

A Study of the Perceptions of Professional-Year Students of the 76th Cohort Regarding the Integrated Surgical Clerkship Program at the Faculty of Medicine, Jenderal Achmad Yani University

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ABSTRACT

The transition of medical professional students from the preclinical stage to the clinical stage is a period filled with critical academic and psychological challenges. The concept of an integrated clerkship is needed to support experiential learning, improve self-confidence, and minimize the risk of medical errors due to system unpreparedness. Evaluation of the Integrated Surgical Clerkship (ISC) program at the Faculty of Medicine, Jenderal Achmad Yani University (FK Unjani) is an essential step to ensure effective curriculum implementation. This study aimed to describe the perceptions of professional-year students of the LXXVI cohort regarding the effectiveness and implementation of the ISC program at the Faculty of Medicine, Unjani. A descriptive quantitative study with a cross-sectional design was conducted on all professional-year students of Cohort LXXVI (N = 120) using a total sampling technique. Data were collected using a validated questionnaire consisting of 26 items. Data analysis was performed using descriptive statistics. The instrument demonstrated very high reliability, with a Cronbach's alpha of 0.982. The respondents consisted of 83 female students (69.2%) and 37 male students (30.8%). Students' perceptions of the ISC program were in the very good category, particularly in the domains of clinical readiness and mentor quality. The ISC program was found to be effective in supporting the transition to clinical education and is recommended for continued implementation.

INTRODUCTION

The transition from the preclinical stage to the clinical stage in medical education is a phase frequently characterized by significant academic and psychological pressure. At this stage, students face substantial changes from theory-based learning to direct clinical practice with patients, which requires the integration of knowledge, clinical skills, interpersonal communication, and the ability to make complex decisions in real healthcare settings (Dodsworth et al., 2023; Mylopoulos et al., 2020). This transition is not only cognitive in nature but also involves aspects of professionalism and identity formation as a doctor. From the perspective of Communities of Practice theory, this transition represents a process of Legitimate Peripheral Participation, in which students move from the periphery toward the

center of professional practice as an integral part of the medical community (Brown et al., 2021; Lave & Wenger, 1991).

Various studies show that students often experience anxiety, uncertainty, and reduced self-confidence when first entering the clinical environment (Dodsworth et al., 2023). These conditions are influenced by differences in expectations between preclinical learning and clinical practice demands, as well as limited prior experience in dealing with patients directly (Gupta & Howden, 2022). The dynamic clinical work environment can further increase student stress. Theoretically, this phenomenon is related to Cognitive Load Theory, where excessive extraneous load — such as a hectic schedule or logistical issues — can hinder intrinsic cognitive processing and germane load development, thereby potentially reducing learning quality and patient safety (Brown et al., 2021; Gupta & Howden, 2022; Merriënboer & Sweller, 2010). Therefore, a systematic educational approach through an Integrated Surgical Clerkship (ISC) program is needed to function as scaffolding support for learning. This support is crucial for students within the Zone of Proximal Development (ZPD), where structured guidance is required to achieve clinical competencies that students cannot yet master independently (Dennen & Burner, n.d.).

One of the evolving approaches in modern medical education is the integrated clerkship model, which provides longitudinal and continuous clinical learning across multiple disciplines (Richards et al., 2022; Garne et al., 2026). Unlike traditional block rotation systems that tend to be fragmented, integrated clerkships allow students to follow patients continuously across various healthcare settings, thereby improving holistic understanding of disease progression and patient management (Moya-Mendez et al., 2024). This model has also been shown to enhance student engagement, strengthen relationships between students and clinical supervisors, and provide more meaningful and contextual learning experiences (Garne et al., 2026; Moya-Mendez et al., 2024).

The integrated clerkship approach aligns with Kolb's experiential learning cycle, which emphasizes that optimal learning occurs through four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation in real-world contexts. Through this cycle, students are encouraged not only to perform clinical tasks but also to engage in deep reflection to build comprehensive competencies (Adams et al., 2023; Kolb, n.d.).

Evaluation of educational programs, including the Integrated Surgical Clerkship (ISC), is an important step in ensuring curriculum quality and achieving learning objectives. One widely used evaluation framework in medical education is the Kirkpatrick Evaluation Model, particularly Level 1 (Reaction), which assesses participant perceptions and satisfaction with the program (Falletta, 1998). At this level, evaluation provides an initial overview of student responses regarding program design, material relevance, supervision quality, and learning environment comfort. Although it does not directly measure learning outcomes, reaction-level evaluation plays an important role as an early indicator of program quality and as a foundation for continuous improvement.

The ISC program is an innovation in clinical education aimed at improving cross-disciplinary learning integration, strengthening continuity of clinical experience, and enhancing student readiness for professional practice. Globally, longitudinal integrated clerkship models have been widely studied and shown to provide various benefits, including

increased student engagement, continuity of patient and mentor relationships, and higher learning satisfaction compared to traditional block rotations (Richards et al., 2022; Garne et al., 2026; Moya-Mendez et al., 2024). Additionally, this approach has been reported to improve holistic clinical understanding and support the formation of professional identity among medical students (Brown et al., 2021; Moya-Mendez et al., 2024).

However, the implementation of educational programs cannot be separated from local institutional contexts. Factors such as academic culture, hospital education systems, resource availability, and student characteristics significantly influence program success (Mylopoulos et al., 2020; Gupta & Howden, 2022). Although the benefits of integrated clerkships are well established globally, variations in implementation outcomes across institutions indicate the importance of context-specific evaluation (Garne et al., 2026; Moya-Mendez et al., 2024).

At the Faculty of Medicine, Jenderal Achmad Yani University (FK Unjani), there has not yet been a documented systematic evaluation of the ISC program. This lack of evaluative data creates an information gap regarding program effectiveness, particularly in describing student learning experiences during integrated clinical rotations. In fact, evaluation is an essential component in curriculum development cycles to ensure quality, relevance, and sustainability. Without systematic evaluation, institutions may face difficulties in identifying strengths, weaknesses, and areas for improvement.

In addition, student perception as a primary stakeholder in the educational process has not been comprehensively examined within the ISC context at FK Unjani. Student perception is strategically important because it reflects direct learning experiences, including clinical supervision quality, clarity of learning objectives, material integration, and the learning environment (Adams et al., 2023). Within the Kirkpatrick Level 1 framework, measuring student perception and satisfaction serves as an initial indicator of program success before progressing to higher levels of learning and behavioral evaluation (Falletta, 1998).

Given the limited local evaluation data on the ISC program and the lack of studies on student perceptions, there is a clear research gap. This study was therefore conducted to provide empirical evidence on student perceptions of the ISC implementation at FK Unjani. This is particularly relevant because medical students are adult learners who, according to andragogical theory, demonstrate higher learning motivation when content is directly relevant to their clinical tasks and future professional needs.

Based on the identified research gap, this study aimed to analyze the perceptions of professional-year students of the LXXVI cohort regarding the implementation of the Integrated Surgical Clerkship (ISC) program at the Faculty of Medicine, Jenderal Achmad Yani University. The study focused on evaluating student reactions to program implementation, including orientation clarity, clinical supervision quality, cross-disciplinary learning integration, adequacy of clinical exposure, and learning environment comfort.

Student perception-based evaluation plays an important role in assessing educational program quality because it reflects participants' direct learning experiences (Moya-Mendez et al., 2024; Adams et al., 2023). In medical education, student perception is closely related to learning engagement and clinical readiness. This is supported by self-determination theory, which states that learning environments that fulfill students' basic needs for autonomy, competence, and relatedness through effective supervision can significantly enhance intrinsic motivation and learning satisfaction (Brown et al., 2021; Moya-Mendez et al., 2024; Ten Cate

et al., 2011). Therefore, measuring student perception functions not only as an indicator of satisfaction but also as an early representation of curriculum implementation quality.

Furthermore, this study aimed to provide empirical data to support evaluation and academic policy decision-making in developing a more adaptive, integrated, and responsive clinical curriculum. Reaction-level evaluation represents the initial step in a comprehensive program evaluation framework before assessing learning outcomes and behavioral changes in subsequent stages (Adams et al., 2023).

Thus, the findings of this study are expected to contribute to improving the quality of medical education, particularly at the professional stage, and to serve as a foundation for the continuous development and refinement of the Integrated Surgical Clerkship program.

METHOD

A. Research Design

This study was a descriptive quantitative study with a cross-sectional design aimed at describing students' perceptions of the implementation of the Integrated Surgical Clerkship (ISC) program. The cross-sectional design was chosen because it enabled the measurement of respondents' perceptions at a single point in time after exposure to the program, providing an efficient and systematic overview of the current condition (Gheihman et al., 2021).

This approach has been widely used in medical education research to evaluate learning experiences and student satisfaction with educational interventions, particularly at the early stages of program evaluation (Gupta & Howden, 2022).

B. Place and Time

Study This implemented at the Faculty General Achmad Yani University Medical School and Dustira Class II Hospital as House Sick education main. Data collection was carried out after all over respondents finish Integrated Surgical Clerkship (ISC) program series, so that the response given reflect experience Study in a way intact during follow the program.

C. Population and Sample

Population in study This is all over student stage profession of the LXXVI Faculty Class General Achmad Yani University of Medicine which has 120 people participated in the ISC program.

Sampling techniques used is total sampling, namely all over member population made into as sample research. Approach This chosen For get description comprehensive perception as well as avoiding selection bias, especially when amount population relatively limited and can reachable overall (Etikan, 2017).

Criteria inclusion :

1. Student stage profession of the LXXVI generation
2. Have followed all over ISC program series
3. Willing become respondents study

Criteria exclusion :

1. Not giving informed consent
2. Not filling questionnaire in a way complete
3. Not yet or No follow the ISC program overall

D. Instruments Study

Instrument research used in studies This in the form of questionnaire structured development based on draft evaluation of educational programs and satisfaction participant educate in context education medicine. Development instrument refers to the framework training program evaluation as well as principle measurement perception use Likert scale that has been Lots used in study Health education (Artino et al., 2014; Joshi et al., 2015).

Questionnaire consists of of 26 statement items compiled For evaluate some major domains in implementation of the Integrated Surgical Clerkship (ISC) program, namely :

1. clarity program objectives ,
2. program structure and systematics ,
3. quality mentor or supervision clinic ,
4. quality activity academic ,
5. benefit to readiness clinical , and
6. satisfaction general to the program.

Each item in questionnaire measured use 4-point Likert scale, with range mark from 1 (very much agree) to 4 (strongly agree). Use Likert scale without option neutral (forced-choice format) aims For reduce trend respondents choose answer middle (central tendency bias) as well increase assertiveness and discrimination response to each statement (Joshi et al., 2015).

In addition, the use of Likert scale in study education medical has proven effective in measure perception, attitude, and level satisfaction student to environment learning and intervention curriculum, so that allows analysis systematic and standardized quantitative (Frye & Hemmer, 2012).

E. Instrument Testing

Instrument study in the form of questionnaire structured development based on draft evaluation of educational programs and satisfaction program participants. Before used as tool data collection, questionnaire moreover formerly tested validity and reliability For ensure that instrument the capable measure the construct in question in a way accurate and consistent (Sullivan & Artino, 2014).

Next, validity tested use Corrected Item-Total Correlation analysis. Each item is declared valid if own coefficient correlation > 0.30 , which indicates that the item correlated in a way adequate with total score of the measured construct (Tavakol & Dennick, 2011).

Reliability test done use Cronbach's alpha coefficient for evaluate internal consistency between items in each questionnaire domain. A Cronbach's alpha value ≥ 0.7 is considered show level good reliability and can accepted in study education and health (Tavakol & Dennick, 2011).

F. Ethics Study

Study This has get licensing ethics from commission ethics study Faculty General Achmad Yani University of Medicine with Number 034/UM2.03/2026. Research ethics aim For protect rights and obligations respondents as well as researcher. Principle main covering honor autonomy respondents with give agreement informational before data collection, promoting justice in get benefits and risks research, ensuring study give benefit for respondents, and prevent impact negative that is not expected.

Before filling questionnaire, all respondents has given informed consent sheet containing explanation about objectives and procedures research. Participation respondents nature

voluntary without existence coercion. All information about identity respondents in the study This nature confidential.

RESULTS AND DISCUSSION

A. Characteristics Respondents

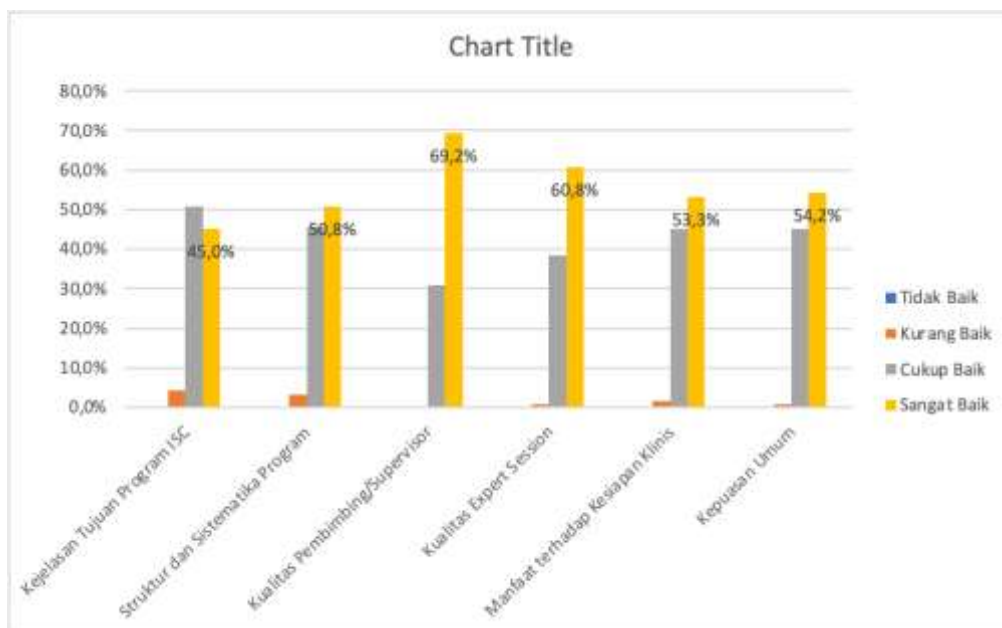
Table 1. Characteristics Respondents

Group	Gender			
	Man		Woman	
	f	%	f	%
LXXVI-A	6	30%	14	70%
LXXVI-B	6	28.6%	15	71.4%
LXXVI-C	6	30%	14	70%
LXXVI-D	6	30%	14	70%
LXXVI-E	6	31.6%	13	68.4%
LXXVI-F	7	35%	13	65%
Total	37	30.8%	83	69.2%

Based on results research , obtained a total of respondents as many as 120 students stage the profession of the LXXVI generation which is divided to in six groups (LXXVI-A to LXXVI-F). Distribution amount respondents relatively evenly distributed in each group, with amount most found in group LXXVI-B (21 respondents) and the smallest number in group LXXVI-E (19 respondents).

Based on type gender, majority respondents is Woman as many as 83 people (69.2%), while respondents man totaling 37 people (30.8%). Distribution pattern This relatively consistent throughout group, where the percentage student Woman range between 65.0% to 71.4% in each group. Meanwhile that, percentage student man is in the range of 28.6% to 35.0%.

B. Overview of Satisfaction per Domain



Picture 1. Results overview per domain

Analysis to perception student done based on six questionnaire domains that cover clarity objectives, program systematics, quality mentor, quality activity academic, benefits clinical,

and satisfaction general. Findings main presented in Figure 1 and Table 2 shows very positive response to implementation of the ISC program, where not There is respondents (0.0%) who gave assessment in the "Not Good" category for all domains tested.

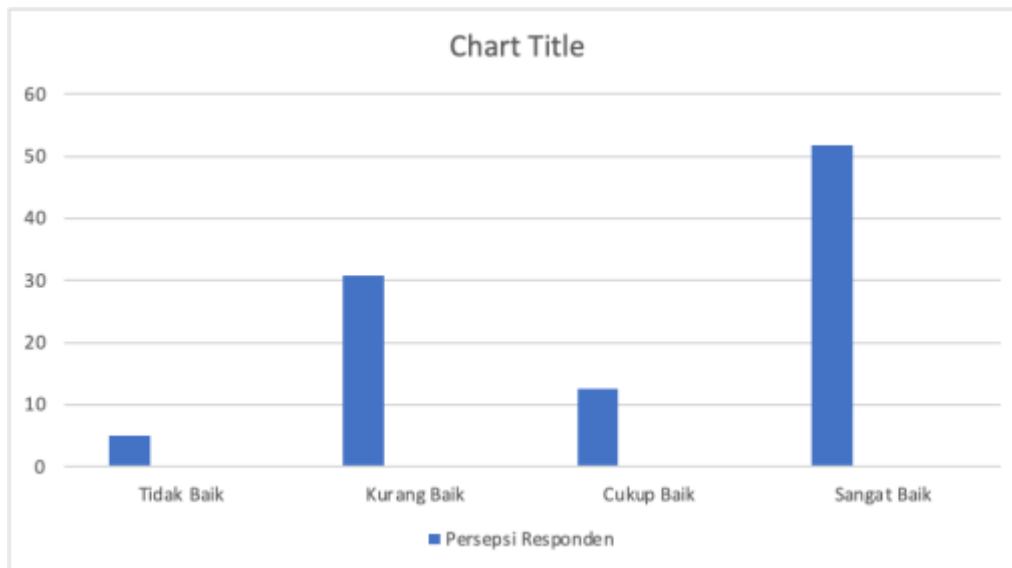
Table 2. Presentation results

	Not good	Not good	Pretty good	Very good
Clarity of ISC Program Objectives	0.0%	4.2%	50.8%	45.0%
Program Structure and Systematics	0.0%	3.3%	45.8%	50.8%
Quality Supervisor	0.0%	0.0%	30.8%	69.2%
Quality Academic Activities	0.0%	0.8%	38.3%	60.8%
Benefits to Readiness Clinical	0.0%	1.7%	45.0%	53.3%
General Satisfaction	0.0%	0.8%	45.0%	54.2%

In the quality domain supervisor, majority respondents give very good rating that is by 69.2%, which is percentage highest compared to other domains. Furthermore, the quality domain activity academic and satisfaction general also shows significant results with Very good ratings of 60.8% and 54.2% respectively. Related to the benefits domain to readiness clinical , as many as 53.3% of respondents rated very good and 45.0% rated Enough good , which indicates success of the program in prepare student before enter station action . In the domain of program structure and systematics , 50.8% of respondents recorded give very good assessment , while in the clarity domain ISC program objectives , categories Enough Good to be dominant by 50.8% even though this domain record percentage not enough Good highest compared to other domains by 4.2%

C. Satisfaction Overall

Perception Overview Student Faculty of Medical Profession General Achmad Yani University Medical Faculty, class LXXVI, towards the ISC program in 2019 Teachings 2026. Perception student towards the ISC program in general general measured with questionnaire consisting of of 26 question items and divided to in 6 major domains. Perception student classified into 4 categories that is No good, less okay, enough good, and very good. Perception student profession doctor who was measured with questionnaire statement numbers 1-26, seen on the graph following



Picture 2. Perception overview

DISCUSSION

Study This show that the Integrated Surgical Clerkship (ISC) program provides impact significant positive to perception students, in particular in increase readiness clinical and trust self before enter station action. Findings This indicates that ISC is working as intervention effective education in bridge gap between learning preclinical nature theoretical with practice complex and contextual clinics. In conceptual, success This show that design integrated learning capable facilitate the adaptation process student in a way more systematic and meaningful.

In literature education medicine, transition to stage clinic often depicted as phase with level ambiguity the height that can cause stress, uncertainty participation decline trust self students. Ambiguity This appear consequence change environment learning, improvement not quite enough answer clinical, as well as expectation more competence complex. Research results This show that approach integrated in ISC is able reduce ambiguity the through provision structure clear , directed , and contextual learning , so that student own framework more work Good in understand roles and responsibilities the answer is in the environment clinic .

The height scores on the quality domain supervisors (69.2%) emphasized the role of the supervisor as agent socialization in Communities of Practice theory. Through ISC, students undergo a process of legitimate peripheral participation, in which they move from outskirts going to center practice professional as prospective doctors (Lave & Wenger, 1991). Effectiveness guidance this also reflects proper scaffolding in the zone of proximal development (ZPD), which helps student beyond obstacle cognitive in case complex surgery (Dennen & Burner, n.d.). In addition, the relationship close with mentor fulfil need psychological of relatedness and competence in self-determination theory, which increases motivation intrinsic student (Ten Cate et al., 2011).

In addition , integration cross discipline in ISC provides experience learn more holistic compared to the rotation model block traditional which tends to fragmented. The longitudinal integrated clerkship approach allows student understand journey disease patient in a way comprehensive, improving continuity learning, as well as strengthen relatedness between

knowledge basics and practice clinic. With Thus, students No only learn case in a way partial, but also develop understanding more clinical comprehensive and contextual.

Improvement readiness clinical (53.3% very good) supported by the implementation of The experiential learning cycle whole, start from experience concrete, observation reflective, conceptualization abstract, up to active experimentation (Kolb, n.d.). Findings this is also in line with the principle of adult learning, where students stage profession as learners mature more value problem-centered learning and has relevance direct with need professional them in the future (Frye & Hemmer, 2012). In addition, experiential learning also plays a role in increase ability taking decision clinical as well as readiness face situation real in the field.

Although Thus, the results research also shows that there is part small respondents who provided evaluation not enough good, especially in the clarity domain program objectives. This is indicates that although the program structure has walk with okay, still required improvement in aspect communication and transparency related objective learning as well as expectation competencies that must be achieved. Clarity objective is element important in learning Because influential to motivation, direction learning, and effectiveness achievement competence student.

Complaint about burden tasks and density timetable show risk the occurrence of cognitive overload. Based on cognitive load theory, obstacles logistics and schedules that are not efficient is an extraneous cognitive load which diverts student mental energy from the building process scheme knowledge (germane load) towards physical fatigue (Merriënboer & Sweller, 2010). This can hinder ability student For do reflection which is element key in learning meaningful clinic. Therefore that, is necessary evaluation more carry on to design schedule and load tasks to remain balanced between demands academic and capacity Study student.

Strength main study This lies in the use total sampling technique, so that capable represent all over population LXXVI Class students in general comprehensive. In addition, the instrument study own very high reliability (Cronbach's alpha = 0.982), which indicates excellent internal consistency in measure perception students. However Thus , research This own a number of limitations , namely data- based usage perception vulnerable subjective against response bias , as well as cross-sectional design that does not allows evaluation connection causal and impact term program length .

Therefore that , research furthermore recommended For develop evaluation at a higher level high , such as measurement improvement competence clinical (learning outcomes) as well as change behavior professional student in practice clinic real , so that can give a clearer picture comprehensive about effectiveness of the ISC program in general comprehensive .

CONCLUSION

The Integrated Surgical Clerkship (ISC) program at the Faculty of Medicine, Jenderal Achmad Yani University generally showed a very positive perception among professional-year students of Class LXXVI. The evaluation results indicated that this program was effective in supporting the transition from the preclinical stage to the clinical stage, particularly in improving students' clinical readiness and self-confidence before engaging in direct clinical practice.

The integrated learning approach, supported by qualified mentors and relevant academic activities, contributed to the creation of meaningful and contextual learning experiences. The ISC program not only helped students understand clinical technical aspects but also strengthened their understanding of professional workflows and roles within the healthcare service environment.

Thus, the ISC program is recommended to be maintained as part of the medical professional education curriculum. However, this study was limited to a perception-based evaluation (Level 1), which means it does not yet assess the program's impact on objective clinical competence improvement. Therefore, further studies are needed to evaluate the program's effectiveness at the levels of learning outcomes and clinical behavioral change.

Although the ISC program showed generally excellent results, several aspects still require improvement to enhance future implementation quality. One of the key issues identified was the relatively high workload of assignments within a limited timeframe, which may reduce students' opportunities for independent and reflective learning.

In addition, the density of the activity schedule, particularly between observation sessions and expert-led sessions, was perceived as providing insufficient rest time. Therefore, adjustments in scheduling are needed to ensure a more balanced structure that supports learning effectiveness.

From a management perspective, improvements are needed in coordination and communication among program organizers, mentors, and affiliated institutions. Standardization in assignment instructions and assessment systems is also required to ensure consistency and transparency in program implementation.

Logistical constraints, such as the distance between practice locations and travel time, should also be considered in program planning to reduce students' physical fatigue. Furthermore, strengthening more applicable, competency-based clinical learning—including preparation for the UKMPPD examination—should be a key focus in the future development of the ISC program.

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