# Music therapy in geriatric care: acceptance of music therapy residential care interventions

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#### **Abstract**

The importance of music-based programs in geriatric facilities and for people with dementia is increasingly acknowledged. The project "Music Therapy in Geriatric Care" investigated the acceptance of a music therapy intervention catalog in five elderly care and nursing facilities in and around Heidelberg, Germany. In 2020-2021 (phase 1), due to the Covid-19 pandemic, the offer was predominantly online, in 2021–2022 (phase 2), we were able to switch back to in-person offers. Within the framework of mixed methods research, a convergent parallel design with group comparisons and interviews was employed to collect data. Results suggest a high acceptance of the music therapy service by the residents with M=9.05, SD=1.44 (2021), M=9.25 SD=1.15 (2022) on a scale from 0-10. Care and nursing staff rated the meaningfulness of music therapy higher than residents (p=.049 in phase 1; and p=.007 in phase 2). The care staff who participated in the phase 2 activities rated meaningfulness higher than the lesser involved nursing staff (p=.039) and were significantly more satisfied (p=.045). Both questionnaires and interviews suggested high meaningfulness, satisfaction, necessity and effectiveness of all music therapy interventions. Limitations, such as selection bias und bias due to social desirability, are discussed. The project was sustainable insofar as music therapy was continued to be financed in four out of five facilities after project com-

**Keywords:** music therapy, intervention catalog, acceptance, sustainability, geriatric care, dementia

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## Introduction

In the research field of dementia, music therapy is an evidence-based treatment with increasing support. Van der Steen et al. [1] found moderate effects of music therapy on the reduction of depression and behavioral symptoms. This insight is also reflected in the German S3 guideline "Dementia" [2] There is a strong consensus in favor of music therapy for depression and agitation/aggression reduction. Gassner & Mayer-Ferbas [3] found a positive effect of music therapy on mood and behavior in their update of the Cochrane review by van der Steen et al. [1]. The included studies used the following active and receptive interventions [1] Singing and listening to preferred songs or preferred music styles, music and movement, music based relaxation, and improvisation with instruments (cf. Wormit et al. [4]). The interventions are usually combined within the music therapy session. To ensure sustainable music therapy treatment in the geriatric settings with comparable standards in Germany, Wormit et al. [4] developed a music therapy practice guideline for work in geriatric care based on the project "Music Therapy 360°". The project included the involvement of patients/residents, caregivers and relatives in

the context of three measurement points (introduction, interim and final evaluation).

There were positive effects on the emotion modulation of the nursing patients and nursing staff who had actively participated in music therapy. Positive affect as well as emotional activity and equilibrium increased among patients and residents, while among nursing staff there was a decrease in emotional, stressful feelings and thus an increase in job satisfaction. However, these results were found to be fragile in stability due to the small sample size. Changes were mainly found in the interim evaluation, but no longer in the final evaluation. No effects were found between the nursing patients and their relatives in the active encounter through music therapy [5].

Based on the promising results of studies on music therapy in dementia [1], [3] and the findings of the project "Music Therapy 360°" [5], the aim of the present study was to integrate and evaluate music therapy interventions as part of standard care of geriatric facilities. Our main objective was to determine the acceptance of music therapy among residents, caregivers, relatives, and facility managers. Due to the corona pandemic, the goal of developing and testing digital formats in music therapy with the elderly was added.



## Methods

## **Participants**

The participants in the study were residents, care and nursing staff and relatives. They were recruited from five geriatric facilities in the Heidelberg area, four of which had between 50 and 100 beds, and one had 24 beds in a residential care group. Each facility had a contact person who was responsible for organizing the weekly social care offerings. Participation in the survey and interviews was voluntary. All participants were recruited at the facilities during the survey period. The prerequisite was that during the survey period they were either residents of the facility, relatives visiting the facility, nursing and care staff or facility management. Furthermore, they needed to agree to provide verbal information and to have sufficient German language skills. Employees of the facilities who do not work in nursing or care and volunteers were excluded. All interested participants received the information sheet about the study. Informed consent sheets were either signed by themselves or by their legal representative.

## **Design and implementation**

A mixed methods approach was chosen to provide a holistic view of the relevant groups and their assessment of the music therapy interventions. Data collection and analysis was conducted using the convergent parallel design [6]. The residents received music therapy according to the intervention catalog of Wormit et al. [7] oriented to their respective needs. The interventions were provided by a qualified music therapist on one or two days on a weekly basis at the facilities. The first evaluation (E1) took place after the implementation of the music therapy services in the facilities in September 2021, and the second (E2) at the end of the project in September 2022. The project duration was 30 months in total (July 2020 to December 2022). The ethical vote to conduct the study was obtained in June 2021 (EV2021/06). The timeline of the project was as follows:

- July 2020 to December 2021 Development and test of digital formats in two facilities
- January 2021 to April 2021 Implementation of music therapy in presence, including digital formats in three additional facilities
- September 2021 1<sup>st</sup> evaluation of music therapy after implementation
- April to December 2022 Addition of dance movement therapy
- September/October 2022 2<sup>nd</sup> evaluation of music therapy upon the conclusion of the project
- December 2022 project ending

#### Interventions

In the present study, the following individual modules were used, which are summarized in the practice guide "Music Therapy in Geriatric Care" [4].

#### Singing in the group

Singing preferred, recurring and ritualized songs in a group, also called "singing circle", is led by the music therapist, which is structured thematically and carried out in an extra room (e.g. multifunctional or dining room). Any interactions that arise are processed and incorporated into the overall experience. The focus of the intervention is community experience. Singing in the group was offered once a week in four facilities.

#### Corridor music

Corridor music is a milieu-therapeutic intervention in which the atmosphere in the living area is taken up by the music therapist in a situationally appropriate manner and positively influenced by playing selected songs (recreative) or free improvisations. The focus here is on improving and increasing well-being (cf. also [8], [9]). Two facilities offered corridor music on a weekly basis.

### Individual music therapy (in the room)

Contrary to group therapy, individual music therapy can focus more on personal needs and individual impairments. Residents who are unable or unwilling to participate in corridor music or group settings are thus reached through individual music therapy. Interventions such as singing and listening to preferred songs, music-based relaxation, music and movement (integration of techniques of neurological music therapy according to Thaut & Hoemberg [10] are recommended) as well as improvisation on instruments are usually used. This intervention was offered in all five facilities.

#### **Events (as a leisure activity)**

Cultural events, celebrations and festivities (e.g. summer festival, birthday) are musically supported by the music therapist with live music. In contrast to recorded music, the music therapist can respond flexibly to the events, provide a musical framework and strengthen the interaction between the residents and other participants. Events were regularly supported in four facilities.

#### **Data evaluation**

The standardized questions and the category system for the evaluation of the interviews were adopted and adapted from the previous project "Music Therapy 360°" [4]. For the evaluation of the quantitative data, a questionnaire with standardized questions (cf. Table 1) was used, covering overall satisfaction with music therapy and the



Table 1: Standardized questions to evaluate the music therapy and the individual interventions offers

| ***************************************          |   |             |     |   |   |   |    |         |         |        |
|--|---|-------------|-----|---|---|---|----|---------|---------|--------|
| How satis  | How satisfied are you with music therapy? |             |     |   |   |   |    |         |         |        |
| 0  | 1   | 2           | 3   | 4 | 5 | 6 | 7  | 8       | 9       | 10     |
| none at all                                      |   |             |     |   |   |   |    |         | hi      | ighest |
| How meaningful is music therapy?                 |   |             |     |   |   |   |    |         |         |        |
| 0  | 1   | 2           | 3   | 4 | 5 | 6 | 7  | 8       | 9       | 10     |
| none at all                                      |   |             |     |   |   |   |    | highest |         |        |
| How nece   | essary is m                               | nusic thera | py? |   |   |   |    |         |         |        |
| 0  | 1   | 2           | 3   | 4 | 5 | 6 | 7  | 8       | 9       | 10     |
| none at a  | II  |             |     |   |   |   |    |         | highest |        |
| Do you think music therapy is effective?         |   |             |     |   |   |   |    |         |         |        |
| 0  | 1   | 2           | 3   | 4 | 5 | 6 | 7  | 8       | 9       | 10     |
| none at all                                      |   |             |     |   |   |   |    |         | highest |        |
| How satisfied are you with the music therapist?  |   |             |     |   |   |   |    |         |         |        |
| 0  | 1   | 2           | 3   | 4 | 5 | 6 | 7  | 8       | 9       | 10     |
| none at all                                      |   |             |     |   |   |   | h  | ighest  |         |        |
| How meaningful is singing in the group*?         |   |             |     |   |   |   |    |         |         |        |
| 0  | 1   | 2           | 3   | 4 | 5 | 6 | 7  | 8       | 9       | 10     |
| none at all                                      |   |             |     |   |   |   | hi | ighest  |         |        |
| How necessary is singing in the group*?          |   |             |     |   |   |   |    |         |         |        |
| 0  | 1   | 2           | 3   | 4 | 5 | 6 | 7  | 8       | 9       | 10     |
| none at all                                      |   |             |     |   |   |   |    | hi      | ighest  |        |
| Do you think singing in the group* is effective? |   |             |     |   |   |   |    |         |         |        |
| 0  | 1   | 2           | 3   | 4 | 5 | 6 | 7  | 8       | 9       | 10     |
| none at a  | II  |             |     |   |   |   |    |         | hi      | ighest |
|  |   |             |     |   |   |   |    |         |         |        |

<sup>\*</sup>Note: The same question was asked about active participation in corridor music, individual music therapy (in the room), background music (flash drive), singing group (flash drive) and singing in der room (web-based).

music therapist, the meaningfulness, necessity and effectiveness of music therapy as well as the assessment of the individual music therapy offers, (individual modules) covering the meaningfulness, necessity and effectiveness on a numerical rating scale (NRS) from 0 to 10 (0=none at all/10=highest). A paper version of the survey was implemented in consultation with the cooperating facilities. The project information, declaration of consent and questionnaire were distributed to the participants in an envelope via the contact persons at the facilities. The contact persons collected the sealed envelopes containing the completed documents and returned them to the project team.

The qualitative data was obtained through the semistandardized guided interviews and was analyzed, categorized and summarized using Kuckartz's qualitative content analysis [11]. Categories included expectations, motivation, participation, atmosphere, the effect of the music, digital formats, acceptance, criticism, music therapist, recommendation, among others. The interview partners were coordinated via the contact persons at the facilities and were conducted by the project team on site at the facilities.

## Statistical analysis

The analysis of the quantitative data included descriptive statistics. The comparison of the participant groups residents and care and nursing staff was exploratively tested for significance in both evaluations (E1 & E2). Due to the small number of cases, the group of relatives could not be included. For the group comparisons, independent t-Tests were carried out using SPSS Statistics27. The significance level was set at p<.05.

#### Goal criteria

The aim of the study was to investigate the acceptance of the music therapy offer in the cooperating facilities. To determine the goal criteria, the standardized questions about satisfaction, meaningfulness, necessity and effectiveness were linked to the interview categories acceptance, the effect of the music, motivation, and questions about the music therapist. A further analysis examined the general framework and prerequisites for the sustainability or continuation of the music therapy offers.



## Results

## Sample

A total of 99 participants took part in both project evaluations of the music therapy offers in fall 2021 and 2022. Table 2 shows the sociodemographic data of the participants (residents, care and nursing staff and relatives) including the average work experience.

In the first survey, 52 participants got involved, 23 residents aged 76 years (52% male), 27 care and nursing staff aged 40 years (30% male) and two relatives aged 81 years (100% male). The questionnaire survey (n=38) was completed by 13 residents (40% male), 23 care and nursing staff (47% male) and the two relatives (100% male). The interviews (n=34) were completed by 17 residents (59% male), 15 care and nursing staff (29% male) and the two relatives. 20 participants took part in both the standardized survey and the interviews.

In the second survey, 47 participants got involved, of which 42 completed the questionnaire survey, 13 residents aged 76 years (39% male), 26 care and nursing staff aged 43 years (15% male) and three relatives aged 70 years (66,7% male). The interviews (n=5) were completed by five facility managers aged 42 years (60% male). One participant took part in both the questionnaire and the interview in the second survey.

## Quantitative results

The results of the evaluation dates (E1 & E2) showed a high level of satisfaction with music therapy and the music therapist (cf. Table 3). The meaningfulness, the necessity and the effectiveness of music therapy were also rated on a high level.

In the explorative comparison, significant differences were found between the two surveys. Compared to the residents (n=13), the care and nursing staff (n=22) rated the music therapy as significantly more meaningful (t(13,20)=2.17, p=0.049) after the implementation of the offer (E1). This result was also found in the second evaluation (E2). Here too, the music therapy offers were significantly more meaningful (t(12.78)=3.20, p=0.007) for the care and nursing staff (n=26) than for the residents (n=13).

Furthermore, it was found in E2 that the care staff (n=14) indicated a significantly higher meaningfulness in the music therapy offer (t(11.00)=-2.35, p=0.039) than the nursing staff (n=12). The social care staff were also significantly more satisfied (t(13.27)=-2.21, p=0.045) with the music therapy than the nursing staff.

The assessment of the intervention "singing in a group" (n=26), "corridor music" (n=13) and individual music therapy (n=6) showed a high level of meaningfulness, necessity and effectiveness (cf. Table 4). Due to the corona pandemic, in person music therapy services were not possible at the start of the project in July 2020. Individual modules from the intervention catalog were adapted into a digital format [7]. "Singing in the group" was

offered through pre-recorded singing on a flash drive, "Singing in the room" was in a web-based video stream via tablet, and "Background music" to promote an appropriate situational mood was provided by playlists via flash drive [12]. Compared to the in-person offers, the meaningfulness, necessity and effectiveness showed a medium level

## **Qualitative results**

The results of E1 (n=34, cf. Table 5) can be summarized as follows according to the categories listed in the goal criteria:

- Acceptance: Music therapy is very important for all participants. One caregiver describes it as follows: "I don't think we had music therapy for two years. And I have to say it was really missing. Because I notice that music is very important for our residents."
- The effect of the music: The focus is on the positive emotional and activating effect of singing and making music. For one resident, her "[...] mood after singing [...] was naturally very good."
  - The care and nursing staff feel a different basic mood in the home as a result of the music therapy. One caregiver describes it as follows: "When we had music in the stairwell for the first time, I am being completely honest. [...] At first, I had tears in my eyes. I thought: Finally. Thank God."
- Motivation: The residents are motivated by the change from everyday life and by the joy of music and the community. Not only those with an affinity for music join in, but also residents who are reserved and tend to be reluctant. The experience of one resident: "And I stood there. I [...] can't stand that long. But I stood as long as the [music therapist] played."
- Music therapist: She is credited with good instrumental and vocal skills. Her manner is described as individual, spontaneous and sensitive. The impression of a facility manager: "Really great contact with the people, very approachable for the people, no matter who, man, woman, old, young, in a wheelchair, not in a wheelchair, with dementia, without dementia. Yes. Great approach, great communication. [...] Reliable [...]. So yes, positive."

From the interviews with the facility managers in E2 (n=5), therapeutic skills, activity profile and financing of music therapy were determined (cf. Table 6). This focus raised awareness for the sustainability of the implemented offers and led to the continuation of music therapy in four facilities after the end of the project.

## Summary of the results

The correlation of both quantitative and qualitative data shows a high acceptance of music therapy in the geriatric facilities.

The positive evaluation of the satisfaction with music therapy and the music therapist goes along with the



Table 2: Sociodemographic data of evaluation 1 (E1) & evaluation 2 (E2)

| E1 (2021)            |    | N=52 |    | Age (years) |           |     | Ge   | nder |      | Work experience (years) |              |  |
|----------------------|----|------|----|-------------|-----------|-----|------|------|------|-------------------------|--------------|--|
|                      |    |      | М  | Range       | SD        | fer | nale | m    | ale  | In total                | in facility  |  |
| Residents            | 23 | 44%  | 76 | 40 (53–93)  | 12.90     | 11  | 48%  | 12   | 52%  |                         |              |  |
| Care & nursing staff | 27 | 52%  | 40 | 43 (17–60)  | 13.66     | 19  | 70%  | 8    | 30%  | 10 (1–32)               | 6 (0.5–31)   |  |
| Relatives            | 2  | 4%   | 81 | 1 (80–81)   | 0.71      | 0   | 0%   | 2    | 100% |                         |              |  |
|                      |    |      |    |             |           |     |      |      |      |                         |              |  |
| E2 (2022)            |    | =47  |    | Age (years  | s)        |     | Gei  | nder |      | Work experi             | ence (years) |  |
|                      |    |      | М  | Range       | SD female |     | nale | male |      | In total                | in facility  |  |
| Residents            | 13 | 28%  | 76 | 30 (57–87)  | 10.29     | 8   | 61%  | 5    | 39%  |                         |              |  |

Table 3: Evaluation dates of standardized questions (E1 & E2)

13.90

14.74

7.9

22

2

85%

33%

40%

4

2

3

15%

67%

60%

12 (0.5-37)

19 (7-32)

7 (0.1-32)

9 (6-13)

|                                   | Eval | uation 2021 | (E1)  | Evaluation 2022 (E2) |      |       |  |
|-----------------------------------|------|-------------|-------|----------------------|------|-------|--|
|                                   | n    | MW          | SD    | n                    | MW   | SD    |  |
| Satisfaction with MT              | 46   | 8.99        | 1.207 | 46                   | 9.11 | 1.286 |  |
| Meaningfulness of MT              | 37   | 9.27        | 1.503 | 42                   | 9.45 | 1.041 |  |
| Necessity of MT                   | 36   | 8.89        | 1.720 | 42                   | 9.38 | 1.035 |  |
| Effectiveness of MT               | 37   | 8.73        | 1.503 | 41                   | 9.07 | 1.233 |  |
| Satisfaction with music therapist | 46   | 9.36        | 1.255 | 45                   | 9.44 | 1.139 |  |

Note: Numerical Rating Scale (NRS)=0 (none at all) to 10 (highest), MT=music therapy, n=subsample, M=mean, SD=standard deviation

Table 4: Evaluation of the music therapy offers in which active participation took place

| Intervention                   | Meanin | gfulness | Nece | essity | Effectiveness |       |
|--------------------------------|--------|----------|------|--------|---------------|-------|
|                                | М      | SD       | М    | SD     | М             | SD    |
| Singing in the group (n=26)    | 9.12   | 1.768    | 9.21 | 1.613  | 8.96          | 1.489 |
| Residents (n=11)               | 8.41   | 2.518    | 8.91 | 2.119  | 8.41          | 1.985 |
| Care & Nursing staff (n=13)    | 9.58   | 0.640    | 9.35 | 1.214  | 9.27          | 0.880 |
| Relatives (n=2)                | 10     | 0        | 10   | 0      | 10            | 0     |
| Corridor Music (n=13)          | 9.31   | 0.854    | 8.54 | 1.776  | 8.96          | 1.265 |
| Residents (n=6)                | 9.00   | 1.095    | 8.00 | 2.121  | 8.75          | 1.985 |
| Care & Nursing staff (n=6)     | 9.50   | 0.547    | 8.75 | 1.604  | 9.00          | 1.264 |
| Relatives (n=1)                | 10     |          | 10   |        | 10            |       |
| Individual music therapy (n=6) | 9.83   | 0.408    | 9.83 | 0.408  | 9.17          | 1.169 |
| Care & Nursing staff (n=4)     | 9.75   | 0.5      | 9.75 | 0.5    | 9.27          | 0.880 |
| Relatives (n=2)                | 10     | 0        | 10   | 0      | 9.5           | 0.707 |
| Background Music* (n=8)        | 7.25   | 3.105    | 7.13 | 3.004  | 6.63          | 2.699 |
| Residents (n=1)                | 5.00   |          | 9.00 |        | 5.00          |       |
| Care & Nursing staff (n=7)     | 7.57   | 3.207    | 6.86 | 3.184  | 8.00          | 2.683 |
| Singing in the group* (n=5)    | 7.40   | 1.981    | 7.20 | 2.775  | 7.10          | 3.008 |
| Care & Nursing staff (n=5)     | 7.40   | 1.981    | 7.20 | 2.775  | 7.10          | 3.008 |
| Singing in the room** (n=1)    | 7.50   |          | n.n. |        | 6.00          |       |
| Care & Nursing staff (n=1)     | 7.50   |          | n.n. |        | 6.00          |       |

Note: Numerical Rating Scale (NRS)=0 (none at all) to 10 (highest), n=subsample, M=mean, SD=standard deviation, \*on flash-drive, \*\*web-based



Care & nursing staff

Facility manager

Relatives

26

3

5

55%

6%

11%

70

42

43 44 (19–63)

28 (53-81)

16 (32-48)

## Table 5: Summary of qualitative results

| Category               | Summary   | Example quotation   |
|------------------------|---|---|
| Acceptance             | The interviewees describe music therapy as very important. The residents absolutely want to keep music therapy. The caregivers and nursing staff believe it would not be the same musical— and high-quality offer if it is not carried out by a music therapist.  | "Well, I believe we didn't have music therapy for two years. And I have to say, it was really missing. Because I notice that music is very important for our residents." "As an addition, I think it is important, that this side [exists] alongside the nursing or psychotherapeutic care." "The residents need variety in their everyday life. We nurses generally can't do that very well. [] You also make our work easier." "It is imperative that [Music therapy] be maintained and strengthened as much as possible."  |
| The effect<br>of music | On the entire facility. The care staff perceive a changed general mood in the house. The music (therapy) can be heard in other living areas. Overall, a greater awareness among colleagues was noticed. Through the implementation of music therapy, the care staff sense a change in their routine that has a relieving and relaxing effect. | "With corridor music] you can also automatically feel a better general mood throughout the entire house. That is very, very important. So that it's not just the residents who are sitting directly there who benefit from it, but actually the whole house." "Well, music therapy is something valuable. [] It is a pearl for residents, for us, for everyone." "They should find their home there, their 'at home'. And I do believe that music contributes positively towards the integration in a home. "She essentially brought calm, calmness in." "She essentially brought calm, calmness in." "When we had music in the stainwell for the first time, I am being completely honest. [] At first i had tears in my eyes. I thought: Finally. Thank God." |
|                        | On themselves: The residents describe feelings of joy and pleasure. The care staff also feel positively energized. Both the care and nursing staff are animated to take part.   | "My mood after singing was naturally very good." "Yes, when they play songs that I like and that I know then [] it is [like a] flow effect for me. [] It just gives me goosebumps." "I actually always sing the songs that I know and (laughs) it's fun to sing along." "Well, I look forward to it every time, I think it's wonderful." "And i sing along if I can, if I am in the room." "I can't sing along I osy, I don't have a good voice, but I like to hum along."  |
|                        | On other people: All interviewees see most notably a communicative, emotional and cognitive activation of others. In addition, caregivers observe physical changes and motivational aspects for those who did not want to or could not speak or sing along.   | "The housemates are happy about it too, I think. Otherwise they wouldn't be there." "Well, I think belongs in every house []. Because it's good for the residents." "Or even if a resident is uneasy, [] with the sound of music, [] he just becomes really calm and can relax."  |
| Motivation             | All groups of people taking part in the interview described the highly motivating character of music therapy. The residents are vitalized by the joy of singing together. The care and nursing staff report the highly positive and stimulating nature of the music.  | "And I stood there. I [] can't stand that long. But I stood there as long as the [music therapist] played." "Well, I'll start with the fact that the residents [] are already looking forward to it. That [] even residents with dementia [] immediately know [] who that is." "You could also say that perhaps one or two people who prefer to go to their room end up staying outside longer, which is also a positive effect." "But also the motivation to see how [music therapy] is received and how [it] is accepted. And that's the main motivation."  |
| Music<br>Therapist     | Overall, musical competencies and the ability to interact are highlighted. The care staff describe the music therapist as an open, friendly, humorous and loving person who responds individually, spontaneously and properly to the residents.   | "You can tell that she likes it. She is consistent with the residents, she caters to the resident's resources. She is there with love, her manner, her openness, with a smile." "She has a good voice, good song choices. She also [] shows and interest in the different people. Whether they are old, young, middle—aged []. She responds to everyone, which is nice." "But I thought it was so great that she could be so spontaneous []." "Really great contact with the people, very approachable for the people, no matter who, man, woman, old, young, in a wheelchair, not in a wheelchair, with dementia, without dementia. Yes. Great approach, great communication. [] Reliable []. So yes, positive."   |



Table 6: Skills, activity profile & funding of music therapy

| Therapeutic skills  | Activity profile   | Funding   |
|---|--|---|
| Attentiveness, openness,<br>flexibility, intuition, empathy | Music therapy is an independent offer associated with social care  | Permanent position as a<br>specialist from 100 residents  |
| Self-confidence, friendly and confident appearance          | Music therapy requires continuity and documentation  | (50–100%)  • On a fee basis for smaller   |
| Use of instruments,<br>biography work,                      | Cooperation with nursing, care,<br>psychologists and trainees  | facilities (less than 50 residents)   |
| documentation  • Expert knowledge about agetypical diseases | Different settings: individual, groups,<br>corridor, room, hall, event (if required,<br>also offers in the outside area of the<br>facility)  | <ul> <li>Foundations: Full and partial<br/>funding</li> <li>Donations, private funding,<br/>support groups</li> </ul> |
|   | More individualized work for residents<br>with increased needs, e.g. for people<br>with complete immobility, high physical<br>and psychological stress or in palliative<br>situations. |   |
|   | Support for cultural events, celebrations and festivals  |   |

positive perception and the described competence of the music therapist.

The interview category acceptance is closely connected with the importance of music therapy in the personal statements of the participants. This is frequently mentioned as "very" or "really" important. Furthermore, a connection between the importance and the positive assessment of the meaningfulness and necessity of music therapy can also be assumed.

The positive emotional and activating effect of music both on the individual and on the mood in the home is also reflected by the high rating of effectiveness on the NRS.

## Discussion

Although the study results identified a high acceptance of music therapy, the pandemic certainly had an impact on implementation and evaluation. Music therapy was one of the first external services allowed to return to facilities at the beginning of January 2021. The exploratory significance test suggests that the nursing and care staff see the added value of music therapy for their residents and themselves more clearly due to the higher rating of meaningfulness.

Because participation was voluntary, selection bias is possible. Similarly, bias due to social desirability cannot be ruled out. Evidence for this could be provided by Egner-Walter [13]. Her results show that residents desired and found it necessary to maintain music therapy during difficult times.

Dahms et al. [14] also found a higher acceptance rate of face-to-face services compared to digital formats. Their bicentric survey included 30 people with dementia and indicates that actively guided music therapy interventions are better accepted by qualified staff than technology-based offerings without guidance.

The relevance of qualified staff for music-based services is also supported by the present study. A possible connec-

tion can be assumed between the high satisfaction scores and the musical and therapeutic skills of the music therapist that are described in the interviews. Werner et al. [15] also found out that music therapy service with qualified staff was more effective with older people with depressive symptoms than a singing service offered by people interested in music.

Compared to the previous project "Music Therapy 360°" [5], the evaluation results also showed positive emotion modulation for those who actively participated in or experienced music therapy. A differential analysis of interviews from the first project evaluation by Yun revealed that 88% of respondents (n=33) experienced a positive effect from the music via an "activation of subjective well-being" through music therapy [16].

## **Conclusions**

The acceptance of music therapy services remained stable at a high level during the entire project period and increased slightly in the second and final evaluation. On the one hand, these results can be attributed to continuous communication with the facilities and constant adaptation to their needs. On the other hand, the implementation of the project within the facilities led to stronger engagement with music therapy and through the involvement of the relevant person groups, comprehensive knowledge was available for the conditions of the implementation of music therapy at the end of the project.

Dance movement therapy services, which were additionally implemented in two of the five cooperating facilities in the project year of 2022 also resulted in high acceptance and satisfaction [17].

After the end of the project, the music therapy services were implemented as a part of standard care in four facilities. Thus, the present project suggests the potential for further regional implementation projects in inpatient



geriatric care. This potential is also seen by the Federal Initiative for Music and Dementia (BIMuD) and in its resolution "Music for better quality of life in dementia" calls for nationwide access to qualified music offers at least once a week [18]. In another BIMuD activity, Koch and Wormit [19] identified the need for music-based services in nursing homes and homes for the elderly and found that facilities in urban areas with more than 50 residents offered musical activities. These findings are supported by Schwager's professional field analysis of music therapy in geriatric facilities in Baden-Wuerttemberg, Germany. It shows that music therapists are predominantly employed staff or contracting staff in the urban metropolitan areas of Stuttgart, Karlsruhe, Mannheim and Heidelberg [20].

In addition to the therapeutic skills surveyed in the project and summarized in Table 6, music therapists in the geriatric setting must display a high level of flexibility and tolerance. Compared to the clinical work area, music therapy services need to be adapted again and again to the daily care or home routine of residents. Likewise, the music therapist is often incorporated in the daily life of the residents (e.g., festivals and celebrations) and must be able to take on different roles: Music therapist, musician, mediator of music therapy and contact person of the facility.

#### Notes

# **Competing interests**

The authors declare that they have no competing interests.

## Acknowledgement

The authors would like to thank the Volker Homann Foundation in Freiburg. The project "Music therapy in geriatric care. Creative therapy for older people and people with special care needs in the Heidelberg region-focus: music therapy" was funded by the special assets of Baumeister Georg Richter. We would also like to thank our cooperation and practice partners in the residencies in Heidelberg.

#### **Ethics Vote**

A positive ethics vote was communicated by the joint ethics committee of Heidelberg University of Education and SRH University of Applied Sciences on June 25, 2021.

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#### Please cite as

Wormit AF, Gebhardt L, Maginot H, Stritzker J. Music therapy in geriatric care: acceptance of music therapy residential care interventions. GMS J Art Ther. 2024;6:Doc04.

DOI: 10.3205/jat000037, URN: urn:nbn:de:0183-jat0000376

This article is freely available from https://doi.org/10.3205/jat000037

Published: 2024-05-23

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