in a chair. Typical music selections were Pachelbel’s *Canon*, and the slow movement of Beethoven 5th *Piano Concerto*. Patients were able to discuss their experience verbally after the music was over. Seven of the nine improved on the Global Assessment of Function scores, with an average score of 36.5 before sessions commenced and 42.0 post the end of sessions. Questionnaires also indicated music and imagery was rated as highly important, as was the relationship with therapist. Eight of the nine felt supported, and attendance was 98%. Patients also were asked to select a card representing an emotion after each session. Six of the nine patients’ first and second choices were consistently positive.

GrpMI was incorporated in Torres’s [49] study of women living with fibromyalgia. The group program was conducted over 12 weeks, with each session lasting 2 hours, including a discussion, relaxation induction, active listening, mandala drawing, and discussion of the music imagery experience. The study used a randomized experimental pretest-posttest control group design, with follow-up assessment after 3 months. The final sample included 56 women (33 experimental and 26 control), with a mean age 51.3, evaluated with six assessment tools. The analyses of covariance, used to compare pretest-posttest results between experimental and control groups, showed positive effects (statistically significant) in subjective psychological wellbeing and state anxiety. Participants in the experimental group showed positive changes in all variables: an increase in subjective wellbeing, and reduction of the impact of fibromyalgia on their health and functional capacity, pain intensity, state and trait depression, and state and trait anxiety, when compared with controls. In addition, the Reliable Change Index showed that after the treatment, 57.6% of experimental subjects improved in at least three of the variables and did not deteriorate in any, in contrast to only 8.7% of the control subjects. At three-month follow-up, the experimental group continued to experience less anxiety than before the GrpMI program.

The evidence for GrpMI is just beginning to emerge. Nevertheless, the early evidence suggests that GrpMI leads to positive outcomes for both adults with psychotic disorders and a chronic medical condition. GrpMI may be both cost-effective and have the advantage of incorporating group dynamics and social support into the GIM process.
conclusion of the music program, and the imagery was categorized into Visual Imagery, Emotions, Body Sensations, Thoughts, Memories, and Spontaneous Imagery. Visual imagery was associated with a decreasing level of arousal during the first 7 minutes of music. Emotions were associated with increased level of arousal in the middle section of the music program, and body sensations were frequently experienced during the final section of the music program that was characterized by low and stable dynamics.

Hunt [53] adopted a neuro-phenomenological mixed methods research design to examine brain wave activity during GIM sessions. To bypass the problem of clients not being able to verbalize the imagery experience (as this causes artifacts in the EEG recordings), Hunt devised directed interventions representing six types of experience: Affect, Body, Interaction, Kinesthetic, Memories, and Visual, pre-recorded over two different classical musical pieces selected from the GIM repertoire. There were four participants in the study, each of whom experienced a single session. A comparison across cases showed that (a) the altered state of consciousness involved both physical relaxation and ongoing focus on the imagery experience; (b) imagery generated brain activity in the same regions that would process information from similar real-life experiences; and (c) beta and gamma frequencies played a significant role in how participants maintained the altered state of consciousness and made meaning out of the imagery.

Most recently, Fachner and colleagues [54] have trialed EEG graphing of a GIM session in which the client was able to verbalize the experience. Advances in technology now enable an analysis of data that is not contaminated by artifacts and sets the scene for future research investigating emotion and imagery experienced within GIM as measured by brain wave activity.

Together these studies of neurological and physiological effects are beginning to elucidate the GIM process. Through the study of effects of the various components of the GIM process, specifically the music and imagery, and of the physiological responses of brain waves and autonomic arousal, researchers in GIM are uncovering patterns that may further refine GIM guiding and increase understanding of the unique ways that GIM provides therapeutic benefit.

Conclusions and Vision for the Future

The existing literature in GIM offers persuasive evidence that the Bonny Method and modifications derived from the classic form provide flexibility for adapting to individual need and clinical circumstances. Moreover, GIM has been found to exert powerful effects on both the human psyche and physiology. The mechanisms for these effects are only beginning to be understood.

The future will bring increasing diversity of application, both in populations and in modifications. Already clinical trials of at least three studies of GrpMI are underway for different populations: (a) women who have breast or gynecologic cancers, (b) female veterans with PTSD associated with military sexual trauma, and together with expressive arts, (c) clients who have complex PTSD [56]. In addition, there is an ongoing randomized clinical trial of a modification that combines expressive arts and individual Bonny Method sessions to address mood, quality of life, and sexual dysfunction in women with gynecologic cancers (M. Wärja, oral communication, April, 2015).

Already GIM training is offered on every inhabited continent on Earth. Because of the time-intensive nature of intervention research of individual GIM, the future will bring collaborative studies through which GIM therapists around the globe work together in order to enroll larger samples of participants in research studies. As the number of therapists trained in this advanced method increases and understanding of the mechanisms underlying the documented effects grows, GIM will reach more people, spreading its powerful life-enhancing effects around the world.

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