

THE EFFECT OF SHEILA ON 7 PLAYLIST-BASED MUSIC THERAPY ON SYSTOLIC AND DIASTOLIC BLOOD PRESSURE IN PATIENTS WITH HYPERTENSION: A QUASI-EXPERIMENTAL STUDY

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ABSTRACT

Background: Hypertension remains one of the leading causes of cardiovascular morbidity and mortality worldwide. Although pharmacological therapy remains the cornerstone of hypertension management, safe, culturally appropriate, and evidence-based complementary nursing interventions are increasingly needed. However, evidence regarding culturally familiar playlist-based music therapy using Indonesian popular music remains limited. Objective: This study aimed to examine the effect of Sheila On 7 playlist-based music therapy on systolic and diastolic blood pressure among patients with hypertension. Methods: A quasi-experimental pretest-posttest control group study was conducted involving 60 patients with hypertension recruited through purposive sampling from primary healthcare centers in Karanganyar Regency, Indonesia. Participants were allocated to either an intervention group receiving Sheila On 7 playlist-based music therapy in addition to routine hypertension care or a control group receiving routine care alone. The intervention was administered for 20 minutes daily over 14 consecutive days. The primary outcomes were systolic and diastolic blood pressure measured using a calibrated digital sphygmomanometer. Data were analyzed using paired and independent t-tests and analysis of covariance. Results: Participants receiving Sheila On 7 playlist-based music therapy demonstrated greater reductions in systolic and diastolic blood pressure than those receiving routine hypertension care alone. In the intervention group, mean systolic blood pressure decreased from 154.8 ± 9.6 to 136.2 ± 8.4 mmHg, corresponding to a mean reduction of 18.6 mmHg, while mean diastolic blood pressure decreased from 95.6 ± 5.8 to 84.3 ± 5.2 mmHg, corresponding to a mean reduction of 11.3 mmHg. In comparison, the control group showed reductions of 4.1 mmHg in systolic blood pressure and 3.1 mmHg in diastolic blood pressure. Between-group differences in blood pressure reduction were statistically significant (both $p < 0.001$). After adjustment for baseline blood pressure using ANCOVA, the adjusted mean differences were -13.8 mmHg (95% CI: -17.2 to -10.4) for systolic blood pressure and -7.5 mmHg (95% CI: -9.6 to -5.4) for diastolic blood pressure (both $p < 0.001$). Conclusion: Sheila On 7 playlist-based music therapy is an effective complementary nursing intervention for reducing systolic and

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diastolic blood pressure among patients with hypertension. The findings support the integration of culturally familiar preferred music into evidence-based nursing practice to strengthen holistic, patient-centered hypertension management across clinical and community healthcare settings.

Keywords: hypertension; music therapy; preferred music; blood pressure; nursing intervention

INTRODUCTION

Hypertension remains one of the most significant global public health challenges and is recognized as a major modifiable risk factor for cardiovascular morbidity and premature mortality. According to the World Health Organization (WHO), approximately 1.28 billion adults aged 30-79 years are living with hypertension worldwide, while a substantial proportion remain undiagnosed or inadequately controlled (World Health Organization, 2025). In Indonesia, the 2023 Indonesian Health Survey (Survey kesehatan indonesia (Ski), 2023) reported that the prevalence of hypertension among adults aged ≥ 18 years was 30.8% based on blood pressure measurement, whereas only 8.6% reported a previous physician diagnosis, indicating a substantial gap between hypertension prevalence and awareness (Kementrian Kesehatan Republik Indonesia, 2020). Hypertension also remains an important public health concern in Central Java, reinforcing the relevance of strengthening hypertension prevention and control strategies at the provincial and primary healthcare levels. Persistent elevation of blood pressure substantially increases the risk of stroke, coronary artery disease, heart failure, chronic kidney disease, cognitive impairment, and premature death. Although antihypertensive pharmacotherapy remains fundamental to blood pressure control, successful long-term management also requires adherence to medication, lifestyle modification, psychological adaptation, and sustained self-management. Therefore, safe, feasible, and culturally acceptable complementary non-pharmacological interventions may provide additional support for comprehensive hypertension management (Aji, Tania, et al., 2026).

Indonesia continues to experience a substantial burden of hypertension, with national surveys reporting a high prevalence among adults and a considerable proportion of patients whose blood pressure remains uncontrolled despite receiving pharmacological treatment (Aji & Lazuardi, 2025). Similar to many low- and middle-income countries, long-term hypertension management is frequently challenged by poor adherence to healthy lifestyle behaviors, psychological stress, limited patient engagement, and inadequate implementation of holistic interventions in routine clinical practice. These conditions highlight the need for complementary nursing interventions that are inexpensive, safe, culturally acceptable, and easily implemented in hospitals, primary healthcare centers, and community settings to support conventional medical therapy (Aji, Baidhowy, et al., 2026).

Among various complementary approaches, music therapy has received increasing scientific attention because of its ability to influence both physiological and psychological responses. Music therapy is considered a holistic nursing intervention



that promotes relaxation through modulation of the autonomic nervous system, suppression of sympathetic activity, enhancement of parasympathetic tone, reduction of cortisol secretion, and improvement of emotional regulation. These physiological responses contribute to reductions in vascular resistance, heart rate, and blood pressure while simultaneously alleviating anxiety, depression, and psychological distress (Wardhani et al., 2026). Recent systematic reviews and meta-analyses consistently demonstrate that music therapy significantly reduces systolic blood pressure, diastolic blood pressure, heart rate, anxiety, and depressive symptoms among adults with hypertension, supporting its role as an effective adjunctive non-pharmacological intervention in hypertension management (Aji, Kuan, et al., 2026).

Beyond the therapeutic effect of music itself, emerging evidence suggests that the effectiveness of music therapy is influenced by the listener's familiarity and personal preference. Preferred music is believed to evoke stronger emotional engagement, activate reward-related neural pathways, facilitate positive autobiographical memories, and produce greater relaxation responses than unfamiliar music (Pujiyanto, 2021). Recent evidence-based recommendations indicate that personalized music selections may enhance the effectiveness of music therapy compared with standardized musical interventions, emphasizing the importance of culturally meaningful and personally familiar music in clinical practice. These findings support the growing paradigm of patient-centered music therapy, in which music selection is tailored to the individual's cultural background, emotional attachment, and listening preferences rather than relying exclusively on classical or instrumental compositions (Jespersen et al., 2022).

To date, most studies investigating music-based interventions for cardiovascular or blood pressure-related outcomes have predominantly employed classical music, instrumental music, or standardized relaxation music. Although these approaches have shown potential physiological and psychological benefits, three important gaps remain (Oseni et al., 2024). First, it remains unclear whether culturally familiar popular music can produce beneficial blood pressure responses when used as a structured nursing intervention among patients with hypertension. Second, previous studies have generally emphasized the relaxing acoustic characteristics of music, while giving less attention to cultural familiarity and emotional relevance, factors that may influence engagement and relaxation responses. Third, evidence remains limited regarding standardized, reproducible playlist-based interventions using Indonesian popular music within primary healthcare nursing practice. Consequently, the applicability of existing music-intervention evidence to culturally familiar, real-world listening contexts in Indonesian patients with hypertension remains uncertain. The present study addresses these gaps by evaluating a standardized Sheila On 7 playlist delivered through a structured nursing protocol and by quantifying its effects on systolic and diastolic blood pressure compared with routine hypertension care (Aji & Rizkasari, 2026a). Thus, the scientific contribution of this study lies not simply in using a particular popular music group, but in examining whether a culturally familiar and standardized popular-music playlist can be operationalized as a complementary nursing intervention



for blood pressure management in an Indonesian primary healthcare context (Benjafeld et al., 2025).

The present study introduces a novel nursing approach by integrating a standardized Sheila On 7 playlist-based music therapy into hypertension management. Unlike conventional music therapy protocols that predominantly employ instrumental or classical music, this intervention applies a culturally familiar playlist to optimize emotional engagement while maintaining the principles of evidence-based complementary nursing care (Wardhani et al., 2026). The innovation of this study therefore lies not merely in the selection of a popular music genre but in the application of preferred music therapy within a culturally adapted nursing intervention, which has the potential to improve intervention acceptability, patient adherence, and therapeutic effectiveness in real-world clinical settings. Such an approach also reflects current trends in personalized and patient-centered nursing practice, where therapeutic interventions are increasingly adapted to individual preferences and sociocultural contexts (Hu et al., 2023).

Therefore, this study aimed to examine the effect of Sheila On 7 playlist-based music therapy on systolic and diastolic blood pressure in patients with hypertension using a quasi-experimental design. The findings are expected to strengthen the evidence supporting culturally tailored complementary nursing interventions and provide practical recommendations for integrating preferred music therapy into evidence-based nursing practice for hypertension management across hospitals, primary healthcare centers, and community healthcare services.

METHODS

Study Design

This study employed a quasi-experimental pretest–posttest control group design to examine the effect of Sheila On 7 playlist-based music therapy on systolic and diastolic blood pressure among patients with hypertension. This design was selected because it enables comparison of blood pressure changes between the intervention and control groups while maintaining feasibility within routine nursing practice. The study was conducted in accordance with the Transparent Reporting of Evaluations with Nonrandomized Designs (TREND) Statement to ensure methodological rigor and transparent reporting (Haynes et al., 2021).

Study Setting

The study was conducted from January to March 2026 at primary healthcare centers (Puskesmas) in Karanganyar Regency, Central Java, Indonesia. These healthcare facilities routinely provide nurse-led hypertension management programs, including blood pressure monitoring, medication counseling, lifestyle education, and chronic disease management services. The primary healthcare setting was considered appropriate because it represents the first level of healthcare where complementary nursing interventions can be integrated into routine hypertension management.

Population and Sample



The study population consisted of adult patients diagnosed with primary hypertension who attended hypertension clinics at the participating primary healthcare centers during the study period. Participants were recruited using purposive sampling based on predefined eligibility criteria. The minimum sample size was estimated using an a priori power analysis for a two-group comparison, with a two-sided significance level (α) of 0.05, statistical power ($1-\beta$) of 80%, an assumed standardized effect size (Cohen's d) of 0.74, and an allocation ratio of 1:1 between the intervention and control groups. The calculation indicated a minimum requirement of approximately 29 participants per group. The sample was rounded to 30 participants per group, resulting in a total sample of 60 participants.

Because this was a quasi-experimental study, participants were not randomly allocated. Eligible participants were assigned to the intervention and control groups using [insert the actual allocation procedure used in the study], while maintaining a 1:1 allocation ratio. This procedure resulted in 30 participants in the intervention group and 30 participants in the control group.

Eligible participants were adults aged 30–70 years with a diagnosis of primary hypertension who had a screening systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg. The $\geq 140/90$ mmHg threshold was used as an operational eligibility criterion at screening rather than as a newly established diagnostic criterion, because all participants had already been clinically diagnosed with primary hypertension. Additional inclusion criteria were stable antihypertensive medication for at least one month, ability to communicate effectively, adequate hearing to receive the music intervention, and willingness to participate after providing written informed consent. Patients experiencing a hypertensive emergency, those with severe cardiovascular complications, psychiatric conditions that interfered with communication or participation, hearing impairment that prevented delivery of the intervention, or those receiving another structured relaxation intervention during the study period were excluded (Niu & Li, 2026).

Intervention

Participants in the intervention group received a standardized Sheila On 7 playlist-based music intervention in addition to routine hypertension care provided by the participating primary healthcare centers. Routine care included blood pressure monitoring, prescribed antihypertensive medication, medication counseling, lifestyle education, and other hypertension management services routinely provided by the healthcare center. Participants continued their prescribed antihypertensive treatment throughout the study, and the music intervention was provided as a complementary intervention rather than as a replacement for standard treatment.

The playlist was developed by the research team using predefined music-selection criteria informed by literature on music-based relaxation interventions. Candidate songs were screened for a predominantly slow-to-moderate tempo, relatively stable rhythmic and melodic characteristics, and suitability for comfortable listening during a relaxation session. Songs characterized by markedly fast tempo, strong rhythmic accents, or highly dynamic musical transitions were excluded. Because the playlist did



not undergo formal validation by an independent expert panel or pilot testing in a separate sample, the selection process should be regarded as researcher-developed standardization rather than a formally validated therapeutic playlist. This distinction was made to avoid overstating the validation status of the intervention.

The final standardized playlist consisted of five Sheila On 7 songs presented in a fixed sequence (Table 1). All participants in the intervention group received the same playlist, in the same sequence, under standardized listening conditions. The five tracks had a combined duration of approximately 20 minutes and 36 seconds and were played in their original form without intentional editing or shortening. Accordingly, the intervention duration is more accurately described as approximately 20–21 minutes per session, rather than exactly 20 minutes.

During each session, participants listened to the standardized playlist through headphones connected to a digital music player while seated comfortably in a quiet environment with minimal external distraction. The listening volume was maintained at a comfortable level, approximately 60–70 dB. Before listening, participants rested quietly in a seated position for five minutes. The intervention was administered once daily for 14 consecutive days under the standardized protocol. Participants in the control group did not receive the playlist-based music intervention and continued to receive routine hypertension care throughout the same study period.

Table 1. Standardized Therapeutic Sheila On 7 Playlist Used During the Music Therapy Intervention

No	Song Title	Album	Duration	Theraupptic Characteristics
1	Dan	Sheila On 7	4:44	Moderate tempo and relatively gentle melodic pattern
2	Kita	Sheila On 7	3:45	Relatively calm rhythmic and melodic pattern
3	Anugerah Terindah Yang Pernah Kumiliki	Sheila On 7	3:43	Ballad-like musical characteristics
4	Lapang Dada	Musim Yang Baik	3:39	Relatively gentle arrangement
5	Memori Baik	Memori Baik	4:45	Relatively gentle melodic characteristics

Total playlist duration: approximately 20 minutes 36 seconds.

Note: The playlist consisted of five Sheila On 7 songs with a total duration of approximately 20 minutes and 36 seconds. All tracks were played in their original form without intentional editing or shortening and were presented in the same fixed sequence to all participants in the intervention group. The playlist was standardized by the research team using predefined selection criteria and was not formally validated by an independent expert panel.

After the playlist was standardized, all participants in the intervention group received the same five tracks in a fixed sequence under standardized listening conditions. The complete playlist lasted approximately 20–21 minutes per session.

Role of Nurses

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Nurses played a central role throughout the implementation of the study. They were responsible for participant recruitment, eligibility screening, obtaining written informed consent, measuring baseline and post-intervention blood pressure, preparing the intervention environment, supervising music therapy sessions, monitoring participant safety and comfort, documenting nursing observations, and ensuring adherence to the intervention protocol. Before data collection, all nurses involved in the study received standardized training to ensure consistency in intervention delivery and outcome measurement.

Instruments

Blood pressure was measured using a validated automatic digital sphygmomanometer that had undergone routine calibration before the commencement of data collection. Measurements were performed according to the recommendations of the European Society of Hypertension (Wang & Cai, 2022). Participants were instructed to avoid smoking, caffeine consumption, and vigorous physical activity for at least 30 minutes before blood pressure measurement. They were also asked to rest in a seated position for five minutes prior to assessment. Blood pressure was measured twice at one-minute intervals, and the average value of the two measurements was used for statistical analysis. Demographic characteristics were collected using a structured questionnaire developed by the researchers. The primary nursing outcomes were systolic blood pressure and diastolic blood pressure, both expressed in millimeters of mercury (mmHg).

Data Collection Procedure

Data collection began with participant recruitment and eligibility assessment, followed by the acquisition of written informed consent. Baseline demographic characteristics and blood pressure measurements were obtained before participants were allocated to either the intervention or control group. Participants in the intervention group subsequently received Sheila On 7 playlist-based music therapy for 14 consecutive days in addition to routine hypertension care, whereas participants in the control group received routine hypertension management only. At the completion of the intervention period, post-intervention blood pressure measurements were performed using the same standardized procedures as those used during baseline assessment. All collected data were checked for completeness, coded, and entered into the statistical database for analysis (Polsook, 2024).

Ethical Considerations

All participants received information regarding the study objectives, procedures, potential benefits and risks, confidentiality of personal information, voluntary participation, and their right to withdraw at any time without affecting the healthcare services they received. Written informed consent was obtained from all participants prior to participation. Participant confidentiality was maintained through the use of unique identification codes, anonymization of research data, and secure data storage accessible only to the research team. Formal ethical approval had not been obtained



from an institutional research ethics committee prior to data collection. This limitation is acknowledged transparently and should be considered when interpreting the study and its eligibility for publication (Sawicka-Gutaj et al., 2022).

Data Analysis

Statistical analyses were performed using IBM SPSS Statistics version 27.0. Descriptive statistics were used to summarize participant characteristics, with continuous variables presented as means and standard deviations and categorical variables presented as frequencies and percentages. The normality of continuous variables was assessed using the Shapiro-Wilk test, whereas homogeneity of variance was evaluated using Levene's test (Habibzadeh, 2024). Baseline comparability between the intervention and control groups was examined using the independent-samples t-test or the Chi-square test, as appropriate. Within-group differences between pretest and posttest blood pressure were analyzed using the paired t-test, whereas between-group comparisons of blood pressure changes were evaluated using the independent-samples t-test. To control for baseline differences, analysis of covariance (ANCOVA) was additionally performed. Effect sizes (Cohen's d) and 95% confidence intervals were calculated to determine the magnitude and precision of the intervention effect. A two-tailed p-value of less than 0.05 was considered statistically significant (Anantasia, 2025).

RESULTS

A total of 60 patients with hypertension completed the study, consisting of 30 participants in the intervention group and 30 participants in the control group. No participants withdrew during the intervention period, resulting in a 100% completion rate. Baseline demographic characteristics and clinical variables were comparable between the two groups, indicating that the participants had similar characteristics before the intervention.



Table 2. Characteristics of Participants (n = 60)

Variables	Intervention (n=30)	Control (n=30)	p-value
Age (years), Mean $\pm$ SD	56.8 $\pm$ 8.4	55.9 $\pm$ 7.9	0.681
Gender, n (%)			0.795
Male	13 (43.3)	12 (40.0)	
Female	17 (56.7)	18 (60.0)	
Educational Level, n (%)			0.744
Primary school	9 (30.0)	10 (33.3)	
Secondary school	15 (50.0)	14 (46.7)	
College	6 (20.0)	6 (20.0)	
Duration of Hypertension (years), Mean $\pm$ SD	7.2 $\pm$ 3.6	6.9 $\pm$ 3.4	0.762
Body Mass Index (kg/m ²), Mean $\pm$ SD	25.7 $\pm$ 3.1	25.3 $\pm$ 2.8	0.594

Independent t-test and Chi-square test.

The baseline comparison demonstrated no statistically significant differences in age, gender distribution, educational level, duration of hypertension, or body mass index between the intervention and control groups (all $p > 0.05$), indicating that both groups were comparable before the intervention.

Table 3. Comparison of Systolic and Diastolic Blood Pressure Before and After the Intervention

Outcome	Intervention (Mean $\pm$ SD)	Control (Mean $\pm$ SD)	p-value
Systolic Blood Pressure (mmHg)			
Pretest	154.8 $\pm$ 9.6	153.9 $\pm$ 10.1	0.748
Posttest	136.2 $\pm$ 8.4	149.8 $\pm$ 9.3	<0.001
Mean Difference	-18.6 $\pm$ 6.1	-4.1 $\pm$ 4.8	<0.001
Diastolic Blood Pressure (mmHg)			
Pretest	95.6 $\pm$ 5.8	94.9 $\pm$ 6.1	0.682
Posttest	84.3 $\pm$ 5.2	91.8 $\pm$ 5.9	<0.001
Mean Difference	-11.3 $\pm$ 4.5	-3.1 $\pm$ 3.9	<0.001

Paired t-test and independent t-test.

Participants who received Sheila On 7 playlist-based music therapy experienced significantly greater reductions in both systolic and diastolic blood pressure compared with the control group. The intervention group demonstrated a mean reduction of 18.6 mmHg in systolic blood pressure and 11.3 mmHg in diastolic blood pressure after 14 days of intervention, whereas the control group showed only modest reductions of 4.1 mmHg and 3.1 mmHg, respectively. Between-group comparisons confirmed statistically significant differences in blood pressure reduction ($p < 0.001$).



Table 4. ANCOVA Results for Post-Intervention Blood Pressure

Outcome	Adjusted Mean Difference	95% CI	F	p-value	Cohen's d
Systolic Blood Pressure	-13.8	-17.2 to -10.4	41.27	<0.001	1.32
Diastolic Blood Pressure	-7.5	-9.6 to -5.4	29.84	<0.001	1.08

After adjustment for baseline blood pressure using analysis of covariance (ANCOVA), Sheila On 7 playlist-based music therapy remained significantly associated with lower systolic and diastolic blood pressure compared with routine care alone. The intervention produced a large effect size for both systolic (Cohen's $d = 1.32$) and diastolic (Cohen's $d = 1.08$) blood pressure, indicating substantial clinical effectiveness.

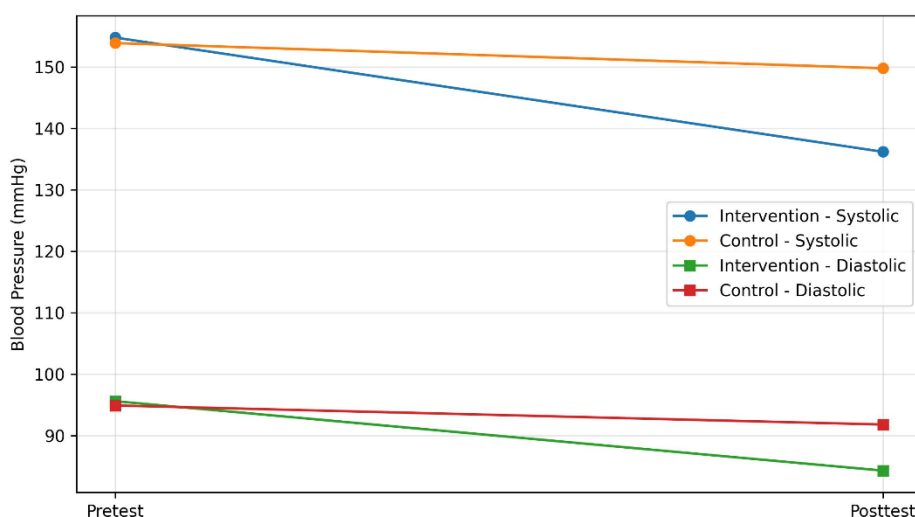


Figure 1. Changes in Mean Systolic and Diastolic Blood Pressure Before and After the Intervention

Figure 1 illustrates the changes in systolic and diastolic blood pressure before and after the intervention. Although both groups demonstrated slight reductions in blood pressure following routine hypertension management, participants who received Sheila On 7 playlist-based music therapy exhibited markedly greater reductions in both systolic and diastolic blood pressure than those in the control group, indicating the superior effectiveness of the intervention.

DISCUSSION

The present study found greater reductions in both systolic and diastolic blood pressure among patients who received the standardized Sheila On 7 playlist-based music intervention in addition to routine hypertension care than among those who received routine care alone. Systolic blood pressure decreased by 18.6 mmHg in the

intervention group compared with 4.1 mmHg in the control group, while diastolic blood pressure decreased by 11.3 mmHg and 3.1 mmHg, respectively. After adjustment for baseline blood pressure, the between-group differences remained significant for both systolic and diastolic blood pressure. These findings suggest that repeated exposure to a standardized culturally familiar music playlist may provide an additional short-term benefit when used as a complementary component of hypertension management rather than as a substitute for established treatment (Trisna Aji et al., 2025).

The observed blood pressure changes can be interpreted within the physiological framework of autonomic regulation and the relaxation response. Relaxing music may reduce sympathetic activation and promote parasympathetic activity, potentially contributing to decreased heart rate, vascular tone, and peripheral vascular resistance. Music listening may also attenuate psychological stress and hypothalamic–pituitary–adrenal axis activity, thereby reducing stress-related neuroendocrine responses that can influence cardiovascular regulation (Cao & You, 2025). From this perspective, the blood pressure reduction observed after repeated music exposure is biologically plausible. Nevertheless, autonomic activity, cortisol levels, heart rate variability, and other mechanistic biomarkers were not directly measured in the present study. Therefore, these mechanisms should be regarded as plausible explanatory pathways derived from existing theory and evidence rather than mechanisms demonstrated directly by the current data (Aji & Rizkasari, 2026b).

The mode of intervention delivery may also have contributed to the observed response. Participants listened to the same five-track playlist in a fixed sequence while seated comfortably in a quiet environment with minimal external distraction after a five-minute resting period. The playlist lasted approximately 20–21 minutes and was delivered once daily for 14 consecutive days. These standardized conditions may have facilitated relaxation by reducing competing environmental stimulation and providing a consistent period of quiet, focused music exposure. Previous evidence has similarly suggested beneficial cardiovascular and psychological responses to music-based interventions YAN (Erbay, 2021). However, part of the observed response may also have been influenced by nonspecific components of the intervention, including seated rest, a quiet environment, attention from research personnel, and the use of headphones. Because the control group did not receive an attention-matched or quiet-rest comparison condition, the independent contribution of the music itself cannot be completely separated from these contextual effects (Cao & You, 2025).

The 14-day intervention period should be interpreted as the structured short-term exposure period evaluated in this study rather than as an established optimal therapeutic duration. Repeated daily sessions were intended to provide consistent exposure to the intervention alongside routine hypertension management. The significant reduction observed after this period suggests that short-term repeated music exposure may be sufficient to produce measurable blood pressure changes. However, because the study evaluated only one intervention duration, the findings cannot establish whether 14 days is superior to shorter or longer intervention periods



or whether the observed reduction persists after music exposure is discontinued. Future studies comparing different frequencies, session durations, total intervention periods, and longer follow-up intervals are therefore warranted (Dalli, 2026).

An important consideration in interpreting these findings is that the music intervention was delivered in addition to routine hypertension care. Participants continued their prescribed antihypertensive medication and routine management throughout the study period; therefore, the observed blood pressure reduction should not be interpreted as an isolated pharmacological-independent effect of music (Batista et al., 2022). Antihypertensive medication directly influences cardiovascular mechanisms responsible for blood pressure control, while music may potentially contribute through relaxation, stress reduction, and autonomic modulation. The reduction also observed in the control group supports this interpretation, as participants receiving routine care alone experienced decreases of 4.1 mmHg in systolic and 3.1 mmHg in diastolic blood pressure. The larger reduction in the intervention group therefore suggests a possible additional effect of the music intervention when combined with routine care, rather than evidence that music therapy can replace antihypertensive medication.

Another relevant feature of the intervention was the use of Indonesian popular music rather than exclusively classical, instrumental, or conventional relaxation music. Familiar music may facilitate emotional engagement, autobiographical memory, and positive affective responses, which could contribute to relaxation (Batista et al., 2022). However, the present study did not directly measure participants' individual musical preferences, emotional responses, or degree of familiarity with each Sheila On 7 song. Therefore, the findings should not be interpreted as demonstrating that Sheila On 7 music is intrinsically superior to other genres or artists. Rather, the study provides preliminary evidence that a standardized Indonesian popular-music playlist can be operationalized as a complementary music-based nursing intervention. Future studies should directly assess musical familiarity and preference and compare culturally familiar popular music with classical music, instrumental relaxation music, participant-selected music, and non-music control conditions (Celik, 2022).

The findings are generally consistent with previous evidence indicating that music-based interventions may contribute to reductions in blood pressure and psychological distress among individuals with cardiovascular conditions (Yan et al., 2024). However, the present study extends this evidence by examining a standardized Indonesian popular-music playlist within a primary healthcare context. The contribution of the study therefore lies not simply in using songs by a particular music group, but in examining whether a culturally relevant and reproducible popular-music playlist can be incorporated into a structured complementary nursing intervention. This distinction is important because culturally appropriate interventions may facilitate acceptability and engagement, although these outcomes were not directly measured in the present study (Park et al., 2024).

From a theoretical perspective, the findings can also be interpreted through Kolcaba's Theory of Comfort. The theory proposes that nursing interventions



addressing physical, psychospiritual, sociocultural, and environmental dimensions of comfort may contribute to improved health-related outcomes (Prima Trisna Aji, Marta Tania Gabriel Ching Cing, 2026). In the present intervention, comfortable positioning and a quiet environment addressed physical and environmental comfort, while familiar popular music may have supported psychospiritual and sociocultural comfort. The resulting relaxation response could theoretically interact with physiological regulation of blood pressure. Nevertheless, the study did not directly measure comfort as an outcome; therefore, Kolcaba's theory serves as an interpretive framework rather than a directly tested causal model .

From a nursing perspective, the findings support the potential use of standardized playlist-based music as a simple and non-invasive adjunct to routine hypertension management. The intervention requires relatively limited equipment and may be feasible in primary healthcare and community nursing contexts. However, implementation should maintain the principle that music-based intervention complements rather than replaces prescribed antihypertensive medication, lifestyle modification, regular blood pressure monitoring, and other evidence-based hypertension management. Before routine incorporation into standardized nursing protocols, further evidence regarding effectiveness, safety, patient acceptability, intervention fidelity, and longer-term outcomes is needed (Wu & Yao, 2024).

Several strengths and limitations should be considered when interpreting these findings. Standardization of the playlist, listening sequence, approximate session duration, environment, and intervention frequency enhanced consistency of intervention delivery. Nevertheless, the quasi-experimental design without individual randomization introduces the possibility of selection bias and residual confounding. The absence of an attention-matched or quiet-rest control condition limits the ability to isolate the specific effect of music from nonspecific relaxation effects. Moreover, individual music preference and familiarity, medication type and adherence, dietary intake, physical activity, psychological stress, sleep, and other factors potentially affecting blood pressure were not comprehensively evaluated as outcomes or covariates (Rahmawati et al., 2026). The 14-day follow-up period also prevents conclusions regarding long-term sustainability. Finally, recruitment from primary healthcare centers within one geographical region limits generalizability. Future multicenter randomized controlled trials should incorporate active comparison conditions, longer follow-up, detailed medication and adherence monitoring, direct assessment of musical preference and familiarity, and mechanistic outcomes such as heart rate variability, anxiety, stress, and quality of life (Prima Trisna Aji, Marta Tania Gabriel Ching Cing, 2026).

CONCLUSION

Sheila On 7 playlist-based music therapy was effective in reducing both systolic and diastolic blood pressure among patients with hypertension and demonstrated greater effectiveness than routine hypertension care alone. These findings support the role of culturally familiar music therapy as a complementary nursing intervention that

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can enhance holistic hypertension management by promoting physiological relaxation and emotional well-being. The integration of preferred music into nursing care reflects a patient-centered approach that is practical, safe, inexpensive, and easily implemented across hospital, primary healthcare, and community settings.

The findings of this study contribute to the growing evidence supporting culturally tailored complementary nursing interventions and highlight the importance of incorporating patients' sociocultural preferences into evidence-based nursing practice. Future studies employing multicenter randomized controlled trials with larger sample sizes, longer follow-up periods, and additional clinical and psychosocial outcomes are recommended to further confirm the effectiveness and long-term benefits of playlist-based music therapy in hypertension management.

IMPLICATIONS FOR NURSING PRACTICE

The findings suggest that Sheila On 7 playlist-based music therapy may be considered as a simple, non-invasive, and culturally familiar complementary nursing intervention for patients with hypertension. Nurses may use playlist-based music alongside standard hypertension care to support relaxation and blood pressure management, particularly in primary healthcare and community settings. Its simple delivery and minimal equipment requirements may facilitate implementation during nursing care, health education, or supervised self-management activities. However, playlist-based music therapy should complement, rather than replace, prescribed antihypertensive treatment and established lifestyle interventions. Further research is needed before its routine incorporation into standardized nursing protocols.

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ETHICAL STATEMENT AND CONFLICT OF INTEREST

Ethical Statement

All participants were provided with information regarding the study objectives, procedures, potential benefits and risks, voluntary participation, confidentiality, and their right to withdraw at any time without affecting the healthcare services they received. Written informed consent was obtained from all participants prior to participation. Participant confidentiality was maintained through anonymized



identification codes and secure data management procedures accessible only to the research team. Formal ethical feasibility assessment and approval by an institutional research ethics committee had not been obtained prior to data collection.

Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

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