



LAUGHING YOGA FOR HYPERTENSIVE ELDERLY IN BALINESE VILLAGE, INDONESIA

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Abstract

Background – The aging process in elderly leads to the alleviation of cardiovascular function, which contributes to the hypertension. Hypertension in the elderly poses a risk of serious complications if not properly managed. In addition to pharmacological therapy, non-pharmacological approaches such as laughter yoga have increasingly been implemented as complementary therapy. However, elderly participation in laughter yoga therapy is influenced by various factors that need to be explored in depth to understand their reasons and motivations for engaging in the therapy.

Objective – This study aims to explore the reasons why elderly individuals with hypertension participate in laughter yoga therapy.

Methods – This study employed a qualitative approach using a phenomenological method. 16 participants were involved, included elderly individuals with hypertension who participated in laughter yoga, family members, and village administrators. Data were collected through in-depth interviews and document analysis, such as identity cards and family registration cards. Data were analysed using the Miles and Huberman model, which includes data collection, data reduction, data display, and conclusion drawing. Data saturation was achieved at the tenth elderly participant, when no new themes emerged, and was confirmed with additional interviews. Trustworthiness was ensured through member checking, reflexive journaling, and source triangulation.

Results – The reasons elderly individuals with hypertension participated in laughter yoga were categorized into internal and external factors. Internal factors included physical pain or discomfort, emotional condition, and the need for social interaction. External factors included motivation from the yoga instructor and support from family members.

Conclusion – This study illustrates that laughter yoga is not only perceived as a physical therapy but also as a means of fulfilling the emotional and social needs of the elderly. These findings may serve as a basis for developing promotive and preventive programs to increase the participation of elderly individuals with hypertension in non-pharmacological therapies.

Keywords: *Elderly, Hypertension, Laughter Yoga*

Abstrak

Latar Belakang – Proses penuaan pada lansia menyebabkan penurunan fungsi sistem kardiovaskular yang berkontribusi terhadap terjadinya hipertensi. Hipertensi pada lansia berisiko menimbulkan komplikasi serius apabila tidak dikelola dengan baik. Selain terapi farmakologis, pendekatan non-farmakologis seperti yoga tertawa semakin banyak diterapkan sebagai terapi komplementer. Namun, partisipasi lansia dalam terapi yoga tertawa dipengaruhi oleh berbagai faktor yang perlu dieksplorasi secara mendalam untuk memahami alasan dan motivasi mereka dalam mengikuti terapi tersebut.

Tujuan – Penelitian ini bertujuan untuk mengeksplorasi alasan lansia dengan hipertensi mengikuti terapi yoga tertawa.

Metode – Penelitian ini menggunakan pendekatan kualitatif dengan metode fenomenologi. Sebanyak 16 partisipan terlibat dalam penelitian ini, yang terdiri dari lansia dengan hipertensi yang mengikuti yoga tertawa, anggota keluarga, dan aparat desa. Data dikumpulkan melalui wawancara mendalam dan analisis dokumen, seperti kartu identitas dan kartu keluarga. Data dianalisis menggunakan model Miles dan Huberman yang meliputi pengumpulan data, reduksi data, penyajian data, dan penarikan kesimpulan. Saturasi data tercapai pada partisipan lansia ke-10 ketika tidak ditemukan tema baru, dan dikonfirmasi melalui wawancara tambahan. Keabsahan data dijamin melalui member checking, jurnal refleksif, dan triangulasi sumber.

Hasil – Alasan lansia dengan hipertensi mengikuti yoga tertawa dikategorikan menjadi faktor internal dan eksternal. Faktor internal meliputi rasa nyeri atau ketidaknyamanan fisik, kondisi emosional, serta kebutuhan akan interaksi sosial. Faktor eksternal meliputi motivasi dari instruktur yoga dan dukungan dari anggota keluarga.

Kesimpulan – Penelitian ini menunjukkan bahwa yoga tertawa tidak hanya dipersepsikan sebagai terapi fisik, tetapi juga sebagai sarana untuk memenuhi kebutuhan emosional dan sosial lansia. Temuan ini dapat menjadi dasar dalam pengembangan program promotif dan preventif untuk meningkatkan partisipasi lansia dengan hipertensi dalam terapi non-farmakologis.

Kata Kunci: Lansia, Hipertensi, Yoga Tertawa



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INTRODUCTION

The aging process results in a decline in organ system functions, which may lead to various diseases (Seprina et al., 2022). A decline in cardiovascular system function causes blood vessel walls to lose their elasticity and become stiff. Consequently, blood is forced through narrowed vessels, leading to hypertension (Sari et al., 2020).

Data from the Basic Health Research (Riset Kesehatan Dasar, 2018) indicate that the prevalence of hypertension in Bali Province among individuals aged >18 years reached 29.97%. The prevalence in the 55–64 year age group was 44.97%, in the 65–74 year age group 51.85%, and in those aged

≥75 years 56.21%. The prevalence of hypertension in Badung Regency was 29.33%. Badung Regency ranked sixth, with the highest prevalence recorded in Karangasem Regency (35.30%), followed by Tabanan Regency (35.12%), Bangli Regency (34.09%), Buleleng Regency (32.19%), and Jembrana Regency (30.25%). Data from the Indonesia Healthy Program with a Family Approach (Program Indonesia Sehat dengan Pendekatan Keluarga/PIS-PK) at the Regional Technical Implementation Unit (UPTD) of Mengwi I Community Health Center showed that from January to June 2022, 138 cases of hypertension were recorded among the elderly, and in the study setting the prevalence of hypertension among the elderly was 20 individuals (14.5%).

Hypertension management can be carried out through both pharmacological and non-pharmacological approaches, one of which is laughter yoga. A study by Pangestu et al. (2017) on the effectiveness of laughter yoga in reducing blood pressure, conducted among 30 elderly participants, found a decrease in both systolic and diastolic blood pressure after the laughter yoga therapy. Similarly, a study by Bete et al. (2022) on laughter therapy for blood pressure among 20 elderly individuals with hypertension found a reduction in blood pressure before and after the laughter intervention.

Based on observations conducted by the researchers, the total number of elderly individuals was 596, and 30 elderly individuals (5.03%) participated in laughter yoga. Blood pressure measurements were conducted among the elderly participants in laughter yoga, revealing that 10 individuals (33.3%) had hypertension, while 20 individuals (66.7%) had normal blood pressure. Interviews conducted with several elderly individuals with hypertension who participated in laughter yoga revealed positive effects experienced after participating in the laughter yoga sessions.

Elderly individuals with hypertension have routinely participated in laughter yoga twice a week. They demonstrate great enthusiasm in performing the activity, as observed during the sessions, where they appeared motivated and happy to participate. It is expected that elderly individuals who engage in laughter yoga will experience a reduction in blood pressure, potentially achieving normal levels; however, some elderly individuals still experience hypertension. Based on this phenomenon, the researchers were interested in investigating elderly individuals with hypertension who participate in laughter yoga.

METHODS

Study Design and Philosophical Foundation

This study employed a qualitative design grounded in the Husserlian (descriptive) phenomenological tradition as developed by Edmund Husserl. Husserlian phenomenology seeks to describe and elucidate the essence of lived experiences as perceived by individuals, without imposing pre-existing theoretical interpretations. The focus is on returning “to the things themselves,” emphasizing participants’ subjective experiences of a phenomenon—in this case, living with hypertension while participating in laughter yoga.

The descriptive phenomenological approach was selected because the aim of the study was not to interpret sociocultural meanings (as in Heideggerian interpretive phenomenology), but rather to describe the core structure and essence of the elderly participants’ lived experiences related to blood pressure changes and participation in laughter yoga in Badung, Bali, Indonesia. The study was conducted from December 2022 to January 2023.

Bracketing (Epoché) and Reflexivity

In line with Husserlian phenomenology, the researchers applied *bracketing (epoché)* to minimize the influence of prior assumptions, theoretical knowledge, and personal beliefs about hypertension management and laughter yoga. Before and during data collection, the primary researcher documented personal reflections, assumptions, and expectations in a reflexive journal. Reflexivity was maintained throughout the research process by:

1. Writing reflective field notes after each interview.
2. Identifying preconceptions related to non-pharmacological hypertension management.
3. Discussing emerging interpretations with research peers to ensure that findings remained grounded in participants’ descriptions rather than researcher bias.

This process strengthened the rigor and credibility of the phenomenological inquiry.

Setting and Participants

The study was conducted in Badung Regency, Bali, Indonesia, from December 2022 to January 2023. Informants were selected using purposive and snowball sampling techniques. Inclusion criteria included:

- a) Elderly individuals diagnosed with hypertension
- b) Active participation in laughter yoga activities
- c) Willingness to provide informed consent

Additional informants, including the village head and the laughter yoga instructor, were included to provide contextual information; however, the primary data for phenomenological analysis were derived from elderly participants lived experiences.

Data Collection

The researcher served as the primary research instrument and was directly involved in data collection. Data were gathered through in-depth, semi-structured interviews using open-ended questions designed to elicit rich descriptions of participants' experiences.

Interviews explored:

- a) Motivations for participating in laughter yoga
- b) Physical and emotional experiences during sessions
- c) Perceived changes in blood pressure
- d) Meanings attributed to laughter yoga participation

Supporting documents (identity cards, family cards, photographs, and interview recordings) were reviewed to strengthen contextual understanding. Interviews were audio-recorded with participants' consent and transcribed verbatim.

Data Analysis

Data were analyzed using a descriptive phenomenological method adapted from Colaizzi's analytic steps, consistent with Husserlian philosophy. The analysis included:

- a) Reading all transcripts repeatedly to obtain a general sense of the whole.
- b) Extracting significant statements directly related to the experience of living with hypertension while participating in laughter yoga.
- c) Formulating meanings from these significant statements.
- d) Organizing formulated meanings into theme clusters.
- e) Developing an exhaustive description of the phenomenon.
- f) Identifying the fundamental structure (essence) of the experience.
- g) Returning the findings to selected participants (member checking) to validate the descriptions.

- h) This analytic process ensured that findings remained faithful to participants' lived experiences and aligned with descriptive phenomenological methodology.

Trustworthiness

To ensure rigor, the study applied credibility, dependability, confirmability, and transferability criteria. Credibility was enhanced through source triangulation and member checking. Dependability was supported by maintaining an audit trail of analytic decisions. Confirmability was strengthened through bracketing and reflexive journaling. Rich, thick descriptions were provided to support transferability.

Ethical Considerations

Research in the health field must comply with research ethics requirements (Yanti et al., 2024). The study received ethical approval from Sekolah Tinggi Ilmu Kesehatan Bina Usada Bali number 349/EA/KEPK-BUB-2022 prior to data collection, and informed consent was obtained from all participants.

RESULT AND DISCUSSION

Based on the research objectives, data collection and analysis were conducted and can be interpreted as follows:

A. Reasons Elderly Individuals with Hypertension Participate in Laughter Yoga

From the reasons that emerged, two main factors explain why elderly individuals with hypertension participate in laughter yoga: internal factors and external factors.

1. Internal Factors

Internal factors refer to factors originating from within the individual. These include perceived pain, emotional condition, and the desire for social interaction.

a) Perceived Pain

Pain is an unpleasant and subjective sensory and emotional experience, as it varies from person to person and can only be fully described by the individual experiencing it. Pain can be experienced by all individuals, including older adults. As stated by Elderly R (P5, Female, 68):

“Saya ikut yoga tertawa awalnya karena sering merasakan sakit kepala di bagian belakang apalagi ketika saya banyak pikiran dan lelah.”

Interviews conducted with Elderly R, Elderly L, and Elderly B revealed that their reason for participating in laughter yoga was the experience of pain or headaches. The headaches they described included dizziness and pain at the back of the head. According to Parmilah et al. (2022), one of the signs and symptoms of hypertension is headache, which can range from mild to severe intensity and may cause varying problems for each individual. Headaches in patients with hypertension are caused by vascular damage to the blood vessels. Pain arises as a defense mechanism of the body when tissue damage occurs, prompting the individual to respond by withdrawing from the pain stimulus (Ferdisa & Ernawati, 2021). Headache or pain is an early symptom that needs to be addressed promptly to prevent further complications or the emergence of additional symptoms (Takhani & Riniasih, 2022).

The researcher also conducted interviews with three other elderly participants. Elderly M (P3, Female, 63), Elderly S (P7, Male, 67), and Elderly A (P1, Female, 66) reported experiencing different types of pain. They stated that their initial reason for joining laughter yoga was due to complaints of pain in the legs, lower back, and hands. This finding is consistent with research conducted by Ningsih and Afrinaldi (2023) regarding elderly adjustment to declining physical and psychological abilities, which reported that participants experienced physical weakness and decreased tolerance to pain, particularly in the hands, legs, and lower back (Ningsih & Afrinaldi, 2023). As individuals age, degenerative aging processes occur, leading to gradual physical changes, including decreased physical endurance. Physical changes in older adults vary among individuals (Azzahro, 2019).

Based on the interview results with elderly individuals with hypertension who participated in laughter yoga, participants stated that one of their reasons for joining was the pain or discomfort they experienced. These reasons were also confirmed by their family members. Three participants reported experiencing headaches, while three others reported different types of pain, such as leg pain, lower back pain, and hand pain. This finding aligns with research conducted by Wijaya et al. (2018) on perceptions of the benefits of laughter yoga among older adults in Denpasar, which found that participants joined laughter yoga because they were experiencing pain or discomfort.

b) Emotional Factors

Emotional intelligence refers to the ability to recognize one's own emotions, manage one's emotions effectively, motivate oneself, understand the feelings of others, and build relationships with others (Mirnawati et al., 2023). According to Anggraini et al. (2022), the aging process in older adults is characterized by physical, social, spiritual, and mental or emotional changes. These changes may affect psychological well-being and mental health, placing older adults at risk of experiencing emotional mental disorders. As stated by Elderly M (P3, Female, 63);

*“Tiyang awalne milu yoga masi karena sai pedih, emosi e sing stabil”
(Saya awalnya ikut yoga juga karena sering marah, emosi yang tidak stabil).*

Similarly, Elderly P (P4, Male, 69) stated:

“Pada dasarnya ingin menjaga kesehatan khususnya pikiran. Karena di yoga ada ketawa, begitu kita ketawa hormone kebahagiaan muncul sehingga menyebabkan badan sehat terutama pikiran menjadi relaks dan tenang”.

Elderly M (P3, Female, 63), Elderly P (P4, Male, 69), and Elderly B (P6, Male, 65) stated that they also participated in laughter yoga to maintain a calm mind and regulate their emotions. A study conducted by Anggraini et al. (2022) reported that emotional mental health problems in older adults arise when they are unable to control their emotions, which may lead to hormonal imbalances in the body and result in psychological tension.

According to Nadhiroh (2015), efforts to regulate emotions among older adults include managing negative thoughts arising from adverse emotions, avoiding stress by diverting attention through gathering with others, engaging in social interaction with fellow elderly individuals, participating in physical fitness activities, and practicing relaxation therapy.

c) Social Interaction

Social interaction refers to relationships between individuals, between groups, or between individuals and groups. It encompasses how a person establishes social contact and communicates with others (Susilawati et al., 2022). According to Laelasari et al. (2015), social interaction provides distinct benefits, such as helping to improve memory and language abilities among older adults, as well as enhancing their physical health and mental capacity.

The researcher conducted an interview with Elderly P Elderly P (P4, Male, 69), who in several of his statements mentioned:

“Yoga untuk bisa lebih beradaptasi dan berinteraksi dengan orang lain, sehingga bisa senang dan sehat.”

Elderly P (P4, Male, 69) stated that she wanted to participate in laughter yoga in order to better adapt and interact with others, so that she could feel happy and healthy. A study conducted by Oktaviani and Setyowati (2020) on the relationship between social interaction and the quality of life of older adults found that elderly individuals who tend to avoid social interaction often feel lonely and unhappy, lack friends to share thoughts with, experience declining health, and consequently have a lower quality of life.

Elderly P (P4, Male, 69) and Elderly S (P7, Male, 76) also mentioned that another reason for joining laughter yoga was the desire to interact with others. They expressed that they felt happy when they could socialize, share stories, and engage in activities with their peers. According to Supraba (2015), older adults who are able to interact well—such as engaging with people in their community and participating in local activities—are more likely to receive strong social support. Interaction or communication with others helps older adults better understand their environment, including learning about events or illnesses experienced by others. This information can then be used to prevent or avoid similar health problems, thereby helping to maintain their physical quality of life (Oktavianti & Setyowati, 2020).

2. External Factors

External factors refer to all factors that originate from outside the individual. The external factors that motivate elderly individuals with hypertension to participate in laughter yoga include encouragement from the yoga instructor and support from family members.

a) Motivation from the Yoga Instructor

Motivation is something that drives an individual or a group to perform or refrain from performing a particular action. Motivation may originate from within the individual or from external sources (Laka et al., 2020). This is reflected in an interview conducted with Elderly A (P1, Female, 66) who stated:

“Tiyang masi milu yoga karena ajakin ne ajak Bu Ekok, orang e luung kone asane bayu men milu yoga tertawa” (Saya juga ikut yoga karena diajak sama instruktur yoga, katanya stamina menjadi bagus jika ikut yoga tertawa).

Mrs. M (P16, Female, 60) confirmed that she had indeed invited and motivated Elderly A (P1, Female, 66) and Elderly M (P16, Female, 60) to

participate in laughter yoga. This is consistent with the findings of a study conducted by Jaya (2014) on instructors' efforts to enhance community motivation, which stated that the level of motivation in carrying out an activity is influenced by the need for additional external encouragement or motivation (Jaya, 2014).

b) Motivation from Family

In addition to motivation or support from the yoga instructor, support from close family members also influences the interest of elderly individuals with hypertension in participating in laughter yoga. Family support is a relational process between the family and the social environment; through such support, families are able to function effectively, thereby improving the health of older adults. It is reflected in the attitudes, actions, and acceptance shown by family members toward one another (Nurhayati et al., 2021).

This is consistent with an interview conducted with Elderly R, (P15, Male, 61), who stated:

“Saya ikut yoga juga karena dukungan dari istri saya yang selalu memberitahu untuk ikut yoga, katanya agar tenang dan stamina bagus”

Mrs. K confirmed that she provided support to her mother to participate in laughter yoga. Family support plays a very important role, particularly among older adults, because the family serves as a support system that greatly assists the elderly in their lives (Nade & Rantung, 2020). In line with the study conducted by Nuraeni et al. (2020) on family support and the quality of life of elderly individuals with hypertension, the family holds an essential role in the health–illness concept of its members, functioning as a primary support system (Nuraeni et al., 2020).

The greater the family support received by older adults, the more likely they are to develop awareness in maintaining their physical and psychological health, as they feel cared for, supervised, and loved during a stage of life when they are no longer considered economically productive (Hantari et al., 2019).

CONCLUSION

Elderly individuals with hypertension who served as informants participated in laughter yoga for two main reasons. The first reason involved internal factors, including the pain or discomfort they experienced, emotional conditions, and the need for social interaction. The second reason involved

external factors, namely motivation from the yoga instructor and support from their families.

FUTURE IMPLICATIONS

The findings suggest that laughter yoga may serve as a valuable complementary intervention for elderly individuals with hypertension, particularly in addressing not only physical symptoms but also emotional well-being and social needs. Healthcare providers and community health centers may consider incorporating structured laughter yoga programs into routine elderly care services to enhance holistic health outcomes. Additionally, family involvement and trained instructors appear to play a crucial role in sustaining participation, indicating that future programs should integrate family education and facilitator training components.

Further research is recommended to examine the long-term effects of laughter yoga on blood pressure control, psychological well-being, and quality of life among older adults. Expanding studies with larger and more diverse populations may also strengthen the evidence base and support policy development for non-pharmacological hypertension management strategies in aging populations.

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