



# A hospital-based survey on the perception of music therapy among nurses and midwives

Hemşire ve ebeler müzik terapisini nasıl algılıyor?: Hastane bazlı anket çalışması

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## ABSTRACT

**Objective:** To determine the knowledge, understanding, behavior, and practices of music therapy among Turkish nurses and midwives.

**Methods:** This was a cross-sectional hospital-based survey performed on 225 nurses and midwives with a self-completed study questionnaire. The questionnaire consists of five sections, each having 4–20 multiple-choice questions on sociodemographic and professional characteristics, patterns of listening to music, knowledge and opinions on music therapy, the effect of music therapy on vital signs, and applicability of music therapy.

**Results:** Of the participants, 194 (87.8%) were nurses and 27 (12.2%) were midwives. Almost all the participants (99.1%) stated that they like music. Of the participants, 70.6% had knowledge on the health-related effects of music and believe that music positively affects patients. However, over 90% had not received any education on music therapy during formal or in-service training. Only 7.7% use music therapy in patient care, and 36.2% have never thought of using music therapy. Although 67.4% of participants think that music therapy is easy to apply, 52.0% have working conditions which is not appropriate for the application of therapy. The reasons preventing participants from applying music therapy were insufficient physical conditions, shortage of time, and unsupportive approach of hospital management.

**Conclusion:** Even though Turkish nurses and midwives have a positive perspective toward music therapy, they have no adequate training and physical conditions to effectively apply this treatment. Comprehensive continuous education programs on music therapy for both nurses and midwives and hospital managements should be planned and implemented.

**Keywords:** Music therapy, nurses, surveillance study

## INTRODUCTION

Music is known to affect human health since very ancient times (1). In the last few decades, a great number of studies reported the efficacy of music therapy in many

## ÖZ

**Amaç:** Hemşire ve ebelerin müzik terapisi üzerine bilgi, algı, davranış ve uygulamalarının belirlenmesi amacı ile planlandı.

**Yöntem:** Kesitsel olarak 225 hemşire ve ebe üzerinde yapılan çalışmada bilgiler anket uygulanarak toplanmıştır. Anket, sosyodemografik ve profesyonel özellikler, müzik dinleme şekli, müzik terapi üzerine bilgiler, müzik terapisinin yaşam bulguları üzerine etkileri ve müzik terapisinin uygulanabilirliği ile ilgili her biri 4-20 adet çoktan seçmeli sorudan oluşan beş bölümden oluşmuştur.

**Bulgular:** Çalışmaya katılanların 194'ü (%87,8) hemşire, 27'si (%12,2) ise ebelerden oluşuyordu. Katılımcıların tamamına yakını (%99,1) müzik dinlemeyi sevdiğini belirtti. Katılımcıların %70,6'sı müziğin sağlıkla ilişkili olduğu bilgisine sahipti ve müziğin hastaları pozitif olarak etkilediğine inanıyordu. Ancak katılımcıların %90'ından fazlası örgün veya hizmetiçi eğitimi boyunca müzik terapisi üzerine eğitim almamıştı. Sadece %7,7'si hasta bakımında müzik terapisini kullanmıştı ve %36,2'si müzik terapi kullanmayı hiç düşünmemişti. Katılımcıların %67,4'ü müzik terapi uygulamasının kolay olduğunu düşünürken, %52'sinin çalışma koşulları müzik terapi uygulamaya uygun değildi. Yetersiz fiziksel koşullar, zaman kısıtlılığı ve hastane yönetiminden sınırlı destek alınması, müzik terapi uygulamasına engel olan başlıca nedenlerdir.

**Sonuç:** Hemşire ve ebeler müzik terapisine olumlu yaklaşmaktadır. Ancak bu tedaviyi etkili bir şekilde uygulamak için yeterli düzeyde eğitime ve fiziksel şartlara sahip değillerdir. Hemşire ve ebeler ile hastane yöneticileri için müzik terapi üzerine, detaylı ve sürekli eğitim programları planlanmalı ve uygulanmalıdır.

**Anahtar Kelimeler:** Müzik terapisi, hemşire, anket çalışması

clinical conditions, such as neurological diseases (e.g., dementia, neuromotor rehabilitation, severe mental illness), brain injury, cardiologic abnormalities, supportive cancer care, management of intensive care patients and preterm infants, psychiatric diseases (e.g., anxiety, depression, schizophrenia, autism), and pain (2-4). Today, music

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therapy is considered as a complementary treatment for many diseases and is increasingly used in prominent clinics (2, 5). Furthermore, neuroscientific background for the effect of music on human health is a popular research area (6, 7).

Nurses, being the key members of healthcare team, play an essential role in the application of music therapy. Midwives, on the other hand, play a key role during labor and postpartum care of pregnant women, and it has been reported that music therapy decreases anxiety and pain during labor and postpartum period (8-10). However, structured educational programs on music therapy for nurses and midwives have not been developed and commonly applied. There are also very limited studies in literature on the nurses' and midwives' attitudes toward music therapy and on the need and content of education on music therapy for nursing practice (11-13).

Considering the high importance of music in daily life of Turkish people and rich combination of diverse musical cultures rooted deeply in the history of Anatolia, music therapy may have particular potential in the management of diseases in Turkey (14, 15). However, there are only a few studies on music therapy from Turkey, and there is shortage of music therapists and educated nurses and midwives along with a nationwide program for education on and application of music therapy (16, 17).

In this study, authors aimed to determine the knowledge, understanding, behavior, and practices of music therapy among Turkish nurses and midwives. The findings of this study will provide the basis for education, planning, and implementation of music therapy at both national and international levels and for further prospective studies.

## METHODS

This was a cross-sectional, hospital-based, descriptive survey performed on nurses and midwives in Turkey between January and March 2014. In total, 289 nurses and midwives working in two university hospitals were asked to participate in the study. Of those, 225 agreed to participate and were given the self-administered study questionnaire. The questionnaire was filled only once by all participants. There was also no study group; thus, the questionnaire results were not evaluated relative to any other population or time point.

The questionnaire used in this study was prepared by the research team to assess the participants' knowledge, attitudes, and behaviors regarding music therapy. The questionnaire consists of five sections and 48 multiple-choice questions on 1) sociodemographic and professional characteristics (12 questions), 2) patterns of listen-

ing to music (four questions), 3) knowledge and opinions on music therapy (20 questions), 4) the effect of music therapy on vital signs (four questions), and 5) applicability of music therapy (four questions) (Table 1-5).

**Table 1. Sociodemographic and professional characteristics of 221 patients**

		n (%)
Birth place	Village	26 (11.8)
	County	85 (38.5)
	City	107 (48.4)
	Overseas	3 (1.4)
Gender	Female	168 (76.0)
	Male	53 (24.0)
Occupation	Nurse	194 (87.8)
	Midwife	27 (12.2)
Education	High school	58 (26.2)
	Undergraduate	52 (23.5)
	Graduate	104 (47.1)
	Postgraduate	7 (3.2)
Professional experience	<1 year	39 (17.6)
	1-5 years	84 (38.0)
	5-10 years	51 (23.1)
	≥10 years	47 (21.3)
Working clinic	Inpatient services	81 (36.7)
	Intensive care unit	62 (28.1)
	Operating room	29 (13.1)
	Emergency	13 (5.9)
	Polyclinic	18 (8.1)
	Administrative nursing services	18 (8.1)
Experience in the clinic	<1 year	73 (33.0)
	1-3 years	82 (37.1)
	3-5 years	45 (20.4)
	≥5 years	21 (9.5)
Marital status	Married	71 (32.1)
	Single	150 (67.9)
Spouse's occupation	Working in the field of music	9 (12.7)
	Not working in the field of music	62 (87.3)
Having children	Yes	36 (16.3)
	No	185 (83.7)
Number of children	1	28 (77.8)
	2	8 (22.2)

**Table 2. Patterns of listening to music**

		n (%)
Do you like listening to music?	Yes	219 (99.1)
	No	2 (0.9)
If yes, how often do you listen to music?	Rarely	14 (6.4)
	Often	156 (71.2)
	Quite often	49 (22.4)
If yes, in which psychological moods do you listen to music?	Happy	27 (12.3)
	Sad	21 (9.6)
	Thoughtful	16 (7.3)
	Worried	11 (5.0)
	All	144 (65.8)
If yes, what kind of music do you like?	Slow music	15 (6.8)
	Classical music	4 (1.8)
	Turkish art music	12 (5.5)
	Pop-rock	54 (24.7)
	Ethnic/folk music	2 (0.9)
	Many kinds	132 (60.3)

The study was approved by Baskent University Ethics Committee. All nurses and midwives were informed about the research. The study data were summarized using descriptive statistics as frequencies and percentages. The Statistical Package for the Social Sciences version 16.0 software was used for all analyses (SPSS for Windows, Chicago, USA).

## RESULTS

In total, 225 nurses and midwives completed the study questionnaire. Of the participants, 194 (87.8%) were nurses and 27 (12.2%) were midwives. Approximately 50.3% had a graduate degree or higher education and 44.4% had at least 5 years of professional experience. The participants were working in inpatient services (36.7%), intensive care units (38.0%), and operating rooms (13.1%). Sociodemographic characteristics and the work experience of participants are summarized in Table 1.

Almost all the participants (99.1%) stated that they like music and 93.6% often listen to music. Of the participants, 65.8% listen to music in every psychological state and 60.3% are unselective about the music they listen to. However, 24.7% selectively listen to pop-rock music, probably because the participants are young (Table 2).

Over two-third of the participants (70.6%) had knowledge on the health-related effects of music, mostly relaxing, sedative, or decreasing anxiety, and believe

that music positively affects patients. However, over 90% had not received any formal education on music therapy during formal or in-service training. All 13 participants who attended courses on music training stated that they benefitted from this education (Table 3).

Only 7.7% use music therapy in patient care and 36.2% have never thought of using music therapy. Most of the participants who prefer to use music therapy stated that they would use music therapy in addition to pharmacotherapy for pain and anxiety management (Table 3).

Furthermore, 70.1% of the participants think that music has a regulatory role on vital signs and 67.9% would prefer to use music therapy in addition to pharmacotherapy to regulate vital signs (Table 4).

Although 67.4% of participants think that music therapy is easy to apply, 52.0% have working conditions which is not appropriate for the application of music therapy. The reasons preventing participants from applying music therapy were listed as insufficient physical conditions, shortage of time, and unsupportive approach of hospital management. Over half of the participants (57.5%) think that music therapy is not or rarely applied during patients' care in Turkey, whereas 41.2% had no idea on the practice of music therapy (Table 5).

## DISCUSSION

Although the exact underlying mechanism remains largely unanswered, music therapy is known to be effective for treating many diseases in different clinical settings (3, 4, 7, 18). Thus, music therapy is considered as a low-cost intervention that reduces pain and anxiety and improves quality of life of patients (18-20).

Recent advances in understanding the neurobiological basis of music in the brain and its relation with behavior function have changed practice of music therapy from a social science model to a neuroscience-guided model (5-7). These developments require the need of an evidence-based music therapy program and well-educated music therapists or nursing team to apply the music therapy in accordance to a protocol (20).

In spite of evidence on the effectiveness of music therapy in various diseases, music therapy is still not a consistent concept, and perspectives on music therapy vary according to knowledge and scientific orientation of healthcare workers (21). To obtain optimum benefit from music therapy, a standard perspective should be provided and up-to-date and continuous education programs should be implemented for nurses and midwives. For determining educational needs and implementing such programs, current perspective and knowledge of nurses and midwives should be defined. However, studies on the

**Table 3. Knowledge and opinions on music therapy**

		n (%)
Do you have any idea on the effects of music on health?	Yes	156 (70.6)
	No	65 (29.4)
If yes, what are the health-related effects of music?	Relaxing	38 (24.4)
	Reducing anxiety/sedation	17 (10.9)
	Restful	14 (9)
	Motivation	9 (5.7)
	More than one	78 (50)
Have you had any course on music therapy during your formal education?	Yes	21 (9.5)
	No	200 (90.5)
Have you received any training on music therapy during your profession?	Yes	13 (5.9)
	No	208 (94.1)
If yes, where did you get this professional training?	In-service education programs	2 (15.4)
	Scientific meetings	6 (46.2)
	Other	5 (38.5)
If yes, do you think that this professional training is helpful?	Yes	13 (100.0)
Do you believe that music has a positive effect on the patients?	Yes	156 (70.6)
	No	65 (29.4)
If yes, in which areas of patient care musical therapy can be applied?	Pain control	4 (2.6)
	Anxiety control	41 (26.3)
	Exercise	6 (3.8)
	Drug applications	8 (5.1)
	Non-conscious patient care	13 (8.3)
	All stages of patient care	24 (15.4)
	Many areas	60 (38.5)
Have you ever thought about using music therapy on patient care during your profession?	Never	80 (36.2)
	Occasionally	88 (39.8)
	Commonly	33 (14.9)
	Always	20 (9.0)
Do you use music therapy in patient care?	Yes	17 (7.7)
	No	204 (92.3)
If yes, in which cases do you apply music therapy?	Non-conscious patients	10 (58.8)
	Patients with anxiety	4 (23.5)
	Left alone patients	3 (17.6)
Do you think that music therapy has an effect on pain?	Yes	151 (68.3)
	No	70 (31.7)
If yes, what kind of effect it has?	Decreases pain	151 (100.0)
Do you prefer to use music therapy for pain treatment?	Yes	154 (69.7)
	No	67 (30.3)
If yes, how do you use music therapy for pain treatment?	As an initial therapy	29 (18.8)
	As additional to pharmacotherapy	125 (81.2)
Do you think that music therapy decreases the use of analgesics?	Yes	121 (54.8)
	No	100 (45.2)
Do you think that music has an effect on anxiety?	Yes	182 (82.4)
	No	39 (17.6)
If yes, what kind of effect it has?	Decreases anxiety	182 (100.0)
Do you prefer to use music therapy for anxiety treatment?	Yes	182 (81.9)
	No	39 (18.1)
If yes, how do you use music therapy for anxiety treatment?	As an initial therapy	92 (50.4)
	As additional to pharmacotherapy	90 (49.6)

**Table 4. Knowledge on the effect of music therapy on vital signs**

		n (%)
Do you think that music has a regulatory effect on vital signs (body temperature, heart rate, blood pressure, respiratory rate)?	Yes	155 (70.1)
	No	66 (29.9)
If yes, do you think which vital sign(s) is affected by music?*	Body temperature	25 (11.3)
	Heart rate	145 (65.6)
	Blood pressure	119 (53.8)
	Respiratory rate	127 (57.5)
Do you prefer to use music therapy to regulate vital signs?	Yes	150 (67.9)
	No	71 (32.1)
If yes, how do you use music therapy to regulate vital signs?	As an initial therapy	43 (28.7)
	As additional to pharmacotherapy	107 (71.3)

\*Participants gave more than one answer to this question, making the total percentage over 100%.

**Table 5. Applicability of music therapy**

		n (%)
What do you think about the applicability of music therapy?	Easy to apply	149 (67.4)
	Difficult to apply	52 (23.5)
	I have no idea	20 (9.0)
Is your working condition appropriate for the application of music therapy?	Yes	106 (48.0)
	No	115 (52.0)
If no, what factors are preventing you from applying music therapy?	Having long working times	28 (12.7)
	Could not allow time	67 (30.3)
	Seen as the workload	23 (10.4)
	Insufficiency of physical conditions	68 (30.8)
	Unsupportive approach of hospital management	28 (12.7)
What do you think about practices of music therapy by nurses during patient care in Turkey?	Not applied	40 (18.1)
	Rarely applied	87 (39.4)
	Commonly applied	3 (1.4)
	I have no ideas	91 (41.2)

perspective of nurses on music therapy in the literature are limited (11-13, 22). Roll et al. (23) emphasized the necessity of engaging nurses in research on behavioral health intervention including musical therapy. Lai et al. (24) proved that music therapy in the presence of nurses was more effective than listening to recorded music. Pölkki et al. (13) studied 210 Finnish nurses and found that participants had positive expectations on the effects of music on both patients and staff.

In order to meet the requirement for studies on the perspective of nurses on music therapy, authors surveyed 225 experienced nurses and midwives working in various clinics to determine their knowledge, perspective,

and practice of music therapy. Our findings showed that listening to music plays an important role in the personal life of all participants and most of them (70.6%) had knowledge on the health-related effects of music. However, majority of the participants expressed that they did not receive any education on music therapy. The need for education of nurses on music therapy was also stated in previous studies. Li et al. (9) surveyed 1197 nurses across Taiwan and reported that although participants expressed positive attitudes toward music therapy and were motivated for learning music therapy, they need education with advanced programs and practice. Lai showed that educational workshops significantly improved the knowl-

edge and attitudes of first-line nurses toward music therapy (25). Hessig et al. (26) also showed that education can increase the knowledge of nurses and integration on complementary therapies including music therapy. In a survey of 640 nursing students in Istanbul, participants expressed a desire to integrate music therapy into nursing curriculum (27). The participants' knowledge on the effect of music therapy was generally consistent with the literature. Of the participants, 70.6% think that music has effects, such as relaxing, sedative, decreasing anxiety and pain, or regulatory role on vital signs. A recent study from Turkey on 30 patients with neuropathic pain implied that music therapy can be effectively practiced by nurses for reducing patients' pain intensity (16). Contradictory results were reported in literature on the effect of music listening on vital signs (18). Vaajoki et al. (28) evaluated the effect of music listening on 168 abdominal surgery patients. They reported that music reduces both respiratory rate and systolic blood pressure and suggested that nurses should offer listening to music to surgery patients.

Although 67.4% of participants of the present survey think that music therapy is easy to apply, most of them do not use music therapy in patient care because of insufficient physical conditions, shortage of time, and unsupportive approach of hospital management.

The main limitation of the present survey was the use of a questionnaire that was not validated. The study questionnaire was prepared by the research team considering the cultural and professional background of Turkish nurses. Taking into consideration that there is a need for surveillance studies on music therapy, Turkish questionnaires for different target populations (e.g., nurses and midwives, patients, parents) should be developed and validated.

## CONCLUSION

In conclusion, although current evidence shows that music therapy is a cost-effective, easy-to-apply, and efficient supportive treatment in many clinical settings, it is applied in a very low rate by nurses and midwives in Turkey. Even though Turkish nurses have a positive perspective toward music therapy, they have no adequate training to effectively apply this treatment. Comprehensive continuous education programs on music therapy for both nurses and midwives and hospital managements should be planned and implemented. In addition, facilities for application of music therapy in clinics should be provided.

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