

Education Quality Management of Midwife Clinical Laboratory in Improving Graduates' Competence

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Keyword:	Abstract
Education Quality Management, Midwife Clinical Laboratory, Graduates Competence.	<i>Higher Education has the function of developing capabilities in order to educate the nation's life in accordance with Law Number 12 of 2012 concerning Higher Education. The aim of this research is to analyze and describe in depth through a field study of the quality management of midwifery clinical laboratories in increasing the competence of graduates (case studies of midwifery practice at Polytechnic Bhakti Asih Purwakarta and Stikes Kharisma Karawang). The research method in this dissertation used a qualitative approach. Data were collected using in-depth interviews, observation, and documentation study. The data of this study were checked for correctness and reliability through the triangulation process. Based on the results of the research, the implementation process of the midwifery clinical laboratory practice learning at the Bhakti Asih Polytechnic of Purwakarta and Stikes Kharisma Karawang went well. The method taught to students when conducting laboratory practice simulations makes a positive contribution to student competence and graduate competence. Weak points that arise in the implementation of learning are limitations in the infrastructure and facilities in each institution, and practice supervisors are still lacking in clinical experience in the field so that management has an impact on the quality of midwifery clinical laboratory management.</i>
Manajemen Mutu Pendidikan, Laboratorium Klinik Bidan, Kompetensi Lulusan.	Perguruan Tinggi mempunyai fungsi mengembangkan kemampuan dalam rangka mencerdaskan kehidupan bangsa sesuai dengan Undang-Undang nomor 12 Tahun 2012 tentang Pendidikan Tinggi. Tujuan penelitian secara umum melakukan analisa dan mendeskripsikan secara mendalam melalui kajian lapangan tentang manajemen mutu laboratorium klinik kebidanan dalam meningkatkan kompetensi lulusan (studi kasus praktek kebidanan di Politeknik Bhakti Asih Purwakarta dan Stikes Kharisma Karawang). Metode penelitian dalam disertasi ini menggunakan pendekatan kualitatif Data dikumpulkan dengan menggunakan wawancara mendalam, observasi, dan studi dokumentasi. Data penelitian ini diperiksa kebenaran, kehandalan melalui proses triangulasi. Berdasarkan hasil penelitian, proses implementasi pembelajaran praktek laboratorium klinik kebidanan di Politeknik Bhakti Asih Purwakarta maupun Stikes Kharisma Karawang

berjalan dengan baik. Metode yang di ajarkan kepada mahasiswa saat dosen melakukan simulasi praktek laboratorium memberikan kontribusi positif terhadap kompetensi mahasiswa dan kompetensi lulusan. titik lemah yang muncul dalam implementasi pembelajaran yakni keterbatasan dalam prasarana dan sarana di masing-masing institusi, dan dosen pembimbing praktek masih minim dalam pengalaman klinis di lapangan sehingga pengelolaan berdampak pada mutu manajemen laboratorium klinik kebidanan.

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1. Introduction

Global demands for the quality of education have consequences for strengthening the mastery of Science and Technology (IPTEK), especially practical learning in the laboratory, to answer these global demands it is the task of lecturers to transform knowledge to students in improving their competence in accordance with their rights as Indonesian citizens in get into the world of education (Syam, 2019).

Based on the mandate of the 1945 Constitution, it is not easy for educators to realize the ideals of the fighters in fulfilling their obligations in educating the nation's children so that independence in education as the hopes of the fighters can be realized, because many factors affect success in the world of education ranging from bureaucracy, equitable distribution of education, funding, facilities and infrastructure as well as community culture (Ikhwan, 2017).

Education is a process of maturation of quality of life. Through this process, it is hoped that humans will be able to understand what is the meaning and nature of life, as well as for what and how to carry out the duties of life and life correctly. Because it excels by focusing on the process of maturation of the quality of logic, heart, morals (Anwar, 2021), and faith. The peak of education is reaching the point of perfection of quality of life (Mulyasana, 2015).

The task of educators is to educate future generations of the nation, with this noble task, educators must always be based on conscience by prioritizing the rights of students to get the true value of education for their intellectual maturity so that they can carry out this life in the truest sense. The Republic of Indonesia Number 20 of 2003 concerning the national education system considers that *the national education system must be able to guarantee equal distribution of educational opportunities, improve the quality and relevance and efficiency of education management to face challenges in accordance with the demands of changes in local, national, and global life so that it is necessary to reform education comprehensively. planned, directed, and sustainable* (Depdiknas, 2003).

Management in the field of education is very much needed to take appropriate steps in achieving organizational goals and improving the quality of education before discussing further about management, will be discussed about the definition according to several experts, among others (Storey, Killian, & O'Regan, 2017).

According to George R. Terry, what is meant by management is as a typical process consisting of actions in the form of: planning, organizing, mobilizing and controlling carried out to determine and achieve the goals that have been set through the use of human resources and other resources other (Terry, 2010). The laboratory is a room designed according to the need to carry out activities related to the functions of education, research, and community service. (Ministry of Health RI 2010).

Practices taught in the midwifery clinical laboratory include: basic skills in midwifery clinical practice regarding the basic needs of women during the reproductive period ranging from personal hygiene, oxygen demand, intake and output needs, care for mothers during pregnancy, childbirth, the puerperium, newborn and family planning and early detection of maternal and neonatal emergencies.

Graduate competency standards are minimum criteria regarding the qualifications of graduate abilities which include attitudes, knowledge, and skills stated in the formulation of graduate learning outcomes (CHAPTER II article 5 (1) Permendikbud no. 49 of 2014).

The competencies that are trained in the midwifery laboratory are about the care provided during the reproductive period, the laboratory that must be provided at least has a basic clinical practice skills laboratory (KDPK), pregnancy checks (Ante Natal Care), delivery assistance (Intra Natal Care), maternal monitoring during pregnancy, postpartum (Post Natal Care), handling of newborns, laboratories for growth and development of infants and toddlers and children, family planning and reproductive health services, obstetric pathology laboratories and Community midwifery laboratories.

In improving the competence of graduates in the D III midwifery program, not only laboratory management is needed, but also how universities manage competence in practice in clinics (hospitals, clinics, Independent Practice Midwives) so that it is necessary to trace how educational institutions carry out practical land management standards (Su, Dhanorkar, & Linderman, 2015).

Midwifery competency graduates of Diploma III Midwifery are a set of smart, responsible actions that are owned by a midwife as a condition to be considered capable by the community to carry out their duties as midwifery expert (Kumakech et al., 2020).

The results of previous research conducted by Bangun Prajadi Cipto Utomo with the title strategy of quality improvement of academic service (site study at Polytechnic Citra Medika Surakarta) that the facilities and infrastructure owned by Polytechnic Citra Medika Surakarta are still lacking, especially in practice facilities, library, and Bangun Prajadi have a strategy for developing facilities and infrastructure to increase comfort for the academic community, developing midwifery laboratory facilities so that they can meet the competencies needed by students and developing a computer-based inventory system (Utomo, 2012).

Efforts made by institutions in dealing with existing problems are to make practice schedules in the laboratory alternately but must still reach the amount in the existing semester credit system (SKS) and prepare the number of tools in accordance with the ratio of tools and practitioners, by planning a schedule at the

beginning of the semester. by setting through a clear practice schedule and practice calendar.

From the above background the author is interested in taking the title "Quality management of midwifery clinical laboratories in improving the competence of graduates (Case Study of Midwifery Practice at Bhakti Asih Polytechnic Purwakarta and Stikes Kharisma Karawang)".

2. Methods

This research uses a qualitative approach, an interactive type of research with a case study approach, where researchers conduct a real case study with only one important issue, namely how midwifery education institutions carry out quality management of clinical laboratories in institutions by focusing on a phenomenon only to find the "essence" of the meaning of a phenomenon experienced by several individuals who are involved in the management of midwifery practices in health education institutions. The researcher chose the hermeneutic phenomenon method where the researcher focused on the interpretation of the texts of the participants' experiences during the interview while involved in the management of midwifery practice.

The data collection technique used in this study was through in-depth interview techniques to obtain direct data from the research subject. In-depth interview technique as a conversation with several selected respondents with the aim of collecting data so that later researchers can make meaning from the data obtained. observation in the field to see firsthand how the implementation of clinical practice of midwifery learning is good from the time the lecturer teaches skill techniques, the practical exam process (Ikhwan, 2021).

3. Result and Discussion

3.1. Planning in obstetric clinical laboratory practice

According to Kemp (1995) in Rusman Strategy is a learning activity that must be done by educators and students so that goals can be achieved effectively and efficiently (Rusman, 2012).

"According to George R. Terry, what is meant by management is as a typical process consisting of actions in the form of: planning, organizing, mobilizing and supervising carried out to determine and achieve the goals that have been set through the use of human resources and other resources" (Terry, 2010).

According to the Indonesian Ministry of Health regarding the preparation of laboratory facilities and infrastructure must be prepared according to standards, among others (Kemenkes RI, 2013):

- a. Planning for laboratory facilities is an effort to plan various types of laboratory equipment and materials in accordance with the learning needs and competencies of students in the curriculum. To meet all the needs referred to in the planning, it will be calculated and proposed in accordance with the standards and provisions that have been regulated in the relevant guidelines and policies (Borang BAN-PT/LAMPTP). The number and types are planned according to competence, the ratio of students compared to tools

and standards, so that when students do practicum it can be sufficient. While the material is planned according to the needs of both the quantity, type and specifications. Furthermore, the plan is submitted to be held in the procurement service unit (ULP) at the beginning of each fiscal year

- b. Planning for laboratory infrastructure, which means that the laboratory unit makes proposals to meet the space or building needs according to the type of laboratory needed in each Department or Study Program. The type of room or building is organized according to the characteristics of the laboratory, size, capacity, model, user comfort and safety. The completeness of the room and building includes also paying attention to the disposal system for various types of waste (solid, liquid and gas) and sanitation facilities. The number and types of rooms and buildings in question broadly include: management room, tool or material warehouse room, practicum room according to competency type, tool cleaning room, discussion room and demonstration room (Classical).

“In accordance with the decision of the head of the Ministry of Health's BPPSDM number HK.02.03/I.2/011521/2016 concerning the standard of the midwifery diploma III laboratory, there are several standards that must be met by higher education in the provision of laboratory facilities, infrastructure and equipment, a laboratory can function effectively and efficiently. efficient by taking into account the following minimum requirements: (a) The type and amount of equipment and consumables are based on the competencies to be achieved which are expressed in the ratio between tools and students; (b) The form/design of the laboratory must pay attention to safety or security aspects”.

According to Louis A Alen in 1963, the main tasks and activities of planning include: 1) forecasting for the future (forecasting); 2) create targets and targets (seat goal or targeting); 2) making events (programming) namely making plans for the sequence of activities needed to achieve targets; reset the execution time (time table Scheduling); prepare a budget plan (budgeting); create a standard operating procedure (SOP) regarding the implementation of work; establish and interpret policies for the implementation of work (estabilizing and interpreting policies) (Allen, 1963).

The planning compiled by the two institutions is almost the same as the clinical practice of midwifery learning is planned and documented in the semester learning plan, involving the head of the university and the head of the study program, the head of the laboratory, and the person in charge of the laboratory. The mechanism for making the tools or guidelines needed in the midwifery clinical laboratory is carried out by the Deputy Director I along with the head of the Study Program, Head of the Laboratory, Responsible Laboratory, and lecturers. The media that will be used in the context of implementing learning at the Bhakti Asih Polytechnic Purwakarta are laboratory simulation tools, learning CDs, learning media in the form of LCD, TV, Audio Visual room and laboratory equipment. Meanwhile, at Stikes Kharisma Karawang, there are only Phantoms and tools.

“In the decision of the head of the BPPSDM of the Ministry of Health number HK.02.03/I.2/011521/2016 concerning the standard of the midwifery diploma III laboratory, it is stated that so that the practical experience carried out by students produces skills in accordance with predetermined competencies, the education process is more focused on skills, using a curriculum that contains a core curriculum of a maximum of 80% and an institutional curriculum of at least 20%, with the structure of the health worker education program containing 40% of theoretical material and 60% of practical material. Thus, graduates are expected to be able to face challenges in accordance with national and global demands”.

In planning the competency assessment of students, both institutions use the same instrument in the form of a checklist with assessment criteria for attitude, knowload, and psychomotor. Only in planning the test technique there is a difference between the Bhakti Asih Purwakarta Polytechnic and the Kharisma Stikes where the method of evaluating laboratory practice learning outcomes at the Bhakti Asih Purwakarta Polytechnic uses the OSCE method. Test scores are issued 1 day after the exam for students whose scores are more than 75 are declared to have passed the exam. Assessment planning in the laboratory is carried out by: (1) observing students' practical skills using a log book (learning achievement) then the final assessment is carried out during the OSCE assessment (showing students' practicum work abilities), while at Stikes Kharisma the practical exam is carried out using the one student method. tested by one lecturer in turn. Test scores are issued 1 day after the exam for students whose scores are more than 70 are declared to have passed the exam.

According to Sanjaya, in Rusman "approach can be interpreted as our starting point or point of view on the learning process. The term approach refers to the view of the occurrence of a process that is still very general in nature. The learning approach is student-oriented. (student centered approaches), namely a learning approach that places students as learning subjects and learning activities are modern, student-oriented approaches, management and management are determined by students" (Rusman, 2012).

This shows that teaching designed by educators must be oriented to student activities.

“According to J.R David, strategy is a plan method or series of activities designed to achieve a particular educational goal. From this understanding, firstly, a learning strategy is an action plan including the use of methods and the utilization of various existing resources/strengths. Second, the strategy is structured to achieve a certain goal. So, before determining the strategy we must first define a clear goal” (J. R. David, 1976).

Both institutions in planning laboratory clinical practice learning methods are made a small group discussion learning system, made in groups so that it is easy to provide material. In addition, the method of clinical practice learning activities in the laboratory, the first supervisor provides practical simulations and roleplays and then continues with students trying one by one and documented in the student logbook.

In general, planning takes more time than implementation. In its implementation, several things need to be considered by health education providers regarding communication, support from leaders, managers and other supporting infrastructure and facilities.

3.2. Organizing in Obstetric Clinical Laboratory Practice

Bhakti Asih Purwakarta Polytechnic has a laboratory service unit because it only serves one study program while at Stike Kharisma Karawang is a laboratory service center because it serves 3 health study programs and there are already organizational structures in both institutions, from the observation of the organizational structure in the laboratory unit of the Bhakti Asih Polytechnic Purwakarta seen installed on the wall of the laboratory unit manager's office, while in Stikes Kharisma Karawang it is not visible. The results of the interviews of the two institutions in the implementation of midwifery clinical laboratory practice learning were made at the same time with details of the tasks required and decreed by the leadership.

“According to Louis A Alen in 1963, the next step in management is to organize activities by organizing and linking a job so that it can be carried out more effectively and efficiently including: 1) designing an organizational structure; 2) determine the job description of each position to achieve organizational goals; delegating responsibility and authority (delegation of responsibility and authority); establish relationships that distinguish between superiors and staff (estabilizing relationship); describe things that are considered effective in relation to the use of human resources in order to achieve goals” (Allen, 1963).

According to the Indonesian Ministry of Health. (2013) Requirements for the Head of the Laboratory Unit are a lecturer with a minimum educational qualification of Master (S2), an administrator must have a minimum educational qualification of Bachelor of Applied Science (D.IV)/S.1. Laboratory officer minimum education of DIII in accordance with the type of education required be his job. Minimum education qualification for technician/laboratory is Diploma III midwifery (Kemenkes RI, 2013).

The organizational structure that manages the laboratory at Bhakti Asih Polytechnic consists of: Head of the lab unit 1 person with a master's education level, 2 people in charge of the laboratory with a Diploma IV midwifery education level, 1 person in charge of laboratory facilities and infrastructure with a Diploma IV midwifery education level, 1 laboratory assistant with a Diploma III midwifery education level while at Stikes Kharisma there is no head of the laboratory unit directly in charge of the person in charge with an undergraduate nursing education background, at the Bhakti Asih Polytechnic Purwakarta the implementation of daily supervision is controlled by the head of the study program because the head of the laboratory unit is at the same time as a permanent lecturer at Bhati Asih Polytechnic, Purwakarta, he cannot come to campus every day because the permanent lecturer is also a practitioner of Independent Practice Midwife.

3.3. Coordination in Midwifery Clinical Laboratory Practice

The implementation of coordination in the practice of midwifery clinical laboratories in both institutions is almost the same, namely there are several operational standards (SOPs), including: The existence of standard SOPs for work systems between study programs and laboratories, SOPs for scheduling in laboratories, SOPs for borrowing laboratory space, SOPs for borrowing laboratory equipment, MOU with external parties in borrowing laboratory equipment.

“According to the Indonesian Ministry of Health. (2013) The laboratory work plan in realistic and prepared according to the conditions of educational institutions is the main requirement to achieve laboratory-based learning objectives. The work plan includes the preparation of activity plans, activity schedules, equipment and consumables needs, maintenance activities, standard operating procedures (SOPs) for the use of tools and materials for both educational practicum purposes, research and community service activities” (Kemenkes RI, 2013).

There are no MOU forms in the laboratories of both institutions in the form of: student exchanges, lecturer exchanges, joint teaching materials development, lecturer training, research exchanges, research internships, joint research, utilization of laboratory equipment for training, training for the community, there is only a loan MOU tools by external parties, MOU in the tridharma of tertiary institutions in a single way and the existence of an MOU with cooperatives in the form of receiving equipment grants twice.

“According to Health Ministry Cooperation, in improving the quality management of midwifery clinical laboratories, one form of effort that can be done by educational institutions is to form collaborations and this is in order to realize the vision and mission of the laboratory, the collaboration that can be carried out can be with internal and external parties. abroad, government and private institutions and the business world. The forms of cooperation can be in the form of: exchange of students, exchange of lecturers, equipment grants, development of teaching materials with training of lecturers, research exchanges, research internships, joint research, utilization of laboratory equipment for training, training for the community” (Kemenkes RI, 2013).

3.4. Implementation in Midwifery Clinical Laboratory Practice

According to Kemp in Rusman Strategy is a learning activity that must be done by educators and students so that goals can be achieved effectively and efficiently (Rusman, 2012).

“According to the Health PPSDM Agency Laboratory/workshop practical learning is a learning stage after the theory learning process. Practical learning aims to test the knowledge, theories and concepts that have been studied, so before the practice begins, testing should be carried out on the theoretical abilities of students” (Badan PPSDM Kemkes RI, 2016).

Both institutions during the implementation of laboratory practice in accordance with the calendar and schedule that has been made a document for the implementation of guidance in the form of absenteeism of lecturers and

students, even though in the implementation at Stikes Kharisma Karawang the borrowing of rooms and tools alternately with other study programs, but because the planning at the beginning of the schedule was good so that the presence of laboratory practice is in accordance with the calendar of activities. Evidence from activities at BAP Polytechnic from logbooks held by students while at Stikes monitoring through the absence of lecturers and students.

The two institutions during the implementation of clinical laboratory practice guidance for midwifery, lecturers stimulated based on the practice manual and the existing document form was a laboratory practice guidebook, also found several photo documents of laboratory practice activities both when lecturers did simulations and students were trying to practice, also proof of photographs during the practical exam. The implementation of practical guidance by lecturers has referred to the three criteria, namely: knowledge, attitudes, and skills. The implementation of practical guidance carried out by lecturers is student-centered (student central learning). However, the percentage of 40% theory and 60% practice is in fact not in accordance with competency achievement because students learn more in class than in the laboratory..

"Tom V. Savage (1987:217) in Rusman in 2012 suggests that cooperative learning is an approach that teaches teamwork in groups. There are 4 important things that must be considered in cooperative learning: 1) there are students in groups, 2) there are rules of the game, 3) there is an effort to learn in groups, 4) there is competition that must be achieved" (Rusman, 2012).

"According to the Health PPSDM Agency Practical learning experience in the laboratory is an important process to prepare students to carry out practical learning in the practice/clinic/field. This learning emphasizes mastery on aspects of skills, both basic and technical in health skills. Therefore, it can be concluded that laboratory practice learning provides supplies/preparations for students to take part in learning in the clinic/field/community" (Badan PPSDM Kemkes RI, 2016).

The principles of cooperative learning according to Roger David Johnson (Lie: 2003) in Rusman there are five basic elements in cooperative learning, including: a) the principle of positive dependence, b) individual responsibility, c) face-to-face interaction, d) participation and communication, e) evaluation of group result.

"Wedemeyer (1983) in Rusman has the idea that to overcome the problem of distance it is necessary to create a learning system that pays attention to the following aspects: a) students learn separately from the instructor, b) learning content is delivered through the media, c) learning is carried out by individual approach and the learning process occurs through student activities, d) learning can be done in an appropriate place, e) students are responsible for their learning progress and have the freedom to determine when to start learning and stop" (Rusman, 2012).

3.5. Evaluation in Obstetric Clinical Laboratory Practice

Both institutions already have an internal quality assurance unit so that both of them have carried out monitoring and evaluation to assess the progress of student competence through evaluation of the learning process which is assessed on an ongoing basis and for knowledge performance, measured when the

implementation of the midwifery clinical practice learning program is in progress and evaluation at the end of the learning program.

“According to Louis in A Alen supervising is the last step of management. This step includes: development of work (developing performance standards); measurement of work results (measuring performance); take corrective action and correct errors (taking correction action)” (Allen, 1963).

At the Bhakti Asih Polytechnic Purwakarta the laboratory management is good, the laboratory clinical practice room is neat and clean, the tools are neatly arranged and stored in a clean and tidy warehouse, each tool is set for each competency and one competency is a separate container so that students it is easy and fast to borrow tools and rooms, students are very easy to borrow laboratory equipment and rooms and if there are problems they are always responded to quickly. While at Stikes Kharisma Karawang, the laboratory management is not so good, the clinical practice room of the midwifery laboratory at Stikes Kharisma Karawang looks neat and clean, but the arrangement of tools in the storage warehouse has not been arranged neatly and storage in the warehouse is still messy, every tool has not been set up every competency so that students are less easy and not fast in borrowing tools and rooms, according to the results of interviews students are less easy to borrow laboratory equipment and rooms and if there are problems they are not responded quickly.

According to the Ministry of Health, laboratories to be safe and comfortable for students and lecturers/instructors must (Kemenkes RI, 2013):

- a. The condition of the room must allow the lecturer/instructor to see all students working in the laboratory without being obstructed by furniture or other objects in the laboratory.
- b. Students must be able to observe demonstrations/simulations from a maximum distance of 2 meters from the demonstration table
- c. Laboratory floors must not be slippery, must be easy to clean and resistant to chemical spills.
- d. Tools or objects mounted on the wall must not protrude into the space where students walk and circulate the tools.
- e. Availability of practical support reference books
- f. Availability of running water (faucet)
- g. The lab table must be impermeable to water, acid and alkaline resistant (made of porcelain)
- h. Lecturer/instructor room available
- i. Availability of electrical needs such as a mains socket.

Evaluation of the infrastructure and consumables available at the two institutions is still lacking compared to the number of students, but the laboratory manager deals with scheduling so that students still get good laboratory facilities, the availability of laboratory equipment is sufficient, but if the practice schedule is concurrent sometimes the tools are lacking in number, there are some phantoms whose conditions are not adequate. While at Stikes

Kharisma Karawang the infrastructure available at Stikes Kharisma Karawang is sufficient because the laboratory space provided is quite a lot, but because there are no majors in the study program, they are used alternately and must be strictly scheduled. Lack of tools compared to the large number of students, so students sometimes have to buy their own consumables for training materials such as syringes, infusion sets of infusion fluids.

3.6. Achievement of Graduate Learning Outcomes

The achievement of graduate learning outcomes in the Midwifery Diploma III study program at Bhakti Asih Purwakarta is good, as evidenced by the results of the practical exams on the final exams of the program, approximately 80% of students immediately pass the first practical exam and the average value of the students' practical exam results is above 75 practical values. and less and more than 88% of students pass the national exam. Likewise, in Stikes Kharisma Karawang, the results of the practical exams in the final program exams, approximately 80% of students immediately passed the first practical exam and the average value of the students' practical exam results was above 70 practical values and more or less, however 69.1% of students passed the general test National.

“According to the Health PPSDM Agency, In achieving this learning goal, it is necessary to pay attention to: 1) the number of students in one group; 2) the ratio of instructors to students is 1:5; 3) Laboratory instructors can come from institutional laboratories, theoretical instructors in class or from practical fields (according to the competencies to be achieved); 4) the ratio of tools and practice materials to the number of students (according to laboratory standards); 5) the opportunity given to students to carry out practice in accordance with the number of learning hours; 6) selection of methods that suit the needs; 7) availability of practical teaching materials in the laboratory; 8) The availability of these teaching materials is fundamental considering that practical learning should be carried out independently by students with minimal guidance from an instructor. Teaching materials can be in the form of practice guidelines, practice modules, Standard Operating Procedures (SOP), work instructions and others” (Badan PPSDM Kemkes RI, 2016).

The achievement of graduate learning outcomes is also inseparable from the good management of laboratory clinical practice, to assess the competence/study outcomes of graduates in both institutions using the Final Program exam method before joining the national competency exam program, graduates whose scores are below the pass limit <75 must take the exam. remedial. Remedial exams are carried out after students take re-simulation and practice again.

“Graduate Competency Standards aim to prepare students to become members of the community with noble character, have the knowledge, skills, independence and attitude to discover, develop and apply science and technology and arts that are beneficial to humanity” (Badan PPSDM Kemkes RI, 2016).

3.7. Constraints on Student Learning Outcomes in Midwifery Clinical Laboratories

In general, in the process of implementing midwifery clinical practice learning, both in the two institutions, from the point of view of the practice supervisors and students/students, they did not experience many problems. More obstacles were experienced before the implementation of the practical learning process due to the limited number of practice rooms so that the Deputy leadership, Head of Study Program and laboratory unit leaders had to make the best possible schedule and adjust it to the academic calendar so that at the time of implementation, students were facilitated both from infrastructure and facilities. Problems in the implementation of practicum activities also collide with other activities and the presence of lecturers who can make practicums do not go according to plans and problems, student delays in preparing tools so that practicum implementation time is much reduced.

“According to Kolb, there are four stages in the learning process, namely: 1) concrete experience (students experience an experience but have not been able to understand the meaning of the experience); 2) active and reflective experience (students begin to actively observe their experiences, and reflectively begin to try to understand the meaning of the experience); 3) conceptualization (students try to make abstractions or theorize about their experiences); 4) active exploration (students try to apply a general rule to new situations)” (K. A. David, 2015).

There is almost the same problem in both institutions, lack of coordination between leaders so that there are 2 or more coordinations. Lack of coordination between officers due to activities outside the structure such as teaching etc. The evaluation has been carried out but the problem still cannot be implemented due to lack of communication with the leadership, another obstacle found is the lack of time for practice, so not all students can try more than one exercise. In addition, the number of supervisors who have clinical experience is also lacking and the activities are quite dense in management so that the implementation of guidance is not optimal.

3.8. Handling Obstacles in Midwifery Clinical Laboratory Practice

The two institutions in dealing with class shortages, one of the efforts made by the person in charge of the laboratory is to coordinate with the head of study programs and the lecturer coordinator for the courses in making schedules so that there are no clashes when students practice in the laboratory..

According to Louis A Alen one of the main functions of management is the supervisory function which is meant by supervision. Supervising is the last step of management. This step includes: development of work (developing performance standard); measurement of work results (measuring performance); take corrective action and correct errors (taking correction action) (Allen, 1963).

Efforts made by institutions must also be made by adding facilities and infrastructure or utilizing existing rooms by making partitions if the room is large with permanent partitions so that privacy between rooms is maintained so that students are not disturbed by other classes when doing practice. Because the

land owned by the institution is still quite large but the development costs are quite expensive, the efforts of foundations and institutions are to seek grants for both facilities and infrastructure.

According to James A.F Stones, what is meant by management is a process of planning, organizing, controlling and leading various businesses and members of the organization and also using all available resources to achieve the goals that have been set (Stoner, 2015).

4. Conclusion

The planning of the midwifery clinical laboratory practice learning program adheres to the institutional vision and mission, the national curriculum according to the SN-Dikti, the curriculum for health workers issued by the Indonesian Ministry of Health, and the institutional curriculum in carrying out each program. Midwifery clinical laboratory learning planning refers to the Semester Learning Plan (RPS) for practice according to competence, practical learning module books and learning achievement assessment instruments have been compiled at the beginning before learning begins. In planning the competency assessment of students, both institutions use the same instrument in the form of a checklist with assessment criteria for attitude, knowload, and psychomotor.

In organization at Bhakti Asih Polytechnic Purwakarta and Stikes Kharisma Karawang, each has a manager in the laboratory unit and the manager is listed in the organizational structure at both the institutional and laboratory unit levels, and there is a job description for each manager according to their duties as well as a decree by the leadership. Only the organization at the Bhakti Asih Purwakarta Polytechnic is more orderly because there is evidence of the organizational structure and documentary evidence that can be seen. The rules for implementing practical learning are made based on the presence of lecturers and students, the rules are poured into the SOP.

The chain of command in organizing the implementation of laboratory clinical practice starts from the instructions of the deputy director/chairman I to the head of the study program, then continues to the chairman/responsible for the laboratory and finally the laboratory implementer.

At the time of the implementation of laboratory practices at the Bhakti Asih Polytechnic Purwakarta and at Stikes Kharisma Karawang, it was in accordance with the calendar and schedule that had been made, there were no serious problems in borrowing space and equipment because of the accuracy in scheduling so that the infrastructure and facilities remained adequate when used. The two institutions during the implementation of clinical laboratory practice guidance for midwifery, lecturers did stimulation based on the laboratory practice manual, then students tried to practice both individually and in groups. The practical guidance carried out by the lecturers had referred to the three criteria, namely: knowledge, attitudes, and skills. conducted by the lecturer-centered method (student central learning). However, the percentage of 40% theory and 60% practice is in fact not in accordance with the competency achievements of students who do a lot of theory in class.

Both institutions have internal quality assurance units so that both of them have carried out evaluations to assess the progress of student competence through evaluation of the learning process which is assessed on an ongoing basis and for knowledge performance, measured through monitoring and evaluation questionnaires when the implementation of the midwifery clinical practice learning program is in progress and evaluation in the field. the end of the learning program. Assessment of student competence is also carried out to assess the quality of graduates.

The achievement of graduate learning outcomes in the study program is good, as evidenced by the results of the practical exams in the final program exams, approximately 80% of students immediately pass the first practical exams and the average value of students' practical exam results is above 70-75 practical values and less and test scores nationally, between 69.1% -88% of students passed the national exam. The achievement of graduate learning outcomes is also inseparable from the good management of laboratory clinical practice, to assess the competence/study outcomes of graduates using the Program Final exam method before joining the national competency exam program, graduates whose scores are below the pass limit of <75 must take remedial exams. Remedial exams are carried out after students take re-simulation and practice again.

The implementation of midwifery clinical practice learning both at the Bhakti Asih Polytechnic Purwakarta and at Stikes Kharisma Karawang did not experience many obstacles. More obstacles were experienced before the implementation of the practical learning process due to the limited number of practice rooms so that the Deputy leadership, Head of Study Program and laboratory unit leaders had to make the best possible schedule and adjust it to the academic calendar so that at the time of implementation, students were facilitated both from infrastructure and facilities..

Handling of obstacles is also carried out by the two institutions in a way that lecturers must be consistent with the agreed schedule so that practicum activities go according to plan. Students are asked to prepare practicum tools 1 day before practicum so as not to take a lot of time to prepare tools. Organizational leaders must be consistent in order to carry out the work program properly. Each officer must coordinate or transfer tasks to other officers if there are other activities such as teaching. Leaders when conducting evaluations must be firm so that the work program is carried out properly.

5. References

- Allen, L. A. (1963). *Karya Manajemen (J. M. A. Tuhutera, Trans.)*. Black, James A. & Champion.
- Anwar, S. (2021). *Pendidikan Karakter: Kajian Perspektif Tafsir fi Zilalil Qur'an*. Tulungagung: STAI Muhammadiyah Tulungagung.
- Badan PPSDM Kemkes RI. Standar Laboratorium Diploma III Kebidanan (2016).
- David, J. R. (1976). *Teaching Strategies for College Class Room*. P3G.
- David, K. A. (2015). *Experiential Learning: Experience As The Source Of Learning And Development*.

- Depdiknas. Undang-Undang Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional (2003).
- Ikhwan, A. (2017). Metode Simulasi Pembelajaran dalam Perspektif Islam. *Istawa: Jurnal Pendidikan Islam*, 2(2), 1-34.
- Ikhwan, A. (2021). *Metode Penelitian Dasar (Menenal Model Penelitian dan Sistematikanya)*. Tulungagung: STAI Muhammadiyah Tulungagung.
- Kemenkes RI. (2013). *Pedoman Praktik Lapangan Pendidikan Diploma III Kebidanan. Badan Pengembangan dan Pemberdayaan SDM Kesehatan*. Jakarta: Pusat Pendidikan dan Pelatihan Tenaga Kesehatan.
- Kumakech, E., Anathan, J., Udho, S., Auma, A. G., Atuhairi, I., Nsubuga, A. G., & Ahaisibwe, B. (2020). Graduate midwifery education in Uganda aiming to improve maternal and newborn health outcomes. *Annals of Global Health*. <https://doi.org/10.5334/aogh.2804>
- Mulyasana, D. (2015). *Pendidikan Bermutu dan Berdaya Saing*. Remaja Rosda Karya.
- Rusman. (2012). *Model – Model Pembelajaran*. PT Raja Grafindo Persada.
- Stoner. (2015). *Manajemen*. PT. Prenhallindo.
- Storey, M., Killian, S., & O'Regan, P. (2017). Responsible management education: Mapping the field in the context of the SDGs. *International Journal of Management Education*. <https://doi.org/10.1016/j.ijme.2017.02.009>
- Su, H. C., Dhanorkar, S., & Linderman, K. (2015). A competitive advantage from the implementation timing of ISO management standards. *Journal of Operations Management*. <https://doi.org/10.1016/j.jom.2015.03.004>
- Syam, A. R. (2019). Guru dan Pengembangan Kurikulum Pendidikan Agama Islam di Era Revolusi Industri 4.0. *TADRIS: Jurnal Pendidikan Islam*, 14(1), 1. <https://doi.org/https://doi.org/10.19105/tjpi.v14i1.2147>
- Terry, G. R. (2010). *Prinsip-Prinsip Manajemen*. Jakarta: PT. Bumi Aksara.
- Utomo, B. P. C. (2012). *Strategi Peningkatan Kualitas Pelayanan Akademik*. UMS.