# Applying Project Management to Establish an Academic Health System: A Participatory Action Research

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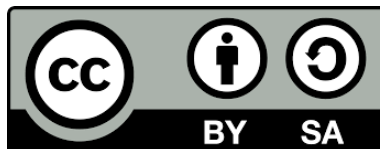
## ARTICLE INFO

## ABSTRACT

*Introduction: Academic Health Systems (AHS) integrate healthcare, education, and research to enhance medical training and patient care. However, initiating AHS in institutions without an existing framework presents challenges in aligning stakeholder expectations and organizational structures.* **Purpose:** *This study aims to initiate and establish an appropriate AHS model for Ukrida AHS through Project Management (PM) principles and highlight the importance of PM principles in healthcare organizations.* **Methods:** *A qualitative research design was employed using semi-structured interviews with six key stakeholders. Thematic analysis identified recurring patterns in stakeholder perceptions, expectations, and challenges regarding AHS implementation. Data triangulation through a Focus Group Discussion (FGD) refined the findings.* **Results:** *The findings are categorized into three phases: Inquiry, which identified three key themes—stakeholder perceptions of their organization, understanding of AHS, and perceived benefits and challenges; Action, which translated these insights into concrete steps, including goal-setting, developing a Gantt chart, and an AHS model; and Reflection, which assessed the research process and emphasizing the benefits of using PM principles in healthcare organizations.* **Conclusion:** *Integrating PM with PAR facilitated AHS initiation at Ukrida, revealing benefits, challenges, and key priorities: leadership alignment, financial sustainability, faculty development, stakeholder collaboration, and data systems to ensure long-term success and scalability.*

## 1. Introduction

An Academic Health System (AHS) is an organization comprising a medical school, a teaching hospital, and an allied health profession school or research facility.[1, 2] Its purpose is to provide quality patient care, train healthcare professionals, and conduct clinical or laboratory research.[3] A recent literature review by Easterling expanded on this idea, identifying five interrelated aspects of an AHS. These include enhancing patient care through organizational learning, fostering innovation and continuous quality improvement, refining practices by evaluating and applying evidence, generating new insights to improve healthcare and outcomes, and leveraging clinical data for learning and better patient care.[4] Additionally, engaging clinicians, patients, and other stakeholders in knowledge generation and implementation efforts is essential. The review also highlights four essential conditions for fostering an AHS: a supportive organizational culture, a workforce with AHS-related expertise, strong data systems and informatics capabilities, and sustained organizational investment.[4] These elements ensure that AHS do not function as isolated institutions but as integrated systems capable of advancing healthcare education, research, and healthcare service delivery.

In Indonesia, AHS has been implemented in several provinces, focusing on distributed medical education and effective referral systems.[5] The AHS framework in Indonesia emphasizes transformative learning, community engagement, and translational research.[6] Five AHS pilots have been initiated in Indonesia since 2018, integrating universities, academic hospitals, and provincial health offices.[7] However, challenges remain, including differing institutional mindsets

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and regional variations.[5] As of 2024, there are two established AHSs in Indonesia, which are the University of Indonesia Academic Health System (UI AHS) and Gadjah Mada University Academic Health System (UGM AHS). UI AHS comprises of University of Indonesia (Faculty of Medicine, Dentistry, Public Health, Pharmacy, and Nursing) and eight teaching hospitals.[8] Whereas UGM AHS with different components involved, namely Gadjah Mada University (Faculty of Medicine, Public Health, and Nursing and five teaching hospitals.[9] Universitas Kristen Krida Wacana (Ukrida) Faculty of Medicine and Health Sciences planned to join the endeavour with the addition of the newly established Ukrida Hospital as its prospective teaching hospital. This initiative is also documented in the official Faculty's long-term strategic plan document, which also serves as a motivator for this research.

An AHS must be established strategically and systematically to achieve its objectives and ensure long-term sustainability.[10] One of the common challenges in implementing complex initiatives like AHS is the lack of consistent management, prioritization, and formal tracking, which can jeopardize the project's success.[11] Project Management (PM) principles provide structured approaches to planning, execution, and monitoring, ensuring efficiency and adaptability while minimizing resource waste.[12, 13] PM is broadly defined as the practice of initiating, planning, executing, monitoring, and closing a project to achieve specific goals in a structured manner. [14, 15] Furthermore, PM is a holistic discipline that enhances organizational efficiency, effectiveness, and innovation through adaptive management strategies. [16] This is why exploring the use of PM strategies in establishing AHS is essential, as they offer a structured yet flexible framework to navigate complexities, align stakeholders, and drive sustainable implementation.

Project management principles have been increasingly applied to academic research and health system initiatives in Indonesia. These principles help address challenges in academic research, such as scope determination and time management.[17] In the context of health services transformation, the AHS framework emphasizes transformative learning, community engagement, and translational research as key pillars for improving health systems in Indonesia.[6] Recent trends in PM in Indonesia underscore the need for adaptive practices in response to technological advancements and cultural nuances.[18] Historically rooted in large-scale projects and formalized in the early 20th century, PM principles have been applied in various healthcare settings, including electronic health record implementation and industry-academia collaborations for learning health systems.[19, 20] The Project Management Body of Knowledge (PMBOK) framework, encompassing principles such as stewardship, team management, and value creation, has reinforced PM's role in structuring complex healthcare environments. However, while researchers excel in value implementation and systems thinking, challenges remain in areas such as team dynamics and leadership.[20]

A growing body of literature supports PM's role in driving healthcare innovations and organizational change. Key success factors include project managers' ability to commit, make decisions, and coordinate effectively, as well as the nature of involved organizations, project uniqueness, and external influences such as political and economic conditions.[11] Despite these insights, there remains a gap in applying PM principles specifically to AHS initiation. This research aims to initiate and establish an appropriate AHS model for Ukrida AHS using PM principles while highlighting their significance in healthcare organizations. By exploring how PM can facilitate AHS development, this study contributes to both theoretical understanding and practical implementation.

## 2. Methods

### Methodological Approach – Participatory Action Research (PAR)

This study employed a PAR research design within the phases of project management. The three stages of PAR implemented in this research were inquiry, action, and reflection, organized as a cycle for continuous improvement and understanding.[21]

**Table 1.**
Implication of PM and PAR towards the research process

| PM Phases | PAR stages | Integration Rationale | Aim | Method |
|---|---|---|---|---|
| **Phase 1: Project Initiation**<br><br>**Phase 2: Project Planning** | Step 1: Inquiry | PAR Inquiry stage complements Project Initiation and planning, emphasizing collaboration, data gathering, and strategic alignment in the early stages of AHS development. | 1. Gain understanding and insights on organization's perception of AHS and potential collaborative efforts. | Qualitative thematic analysis from interview transcripts |
| **Phase 3: Project Execution** | Step 2: Action | Action-oriented implementation in PAR aligns with the structured execution approach in project management, ensuring that the AHS initiative is both collaborative and systematically implemented. During this stage, the strategies and plans developed in the previous phases are put into practice through stakeholder engagement initiatives. | 1. Create CLEAR Goals (collaborative, limited, emotional, appreciable, refinable)<br>2. Create a Gantt chart.<br>3. Create AHS Model | Group consensus from Focused Group discussion |
| **Phase 4: Project Performance and Monitoring** | Step 3: Reflection | Reflection stage of PAR aligns with both the Performance & Monitoring and Project Closure phases in Project Management. This stage focuses on evaluating the impact of the implemented actions, assessing challenges and successes, and refining future strategies. By integrating reflection with structured project evaluation, the AHS initiative remains a dynamic and evolving system that supports continuous learning, adaptation, and improvement in academic health collaborations. | 1. Evaluation of what went well and identify project failures.<br>2. Recommendation for development and change | Descriptive critical reflection |

## Population and Sample

This research engaged stakeholders involved in the AHS conceptual framework at Ukrida, using purposive sampling to select participants based on their roles and relevance to the initiative. Given that the development of AHS was context-specific, generalization was not the goal, making non-probability sampling both practical and appropriate.[22]

Key decisions regarding the selection of stakeholders, research format, and data collection methods were made based on the researchers' insider knowledge of Ukrida's institutional dynamics. Because this study follows a PAR approach, it prioritizes the involvement of key institutional decision-makers who can actively engage in the AHS development process. Rather than sampling from a defined total population, the study identified key institutional stakeholders and invited their leadership representatives to participate. The sample selection criteria focused on individuals with decision-making authority, strategic influence, or direct involvement in AHS development. The final number of participants is detailed in Table 2.

Participants included university leadership (Rector, Dean), hospital representatives, and affiliated institutional leaders such as the Head of PT Upadana, whose organization has a strategic partnership with Ukrida Hospital. The rationale for including these individuals was their direct role in policymaking, resource allocation, and operational coordination for AHS development. To clarify the stakeholder dynamics, Ukrida's AHS follows a coordinative structure where university leadership provides strategic direction, hospital representatives contribute healthcare expertise, and affiliated institutions facilitate academic healthcare integration. Teaching and research staff were not included in the stakeholder sample, as this phase of research primarily focused on high-level institutional planning and decision-making, which aligns with the action-oriented nature of PAR. Future phases of the study may incorporate faculty perspectives to ensure alignment between AHS policies and academic practice.

**Table 2.**
Stakeholders and Participants

|   | **Stakeholders** | **Participant** |
|---|---|---|
| 1 | Ukrida | Rector of Ukrida |
|   |  | Dean of Medicine and Health Sciences Faculty |
| 2 | Ukrida Hospital | Director of Ukrida Hospital |
|   |  | Head of PT Upadana |
| 3 | Ukrida Research Facility | Head of Integrated Research Laboratory Ukrida |
| 4 | Foundation (Yayasan BPTK Krida Wacana) | Head of Foundation |

## Data Collection and Analysis

In the first step of Participatory Action Research (PAR) – Inquiry, semi-structured interviews were conducted to provide flexibility in exploring ideas and insights deemed important by participants. This approach acknowledges the knowledge-producing nature of qualitative interviews and allows for a richer understanding of stakeholder perspectives.[22, 23] A project initiation document was created and shared with key stakeholders, along with the completion of informed consent to participate in this participatory study.

During the data-gathering phase, identified stakeholders were contacted, and individual face-to-face interviews were conducted. However, one stakeholder was unable to take part in this study, resulting in six participants who were assigned study numbers A1–A6. Interviews were audio recorded and transcribed by the researcher after obtaining participant consent.

For data analysis, thematic analysis was employed to identify patterns and recurring themes in the interview data. The researcher conducted the coding process manually, without interrater reliability checks or member checking, due to time constraints. However, in alignment with the action-oriented nature of PAR, participants were invited again for a Focus Group Discussion (FGD) during the Action phase to refine and validate the findings collaboratively. This served as a form of data triangulation, ensuring that the emerging themes were not solely interpreted from the researcher's perspective but were collectively examined and refined. The goal of data analysis was to inform and complete the AHS initiation project phases, corresponding to the Action step of PAR. The analysis resulted in the development of CLEAR project goals, a Gantt chart, and an AHS model. Qualitative content analysis was used to preserve the contextual meaning of participant responses.[22, 24]

To further establish researcher reflexivity and objectivity, the study adhered to methodological guidelines on insider research and participatory action research.[25, 26] Reflexivity in qualitative research emphasizes the importance of recognizing the researcher's position and its influence on data interpretation.[27, 28] This study acknowledges that knowledge is co-constructed, and the iterative nature of PAR methodology allows for ongoing validation of findings through stakeholder collaboration.

## 3. Results

Applying the integration between PM phases and APR stages, the findings and discussion will be presented in three parts. Part One (Inquiry) showcases the themes analyzed through qualitative content analysis from interview transcripts. Part Two (Action) demonstrates the application of these themes to the AHS initiation phase. Lastly, Part Three (Reflection) consists of an evaluation of the project and recommendations for future project development.

### *Part one - Inquiry – Theme Development*

This part integrates phases one and two of the PM phases, project initiation and project planning. Thematic analysis identified three main themes. The first theme, Stakeholder perception of their organization, includes subthemes on clarity of vision and responsibilities as well as organizational alignment and collaboration. The second theme, Stakeholder perception and impression of AHS, explores participants' initial understanding of AHS and their perceived benefits of the system. The third theme, Benefits and challenges AHS brings to the organization, highlights accreditation and financial benefits while also addressing concerns about implementation.

### Theme 1 – Stakeholder perception of their organization

This theme addresses the nature of organizations involved in AHS and their leadership structures. As AHS is a collaboration of multiple organizations, understanding differences in leadership roles and organizational vision is crucial to identifying potential benefits and challenges. While none of the participants could concisely articulate their organization's vision word-for-word, they were able to express its essence. A representative quotation from Participant A6 illustrates this:

*"The vision statement is basically, because we are an organization that is a subsidiary of the Board of Governors, our main function and our vision is to create a conducive working environment for all parties responsible for managing the Faculty of Medicine and Health Sciences and the hospital. Our aim is to provide good communication." – A6*

Most participants demonstrated clarity in their responsibilities and goals. The university's Faculty of Medicine and Health Sciences focuses on education, research, and community service, aligning with the research facility's objectives. Although the hospital primarily focuses on patient care, it also seeks to become a teaching hospital, aligning with Tridharma Perguruan Tinggi. Tridharma Perguruan Tinggi is a fundamental concept in Indonesian higher education comprising three pillars: education, research, and community service.[29] It aims to develop intellectual capabilities, advance knowledge, and contribute to societal progress. Despite some differences in processes, there were no competing interests among the organizations. Instead, they appeared complementary, with a shared vision of serving the community. A participant emphasized this alignment:

*"I think this is a comprehensive system that involves educational institutions, including the faculty of medicine and a teaching hospital that may serve as an environment to conduct Tridharma Perguruan Tinggi" – A1*

### Theme 2 – Stakeholder perception and impression of AHS

Since PAR is principles-driven—focusing on social change, participation, empowerment, and collaboration—it is preferable for stakeholders to have an aligned perception of AHS. Most participants had limited or minimal knowledge of AHS, often only recognizing it as a collaboration between a faculty of medicine and a hospital but lacking an understanding of its operational framework. Key quotes reflecting this include:

*"My understanding of AHS is that it is a system that has a relationship between the medical faculty and the hospital. In both organizations, like in the university, we have Tridharma, so it's about education, services to the community, and also research." – A4*

*"This is the first time I hear about this (AHS), can you explain more?" – A6*

This limited understanding is understandable given the relatively recent implementation of AHS in Indonesia, with only a few universities and medical faculties actively adopting the system. The concept has only recently gained more attention due to its implications for medical education and healthcare services. As a result, the researcher provided a brief explanation to facilitate discussion without leading participants toward a specific interpretation. Despite their initial unfamiliarity, participants quickly grasped the general principles of AHS, and their first impressions were overwhelmingly positive. They viewed AHS as a tool to address health issues in the community and, more importantly, as a structured system that could integrate and coordinate the elements of Tridharma Perguruan Tinggi more effectively. One participant emphasized the alignment of AHS with higher education principles, stating,

*"There needs to be an AHS that can serve as a vehicle for research... because the teaching paradigm known as Tridharma requires us as lecturers to fulfil all three aspects." – A5*

Overall, participants agreed that AHS has the potential to enhance healthcare quality and positively impact the community. However, their responses tended to be broad rather than focused on specific health issues, indicating a need for further discussion and socialization of AHS principles.

**Theme 3 – Benefits and challenges the AHS bring to the organization.**

The third theme, Benefits and challenges AHS brings to the organization, highlights both the positive impacts and potential concerns expressed by stakeholders. Participants generally viewed AHS as a beneficial framework that could drive organizational growth, particularly in terms of accreditation, financial advantages, and academic development. One participant from the hospital stated,

*"AHS is a really good concept, and we want to try to do it in this hospital. It will give a huge benefit, actually." - A4*

Another participant emphasized the improvement in healthcare quality, noting,

*"I think AHS should be able to improve the healthcare quality given by the teaching hospital." – A3*

From an academic perspective, AHS was seen as a means to strengthen Tridharma Perguruan Tinggi, particularly in research and community service. One faculty member highlighted this by stating,

*"With AHS as a reference, the teaching objectives of lecturers can be achieved. Without knowing AHS, they would only come to teach." -A5*

Despite these positive perspectives, stakeholders also raised concerns regarding implementation challenges, particularly in terms of standardization, accreditation, and cultural alignment between institutions. One notable concern was the perception of a teaching hospital among patients, especially those covered by Badan Penyelenggara Jaminan Sosial (BPJS), Indonesia's national health insurance. One participant worried that patients might feel like "guinea pigs" in a teaching hospital setting, stating:

*"...in Indonesia or maybe like other developing countries most of the people will see that I will become test/research subject to something that is not already proven. I think that is a big challenge in Indonesia, I haven't seen a teaching hospital in Indonesia that has a good brand or a good testimony from their patients" – A5*

Additionally, there were concerns about the potential lack of synergy and cultural differences between the collaborating organizations, which could lead to difficulties in aligning priorities and working styles. Overall, while the stakeholders recognized the strategic advantages of AHS, they also acknowledged the need for careful planning and adaptation to ensure smooth implementation and stakeholder alignment.

### *Part 2 - Action – Application of themes to the project*

Following the thematic analysis, key findings were translated into concrete action plans that align with the Project Execution phase of PM and the Action stage of PAR. The primary outputs of this phase included the formulation of CLEAR goals, milestone planning using a Gantt Chart, and the development of an AHS model.

The CLEAR goals were collaboratively established during an FGD with participants, ensuring that the objectives reflected their perspectives and organizational priorities. These goals included designating Ukrida Hospital as the primary teaching hospital for the Faculty of Medicine and Health Sciences, increasing research output and community service programs involving both Faculty and students, promoting faculty development through postgraduate qualifications, and aligning specialized medical services at Ukrida Hospital with the university's vision. By formulating these shared goals, stakeholders aimed to create a structured and sustainable foundation for AHS implementation.

To facilitate project tracking and ensure organized execution, a Gantt chart was developed, outlining key milestones for the AHS initiation. The major milestones included establishing an AHS initiation structure, conducting an initial needs assessment and feasibility study with key stakeholders, aligning an integrated development strategy across organizations, and conducting AHS socialization efforts to ensure clear communication and stakeholder buy-in. Although a specific timeline was planned, flexibility was maintained to accommodate stakeholder input and evolving project needs. As this research followed a participatory approach, stakeholders were treated as co-researchers, while the principal investigator took on the role of project lead to oversee implementation and coordination.

The final key output was the AHS model (Figure 1), designed as a visual representation of stakeholder collaboration and role delineation. Given that this research primarily focused on Ukrida's internal perception before expanding to external organizations, the initial model included only Ukrida Hospital and the Faculty of Medicine and Health Sciences. However, future developments may incorporate primary healthcare facilities (FKTP) and health departments to achieve a more comprehensive patient care system. A Venn diagram was used to illustrate the interconnected roles of each organization, emphasizing their contributions to interprofessional learning, research, and healthcare services.

**Figure 1.**
Agreed AHS Model
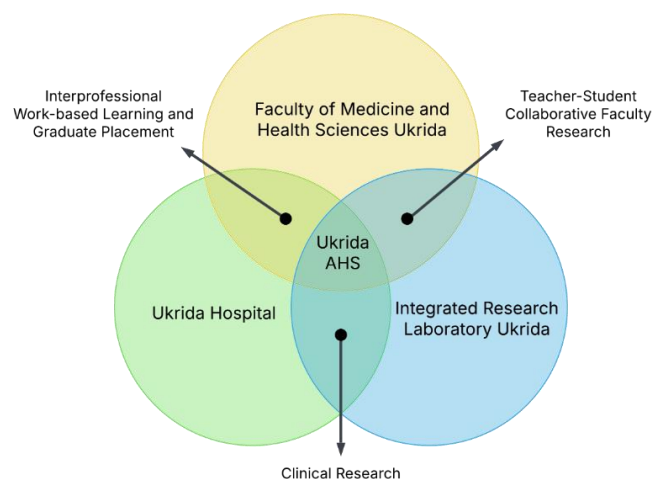
Overall, this phase transformed stakeholder insights into tangible project components, ensuring that the AHS initiation was grounded in the collective vision and operational needs of the participating organizations.

### *Part Three - Reflection – Evaluation of Research Process*

The final stage of PAR is reflection, which allows the researcher to critically assess the research process, its outcomes, and its implications for future action. Reflection in action research is crucial as it encourages awareness of the events taking place and provides insights into the rationality behind them. This evaluation focused on identifying aspects that were successful and those that required modifications. One of the key reflections was on the ease of participant recruitment, largely due to the researcher's insider status, which facilitated acceptance, trust, and cooperation among stakeholders. This insider position aligned with previous studies emphasizing the advantages of insider researchers in PAR, as it allowed for deeper engagement and a shared sense of purpose in initiating AHS. Participants demonstrated enthusiasm during the interviews despite their limited prior understanding of AHS, indicating a strong willingness to actualize the concept within their institutions.

From a PM perspective, structuring the research using PM principles provided a clear framework for organizing the AHS initiation process. Since there were no established guidelines for initiating AHS, PM principles helped create structured steps and defined outcomes. However, a notable challenge was the overwhelming number of potential outputs outlined in project management literature, which initially made it difficult to determine which deliverables were essential for progress. This challenge was addressed by prioritizing outputs collaboratively with participants, ensuring that selected components were relevant, feasible, and beneficial to all stakeholders.

Unlike an objective evaluation with formal instruments, this reflection serves as a subjective assessment from the project leader's perspective, consistent with the PAR framework. The process revealed that while the structured approach facilitated clarity and organization, the success of AHS initiation relied heavily on stakeholder engagement, flexibility, and continuous collaboration. These insights will guide future refinements in the AHS implementation process, particularly as the project expands beyond Ukrida's internal stakeholders to include external healthcare organizations and policymakers.

## 4. Discussion

This study aimed to initiate and establish an AHS model at Ukrida using PM principles while highlighting their role in healthcare organizations. The integration of PAR ensured that the AHS development process was not only structured but also stakeholder-driven. Despite the growing recognition of PM in healthcare innovation and organizational change, its application to AHS development remains underexplored.[11] Prior studies emphasize PM's role in structuring healthcare projects, enhancing efficiency, and managing complex, multi-stakeholder environments.[30] However, healthcare organizations often struggle with rigid hierarchies and resistance to change, which can hinder the implementation of structured PM frameworks.[31] This study's findings align with these challenges, particularly regarding leadership alignment, stakeholder coordination, and standardization difficulties in AHS implementation.

Stakeholders initially had limited knowledge of AHS, perceiving it primarily as a collaboration between a medical faculty and a hospital. This aligns with previous research suggesting that AHS implementation is often hindered by a lack of conceptual clarity among key decision-makers.[32] However, once briefed on AHS principles, participants expressed strong support, seeing it as an opportunity to enhance healthcare quality, strengthen Tridharma Perguruan Tinggi, and facilitate interprofessional education. This contrasts with findings from established AHS models in the United States and Australia, where university-hospital partnerships have long been institutionalized, and stakeholders already possess an intrinsic understanding of AHS goals.[33] The gap in familiarity at Ukrida suggests that effective AHS implementation in Indonesia will require extensive socialization efforts and targeted stakeholder training.

Stakeholders identified several potential benefits of AHS, including academic development, improved healthcare quality, and enhanced accreditation prospects. The link between AHS and accreditation has been well-documented in previous studies, particularly in relation to curriculum integration and competency-based education.[34, 35] However, financial sustainability emerged as a major concern, particularly regarding the long-term viability of teaching hospitals.

A recurring issue was the public perception of teaching hospitals. Stakeholders worried that patients, especially those covered by BPJS (Indonesia's national health insurance), might feel like "guinea pigs" in an educational setting. This finding aligns with research from low- and middle-income countries, where patients often associate teaching hospitals with lower-quality care and extended wait times.[36] However, a study suggests that well-integrated AHS models can improve patient trust by emphasizing patient-centered care and evidence-based practices.[37] Addressing these concerns will require proactive communication strategies and transparency in patient involvement within AHS.

This study's findings align with the four essential conditions for fostering an AHS. First, a supportive organizational culture was evident as stakeholders shared a common vision of collaboration; however, they required more structured guidance to translate this vision into actionable steps. Second, a workforce with AHS-related expertise was identified as a significant gap, reinforcing the need for faculty development programs to ensure that educators and clinicians are well-equipped to implement AHS principles effectively. Third, strong data systems and informatics, while largely unaddressed in current discussions, remain crucial for tracking AHS outcomes, improving patient care quality, and supporting evidence-based decision-making.[38] Finally, organizational investment emerged as a key challenge, with financial constraints posing a significant barrier to long-term sustainability, echoing global concerns about securing adequate funding for AHS initiatives.[39] Addressing these conditions will be critical for ensuring the successful implementation and long-term viability of AHS at Ukrida and beyond.

Compared to well-established AHS models, Ukrida's initiative remains in an early developmental phase, with challenges in workforce readiness and financial planning. However, the strong alignment in organizational vision suggests a promising foundation for AHS evolution, provided these gaps are systematically addressed. To ensure structured execution, CLEAR goals were collaboratively developed with stakeholders. The use of a Gantt chart for project tracking provided a visual roadmap for implementation, a strategy widely recommended in PM literature for managing complex, multi-phase projects.[40]

The challenge with applying PM principles to healthcare settings is balancing structure with flexibility. While PM literature emphasizes strict milestone tracking, healthcare projects often require adaptability to clinical and institutional dynamics.[41] This study addressed this challenge by maintaining flexibility in implementation timelines while preserving accountability through structured deliverables. Despite the structured PM approach, leadership alignment and team coordination remained significant challenges, consistent with prior research. Ishii et al. noted that while researchers excel in value implementation and systems thinking, they often struggle with team dynamics and leadership roles. This was evident in the Ukrida case, where stakeholders supported AHS conceptually but lacked clarity on leadership roles and inter-organizational coordination.[20]

A key difference between Ukrida and mature AHS models is the presence of formal leadership structures in the latter. Studies from the UK and Canada highlight the importance of dedicated AHS leadership teams in managing interprofessional collaboration and institutional alignment.[42, 43] To address this, future AHS initiatives at Ukrida should consider establishing a dedicated AHS leadership task force.

The integration of PM and PAR provided a structured yet participatory approach to AHS initiation. The insider researcher advantage played a crucial role in facilitating stakeholder engagement and trust, aligning with prior studies on participatory research effectiveness.[44] The iterative nature of PAR also allowed for ongoing validation of findings, reinforcing stakeholder ownership of the AHS initiative. However, challenges remain in scalability beyond Ukrida. AHS models in other countries integrate primary healthcare facilities (FKTP) and government health agencies, whereas this study focused on internal institutional alignment. Future developments

should expand stakeholder inclusion to external healthcare organizations and policymakers to create a more comprehensive AHS framework.

## 5. Conclusion

This study successfully initiated an Academic Health System (AHS) model at Ukrida by integrating Project Management (PM) principles with Participatory Action Research (PAR). The findings highlight key facilitators and challenges in AHS implementation, reinforcing the importance of a supportive organizational culture, workforce expertise, robust data systems, and sustained investment. While stakeholders demonstrated strong alignment in vision, gaps in leadership roles, financial planning, and data infrastructure remain significant hurdles. Compared to established AHS models, Ukrida's initiative is still in its early stages, requiring structured leadership, targeted faculty development, and strategic financial planning to ensure long-term sustainability. The application of PM principles provided a structured framework for AHS initiation, balancing flexibility with accountability. However, stakeholder engagement and adaptability were critical in navigating institutional dynamics, emphasizing the need for a participatory approach to healthcare innovation. Future efforts should focus on expanding inter-organizational collaborations and integrating primary healthcare facilities to create a more comprehensive AHS framework tailored to Indonesia's healthcare landscape.

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