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# PORTOFOLIO AS SELF-REFLECTION AS ASSESMENT TOOL IN CLINICAL EDUCATION

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**Abstract**

Clinical education is an important part of medical education. Clinical education aims to equip medical students with the clinical skills and knowledge necessary to become competent doctors. The purpose of this study was to examine the role of portfolios as self-reflection as an assessment tool in clinical education. This research used a qualitative approach with a case study method. The data collection technique in this study was a literature study. The data that has been collected is then analyzed using three stages, namely data reduction, data presentation and conclusion drawing. The results showed that portfolios can be used as an effective self-reflection and assessment tool in clinical education. Portfolios can help medical students to learn more effectively, to improve the link between theory and practice, and to improve communication and cooperation between students.

**Keywords:** Portfolio, Self-Reflection, Assessment Tool, Clinical Education

## Introduction

Clinical education is the essence of the learning process in healthcare. Here, students learn to apply theoretical knowledge to practical situations in the field. Successful clinical education creates confidence for students and helps them achieve the desired clinical competencies (Turisna et al., 2016). Clinical stage education in the context of medical education has a different nature from the academic stage. In the clinical stage, students learn in an actual work environment that involves direct interaction with patients and health professionals and other professional fields. Unlike the academic environment which tends to be more structured, learning in the clinical stage tends to be less structured and difficult to predict. The learning process often has to adapt to the patient care environment, which often occurs under conditions of limited resources (Sari, 2016).

Assessment in clinical education is an important element to evaluate the achievement of learning objectives by medical students. Various methods can be used in the assessment process, and one of them is the use of portfolios. Etymologically, the concept of portfolio comes from a combination of two words, namely "port" which means report, and "folio" which refers to full or complete. Thus, a portfolio implies a comprehensive report that contains all activities or activities that have been carried out by a person. In general, a

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portfolio is a set of documents used by individuals, groups, institutions, organizations, companies, or other entities to document the development or progress of a process in achieving predetermined goals (Mahardika, 2024).

Portfolios as an element of learning assessment are also valued as a self-reflection tool. Self-reflection is an integral part of achieving self-awareness, lifelong learning, and self-control, which are important elements in professional growth. Self-reflection is done by conducting self-assessment. Self-assessment is a process of comparing the results of the performance that has been carried out with the learning objectives. However, there is still difficulty in reaching agreement on how to evaluate reflection, which is an obstacle because assessment is very important for assessing the effectiveness of learning strategies and research purposes. Assessment also has a role as a source of feedback (formative) and in determining the level of competency achievement (summative) (Medianawaty, 2019).

Previous research by (Novitasari et al., 2017) examined the clinical competence self-assessment instrument for medical students, the results showed that the dimensions of clinical competence consisted of doctor-patient relationships, anamnesis, physical examination, diagnostic skills, management, communication skills, and professionalism. The items in the instrument have reflected all components of competence and have consistency in measuring the same construct, so that students can be used to measure their respective clinical competence as material for self-development.

Another study by (Itaristanti, 2016) examined portfolios as one of the authentic assessment models in SD / MI, the results showed that authentic assessment includes various aspects of student knowledge, deep understanding, problem solving skills, social competence, and behavior used in everyday life or is a simulation of real life. Authentic assessment is a collection of meaningful and interesting tasks, rich in context, where students apply knowledge and skills, and perform these tasks in new situations. Authentic tasks help students practice solving problems that they will face in the future. One example of authentic assessment is a portfolio.

Similar research by (Anugraheni, 2017) examined the use of portfolios in learning assessment lectures, the results showed that through the teaching and learning process using portfolios can improve learning outcomes in lectures. This is evidenced by the increase in learning outcomes in the cognitive domain (tests and products) and affective domain. The average learning outcome for the cognitive domain in cycle 1 was 61.22 and the average in cycle 2 was 78.29. The increase in the average learning outcomes in cycle 1 and cycle 2 amounted to 17.07. While learning outcomes in the affective domain are in good criteria, this is indicated by the results of student feedback.

The novelty of this research is from the object of research, namely the role of portfolios as self-reflection as an assessment tool in clinical education that has never been studied before. This research can contribute to improving assessment methods in the context of medical education. The use of portfolios as an evaluation tool is able to provide an in-depth understanding of individual student development in clinical practice, not only in terms of knowledge and skills, but also in terms of self-reflection and involvement in practice interactions. The aim of this study was to examine the role of portfolios as self-reflection as an assessment tool in clinical education.

## Research Methods

This research uses a qualitative approach with a case study method. Qualitative research is a research method that aims to understand and explain complex phenomena in their natural context. This approach focuses on an in-depth understanding of meanings, perspectives, attitudes, and behaviors involving human interactions and their environment. In contrast to quantitative research which places more emphasis on measurement, statistical analysis, and generalization, qualitative research tends to collect detailed and in-depth data, often through observation, interviews, or content analysis of texts and documents (Kusumastuti & Khoirun, 2019). The data collection technique in this research is a literature study. The data that has been collected is then analyzed using three stages, namely data reduction, data presentation and conclusion drawing.

## Results and Discussion

Medical education is the upstream of global health system development efforts. Transformation of the education system and learning process plays a very important role in creating optimal health services. In the Law of the Republic of Indonesia Number 20 of 2013, Medical Education is a conscious and planned effort in formal education consisting of academic education and professional education at the higher education level whose study programs are accredited to produce graduates who have competence in the field of medicine or dentistry. Medical education has identified standards that students must achieve that will make them competent doctors. A doctor graduate must master seven competency areas as regulated by the Indonesian Medical Council through the Indonesian Doctors Competency Standards (SKDI), one of which is introspection and self-development. The competence of introspection and self-development consists of; applying introspection, practicing lifelong learning, and developing knowledge, which then in its implementation requires self-reflection. Self-reflection is learning to gain new understanding from previous experiences (Puspita & Widjaja, 2023).

Medical education in general includes clinical education and professional behavior which has an important role in the learning process aimed at mastering knowledge and skills in making diagnoses, making scientific decisions, and professional behavior of doctors. The clinical learning process can be carried out in a hospital environment or in other community health centers with the aim of medical students getting clinical lessons and experiences (Nurlina et al, 2019). In medical education, clinical skills are an important basic aspect because they play a role in determining diagnosis and therapy (Yustisiani et al, 2023).

Clinical skills are one of the competencies that must be mastered by a doctor in making a diagnosis. These clinical skills include history taking, physical examination, supporting examination, management, and education. Medical students are expected to be able to master the clinical skills taught at the institution so that they can be applied in the doctor's professional program (Hasibuan & Andina, 2019). Clinical education has been designed to produce graduates who have competence in medical and dental science and skills in the field of dentistry (Septina et al, 2022).

Law of the Republic of Indonesia Number 20 of 2013 concerning medical education states that medical lecturers are professional educators and scientists whose main task is to transform, develop and disseminate science and technology, health humanities, and or

clinical skills through education, research and community service (Lisiswanti, 2019). Clinical reasoning performed by a doctor/clinician has key elements, namely: prior knowledge (Knowledge), context or clinical conditions, and experience (experience) (Adista et al, 2023). The following are the abilities that Doctor Graduates need to have.

1. Perform diagnostic procedures
    a. Perform and interpret the results of auto-, allo- and hetero-anamnesis, general and special physical examinations according to the patient's problem.
    b. Perform and interpret basic supporting examinations and propose other rational supporting examinations.
2. Perform procedures for managing health problems holistically and comprehensively
    a. Conduct education and counseling
    b. Carry out health promotion
    c. Perform preventive medical actions
    d. Perform curative medical actions
    e. Perform rehabilitative medical actions
    f. Perform protective procedures against things that can endanger themselves and others
    g. Perform medical actions in clinical emergencies by applying the principles of patient safety
    h. Perform medical actions with a medicolegal approach to health problems/injuries related to the law.

In carrying out practice, doctor graduates must master clinical skills to diagnose and manage health problems. This Clinical Skills List was compiled from the appendix of the 2006 SKDI Clinical Skills List which was then revised based on survey results and input from stakeholders. The data collected was then analyzed and validated using focus group discussion (FGD) and nominal group technique (NGT) methods with doctors and experts representing stakeholders. Clinical abilities in this competency standard can be improved through continuing education and training in order to absorb the development of medical science and technology organized by professional organizations or other institutions accredited by professional organizations, as well as for other clinical abilities outside the established doctor competency standards. Education and training arrangements for both are made by professional organizations, in order to meet the needs of affordable and equitable health services (article 28 of the Medical Practice Act no.29/2004).

Clinical phase medical education is medical education that is carried out through the teaching and learning process in the form of clinical learning and community learning that uses various forms and levels of real health services that meet the requirements as a place of medical practice. Learning in the clinical phase students are given the opportunity to engage in health services with the guidance and supervision of clinical supervisors (Shafira & Syauqi, 2019). The clinical learning process emphasizes the integration of theoretical and practical knowledge, as well as synthesis to be able to find alternative solutions to problems from the cases found (Hardisman, 2009). Thus, the importance of reflection to find out the mistakes made so that they can correct them.

Self-reflection can help a doctor realize what they have done or not done during the activities they participate in and allow them to make adjustments or change what will be done as needed based on the results of the reflection (Shafira, 2015). A doctor's self-reflection can

be made a portfolio. Portfolios can also be used as a quality assurance instrument, e.g. how many procedures have been performed, the success rate of procedures, professional development enrollment or courses, patient evaluations, etc. The purpose of the portfolio will then be more tailored to the function of the file, where information is collected and where necessary collated and reported. Portfolios as management problem files can be applied to both individual trainees and (senior) doctors, as well as to training programs (Heeneman & Driessen, 2017).

Portfolios validated as programmatic assessments of integrated clinical placements have demonstrated reasonable measurement characteristics. Programmatic portfolios would be highly relevant to the international conversation regarding the development of longitudinal integrated clinical placement assessments (LICs) (Shadbolt, 2014). The portfolio at least illustrates the student's ability to think critically, perform appropriate therapeutic nursing interventions, communicate effectively, and ultimately integrate theory and practice (Ticha & Fakude, 2015).

As a physical object, the portfolio is a bundle, which is a collection or documentation of the work of a doctor. As a pedagogical process, the portfolio is a collection of larning experience contained in the minds of learners in the form of knowledge (cognitive), skills (skills), as well as values and attitudes (affective). Portfolio objectives are applied based on what to do and who will use the type of portfolio. Portfolios can be used to achieve several objectives, among others:

a. Appreciate the development of a doctor
b. Documenting the learning process that takes place
c. Draws attention to a doctor's best work achievements
d. Reflects the ability to take risks and experimentation
e. Improving the effectiveness of the practice process
f. Exchanging information with parents/guardians and other doctors
g. Foster and accelerate the growth of a positive self-concept in doctors
h. Improve the ability to self-reflect
i. Assist doctors in formulating goals

Thus, how to assess yourself a doctor can be shown an honest and objective attitude to be able to accept the reality of things that are wrong, as well as understand and feel satisfied with the things he has done correctly. So that portfolio assessment trains a doctor to be able to recognize his shortcomings and strengths, so that a doctor can improve himself on the next occasion.

## Conclusion

Portfolios have proven to be a very useful tool in clinical education for medical students. Portfolios are not only a place to keep documentation of clinical experiences, but also a powerful means of self-reflection. By reflecting on the practice experience in detail, students can evaluate progress, identify strengths and weaknesses, and assess the application of theory in hands-on practice. In addition, portfolios also facilitate a more effective learning process by strengthening the link between the theory learned and the field practice experience. During portfolio development, students will sharpen their communication and collaboration skills, as they share and discuss their experiences with fellow students, teachers or mentors, which brings additional benefits in their clinical education process.

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