

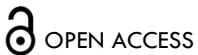


RESEARCH ARTICLE

# Approaches and Contributions of Music Therapy in the Context of Dialectical Behavior Therapy for the Treatment of Borderline Personality Disorder – A Mixed Methods Study

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## ABSTRACT

**Background:** Music therapy in the context of dialectical behavioral therapy (DBT) has received little mention in scientific literature to date. The few contributions describe the skills training as a starting point and see opportunities for integration. Initial research shows positive results in terms of reducing self-harm and improving mindfulness, interpersonal relationships, and emotion regulation.

**Aims:** The question arises as to whether music therapy can be integrated into the (semi) inpatient dialectical behavior therapy concept, as well as what benefits and challenges arise.

**Methods:** The study used an adapted form of convergent design as a mixed-methods design. Data and method triangulation took place within the prioritized qualitative data strand.

**Results:** Music therapy shows similarities and therapeutic contributions to all modules of skills training and the therapeutic approach of dialectical behavior therapy. In addition, contributions of music therapy arise to the experience of emotions and social integration, the improvement of self-esteem, and the use of listening to and making music as a skill. The integration of dialectical behavior therapy elements into music therapy, the integration of the stress tolerance and self-esteem modules, and a combination of group and individual settings are significant predictors of how helpful music therapy is perceived to be. Feelings of shame and interpersonal processes presented challenges. Thematic improvisations, structured improvisations, and receptive interventions proved to be important music therapy interventions in this setting.

**Conclusion:** The results are indicative and express the potential of music therapy within the framework of dialectical behavior therapy. Further research on this topic is necessary.

**Keywords:** Music therapy, dialectical behavior therapy, skills training, borderline personality disorder

## Introduction

Disorder-specific treatment concepts are increasingly gaining acceptance in the psychotherapeutic treatment of psychiatric patients. Dialectical behavioral therapy (DBT)<sup>1</sup> is a concept that was initially developed for the outpatient treatment of patients with borderline personality disorder (BPD) and is now also used for a variety of other clinical pictures. In addition to individual therapy, DBT always includes skills training in a group setting. In the original version<sup>2</sup> this comprises four modules: *mindfulness*, *distress tolerance*, *emotion regulation*, and *interpersonal effectiveness* skills. In a German-language revision, the modules *self-worth* and *dealing with addiction* were added<sup>3</sup>, but these no longer appear in the current version<sup>4</sup>.

In Germany, DBT has also become established as a (semi) inpatient concept in psychiatric hospitals. In this setting, various specialist therapists, including music therapists, are increasingly coming into contact with DBT within the framework of interdisciplinary collaboration. While framework concepts have already been developed for occupational therapy and art therapy<sup>5,6</sup>, only isolated procedures have been described for music therapy to date.

However, the content of DBT, and in particular that of DBT skills training, overlaps in several areas with the content of music therapy practice, even in non-DBT settings<sup>7</sup>. Authors who have addressed this topic point out parallels between the modules of DBT skills training and the content of music therapy, and see connections to the modules of *mindfulness*, *distress tolerance*, *emotion regulation*, and *interpersonal effectiveness*<sup>7-23,47</sup>. In an initial conceptual elaboration<sup>22</sup>, its extension<sup>23</sup> and the version for children<sup>46</sup> musical interventions related to DBT are collected, but these were not explicitly developed for music therapy. In previous studies that established a connection between music therapy and DBT elements, other clinical pictures were examined with one exception<sup>17</sup>. However, the results show the potential of music therapy in improving mindfulness<sup>18</sup>, improving emotion regulation<sup>9</sup>, improving interpersonal relationships<sup>17</sup>, improving sleep, anxiety, and regulating alcohol cravings<sup>12</sup>, reducing self-harming behavior<sup>19</sup>, and the opportunity to learn skills through music therapy interventions and experience changes in group dynamics<sup>20</sup>.

Studies dealing with music therapy and BPD also show results that have similarities with the content of DBT skills training. Particularly in the area of promoting emotional expression, dealing with emotions, and emotion regulation<sup>24-30</sup>. However, study results also show the potential of music therapy in improving self-acceptance and relationship skills<sup>26</sup> as well as the experience of intersubjectivity<sup>28</sup>. The DBT skills training modules of the former German-language version<sup>3</sup> on *self-worth* and *dealing with addiction* have not yet been addressed in the literature. However, study results on music therapy and BPD<sup>26</sup> and music therapy and addiction disorders in the DBT framework<sup>12</sup> also point to potential in relation to these modules. The current state of research on music

therapy and DBT as well as music therapy and BPD thus points to possibilities for integrating DBT elements into music therapy and improving borderline-typical symptoms. Music therapy in the context of (semi) inpatient DBT for the treatment of BPD has not yet been scientifically investigated, although it is used in this setting. The aim of the study is to evaluate approaches and contributions of music therapy to (semi) inpatient DBT. Possible challenges arising within music therapy in the DBT framework will also be evaluated.

The guiding research question for this study was "Can music therapy be integrated into the (semi) inpatient DBT concept?" Sub-questions explored approaches, contributions, and challenges of music therapy. For the quantitative sub-study, the two research questions were "Can music therapy make a helpful contribution to DBT?" (research question 1) and "Is music therapy challenging for borderline patients in a DBT setting?" (research question 2). Six hypotheses were formulated to answer each of the two research questions. The extent to which music therapy was experienced as helpful or challenging served as dependent variables. The independent variables examined were the extent of DBT elements in music therapy, the integration of different skill training modules into music therapy, the number of music therapy sessions, the therapy setting (group, individual, or both), and the patients' previous experiences and assumptions regarding music therapy. The hypotheses assumed a correlation between dependent and independent variables.

## Method

### ETHICAL CONSIDERATIONS

Participants in the study gave their informed consent to participate in the study. The data was collected anonymously and treated confidentially in accordance with the applicable data protection guidelines (EU GDPR). The ethics vote for the study was granted by the "Ethics Commission for Artistic Therapies at HfWU Nürtingen-Geislingen" on February 6, 2020.

### DESIGN

To answer the research questions and test the hypotheses, a mixed-methods study based on the "convergent design"<sup>31</sup> was conducted (see Figure 1).

In the "Convergent Design" the two data strands are considered equivalent and collected in parallel. The present study on music therapy in the context of Dialectical Behavioral Therapy uses a modification of this design. In this exploratory study, the qualitative data stream has been given high priority, and the significantly smaller quantitative data stream has only a complementary function. Consequently, it was decided to combine the results only in the discussion section, since the complementary function of the quantitative data means that the combination of both data streams is only relevant for the interpretation of the data. A prior combination would not do justice to the extent of the qualitative data.

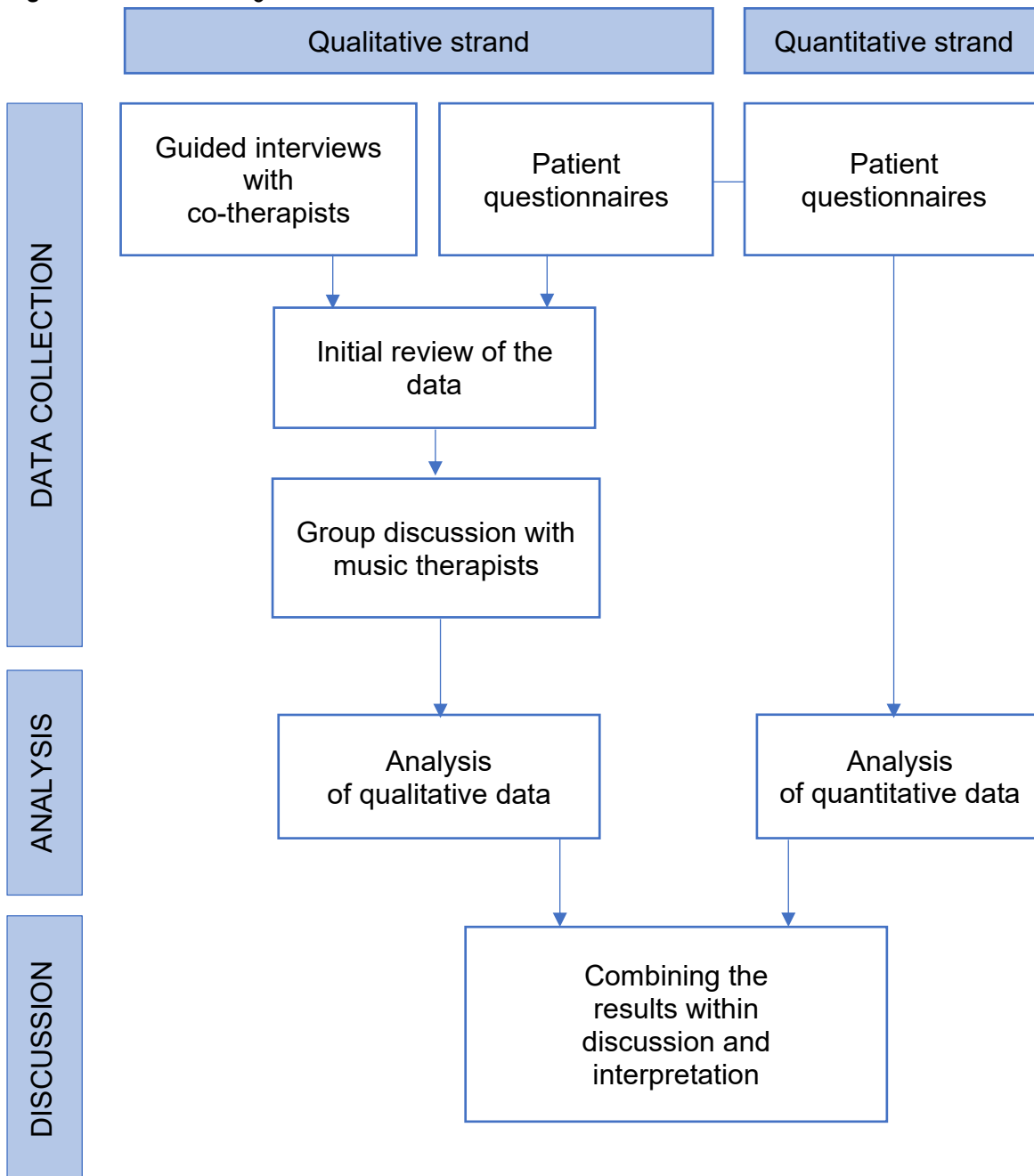
Within the qualitative data stream, data and method triangulation also took place in a sequential survey.

Within the qualitative strand, different groups of participants were surveyed sequentially using different methods on the same question. Findings from the previous step were incorporated into the subsequent step in order to build an ever deeper understanding of the research question.

In the first step, two DBT co-therapists (DBT-trained nurses) who had participated in music therapy within the DBT framework over a period of about one year were interviewed using guided interviews. Also in the first step,

patients from different clinics who participated in music therapy within the DBT framework were surveyed at the end of their treatment using a questionnaire that integrated qualitative and quantitative elements. After an initial review and analysis of the data from the interviews and questionnaires, music therapists working within the DBT framework were invited to discuss the research question. The two data sets were evaluated separately and the results were combined during the discussion.

**Figure 1:** Research design



**DATA COLLECTION AND PARTICIPANTS**

Data collection took place at different times and in different locations and is described below for each group of participants.

**Guided interviews with DBT co-therapists**

Based on the findings of a systematic literature review on music therapy and BPD as well as music therapy and DBT,

a guideline was developed for interviews with two co-therapists (DBT-trained nurses) who had participated as co-therapists in music therapy within the DBT framework over the course of approximately one year. The interviews took place in May 2020 and were conducted in person. Some follow up questions were answered in written form.

## Patient questionnaire

Based on the findings in the literature, a questionnaire was created for borderline patients who participated in music therapy as part of their (semi) inpatient DBT treatment. The questionnaire was tested in a pilot study to assess its comprehensibility and the time required to complete it.

The questionnaire included qualitative and quantitative surveys. In addition to demographic data, questions were asked about the music therapy setting, an assessment of the integration of DBT elements into music therapy and the contributions of music therapy, as well as an assessment of how helpful and challenging music therapy is in the DBT setting. The patient questionnaire study was conducted over a period of 9 months from March 2021 to December 2021 at four different psychiatric clinics in Germany where music therapy was offered in their DBT wards. The inclusion criteria for participation in the questionnaire study were an existing diagnosis of BPD (DSM-5) or "emotionally unstable personality disorder of the borderline type" (ICD-10) and participation in music therapy within the 12-week (semi) inpatient DBT treatment. Patients with "emotionally unstable personality disorder of the impulsive type" (ICD-10), patients without a borderline diagnosis, and borderline patients who participated in the shorter DBT refresher treatment were excluded.

## Group discussion

Based on findings from the literature and an initial review and analysis of the interview and questionnaire data, a guideline and a discussion paper were prepared for the group discussion with music therapists working in DBT wards. The discussion paper was made available to the music therapists in preparation for the group discussion and served to deepen previous findings in the group discussion. The group discussion took place on May 7, 2022 with three music therapists online via a Zoom meeting. A joint meeting in person was not possible due to the COVID pandemic.

## DATA ANALYSIS

The qualitative data from expert interviews with the co-therapists, the qualitative part of the patient questionnaire, and the group discussion with music therapists were evaluated using Kuckartz's "content-structuring qualitative content analysis"<sup>32</sup>. Category formation was inductive based on the material. The data was evaluated using the MAXQDA2022 system.

Parametric tests were used to analyze the quantitative data. In cases of significance, these results were verified using non-parametric tests. The methods used were stepwise regression, the Mann-Whitney test, and Pearson correlation. All significance tests were performed using the statistical program SPSS 29.0.

## Results

### QUALITATIVE RESULTS

The result of the "content-structuring qualitative content analysis"<sup>32</sup> of the data from expert interviews with the co-therapists, the qualitative part of the patient

questionnaire, and the group discussion with the music therapists is five main categories with a total of 54 subcategories.

The main categories build on each other, starting with "Similarities between music therapy and DBT," which highlight the possibilities for integrating music therapy into the (semi) inpatient DBT setting, and ending with "Designing music therapy":

1. Similarities between music therapy and DBT
2. Specific contributions of music therapy
3. Specific challenges in music therapy
4. Embedding music therapy
5. Designing music therapy

The contents of the main categories and their subcategories are summarized below and supported with illustrative quotations.

### 1. Similarities between music therapy and DBT

This main category describes possibilities for integration and points of connection between music therapy and DBT. In contrast to the main category "Specific contributions of music therapy," this category does not discuss the added value of music therapy, but rather provides information about fundamental connections and similarities. The six subcategories are:

- Mindfulness
- Distress tolerance
- Emotion regulation
- Interpersonal effectiveness
- Self-worth
- Dialectics

There are thus similarities to all modules of German-language skills training, as well as to the fundamental principle of dialectics in DBT. The content of all skills training modules was described as typical content of music therapy, and music as a fundamentally dialectical phenomenon.

For example, the following was described for the subcategory "interpersonal effectiveness":

*Interpersonal effectiveness: Very strongly represented, as you have to play together and coordinate with each other." (Patient 22, pos. 19-20).*

### 2. Specific contributions of music therapy

This main category describes therapeutic possibilities that arise through music therapy for the (semi) inpatient DBT setting. It addresses the strengths of music therapy within the DBT setting as well as therapeutic additions that arise through the involvement of music therapy beyond the usual content of DBT. The focus is on contributions that are specific to music therapy, whereby music therapy offers an addition or added value to DBT.

The main category "Specific contribution of music therapy" is divided into 18 subcategories:

- Dealing with making music
- Dealing with listening to music
- Regulating tension
- Promoting mindfulness
- Experiencing emotions

- Regulating emotions
- Experiencing one's own person
- Increasing self-worth
- Showing oneself
- Group experience
- Shaping relationships
- Opportunity for expression
- Broadening perspectives
- Music as a space for action
- Unfamiliar medium
- Playful doing
- Understanding
- Experienceability of therapist

The specific contribution of music therapy consists of deepening and expanding the skills training modules. The subcategories "experiencing emotions" and "group experience" hereby where the quantitative strongest of the whole category system.

Listening to music and making music can be addressed as a skill in music therapy, for example, but dealing with music as a trigger can also be discussed ("dealing with listening to music", "dealing with making music").

Within music therapy, music therapy interventions can trigger tension, but this tension can also be expressed and regulated through music ("regulating tension"). Mindfulness was described as a prerequisite for participation in music therapy interventions, whereby mindfulness would also be particularly promoted by addressing a wide variety of senses and could also be restored if it were lost ("promoting mindfulness").

Furthermore, music as an emotion-inducing medium makes it possible to experience pleasant and unpleasant emotions and to allow them to be felt within the supportive framework of music. Within music, nuances, shades, and simultaneity of feelings can be experienced and expressed that elude verbal expression, and emotions can be shared with others ("experiencing emotions").

*MT 3: So I also think that (...) the nonverbal component plays a special role here. When I (...) am doing something like perceiving feelings , naming feelings, expressing feelings (...) then in the other groups you usually do that verbally or maybe you also include body language (...) or something like that. And I believe that for patients, at least for some of them, it may be easier to express these feelings in sounds and tones than to give them a specific name. It's like a kind of translation (...). And also that (...) during this process – now, I'm thinking of group therapy again, because I'm not doing anything different – (...) at the same time, the others are also listening and practicing perceiving these feelings in the other person or (...) noticing what is going on with the other person and talking about it and then (...) coming back to the verbal (...) yes. (Group discussion music therapists, pos. 153)*

The intense experience of emotions in music therapy also offers the opportunity to practice emotion regulation skills. Emotion regulation can also be experienced within music ("regulating emotions"). In addition, it was described that music therapy contributes significantly to self-reflection, self-awareness, and self-experience. It provides an opportunity to reflect on one's own needs, experience identity, and compare self-perception with the perception of others ("experience one's own person"). In addition, it was described that music therapy made an important contribution to increasing self-worth, that self-evaluations changed positively, and that participation led to more self-confidence and self-assurance ("increased self-worth"). Above all, "showing oneself", becoming audible and visible, both in active play and through the introduction of music for listening, was an important part of music therapy, which was also associated with an increase in self-worth ("showing oneself").

*Patient 20: In music therapy, I dared to show my most vulnerable sides without having to fear that this would have negative consequences for me. I am very grateful for this experience. (Patient 4, pos. 34)*

Furthermore, the group experience and the feeling of belonging are an important contribution of music therapy. Within music, there is the opportunity to experience oneself as part of a whole and to experience a feeling of community and cohesion in the joint creation of music without having to be the center of attention. In addition, the "shared third party," music, enables a shared experience of the same emotion, as well as a regulation of closeness and distance in contact ("group experience").

*Pat. 3: The group communicates with each other simultaneously, pays attention to each other, and creates something new from the individual voices – a shared song. In other therapies, each person recounts their experiences individually, one after the other. This can also have an impact on individual group members, but it does not create a "shared song" but rather individual (non-)reactions to what has been said or experienced. (Patient 3, pos. 31)*

Music is a space for interaction in which nonverbal communication and coordination processes take place, thus actively shaping relationships. Relationship patterns are also expressed in this way ("shaping relationships"). But inner experiences can also be expressed through active music-making or by introducing music for listening. The possibility of expressing feelings for which there are (as yet) no verbal means of expression was described ("opportunity for expression"). Another contribution of music therapy that was described is the broadening of perspectives. This was discussed in relation to DBT content and skills, but also in relation to unpleasant feelings, other people, and music. This was achieved primarily through the different perspectives on the shared experience of music ("broadening perspectives").

*MT 2: Just listening to music, a song: "I didn't pay any attention to the lyrics, just the bass." "Wow, the music is so powerful, but the lyrics are awful."*

*And then when the whole group starts discussing what's actually interesting about this song, you don't just have dialectics, you have heptalectics or something like that. Five, six, seven different perspectives on one and the same piece. And it's the same in a joint improvisation: "What I played was just crap." "What? I would have loved for you to do that again." (Group discussion music therapists, pos. 53)*

Music also offers a space for practicing new patterns of behavior in a safe environment ("music as a space for action"). Hereby, music, as a mostly unfamiliar medium, makes it easier to engage with new things ("unfamiliar medium") and can create access that is characterized by ease and curiosity, since the experience of playfulness in music therapy makes it possible to experience that there is no right or wrong ("playful doing"). Through experience, it is also possible to promote understanding of inner conflicts, feelings, and thoughts ("understanding"). The therapists who play along also play a special role in music therapy, as they can be experienced as counterparts ("experienceability of therapist").

### 3. Specific challenges in music therapy

The main category describes challenges and difficulties that can arise in music therapy in a (semi) inpatient DBT setting. The challenges relate to both musical and verbal interventions.

The main category comprises 15 subcategories:

- Tension
- Dissociation
- Shame
- Fear
- Music as a trigger for emotions
- Music as a trauma trigger
- Need for control
- Judgements
- Preconceptions
- Pressure to perform
- Playing
- Extremes
- Desire for harmony and rigidity
- Showing oneself
- Interpersonal processes

One challenge described in music therapy was that participation often meant an increase in inner tension, which was expressed in active interventions and could lead to a loss of control. In dealing with this, the possibility of leaving the room as well as supportive co-therapists were described as helpful ("tension"). In addition, music therapy was described as particularly triggering dissociation, as it always involves dealing with feelings and dissociation occurs as a pattern in dealing with feelings. Addressing this pattern was considered important ("dissociation"). The fact that music triggers feelings was also described as a challenge, as patients often feel a desire to avoid them ("music as a trigger for emotions").

*Co 2: BPD is a disorder in the area of emotion regulation, and music can intensify existing emotions. Attempting to suppress emotions triggered by music can lead to increased tension and corresponding impulses to act or emotional outbursts. This could cause difficulties within the group. (Questions to Co 2, pos. 8)*

In particular, feelings of shame and fear were described as challenges in music therapy. Music therapy often triggers personal assumptions, which can cause shame. A possible loss of control in music is also associated with shame ("shame").

*MT 3: And very often there is also a great deal of shame involved in presenting one's own music, because there is a lot associated with it, or the thought that other people might not like it or might find it stupid. (Group discussion music therapists, pos. 44)*

Participating in music therapy can also cause anxiety. In particular, participants described fear of disharmony, excessive volume, and loss of control ("anxiety"). In addition, the possibility that music could trigger traumatic memories was perceived as a challenge. Experiencing a loss of control during improvisation or while listening to music could lead to flashbacks ("music as a trauma trigger"). The fear of a possible loss of control described under "music as a trigger for emotions" and "music as a trauma trigger" could cause a strong need for control, which in turn could be challenging because music is more difficult to control ("need for control"). In addition, judgements that arise in music therapy, both self-deprecation regarding one's own playing and concern about others' judgement of one's own playing or the music brought in, were described as a challenge ("judgement").

*I: What exactly was challenging for you and in what way was it challenging?*

*Pat. 19: Making music in a group, presenting my music or even singing: "What do others think of me? Am I too loud? Too intrusive?" (Patient 19, pos. 27-28)*

Preconceptions about music therapy, which were mostly based on a lack of knowledge or negative previous experiences, were also experienced as challenging. Music therapists also spoke about reservations about DBT and concerns about an overly rigid concept ("preconceptions"). The possible emergence of performance pressure was also discussed, especially in relation to active interventions. The fear of making mistakes and a lack of knowledge of musical instruments played a major role here ("pressure to perform"). Free play within active interventions and the difficulty of daring to play at all also presented challenges ("playing").

*MT 1: I believe that this question is not unusual for borderline patients, because social anxiety often accompanies a borderline diagnosis, and I also see many patients who simply do not dare to play at all at first. (Group discussion with music therapists, pos. 3)*

Extremes were also observed in terms of the desire for visibility and audibility, but also in the needs for dynamics, structure, harmony, and freedom within the music, which presented a challenge in their interaction (“extremes”). In addition, a desire for harmony was observed in all groups of participants, which was sometimes perceived as rigid and inconsistent with current tensions (“desire for harmony and rigidity”). The subjects also described that revealing oneself in music therapy can be a challenge for patients. The reasons for this were a fear of revealing too much, the desire to maintain a certain image to the outside world, the fear of making mistakes, and the concern about being devalued by others (“showing oneself”). In addition, all groups of participants reported that it was challenging to share personal information with the whole group during music therapy. The difficulty of gaining trust played a particularly important role here. Allowing feelings to be seen by others and coordinating needs were also experienced as challenging (“interpersonal processes”).

*I: What exactly was challenging for you and in what way was it challenging?*

*Pat. 7: Letting go of shame, allowing emotions, and doing so in a group. (Patient 7, pos. 27-28)*

#### 4. Embedding music therapy

The main category describes the framework conditions and concepts as well as cross-therapeutic contexts, approaches, and attitudes that are relevant for music therapy in a (semi) inpatient DBT setting.

The main category is divided into the following seven subcategories:

- Therapeutic attitude
- General DBT elements
- Cross-therapeutic overall context
- Teamwork
- Therapy participation
- DBT training
- Co-therapists

With regard to the integration of music therapy into the (semi) inpatient DBT concept, the therapeutic attitude and the overall context across therapies proved to be fundamental for interdisciplinary collaboration. The dialectical attitude of acceptance and change typical of DBT should be shared by the team and integrated into music therapy. Music therapists should be open and accepting, which can be demonstrated, for example, by allowing patients to help shape the content or by accompanying musical interventions in a way that accepts the patients' playing style. In receptive interventions, therapists could introduce music other than that chosen by patients in order to (re)establish dialectics (“therapeutic attitude”).

*MT 2: And I have (...) then comes what you always do, what you just said, accompanying it as if it were the most valuable thing in the world. So, that it's really beautiful music. (...) And that is – that is also acceptance, which can then be reflected in the way you engage with the music. (Group discussion music therapists, pos. 193)*

The integration of general DBT elements into music therapy was also described. For example, current tensions could be explored at the beginning and (musical) mindfulness exercises could be carried out. The (dialectical) group rules should also apply in music therapy (“general DBT elements”). The participants emphasized the importance of a perceptible overall context that spans all therapies. It is important that there is a connection between music therapy and DBT, that skills are identified, and that topics from other therapies can be incorporated into music therapy. The team should also share a common language (“cross-therapeutic overall context”).

*MT 3: But it's also something like how DBT can enrich music therapy, because I think music therapy is a very broad field. All kinds of things happen there with all kinds of backgrounds. And I think that everyone in a DBT ward has a common background, so to speak, that everyone agrees on, and that helps me a lot in my work with patients because it gives me a common language with everyone, both the patients and the other therapists. (Group discussion with music therapists, pos. 210)*

In addition, the importance of teamwork in the DBT setting was emphasized. The team can provide support and guidance. However, cooperation within the DBT team also means that the content of music therapy can and should be discussed and classified in other contexts of therapy (“teamwork”). With regard to therapy participation, the participants were in favor of requiring mandatory participation of the entire group in music therapy, as is the case with other DBT group therapies. Patients should receive support in the event of individual difficulties (“therapy participation”). In addition, the participants advocated DBT training for music therapists working in DBT wards. Training is important in order to be able to establish connections and learn the therapeutic approach of DBT as well as speaking the same language within the team (“DBT training”).

The participants considered the participation of co-therapists in music therapy to be useful and helpful. It was also beneficial that co-therapists were not music therapists, as they shared the patients' difficulties and thus served as role models. In addition, this could contribute to a better understanding of music therapy within the team. An introduction to the co-therapists was considered helpful. Music therapists all reported working without co-therapists due to difficulties in organizational implementation and expressed their regret about this (“co-therapists”).

#### 5. Designing music therapy

The main category contains statements that address the concrete implementation of music therapy within the DBT framework and the design of music therapy in terms of setting, session structure, and interventions. It also includes information on how references to DBT can be made within music therapy.

Nine subcategories were developed:

- Setting
- Session structure
- References to skills training
- Skills labeling
- Free improvisation
- Theme-oriented improvisation
- Structured improvisation
- Receptive interventions
- Other interventions

With regard to the design of music therapy, the participants favored a group therapy setting with the possibility of supplementary individual sessions. In addition, patients found it helpful to be able to familiarize themselves with the instruments on their own at the beginning of therapy ("setting"). The structure of the sessions could be based on the structural features of other DBT groups, such as tension checks and mindfulness exercises, especially at the beginning of the session. However, it was recommended to focus on music therapy content and to design music therapy with more freedom than other more psychoeducational DBT groups. However, developing topics or headings at the beginning of the session could provide orientation. In addition, follow-up discussions of the musical interventions were considered important for classifying the experiences ("session structure"). It was also described that references to the content of skills training should be made within music therapy. However, this should not take the form of fixed questioning of skills at a specific point in the session, but should be designed in a meaningful way as part of the process. Music therapy should not be repetitive, but should maintain an expanding and deepening character ("references to skills training").

*MT 2: So, skills training, I would translate it like this: If I know what is going on in skills training, then I don't have to repeat it in music therapy. So, I have to look for additions or deepenings (...) or connections, i.e., in other areas of experience. But not do the same thing again. (MT 1: Mhm. (agreeing)) (Group discussion music therapists, pos. 282)*

Skills labeling, i.e., naming applied or possible skills, could be one way of establishing connections. Reflections after interventions or at the end of the session were considered a good opportunity for this. Verbalization can be useful for patients in order to translate and understand musical processes. However, music therapists also mentioned that there are moments when skills labeling can interfere with the perception, experience, and after-effects of musical moments and should therefore not be used ("skills labeling").

*MT 2: And when, after (...) after the improvisation, there is a moment of silence (...) then I wouldn't ask, for example, "What kind of skill is that?" (...) Instead, I would say, "Wow, keep that in your hearts and now go on your way." (...) And then the group often says, "That's good now." (...) and leaves it at that. I find that (...) very valuable and worth protecting (...) in that moment. (Group discussion music therapists, pos. 148)*

With regard to music therapy interventions, free improvisation was considered possible, but less significant in its role within the DBT framework compared to other settings, as it often proved to be too challenging in its freedom ("free improvisation"). Theme-oriented improvisations, in which, for example, DBT themes, skills, or feelings could be expressed, was considered more significant ("Theme-oriented improvisation"). Structured improvisations, whose parallels to DBT mindfulness exercises were frequently mentioned, were also considered an important intervention in the DBT framework. Structured improvisations facilitated entry into playing through their clear guidelines and could also be used as a basis for improvisation ("Structured improvisation"). In addition, receptive interventions are important in the DBT setting. The main focus was on listening to music that patients listen to in their everyday lives. According to music therapists, this is also important because, in their experience, patients with BPD listen to a lot of music and it is important to discuss when certain music is helpful and when it is more dysfunctional. The development of skills playlists for emotion and tension regulation is also an important option ("receptive interventions"). In addition, participants discussed several other possible interventions such as singing, songwriting, role-playing, and working with visual materials ("other interventions").

## QUANTITATIVE RESULTS

### Descriptive findings

A total of 23 questionnaires from 3 clinics were evaluated. One clinic could not provide any completed questionnaires. 18 of the respondents were female (78.3%). Four participants (17.4%) identified as male and one person (4.3%) as diverse. The average age was 31.43 years ( $SD = 8.77$ ).

Before participating in music therapy as part of DBT, ten of the 23 respondents (43.5%) had already had experience with music therapy. Thirteen people (56.5%,  $N=23$ ) were participating in music therapy for the first time. At the beginning of therapy, 12 (43.5%,  $N=23$ ) of the respondents were open to music therapy and ten respondents (52.2%,  $N=23$ ) were skeptical. One person (4.3%;  $N=23$ ) did not answer this question. With 15 patients (65.2%,  $N=23$ ), the majority of respondents participated in DBT music therapy in a group setting. Six (26.1%,  $N=23$ ) participants had individual music therapy sessions in addition to the group sessions. Two patients (8.7%,  $N=23$ ) did not answer the question. None of the participants received music therapy in individual sessions only.

On average, participants attended 12.1 music therapy sessions ( $n=21$ ;  $SD 5.354$ ), with all participants (100%,  $N=23$ ) finding music therapy within the framework of DBT helpful. The extent to which music therapy was found to be helpful was rated on average at 8.00 on a scale of 0 to 10 ( $N=23$ ;  $SD = 1.799$ ). At the same time, 16 (69.6%,  $N=23$ ) patients also found music therapy challenging. Six participants (26.1%,  $N=23$ ) did not find it challenging, and one person (4.3%,  $N=23$ ) did not answer this

question. The degree of challenge averaged 5.83 on a scale of 0 to 10 ( $n=21$ ;  $SD = 2.817$ ). Regarding the DBT elements contained in music therapy, all (100%,  $N=23$ ) respondents stated that the music therapy they participated in contained DBT elements, with an average level of 7.57 ( $N=23$ ;  $SD = 1.996$ ) on a scale of 0 to 10. Music therapy was experienced as supportive for all modules of the skills training. Music therapy was particularly often experienced as contributing to *mindfulness* (95.7%;  $N=23$ ), *interpersonal effectiveness* (95.7%;  $N=23$ ), and *emotion regulation* (91.3%;  $N=23$ ). To a lesser extent, but still by a majority, music therapy was assessed as contributing to the *self-worth* module (78.3%;  $N=23$ ) and the *distress tolerance* module (60.9%;  $N=23$ ). Due to the small sample size, the following results regarding the hypothesis testing should be considered indicative.

**Table 1:** Regression music therapy helpful

	Model 1			Model 2			Model 3		
	b	Beta	Sig.	b	Beta	Sig.	b	Beta	Sig.
<i>Extent of DBT elements in MT</i>	.661	.843	<.001	.593	.756	<.001	.493	.629	<.001
<i>Stress tolerance</i>				1,060	.336	.010	.964	.306	.010
<i>Group plus individual</i>							.902	.263	.039

To rule out effects due to deviation from normal distribution, additional non-parametric tests were performed to check robustness. The extent of DBT elements ( $p=.894$ ;  $p<.001$ ) was additionally assessed using Spearman's correlation, and the *distress tolerance* module ( $U=27.5$ ;  $Z=-2.124$ ;  $p=.036$ ) and the therapy setting group therapy plus individual therapy ( $U=7.0$ ;  $Z=-3.046$ ;  $p=.002$ ) were additionally tested using the Mann-Whitney test. All of these tests also proved to be significant, so it can be assumed that the result is not altered in terms of content by the distortion. Due to significant overlap between the variables *distress tolerance* module and *self-worth* module, it is possible that only one of the two variables was included in the model, even though both modules contribute to a difference in how helpful music therapy was perceived to be. The Mann-Whitney test also showed a significant effect with regard to the occurrence of the *self-worth* module ( $U=2.0$ ;  $Z=-3.255$ ;  $p<.001$ ).

*Research question 2: Is music therapy challenging for borderline patients in a DBT setting?*

A stepwise regression was also performed to test the hypotheses covered by research question 2. Only one variable – openness to music therapy at the beginning of therapy – was included in the stepwise regression. The analysis suggests that patients' openness to music therapy ( $\beta=-.480$ ,  $p=.044$ ) is the only predictor in this model. However, the Mann-Whitney test did not confirm the significance ( $U=35.5$ ;  $Z=-1.753$ ;  $p=.173$ ).

**Discussion**

The similarities between music therapy and all modules of DBT skills training as well as the principle of dialectics, which emerged in both the qualitative and quantitative data, are consistent with the considerations in the

**Research question 1: Can music therapy make a helpful contribution to DBT?**

To test the hypotheses covered by research question 1, a stepwise regression was performed (Table 1). This was justified by the number of variables included in the model in relation to the sample size.

The three variables "extent of DBT elements in music therapy," "*distress tolerance*", and "therapy setting group therapy plus individual therapy" were included in the stepwise regression. The analysis suggests that the "extent of DBT elements in music therapy" ( $\beta=.629$ ,  $p<.001$ ) is the most influential predictor in this model. The occurrence of the "*distress tolerance*" module ( $\beta=.306$ ,  $p=.010$ ) and the "therapy setting group therapy plus individual therapy" ( $\beta=.263$ ,  $p=.039$ ) showed a weak to moderate effect. Measured by the adjusted  $R^2$ , the model explained 83.7% of the variance in the extent to which music therapy was perceived as helpful.

literature that skills training represents an approach to music therapy in the DBT setting<sup>8-23</sup>. In addition, the descriptive results of the quantitative data showed that 100% of the patients surveyed stated that the music therapy they participated in contained DBT elements, which also suggests that DBT elements are found in music therapy and that integration appears obvious and sensible, as there are many points of contact.

When integrated into the (semi) inpatient setting, music therapy is clearly perceived as helpful by patients. The specific contribution of music therapy seems to go beyond mere integration and lies in the deepening and expansion of skills training and DBT. For example, dealing with listening to music and music making can serve as an extension of the skills training modules *distress tolerance* and *emotion regulation*, and by fostering musical skills, it can also promote interpersonal skills and social participation<sup>15,26</sup>. Above all, the promotion of experience, which was reflected in several subcategory designations ("experiencing emotions," "experiencing one's own person," "group experience") seems to be an important contribution of music therapy. Improvisation in music therapy in particular is directly related to experience and perception<sup>28</sup>. The promotion of moments of experience, i.e., the perception and feeling of a wide variety of aspects, could therefore be a fundamental contribution of music therapy. Music therapy can thus add an experience-oriented level to DBT, thereby enabling new experiences for patients.

Promoting the experience of emotions through music therapy interventions could enhance the perception and description of these emotions in everyday life and promote the development of affective differentiation. A study with adolescents<sup>33</sup> found improvements in the perception, identification, and regulation of emotions

when promoting the experience of emotions within music therapy. This could also be transferable to music therapy within the DBT framework. In this context, the experience of emotions can be viewed as an extension of the content of skills training, with music potentially facilitating access to and acceptance of feelings<sup>41,49</sup>. Study results show more descriptions of feelings in weekly logs when music therapy interventions are integrated into skills training<sup>10</sup>. The promotion of emotional experience through music therapy could make a significant contribution to this.

Not only sharing, but also experiencing the same emotion together through music in a group, as well as experiencing and expressing different emotional nuances, is a distinctive feature of music therapy compared to other DBT therapies. The shared experience and sharing of feelings is particularly important for patients with BPD, who have often experienced emotional invalidation and can create new experiences through this. The contents of the subcategory "group experience" indicate that group music therapy could facilitate group cohesion, social integration, and social participation. Interactions and relational experiences become tangible within the group music therapy<sup>11,42,49</sup>. These aspects are of great importance for patients with BPD, who often feel socially excluded<sup>34</sup>. The contribution to "group experience" described above is consistent with the previous findings<sup>20</sup>, which also described musical coordination processes and interactions. Another study<sup>9</sup>, in which patients also described being together as the most important aspect of music therapy, also shows similarities. Furthermore, the qualitative data also show that music therapy differs significantly from talk therapy groups – where participants must speak one after another – primarily in the simultaneous nature of playing instruments. This creates opportunities to experience closeness and distance simultaneously, to be both within oneself and part of the group at the same time, and to experience synchronicity, which is of great significance particularly in relation to the social interaction difficulties experienced by individuals with borderline personality disorder<sup>11,39,44,45</sup>.

The subcategories "experiencing one's own person," "increased self-worth," and "showing oneself" represent the positive contributions of music therapy to improving self-confidence, self-esteem, and self-efficacy. Music therapy shows particular potential in relation to the identity disorder of borderline patients. The quantitative data also showed the importance of integrating aspects related to self-worth into music therapy. These aspects have been little discussed in the literature on music therapy and DBT and music therapy and BPS. However one study<sup>12</sup> found an increase in self-confidence when music therapy was combined with DBT elements – albeit in patients with alcohol dependence. Identity and self-awareness are described as intrinsic elements of music therapy<sup>35</sup>, and the increased self-worth and self-confidence as important contributions of music therapy<sup>26</sup>. A more recent study<sup>48</sup> on music therapy with patients with personality disorders also found this perceived effect of music therapy. This should therefore be integrated more into the scientific discourse in relation to BPD and DBT.

However, both the qualitative and quantitative data also show that music therapy also presents a challenge for patients with BPD in the DBT setting. The average level of challenge revealed in the quantitative data, however, suggests an appropriate level of challenge in terms of the optimal level of arousal. None of the quantitatively examined variables were significant in this regard. The qualitative data therefore provide more insight into the nature of the challenges. It is striking that parallels to the specific contributions of music therapy repeatedly emerge. For example, experiencing feelings is a contribution, but music as a trigger of feelings, shame, and fear are challenges of music therapy. Patients' desire to avoid emotions may be a contributing factor here, which is why music therapy within the DBT framework has already been described as emotional stress training<sup>13</sup>. "Showing oneself" is mentioned both among the contributions and the challenges. In addition, interpersonal processes represent a challenge, while the experience of the group and the formation of relationships are contributions of music therapy. Feelings of shame, mistrust, and social anxiety typical of borderline personality disorder could be a contributing factor<sup>13,14,21,39,42,43</sup>. These recurring parallels also suggest that the challenges can be considered appropriate in their extent and can contribute to the learning and inner growth of the patients. With regard to specific approaches within music therapy, however, it is important to keep these challenges in mind and, if necessary, to influence their intensity by providing support and structure.

Teamwork plays an important role within DBT in terms of classifying contributions and dealing with challenges. In order to strengthen interdisciplinary cooperation within the team, it is important to establish a cross-therapeutic connection for both staff and patients. It is therefore important for music therapists to be compatible, and it makes sense to orientate themselves towards DBT in a (semi) inpatient setting. Both the similarities and the contributions of music therapy show many possibilities for connecting in terms of content. In addition, sharing a common therapeutic attitude and language is of great importance. Based on a common therapeutic attitude of the team, music therapy can be designed and varied in structure and freedom in order to maintain a focus on specific music therapy contributions. Nevertheless, it should be noted that patients come to (semi) inpatient DBT electively, i.e., they decide to undergo DBT treatment, and the extent of DBT elements in music therapy was the strongest predictor of how helpful patients found music therapy. The design of music therapy in terms of orientation towards DBT elements and maintaining the freedom of music therapy should therefore be based on dialectical balance. Various interventions can be used for this purpose, with free improvisation playing a lesser role in this context. It can be a major challenge for patients and requires a great deal of structure and support. This description can already be found in the literature on music therapy and BPS and music therapy and DBT<sup>11,13,18,37-45</sup>. The result shows that free improvisation is not always the most suitable music therapy intervention. The most important interventions in music therapy with

borderline patients within the DBT framework were theme-oriented improvisation and structured improvisation. These interventions can provide more support and make it easier to start playing, and in the course of time enable a shift towards freer interventions. In addition, receptive interventions play a major and important role. These can create opportunities for attending to feelings and promoting self-esteem, as well as addressing music listening as a skill, but also dysfunctional music listening. Receptive interventions have been less discussed in the literature on music therapy and BPD to date. However, the data indicate a clear potential for these interventions. They should feature more prominently in scientific discourse.

## Limitations

There were several limitations in the present study. Despite inductive category formation, terms typical of DBT repeatedly appeared in the qualitative data analysis. Therefore, it must be assumed that there was a bias. On the one hand, this bias existed on the part of the author, who assumed from literature research that skills training modules could be a starting point for music therapy collaboration and therefore searched for these elements and formulated corresponding questions. However, a bias on the part of the respondents can also be assumed. Therapists working in the DBT setting, or patients nearing the end of (semi) inpatient DBT treatment, are very accustomed to DBT terminology, as a common language is an important part of the treatment. Therefore, these terms appeared repeatedly in the description. They can be considered a common vocabulary. In the course of category formation, a conscious decision was made to adopt DBT terminology in certain places – on the one hand, because these terms were used repeatedly by the participants, but on the other hand also to demonstrate the compatibility of music therapy.

Another bias arose with regard to the survey of music therapists, as they discussed their own work and were highly likely to rate it as helpful for DBT. This bias is part and parcel of an expert survey. An attempt was made to limit this influence by triangulating data from surveys of different groups of participants. However, the patients' motivation to participate in the study could also have

been influenced by how helpful they generally find music therapy. If they perceived music therapy to have a greater therapeutic benefit, they may have been more willing to participate.

With regard to the quantitative data, the small sample size should be mentioned as a limitation. Some variables could not be included in the regression due to insufficient variance, and the significance of the results would also have been increased by a larger sample size. However, the clear focus was on the qualitative data stream.

Another limitation was that the author also acted as the music therapist in the present study. This could have led to socially desirable responses in the survey of co-therapists and patients.

## Conclusion

Music therapy can be integrated into the (semi) inpatient DBT setting and is compatible with its themes, content, goals, and interventions. Skills training can be seen as a starting point for establishing connections. However, the shared therapeutic approach of the DBT team is also an important prerequisite for establishing cross-therapeutic connections. The dialectical principle offers a dialectic of freedom and structure, which allows music therapy to maintain a free, process-oriented, and individualized approach despite its connections to DBT. Music therapy can offer DBT extensions beyond its content and make important contributions, especially in the area of experiencing emotions and social integration. The challenges here seem to lie primarily in the areas of music as a trigger for feelings, becoming visible and audible in music therapy, and interpersonal processes, but appear to be appropriate in terms of the optimal level of arousal. The integration of music therapy into the (semi) inpatient DBT setting for the treatment of BPD thus proves not only possible but also useful. However, further research in this area is necessary.

## Conflict of Interest Statement

The author has no conflicts of interest to declare.

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## References

1. Linehan MM (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.
2. Linehan MM (2014). *DBT Training Manual*. New York: The Guilford Press.
3. Bohus M & Wolf-Arehult M (2016). *Interaktives Skillstraining für Borderline-Patienten* (2nd rev. ed.). Stuttgart: Schattauer.
4. Bohus M (2025). *DBT-Skillstraining. Das Patienten-Manual*. Stuttgart: Schattauer.
5. Voelzke M (2018). *Ergotherapie im Rahmen der DBT: Handlungs- und materialbezogenes Arbeiten*. Stuttgart: Schattauer.
6. Guddat S & Voelzke-Neuhaus M (2021). *Kunsttherapie im Rahmen der DBT: Skillsatelier für Patientinnen und Patienten mit Borderline-Persönlichkeitsstörung*. Stuttgart: Schattauer.
7. Chwalek CM & McKinney CH (2015). The Use of Dialectical Behavior Therapy (DBT) in Music Therapy: A Sequential Explanatory Study. *Journal of Music Therapy*, 52(2), 282-318. doi: 10.1093/jmt/thv002.
8. Deuble I (2014). *Musikhörverhalten von selbstverletzenden Borderline-Patienten: Trigger oder Skill? Eine Untersuchung der Beziehung von Persönlichkeitsmerkmalen zu musikalischen Präferenzen und der Funktion des Musikhörverhaltens von Borderline-Patienten*. Unpublished Bachelor-Thesis, ArtEZ Conservatorium Enschede.
9. Duhovska J & Millere I (2020). Music therapy for emotion regulation skills and better psychological well-being for cancer patients: Making of a therapeutic programme. *SHS Web of Conferendes*, 85, 03006. doi: 10.1051/shsconf/20208503006
10. Dvorak A, Landeck L, Dyer W & Spiegel D (2022). Dialectical Behavior Skills Training With Music Therapy Interventions for Adults With Serious Mental Illness: A Quasi-Experimental Nonequivalent Control-Group Pilot Study. *Journal of Music Therapy*, 59 (3), 205-238. doi: 10.1093/jmt/thac005
11. Frohne-Hagemann I (2006). Musiktherapie bei Persönlichkeitsstörungen. In A Rimmel, O Kernberg & B Strauss (Ed.), *Handbuch Körper und Persönlichkeit. Entwicklungspsychologische und neurobiologische Grundlagen der Borderline-Störung* (pp. 285-294). Stuttgart: Schattauer.
12. Huang Y & Chen X (2021). Efficacy of Group Music Therapy Based on Emotion-Regulation Skills on Male Inpatients With Alcohol Dependence: A Randomized, Controlled Pilot Trial. *Frontiers in Psychology*, 12, 697617. doi: 10.3389/fpsyg.2021.697617
13. Knoche A (2009). Affektregulierung als Ziel der musiktherapeutischen Arbeit mit Borderline-Patienten im Rahmen der Dialektisch-Behavioralen Therapie. In Deutsche Musiktherapeutische Gesellschaft e.V. (DMtG) (Ed.), *Jahrbuch Musiktherapie. Band 5: Musiktherapie und emotionale Differenzierung* (pp.59-98). Wiesbaden: Reichert.
14. Kupski G (2007). Borderlinestörung und Musiktherapie im Kontext der Dialektisch-Behavioralen Therapie. *Musiktherapeutische Umschau*, 28(1), 17-27. doi: 10.13109/muum.2007.28.1.17
15. Kupski G (2020). Musiktherapie mit „Elise“: Kann Klavierunterricht Therapie sein? Reproduzieren statt Improvisieren? *Musiktherapeutische Umschau*, 41(2), 107-118. doi: 10.13109/muum.2020.41.2.107
16. Kupski G & Schultz-Venrath U (2014). „Let’s beat the drum...“ “Yes, but tell me how...” Interventionen in der Musiktherapie mit Borderline-Patienten aus Sicht des Mentalisierungsmodells. In Deutsche Musiktherapeutische Gesellschaft e.V. (DMtG) (Ed.), *Jahrbuch Musiktherapie: Band 10* (pp. 165-196). Wiesbaden: Reichert.
17. Lawday R. & Compton Dickinson S. (2013). Integrating Models for Integrated Care Pathways: Introducing Group Cognitive Analytic Music Therapy (G-CAMPT) to a Women’s Enhanced Medium Secure Setting (WEMSS). In S. Compton Dickison, H. Odell-Miller & J. Adlam (Ed.), *Forensic Music Therapy: A Treatment for Men & Women in Secure Hospital Setting* (pp. 184-204). London, Philadelphia: Jessica Kingsley.
18. Lesiak M (2017). *Mindfulness-based music therapy group protocol for individuals with serious mental illnesses and chronic illnesses: a feasibility study*. University of Kansas. Available under: <https://kuscholarworks.ku.edu/entities/publication/efd1386d-a26a-4e99-a5c5-4ccae81f9c1d>, gathered on 05.05.2019
19. Plener P, Sukale T, Ludolph AG & Stegemann T (2010). “Stop Cutting - Rock!”: A Pilot Study of a Music Therapeutic Program for Self-Injuring Adolescents. *Music and Medicine*, 2(1), 59-65. doi:47513/mmd.v2i1.234
20. Rodriguez A (2023). *Group Singing and Songwriting for Emotion Regulation: Development of a Dialectical Behavior Therapy-Informed Music Therapy Method for Adults in Crisis Residential Treatment*. Expressive Therapies Capstone Theses. 673. Available under: [https://digitalcommons.lesley.edu/expressive\\_theses/673](https://digitalcommons.lesley.edu/expressive_theses/673), gathered on: 10.12.2024
21. Simonet I (2022). Musiktherapie und die dritte Welle der Verhaltenstherapie. *Musiktherapeutische Umschau*, 43(1), 42-51. doi: 10.13109/muum.2022.43.1.42
22. Spiegel D (2010). *Music Activities & More for Teaching DBT Skills and Enhancing any Therapy – even for the non-musician*. Bloomington: AuthorHouse.
23. Spiegel D, Makary S & Bonavitacola L (2020). *Creative DBT Activities using Music: Interventions for Enhancing Engagement and Effectiveness in Therapy*. London: Jessica Kingsley.
24. Dvorkin J (1991). Individual music therapy for an adolescent with borderline personality disorder: an object relations approach. In K. Bruscia (Ed.): *Case Studies in Music Therapy* (pp. 251-268). Gilsum, NH: Barcelona Publishers.
25. Goodman K (1989). Music therapy assessment of emotionally disturbed children. *The Arts in Psychotherapy*, 16(3), 179-192. doi: 10.1016/0197-4556(89)90021-X
26. Kenner J, Baker FA & Treloyn S (2020). Perspectives on musical competence for people with borderline personality disorder in group music therapy. *Nordic*

- Journal of Music Therapy*, 29(3), 271-287. doi: 10.1080/08098131.2020.1728781
27. Odell-Miller H (2007). *The practice of music therapy for adults with mental health problems: the relationship between diagnosis and clinical method*. PhD Thesis, Aalborg University, Denmark.
28. Plitt H (2013). *Intersubjektivität erleben: Musiktherapie als Chance für Borderline-Patienten*. Marburg: Tectum Verlag.
29. Schmidt HU (1999). Musiktherapie bei stationär behandelten Borderline-Patienten. *Musiktherapeutische Umschau*, 20(1), 30-34.
30. Strehlow G & Lindner R (2016). Music therapy interaction patterns in relation to borderline personality disorder (BPD) patients. *Nordic Journal of Music Therapy*, 25 (2), 134-158. doi:10.1080/08098131.2015.1011207
31. Creswell JW & Plano Clark VL (2018). *Designing and conducting mixed method research* (3<sup>rd</sup> ed.). Thousand Oaks: Sage.
32. Kuckartz U (2018). *Qualitative Inhaltsanalyse - Methoden, Praxis, Computerunterstützung* (4<sup>th</sup> Ed.). Weinheim Basel: Beltz.
33. Dingle GA, Hodges J.& Kunde A (2016). Tuned In Emotion Regulation Program Using Music Listening: Effectiveness for Adolescents in Educational Settings. *Frontiers in Psychology*, 7, 859. doi: 10.3389/fpsyg.2016.00859
34. Bohus M (2019). *Borderline-Störung* (2<sup>nd</sup> rev. Ed.)Göttingen: Hogrefe.
35. Lawendowski R, & Bieleninik Ł (2017). Identity and self-esteem in the context of music and music therapy: A review. *Health Psychology Report*, 5(2), 85–99. doi: 10.5114/hpr.2017.64785
36. Fabian E, Birk M, Heintz B, Urspruch I, Friedsam C & Bihler T (2017). Kreativtherapien bei Patienten mit Persönlichkeitsstörungen in der ambulanten Psychotherapie. Der Beitrag der "Dynamischen Psychiatrie" nach Günter Ammon. *Persönlichkeitsstörungen - Theorie und Therapie*, 21(2), 139-158.
37. De Backer J (1993). Containment in Music Therapy. In M Heal & T Wigram (Eds.): *Music Therapy in Health and Education* (pp. 32-39). London: Jessica Kingsley.
38. Hannibal NJ, Pedersen IN, Bonde LO, & Bertelsen, LR (2019). A pilot study investigating research design feasibility using pre-post measures to test the effect of music therapy in psychiatry with people diagnosed with personality disorders. *Voices. A World Forum of Music Therapy*, 19(1), 1-19. doi: 10.15845/voices.v19i1.2731
39. Kupski G & Schultz-Venrath U (2017). Musiktherapie mit Borderline-Patienten aus Sicht des Mentalisierungsmodells. In S Leikert & A Niebuhr (Eds.), *Von der Musik zur Sprache und wieder zurück. Jahrbuch für Psychoanalyse und Musik, Band 1* (pp. 170-201). Gießen: Psychosozial.
40. Nygaard Pedersen, I (2007). *Counter transference in music therapy: A phenomenological study on counter transference used as a clinical concept by music therapists working with musical improvisation in adult psychiatry*. InDiMedia, Department of Communication, Aalborg University.
41. Schäfermeyer-Kinoshita E (2004). Aspekte eines musiktherapeutischen Prozesses mit einer Borderline-Patientin. In T Timmermann (Ed.), *Empfinden - Hören – Sehen: Welche Zugänge wählen nonverbale Psychotherapien? Am Beispiel der Diagnose Persönlichkeitsstörung* (pp. 133-156). Wiesbaden: Reichert.
42. Scheytt N & Janssen PL (1987). Kommunikative Musiktherapie in der stationären analytischen Psychotherapie. In F Lamprecht (Ed.), *Spezialisierung und Integration in Psychosomatik und Psychotherapie. Deutsches Kollegium für psychosomatische Medizin, 6.-8. März 1986* (pp. 203-206). Heidelberg: Springer.
43. Strehlow G (2014). Förderung der Mentalisierungsfähigkeit in der Gruppenmusiktherapie. In Deutsche Musiktherapeutische Gesellschaft e.V. (DMtG) (Ed.), *Jahrbuch Musiktherapie: Band 10* (pp. 197-214). Wiesbaden: Reichert.
44. Strehlow G (2021). Borderline-Persönlichkeitsstörung. In HH Decker-Voigt & E Weymann (Eds.), *Lexikon Musiktherapie* (3<sup>rd</sup> rev. Ed.) (pp. 83-88). Göttingen: Hogrefe.
45. Strehlow G & Schmidt HU (2017). Musiktherapie bei Patienten mit Borderline-Persönlichkeitsstörung. Ein Überblick. *Persönlichkeitsstörungen - Theorie und Therapie*, 21(2), 129-138.
46. Spiegel D, Makary S, Steen C & Bonavitacola L (2026). *Creative DBT Activities for children using Music*. London: Jessica Kingsley.
47. Short, A., & O'Reilly, O. (2025). Dialectical behaviour therapy informed music therapy for borderline personality disorder: A cross-regional survey of clinical practice in the Asia-Pacific. *The Australian Journal of Music Therapy*, 36(2), 32-33. [https://www.austmta.org.au/public/151/files/AJMT/2025/Special/AJMT%202025%20Vol%2036%20Special%20Issue%202\\_Updated.pdf](https://www.austmta.org.au/public/151/files/AJMT/2025/Special/AJMT%202025%20Vol%2036%20Special%20Issue%202_Updated.pdf)
48. Haeyen S (2025). Perceived effects of music therapy in the treatment of personality disorders, cluster B/C: A thematic analysis study based on service users' experiences. *The Arts in Psychotherapy*, 94,102313. doi: 10.1016/j.aip.2025.102313
49. Odell-Miller H (2011). The value of music therapy for people with personality disorder. *Mental Health Practice*, 14(10), 34-35. doi: 10.7748/mhp2011.07.14.10.34.c8579