

Music in the “Barb Sanders” Dream Series

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Music is important to humans; therefore, we would expect according to the continuity hypothesis that dreaming reflects the waking-life musical activity of the person. In this study, we analyzed the long dream series of “Barb Sanders,” who has music as one of her main hobbies. This dream series includes 4,254 dreams recorded between 1960 and 2001. Our results indicated that 13.9% of all dreams contained references to music. The most commonly occurring topics in dreams were general musical themes (e.g., dancing) and listening to music, but making music and singing were also reported. Notably, the instruments most frequently appearing in the dreams corresponded to those which the dreamer played in her waking life. The emotional context of musical dreams was mainly positive and associated with joy and happiness. Overall, the findings align with the continuity hypothesis, highlighting reflections of active musical engagement in the dream content. Future directions in dream research may explore the use of long dream series to delve into the associations between musical dream frequency as well as emotions across musicians with varying musical proficiency.

Keywords: music dreams, long dream series, continuity hypothesis, musical dream frequency

Long dream series, consisting of dream reports spanning years or even decades, provide rich source of data (Domhoff, 2003). For instance, a dream series recorded by psychologist Madorah Elizabeth Smith contained 649 dream reports beginning in 1912 throughout a period of 50 years (Smith & Hall, 1964). Reports were analyzed for elements referring to the dreamer’s past, as well as for themes including the mother and food. Due to decades of dream records, the dream content from the dreamers’ young adulthood and elderly years could be compared, showing that all these themes remained stable over the years (Smith & Hall, 1964). A unique example of a long dream series analysis is the study of a Hungarian psychologist, Mérei (1994), who collected his dreams over 4 years during and after his incarceration and analyzed the occurrence of individuals belonging to different categories of relationships. He found that dreams containing prison-related persons gradually decreased following his release, while acquaintances known outside of prison appeared increasingly often in his dreams.

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While long dream series offer valuable insights into the dream content, dream diarists themselves are often invested in the topic of dreams (Schredl & Göritz, 2019). This can introduce possible selection bias in research, as individuals who engage in long-term dream journaling might not represent the general population. A longitudinal study of Schredl and Göritz (2020) showed that dream journalists tend to possess personality traits of low conscientiousness and openness to new experience (Schredl & Göritz, 2020). Gender differences also play a role, as females tend to recall (Schredl & Reinhard, 2008) as well as report dreams (Scapin et al., 2018; Schredl, 2020) more frequently than males, and high dream recall frequency is positively associated with dream journaling (Schredl & Göritz, 2020). Recordings dreams prior to contact with researchers and in the home setting can, however, minimize demand characteristics and recall bias typical to alternative methods of dream collecting (Domhoff, 2003, 2022).

Individual dream series also provide an opportunity to investigate continuity between dream content and waking life (Domhoff, 2018; Schredl, 2018). For instance, Bulkeley (2018) conducted a blind word search analysis on a 30-year dream journal of an ex-cultist, revealing that religion-related words were more prevalent in dreams during the dreamer's cult involvement years and less so in the years following her departure from the cult. This finding was corroborated by the dreamer's waking life data, showing continuity between religious beliefs and dream content (Bulkeley, 2018).

Despite the usefulness of long dream series for researching a variety of topics, certain intriguing subjects, such as music in dreams, remain underresearched. So far two studies (Schredl, 2015, 2022) reported the occurrence of music in long dream series. In the first study (Schredl, 2015), 5.4% of a male hobby musician's dreams ($N = 10,398$) contained musical references, with most music making dreams including the dreamer's primary instrument (guitar) from his waking life. Similarly, in the 2022 study analyzing a nun's dream records ($N = 2,025$), 5.6% of her dreams included music, with singing being the dominant theme mirroring her church choir involvement. The results also showed a notable decline in the singing dreams, which coincided with the dreamer's health issue (Schredl, 2022). These findings underscore thematic consistencies between the individuals' musical activities in waking life and the content of their dreams.

For the dream series of "Barb Sanders" ($N = 4,254$), which is accessible online through the DreamBank.net website, the researchers provided a detailed description of her waking life, including her musical interests. As she was playing several instruments (such as the piano, violin, and guitar) and was interested in music since her young childhood, we expected to find frequent musical references in her dreams and that her musical interests (e.g., playing piano) are reflected in her dreams. We analyzed these musical dreams along some specific aspects, such as the emotions associated with musical activity.

Method

Participant

The participant was a female who was born in the mid-1940s, got married after attending college for 1 year and had three daughters. After earning her BA degree in the field of education, "Barbara Sanders" (pseudonym) got divorced at the age of 30 and graduated with her MA degree later. She never remarried. In her early

twenties (1963), “Barb” was diagnosed with a disorder that subjected her to chronic joint pain and led to the amputation of one of her ankles. From her early thirties, “Barb” was relying on a wheelchair, and was working as a disability counselor at a community college for 10 years. Both of “Barb’s” parents and her male siblings were involved with music, with her dad being a musician and music teacher. “Barb” learned to play the piano and violin at a young age, but later she also played the mandolin, banjo, dulcimer, and the guitar. In addition, she sang regularly from a young age until it was no longer possible due to her disability. She was also interested in theater since her childhood, and did acting, directing, and playwriting. Despite her disability, she continued theater by writing, directing and acting comedy, as well as dancing in the wheelchair. “Sanders” started regularly recording her dreams after the time of her master’s degree and recorded over 4,000 dreams between 1960 until 2001. From 1960 until 1979 she wrote down 90 dreams and started continuously recording her dreams in 1980 (for further information see Domhoff, 2003). Her dreams beginning the year 1960 until 2001 were published on the DreamBank.net webpage. The average word count of all dream reports ($N = 4,254$) was 270.49 ± 176.36 , with the minimum of seven and maximum of 1,028 words.

Dream Content Analysis

For dream content analysis, previously applied scales were used (König & Schredl, 2021; Schredl, 2015, 2022). The dreams were coded for the presence of music-related topics (listening to music, making music, singing, and general music themes). If for example, the dreamer reported singing and making music, both categories were scored. Interrater reliabilities, as reported in König and Schredl (2021), showed substantial agreement, with Cohen’s κ values of .84 for listening to/hearing music, .80 for making music, .73 for singing, and a notably high .98 for the general theme of music.

In the next step, music dreams were further analyzed. Music themes were categorized into 14 distinct classifications, such as talking and/or thinking about music, music that did not start yet, concerts or festivals (as a performer or visitor), instruments, dancing (even without music explicitly mentioned), musical equipment, background music, recognition of other musical performers, leading a rehearsal, audio and/or music recordings, music and/or dance instructions, writing songs, being part of a band, and being at and/or talking about a music-related location (e.g., music studios and radio stations).

If music making occurred in a dream, this activity was coded regarding the location (e.g., at a wedding), the title (0 = *unknown music*, 1 = *approximated musical direction*, 2 = *title, genre or lyrics specified*), the emotion (−1 = *negative emotions*, 0 = *neutral/nonspecified*, +1 = *positive emotions*), and the instrument that was played (e.g., piano). Analogously, the subscales for coding listening to music dreams were location, title, and emotion (see above). For dreams where the dreamer was singing, similar subcategories were assessed, including location, title, and emotion. Musical instruments were also coded if they were mentioned but not involved in musical activities.

Procedure

Motivated by offering her dreams for research, “Barb Sanders” contacted G. William Domhoff about her dream diary where she collected 3,116 dreams. A

detailed interview about events, interests, and individuals in Sander’s life was conducted in the year 2000, where also three of her close acquaintances participated. Sanders later reached out with another collection of her dreams spanning over 5 years and including 1,138 dreams. The complete series consist of 4,254 dreams. Reports were written by hand or typed up by the dreamer, without the specific intention of recalling musical topics. The dream series of “Barb Sanders” were obtained from the DreamBank.net website (Domhoff, 2003).

We conducted dream content analysis on the first dream series ($N = 3,116$) and created a list of commonly appearing music-related keywords, such as “sing,” “music,” “instrument,” “jazz,” and “piano” (for a full list see Appendix). The keyword list was then used to search for music dreams in the second part of the dreams series ($N = 1,138$). Dreams with matching keywords were further inspected for music-related themes, and wrong hits were eliminated. A second-step analysis (see Dream Content Analysis section) was applied to all music-related dreams. Descriptive statistics were performed using IBM SPSS Statistics (Version 27).

Results

Out of the total 4,254 dreams, 592 contained reference to music, resulting in a musical dream frequency of 13.9%. Dreams typically contained reference to one musical topic, and rarely did two or three musical topics occur in the same dream (see Table 1). The general theme of music and listening to music were the most common musical topics, whereas playing music and singing were less frequent than general themes of music and listening to music (see Table 2). Among the general theme of music, dancing and musical instruments were most commonly reported, but also thinking and/or talking about music and recognizing other musical performers occurred frequently (see Table 3). Locations of singing, playing music, and listening to music occurred most often (between 2% and 7%) at private locations (e.g., the home of Sanders or someone else), in an event hall and/or on stage (between 2% and 4%). The most frequently played instruments were the violin (2%), piano (2%), and the guitar (1.7%). On 23 occasions, the dreamer also played instruments in her dreams that she did not report to play in her waking—life (e.g., drum, trumpet, and accordion). Amongst dreams where musical genres were recalled ($N = 48$), blues, classical pieces (e.g., Beethoven Symphony No. 5, The Hungarian dance No.5), and various styles of jazz music (e.g., Dixieland and blues jazz) and rock music (e.g., The Rolling Stones) were most prominent. Dreams in which music making, singing, and listening to music were reported showed more positive than negative emotions (see Table 4). Positive emotions typically reflected happiness and joy (see Dream Example 1; dream examples were presented in the “Dream Examples” section),

Table 1
Summary Table of Musical Topics Within All Dreams (N = 4,254)

Number of topics	Frequency	Percent
0	3,662	86.1
1	456	10.9
2	115	2.7
3	12	0.3

Table 2
Frequency of Musical Topics Within All Dreams (N = 4,254)

Topics	Frequency	Percent
General theme of music	440	10.3
Listening to music	171	4.0
Making music	64	1.5
Singing	56	1.3

and also the dreamer being pleased with her musical performance (see Dream Example 2). Negative emotions on the other hand were related to frustration (see Dream Example 3), and also to being embarrassed about a musical performance (see Dream Example 4). The most frequently reported instruments that occurred in the dreams but were not involved in musical activity were the piano ($N = 55$), guitar ($N = 18$), violin ($N = 14$), the drum ($N = 14$), and the banjo ($N = 7$).

Examples of Music-Related Emotions in Dreams

Dream Example 1: "... I get better and better until I am playing incredibly complex jazz improvisations in infinite varieties flawlessly. My father is very pleased at my ability and I am filled with joy at the beautiful music I can make..."

Dream Example 2: "...We sing: 'To see the world,' and then the best line, 'Angels, hanging in the sky.' I am thrilled at how well I can sing. It is beautiful..."

Dream Example 3: "...He had music going on the stereo. It annoyed me and made me nervous. I went to turn it off, but I couldn't..."

Dream Example 4: "...I sing and then someone hits the piano note I should be on. I was down one key. I feel a quick flash of embarrassment but continue..."

Discussion

Musical references were prevalent in the dream series, with 13.9% of the dreams containing musical content. The most common musical reference was the general

Table 3
General Music Theme Frequency Within Musical Dreams (N = 583)

Musical themes	Frequency	Percent
Dancing	171	31.7
Musical instruments (e.g., organ, piano)	89	16.5
Thinking and/or talking about music	84	15.6
Recognizing other musical performers (e.g., singers, musicians)	44	8.2
Musical equipment (e.g., stereo system)	32	5.9
Being at/or talking about a music-related location (e.g., radio station)	26	4.8
Audio/music recordings (e.g., audio tapes)	21	3.9
Giving dance/musical instructions	19	3.5
Concert or festival visit (as a performer or visitor)	18	3.3
Music that did not start yet	16	2.9
Being part of a band	7	1.3
Background music as a theme	4	0.7
Writing songs	4	0.7
Leading a rehearsal	3	0.5

Table 4
Emotions Associated With Musical Topics Within Musical Dreams

Emotions	Listening to music		Singing		Making music	
	Count	Percent	Count	Percent	Count	Percent
Positive	47	26.5	26	43.3	38	55.1
Neutral/Nonspecified	101	57.1	30	50.0	29	42.0
Negative	29	16.4	4	6.6	2	2.9

theme of music, such as dancing and musical instruments, whereas listening to music was the most frequent musical activity. Instruments that were played most often in waking life (e.g., violin, piano, and guitar) occurred also most often in dreams. In addition, instances of playing instruments that were not typical to waking life (e.g., drum, trumpet, and mouth harmonica) were also dreamt about. With singing and making music more positive than negative emotions were associated.

From a methodological viewpoint, it is important to note that our study focused on a single person who was specifically selected because of her musical interest. Although we studied only one person, we found that her musical interest in her waking life was reflected in a higher percentage of music dreams, and this is in line with previous studies showing that musically interested people have more musical dreams. Based on this, the analysis of the over 4,000 dream reports with a high average word count yielded valid results.

Our findings showed notably higher musical dream frequency in this dream series (13.9%) compared to large samples (6%–8%; König et al., 2018; König & Schredl, 2021), and the two dream series (Schredl, 2015, 2022) of persons who played instruments and/or singing as leisure time activity (6%). Therefore, our results are in line with the continuity hypothesis of dreaming (Domhoff, 2022), as “Barb Sanders” stated in her interview that her core family played instruments together (Schneider & Domhoff, 2023). Within this line of thinking, one would assume that Barb Sanders’ musical activity during waking life was more intense compared to the student samples (König & Schredl, 2021; König et al., 2018) and the two dream series (Schredl, 2015, 2022). Unfortunately, we did not have any detailed data on the amount of musical activity of Barb Sanders. The percentage of music dreams is lower compared to dreams of musicians (40% in Uga et al., 2006) and music students (17% in Vogelsang et al., 2016); again, supporting the continuity hypothesis as “Barb Sanders” was not a professional musician.

The percentage of dreams with listening to music was comparable to previous studies (3.7% in Schredl, 2015; 4.5% in König & Schredl, 2021), whereas dreams including making music and singing occurred more often, reflecting the waking-life musical activities of the dreamer. The most significant difference was the high percentage of dreams with musical themes, for example dancing. The common theme of dancing is likely a reflection of the theatric activity of “Barb Sanders,” as in her interview (Schneider & Domhoff, 2023) she mentioned dancing in her wheelchair being part of her theater performances.

The instruments that most often appear in dreams are those that are well-known to her in waking life, such as piano, violin, and guitar. However, several dreams featured instruments that “Barb Sanders” did not play in her waking life, supporting the idea that dreams are creative. Anecdotic evidence shows that dreams can provide

creative input for musicians, for example, Paul McCartney dreamed the melody of “Yesterday” (Grace, 2001; Webb, 2017).

Our findings of positive emotions being associated with musical activities are in line with previous studies (König & Schredl, 2021; König et al., 2018) indicating that music dreams are more positive than dreams in general. This was also found for the two dream series with music dreams (Schredl, 2015, 2022). So far, negative music dreams were mostly found in music students (Vogelsang et al., 2016). This is also in line with the continuity hypothesis, as most people enjoy listening to music and playing music in waking life (Liljeström et al., 2013). In her interview, “Barb Sanders” described her musical dream experiences as “exquisitely beautiful,” and music in her waking life as “always enjoyable” (Schneider & Domhoff, 2023).

In conclusion, our findings demonstrate a continuity between musical involvement in waking life and dreams, but also some kind of creativity as musical dreams also feature new experiences. Future research should explore long dream series of individuals with varying levels of musical proficiency to better understand the relationship between musical engagement and dream content, and how emotions associated with music in waking life are reflected in dreams. Even so, creative musical dreams (e.g., playing an instrument that one cannot play in waking life or composing new music) were relatively rare in this dream series, this topic, which is discontinuous to waking life, would be an interesting subject for future research.

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(Appendix follows)

Appendix

Keywords Used for Searching for Musical Topics

Audio, music, singing, stereo, instrument, piano, organ, keyboard, violin, guitar, sax, banjo, mandolin, drum, vinyl, radio, record, song, horn, dance, sing, dancing, gospel, blues, harp, concert, tape, flute, harmonica, melodica, bass, fiddle, trumpet, cello, trombone, accordion, orchestra, notes, beat, band, rock, jazz, dulcimer, acoustic, aria, audience, CD, chamber, classical, cassette, conductor, harmony, hymn, key, melody, note, opera, quartet, play, recorder, scale, show, symphony, tambourine, time/timing, trio, video, viola, 45.