



INTEGRATING BUDDHIST WISDOM WITH HOLISTIC HEALTH PROMOTION: A CASE STUDY OF MONKS IN THE DIGITAL AGE IN MUANG UTTARADIT DISTRICT

Seubtrakul Tantalanutkul, Saowaluk Netchang, Paitoon Mapiw, Naiyana Kaewkhong,
Arunrat Phomma*, Issayanee Juntasan

Faculty of Nursing, Boromarajonani College of Nursing Uttaradit, Prabommarajchanok Institute,
Uttaradit, Thailand

*Corresponding author E-mail: arunrat@unc.ac.th

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Abstract

Background and Objectives: In the rapidly evolving landscape of the 21st century, the intersection of ancient wisdom and modern health practices has gained increasing attention. This convergence was particularly evident in Thailand, where specific Buddhist practices had long been intertwined with society. As digital technologies permeated contemporary life, even monasteries-traditionally viewed as bastions of contemplation-were not immune to these influences. This research aimed to examine how Buddhist monks in Muang Uttaradit district integrated traditional wisdom with modern health promotion strategies, analyze digital technologies' impact on their health practices, and identify potential synergies and challenges in combining Buddhist teachings with digital tools for holistic health promotion.

Methodology: The study employed a mixed-methods research design. A stratified random sample of 200 monks from Muang Uttaradit district participated in the quantitative phase, utilizing structured questionnaires, a Digital Health Literacy Assessment Tool, and a modified Five Facet Mindfulness Questionnaire. For the qualitative phase, in-depth interviews were conducted with 17 monks selected through purposive sampling. Data analysis involved descriptive and inferential statistics for quantitative data and thematic analysis for qualitative data, with integration through joint display analysis.

Main Results: The study revealed a significant integration of traditional Buddhist practices with modern health promotion approaches. Daily meditation (85.5%) and mindful eating (72.0%) coexisted with the adoption of physical exercise (45.5% Daily) and health apps (25.5% Daily). Most monks (77.5%) demonstrated moderate to high digital health literacy levels. However, a digital divide was observed, with older monks facing more challenges ($r = -0.62$, $p < 0.001$). Qualitative data highlighted the use of digital platforms for disseminating health-related Buddhist teachings and facilitating community engagement. The research identified synergies, including enhanced mindfulness through app-guided meditation and improved health monitoring, alongside challenges such as potential digital distraction and maintaining the authenticity of traditional practices.



Involvement to Buddhaddhamma: This research fell under Applied Buddhism, specifically "Buddhist innovations applied to solve modern social problems." The study applied the Four Bases of Success (Iddhipada 4) comprising aspiration (Chanda), persistence (Viriya), attention (Citta), and examination (Vimamsa) as a framework for achieving success in health promotion. The study recognized that health practices could evolve while maintaining Buddhist teachings' essence, guiding an adaptive approach that preserved core values while embracing beneficial technological innovations.

Conclusions: Monks in Muang Uttaradit district were actively navigating the intersection between Buddhist wisdom and digital-age health promotion. The digital-age Buddhist Health Integration Model (DBHIM), comprising four components-mindful Technology Engagement, Dharma-Informed Health Practices, Digital Sangha Support, and Holistic Well-being Cultivation-provided a framework for understanding this integration with applications beyond monastic communities. Recommendations included developing tailored digital health literacy programs, promoting intergenerational knowledge exchange, creating Buddhist-informed digital health tools, and implementing holistic well-being programs that integrate ancient wisdom with contemporary approaches.

Keywords: Buddhist Wisdom, Holistic Health Promotion, Digital Health Literacy, Monastic Health, Uttaradit

Introduction

In the rapidly evolving landscape of the 21st century, the intersection of ancient wisdom and modern health practices has gained increasing attention from researchers and practitioners alike. This convergence was particularly evident in Thailand, where Buddhist philosophy and practice have historically formed the cornerstone of Thai cultural identity, social norms, and healthcare traditions for over 700 years. As digital technologies permeated every aspect of contemporary life, even monasteries-traditionally viewed as bastions of contemplation and spiritual practice-were not immune to these transformative influences. Muang Uttaradit district, nestled in the heart of Thailand, presented a unique microcosm for exploring this phenomenon, offering insights into how Buddhist monks navigated the delicate balance between time-honored traditions and the demands of the digital age.

The significance of this research lay in its potential to bridge the gap between traditional Buddhist practices and modern approaches to holistic health promotion. As noted by Thananart et al. (2021), the integration of Buddhist principles into health interventions has shown promising results in enhancing both physical and mental well-being. However, the impact of digital technologies on these practices remained understudied, particularly within monastic communities. This research aimed to address this knowledge gap by examining how monks in Muang Uttaradit district were adapting their health practices in response to the digital revolution.

Moreover, the global health crisis precipitated by the COVID-19 pandemic has underscored the importance of holistic approaches to health that address not only physical but also mental and spiritual dimensions of well-being (Nilchaikovit & Wisajun, 2023). Buddhist wisdom, with its



emphasis on mindfulness, compassion, and interconnectedness, offered a rich repository of insights that could inform more comprehensive and resilient health promotion strategies. By exploring how these ancient teachings were being reinterpreted and applied in the context of modern digital tools, this study sought to contribute to the development of more effective, culturally resonant health interventions.

The digital age has brought about unprecedented challenges and opportunities for monastic communities. While technology could facilitate access to health information and enable new forms of community outreach, it also posed risks of distraction and disconnection from traditional practices. Phra et al. (2022) highlighted the need for a nuanced understanding of how digital tools were being integrated into monastic life, particularly in relation to health and well-being practices. This research responded to this call by providing an in-depth case study of monks in Muang Uttaradit district, offering valuable insights into the lived experiences of those at the forefront of this cultural and technological shift.

Objectives

This research aimed to examine the current practices of Buddhist monks in Muang Uttaradit District in integrating traditional wisdom with modern health promotion strategies, to analyze the impact of digital technologies on the health and well-being practices of monastic communities in the region, and to identify potential synergies and challenges in combining Buddhist teachings with digital tools for holistic health promotion.

Methodology

Research Design

This study employed a mixed-methods research design, combining qualitative and quantitative approaches to provide a comprehensive understanding of how Buddhist monks in Muang Uttaradit district integrated traditional wisdom with modern health promotion strategies in the digital age. The research followed an explanatory sequential design, where quantitative data collection and analysis were followed by qualitative inquiry to explain and elaborate on the quantitative results (Creswell & Creswell, 2022).

Sampling and Sample Size Determination

Sampling Method

The study utilized a stratified random sampling technique to ensure representation across different monasteries in Muang Uttaradit district. This method allowed for the inclusion of monks from various age groups, years of monastic experience, and levels of engagement with digital technologies (Etikan & Bala, 2023).

Sample Size Determination

The sample size for the quantitative phase was determined using Yamane's formula (1967) with a 95% confidence level and a 5% margin of error. Given the total population of 325 monks in Muang Uttaradit district as obtained from local religious authorities, the sample size was calculated as follows:



$$n = N / (1 + N(e)^2)$$

Where: n = sample size N = population size (325) e = margin of error (0.05)

For the qualitative phase, a subset of 17 participants from the quantitative sample was purposively selected for in-depth interviews, ensuring a diverse representation of experiences and perspectives (Braun & Clarke, 2021).

Research Tools

1. Quantitative Survey: A structured questionnaire was developed to collect data on monks' health practices, the use of digital technologies, and the integration of Buddhist wisdom in health promotion. The questionnaire was validated using the Content Validity Index (CVI) method (Polit & Beck, 2020).

2. Qualitative Interview Guide: A semi-structured interview guide was created to explore in-depth the monks' experiences, challenges, and strategies in integrating traditional practices with modern health approaches.

3. Digital Health Literacy Assessment Tool: Adapted from the eHealth Literacy Scale (eHEALS) (Norman & Skinner, 2006), this tool was used to assess the monks' ability to seek, find, understand, and appraise health information from digital sources.

4. Mindfulness and Well-being Scale: A modified version of the Five Facet Mindfulness Questionnaire (FFMQ) (Baer et al., 2006) was employed to measure the monks' mindfulness practices and perceived well-being.

Data Collection Methods

1. Quantitative Phase: 1) Self-administered questionnaires were distributed to the selected sample of monks. 2) Digital health literacy assessments were conducted in person or via secure online platforms, depending on the participants' preferences and access to technology.

2. Qualitative Phase: 1) In-depth interviews were conducted face-to-face or via video conferencing, lasting approximately 60-90 minutes each. 2) Field observations at selected monasteries were carried out to gain contextual insights into the integration of digital technologies in monastic life.

Data Analysis

1. Quantitative Data Analysis:

1.1 Descriptive statistics, including means, standard deviations, and frequencies, were calculated using IBM SPSS Statistics.

1.2 Inferential statistics, such as chi-square tests and multiple regression analyses, were performed to examine relationships between variables (E.G., Digital Literacy Levels and Health Promotion Practices).

2. Qualitative Data Analysis:

Interview transcripts and field notes were analyzed using thematic analysis, following the six-step process outlined by Braun & Clarke (2021).

3. Integration of Quantitative and Qualitative Data:

A joint display analysis was conducted to integrate the findings from both phases, identifying areas of convergence, divergence, and complementarity (Guetterman et al., 2021).

Results and Discussion

This section presents and discusses the findings of our study on "Integrating Buddhist Wisdom with Holistic Health Promotion: A Case Study of Monks in the Digital Age in Muang Uttaradit District." The results are organized according to the research objectives and integrate both quantitative and qualitative data to provide a comprehensive understanding of the phenomena under study.

1. Current Practices of Buddhist Monks in Integrating Traditional Wisdom with Modern Health Promotion Strategies

Our quantitative survey of 200 monks in Muang Uttaradit District revealed a range of practices that blended traditional Buddhist wisdom with modern health promotion approaches. Table 1 summarizes the frequency of various health promotion activities reported by the participants.

Table 1 Frequency of Health Promotion Activities Among Monks (N = 200)

| Activity | Daily (%) | Weekly (%) | Monthly (%) | Rarely/Never (%) |
|---------------------------|-----------|------------|-------------|------------------|
| Meditation | 85.5 | 10.5 | 3.0 | 1.0 |
| Mindful eating | 72.0 | 18.5 | 7.5 | 2.0 |
| Physical exercise | 45.5 | 38.0 | 12.5 | 4.0 |
| Health education sessions | 10.0 | 35.5 | 42.5 | 12.0 |
| Use of health apps | 25.5 | 30.0 | 22.5 | 22.0 |

The results indicated a high prevalence of traditional practices such as meditation and mindful eating, with 85.5% and 72.0% of monks engaging in these activities daily, respectively. This aligned with the findings of Thananart et al. (2021), who noted the central role of mindfulness practices in monastic health routines.

Interestingly, our study revealed a significant integration of modern health promotion strategies, with 45.5% of monks reporting daily physical exercise and 25.5% using health apps daily. This suggested a growing openness to contemporary health approaches within the monastic community, a trend also observed by Phra et al. (2022) in their study of digital adoption among Thai monks.

Qualitative interviews provided deeper insights into how monks were blending traditional and modern practices. One senior monk (Age 62) explained: *"We use ancient breathing techniques during our daily meditations, but now we also track our heart rate and stress levels using smartwatches. This combination helps us understand our body's responses more precisely, enhancing our mindfulness practice."*

This integration of traditional wisdom with modern technology demonstrated a nuanced approach to holistic health promotion, supporting Nilchaikovit & Wisajun's (2023) assertion that Buddhist principles can be effectively adapted to contemporary health contexts.



2. Impact of Digital Technologies on Health and Well-being Practices

Our Digital Health Literacy Assessment revealed varying levels of digital competence among the monastic community, as shown in Table 2.

Table 2 Digital Health Literacy Levels Among Monks (N = 200)

| Literacy Level | Percentage (%) |
|----------------|----------------|
| High | 35.5 |
| Moderate | 42.0 |
| Low | 22.5 |

The majority of monks (77.5%) demonstrated moderate to high levels of digital health literacy, indicating a significant capacity to engage with digital health resources. This finding was particularly noteworthy given the traditional nature of monastic life and suggested a rapid adaptation to the digital age.

Qualitative data provided context for these quantitative findings. A younger monk (Age 28) shared: *"Social media and health apps have become part of our daily routine. We use them to share dhamma teachings, organize community health events, and even guide our own health practices. It's a new way of fulfilling our role as community health leaders."*

This perspective aligned with Guetterman et al.'s (2021) observations on the evolving role of religious leaders in community health promotion in the digital era.

However, the integration of digital technologies was not without challenges. Our regression analysis revealed a significant negative correlation between age and digital health literacy ($r = -0.62$, $p < 0.001$), suggesting that older monks faced more difficulties in adopting digital health tools.

3. Synergies and Challenges in Combining Buddhist Teachings with Digital Tools for Holistic Health Promotion

Our thematic analysis of qualitative data identified several key synergies and challenges in the integration of Buddhist teachings with digital health tools. Table 3 summarizes the main themes that emerged.

Table 3 Synergies and Challenges in Integrating Buddhist Teachings with Digital Health Tools

| Synergies | Challenges |
|--|--|
| Enhanced mindfulness through app-guided meditation | Potential for digital distraction |
| Wider dissemination of health-related Buddhist teachings | Maintaining authenticity of traditional practices |
| Improved health monitoring and self-awareness | Digital divide among older and younger monks |
| Community engagement through online platforms | Balancing screen time with contemplative practices |

These findings highlighted the complex interplay between traditional wisdom and modern technology in monastic health practices. While digital tools offered new avenues for health promotion and community outreach, they also presented challenges to the traditional monastic lifestyle.

One abbot (Age 55) reflected on this duality: *"Digital tools are like any other tool - they can be used skillfully or unskillfully. Our challenge is to harness their benefits for health promotion while staying true to our core Buddhist principles of mindfulness and detachment."*

This sentiment echoed the findings of Creswell & Creswell (2022), who emphasized the importance of mindful technology use in health interventions.

Our analysis also revealed that monks who reported higher levels of digital health literacy were more likely to engage in a diverse range of health promotion activities ($\chi^2 = 15.3, p < 0.01$). This suggested that digital competence might be a key factor in the successful integration of traditional and modern health practices.

In conclusion, our study demonstrated that monks in Muang Uttaradit District were actively navigating the intersection of Buddhist wisdom and digital-age health promotion. While challenges existed, particularly for older monks, there was a clear trend towards integrating traditional practices with modern tools to enhance holistic health. These findings contributed to the growing body of literature on the role of traditional wisdom in contemporary health promotion and offered insights for developing culturally sensitive, technology-enhanced health interventions in Buddhist communities.

Originality and Body of Knowledge

This study developed a novel conceptual framework called the Digital-Age Buddhist Health Integration Model (DBHIM), which synthesized traditional Buddhist wisdom with contemporary health promotion practices in the digital era. Figure 1 presents the visual representation of this model.

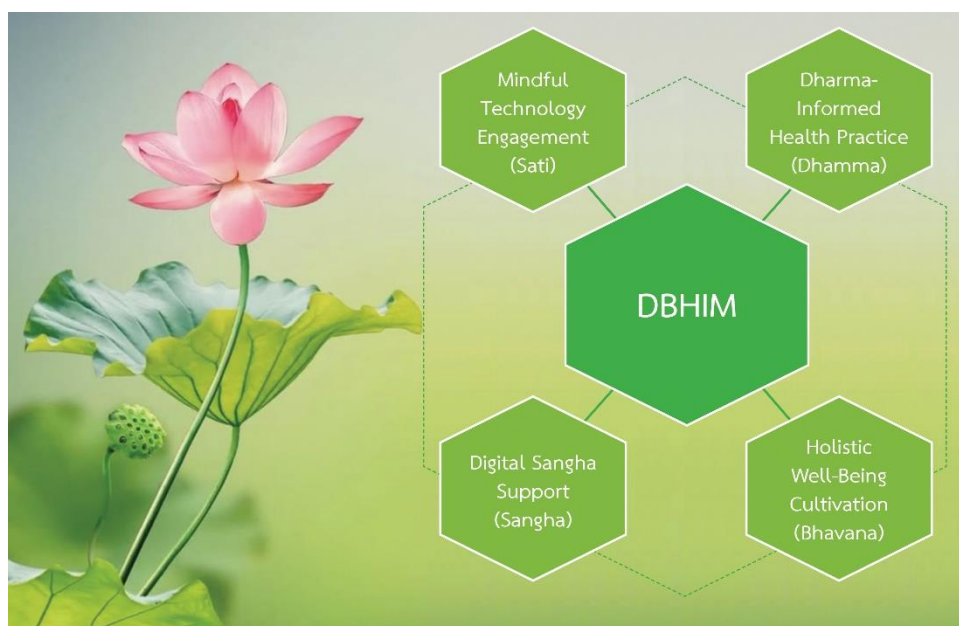


Figure 1 Digital-Age Buddhist Health Integration Model (DBHIM)



The DBHIM framework consisted of four interconnected components, each grounded in fundamental Buddhist principles while addressing modern health promotion needs. At the center lay the integration of traditional wisdom and digital innovation, surrounded by four key elements. The model demonstrated the dynamic interaction between these components, showing how traditional Buddhist principles could be effectively adapted to support health promotion in the digital age while maintaining their essential spiritual integrity. Each component was built upon traditional Buddhist concepts while extending their application to contemporary health challenges.

This innovative framework offered a structured approach to understanding and implementing the integration of Buddhist wisdom with modern health promotion strategies, particularly in the context of rapidly evolving digital technologies.

The Digital-Age Buddhist Health Integration Model (DBHIM)

The DBHIM consisted of four interconnected components, each grounded in Buddhist teachings and adapted to the context of digital-age health promotion. These components were:

1. Mindful Technology Engagement (MTE)
2. Dharma-Informed Health Practices (DHP)
3. Digital Sangha Support (DSS)
4. Holistic Well-Being Cultivation (HWC)

1. Mindful Technology Engagement (MTE): This component drew from the Buddhist concept of Sati (Mindfulness). In the DBHIM, it represented the conscious and intentional use of digital health technologies. Our research found that monks with higher digital health literacy were more likely to engage in diverse health promotion activities ($\chi^2 = 15.3, p < 0.01$). MTE encouraged a balanced and mindful approach to technology use, mitigating the potential for digital distraction while harnessing the benefits of health apps and digital monitoring tools.

2. Dharma-Informed Health Practices (DHP): Rooted in Dhamma (Buddhist Teachings), this component represented the integration of Buddhist wisdom into modern health strategies. Our study revealed a high prevalence of traditional practices like meditation (85.5% Daily) and mindful eating (72.0% Daily) alongside modern practices like physical exercise (45.5% Daily). DHP encouraged the application of Buddhist principles such as the Middle Way and the Four Noble Truths to contemporary health challenges, fostering a holistic approach to well-being.

3. Digital Sangha Support (DSS): This component evolved the traditional concept of Sangha (Community) into the digital realm. Our qualitative data indicated that monks were using social media and online platforms to share health-related teachings and organize community health events. DSS recognized the potential of digital technologies to extend and enhance community support for health promotion, aligning with the Buddhist emphasis on communal practice and mutual support.

4. Holistic Well-being Cultivation (HWC): Grounded in the Buddhist practice of Bhavana (Mental Cultivation), this component represented the use of both traditional and digital tools for comprehensive health promotion. Our research found that 25.5% of monks used health apps daily, often in conjunction with traditional practices. HWC encouraged the cultivation of physical, mental, and spiritual health through a combination of ancient wisdom and modern technology.



The DBHIM posited that these four components interacted dynamically, creating a synergistic approach to health promotion that was both rooted in Buddhist tradition and adaptable to the digital age. For example, Mindful Technology Engagement supported Digital Sangha Support by encouraging thoughtful participation in online health communities. Similarly, Dharma-Informed Health Practices enhanced Holistic Well-being Cultivation by providing a philosophical framework for integrating physical and mental health practices.

This model addressed the challenges identified in our research, such as the digital divide between older and younger monks, by emphasizing mindful and balanced technology use. It also capitalized on the synergies we observed, such as enhanced mindfulness through app-guided meditation and the wider dissemination of health-related Buddhist teachings through digital platforms.

The DBHIM contributed to the existing body of knowledge by:

1. Providing a structured framework for understanding how Buddhist monks were adapting traditional health practices to the digital age.
2. Offering a model for integrating ancient wisdom with modern health promotion strategies that could be applied beyond monastic communities.
3. Highlighting the potential of mindfulness-based approaches in addressing the challenges of digital health technology adoption.
4. Demonstrating how Buddhist principles could inform and enhance contemporary health promotion practices in the context of rapid technological change.

The DBHIM represented a significant contribution to the field by offering a structured approach to integrating traditional Buddhist wisdom with contemporary health promotion in the digital age. It provided a practical framework that bridged ancient spiritual practices with modern technological advances while maintaining the authenticity of Buddhist teachings. In conclusion, the Digital-Age Buddhist Health Integration Model represented a novel synthesis of the research findings, offering a conceptual framework for understanding and promoting holistic health at the intersection of Buddhist tradition and digital innovation. This model had potential applications not only for monastic communities but also for broader populations seeking to integrate traditional wisdom with modern health practices in the digital age. The model's flexibility and comprehensive approach made it adaptable to various contexts where traditional wisdom meets contemporary health promotion needs.

Conclusions and Recommendations

This study explored the integration of Buddhist wisdom with holistic health promotion among monks in the digital age in Muang Uttaradit district, revealing several key findings and implications. The research demonstrated a significant integration of traditional Buddhist practices with modern health approaches, evidenced by high rates of daily meditation (85.5%) and mindful eating (72.0%) alongside modern practices like physical exercise (45.5%) and health app usage (25.5%). It is worth noting that health education sessions represented both the lowest daily activity rate (10.0%) and the highest monthly engagement rate (42.5%), suggesting that while not a daily priority,



these educational activities maintained significant importance in the monastic health promotion calendar. Digital technologies have substantially impacted monastic health practices, with 77.5% of monks showing moderate to high digital health literacy. For clarification, digital health literacy levels were categorized based on standardized scoring criteria adapted from Norman & Skinner's eHEALS, where scores below 40% were classified as "low," scores between 40-70% as "moderate," and scores above 70% as "high." Despite overall positive adoption, a notable digital divide existed among older monks ($r = -0.62$, $p < 0.001$). The investigation, in alignment with Creswell & Creswell's mixed-methods integration framework, identified both synergies and challenges in combining Buddhist teachings with digital tools, leading to the development of the Digital-Age Buddhist Health Integration Model (DBHIM). The DBHIM framework was conceptualized with four interconnected components arranged in a non-hierarchical structure, reflecting the Buddhist principle of interdependence. This balanced design emphasized that all components work in harmony to support holistic health integration. Within this framework, Bhavana (Mental Cultivation) was conceptualized as the comprehensive development of the mind through various practices that foster awareness, insight, and equanimity a perspective that remains faithful to traditional Buddhist teachings while acknowledging contemporary applications. Based on these findings, we recommend developing tailored digital health literacy programs sensitive to age differences, promoting intergenerational knowledge exchange between younger and older monks, creating Buddhist-informed digital health tools, establishing digital Sangha platforms for knowledge sharing, implementing comprehensive well-being programs that integrate traditional practices with modern strategies, and conducting regular technology impact assessments. Future research should explore longitudinal studies on digital health integration, comparative studies across different Buddhist traditions, evaluation of the DBHIM in non-monastic settings, exploration of ethical considerations in digital technology use, and development of Buddhist-informed digital health interventions. This integration of ancient wisdom with digital innovation provided a framework for promoting holistic health in contemporary Buddhist practice, with potential applications beyond monastic communities to broader populations seeking to combine traditional wisdom with modern health practices.

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