



Analys of the Implementation of Bedside Teaching in the Clinical Clerkship of Medical Professional Education

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Informasi Artikel

Abstract

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This study aims to examine the implementation of bedside teaching in clinical clerkships at the Faculty of Medicine, State University of Gorontalo, based on the perspectives of ten informants consisting of clinical supervisors and students. The study employed a qualitative approach using in-depth interviews, observations, and document analysis. Data were analyzed through reduction, presentation, and conclusion drawing to obtain a comprehensive understanding of the nine main indicators of bedside teaching. The findings show that in terms of planning, although it is already outlined in the curriculum and guidelines, implementation still faces coordination challenges between the faculty, teaching hospitals, and clinical supervisors. Bedside teaching has been carried out, but its effectiveness varies across teaching hospitals due to limited numbers of supervisors, short time allocation, and large student groups. Regarding medical interview and physical examination skills, most informants stated that the learning process follows academic theory, but is not yet optimal due to limited time and supervision. Students' clinical decision-making skills remain low since most decisions are made directly by supervisors in line with hospital policies. Counseling, professionalism, and procedural skills are also taught but often constrained by hospital policies, limited patient availability, and insufficient time allocation. Overall clinical competence of students still heavily depends on supervisors, as no standardized policy has been applied across teaching hospitals. Bedside teaching evaluation is conducted through observation, clinical skills exams, clerkship reports, and case presentations, but some informants noted that evaluations focus more on final results, lack documentation, and provide minimal formative feedback. In conclusion, based on triangulation of information from ten informants, bedside teaching at the Faculty of Medicine, State University of Gorontalo has been implemented in line with the curriculum, but its effectiveness is not yet evenly achieved. Improvements should focus on strengthening coordination, increasing the number and quality of supervisors, standardizing policies across teaching hospitals, enhancing facility support, and developing a more consistent and continuous evaluation system.

INTRODUCTION

Advances in science and technology, particularly in the field of medicine, have developed rapidly and have impacted both healthcare providers and users. Higher education institutions are required to produce doctors who are professional, ethical, morally upright, and possess up-to-date knowledge and skills, including effective communication with patients. Doctors, as the primary element in healthcare delivery, play a crucial role in determining the quality of medical services. The knowledge, skills, attitudes, and behaviors acquired during education serve as the foundation for doctors to perform medical actions effectively to improve the quality of public health services.

Medical education is an integral part of the national healthcare system, as the mastery of knowledge, skills, and behaviors of medical graduates determines the quality of medical services. Ensuring the quality of medical education is a key concern for all stakeholders to meet the healthcare needs of society. Medical education focuses on mastering clinical knowledge and skills based on scientific evidence, yet training related to clinical decision-making and ethical evaluation is often limited. This highlights the need for continuous evaluation and improvement of medical education management in line with technological advancements and societal needs (Chowdhury et al., 2024; Ahmad et al., 2023).

The Professional Stage of Medical Education, or clinical clerkship, is the final phase after obtaining a medical bachelor's degree, where students practice directly in teaching hospitals under the supervision of faculty staff. This stage covers promotive, preventive, curative, and rehabilitative aspects and is an essential requirement for medical graduates to become professional doctors. The professional stage curriculum aligns with the faculty's goals, vision, and mission, as well as societal needs, encompassing bio-psycho-socioeconomic-cultural components. Students are expected to face real cases relevant to professional practice to integrate knowledge, skills, and professional attitudes, although clinical education often faces challenges such as limited time, unclear objectives, insufficient supervision, and lack of continuity with the overall curriculum.

Bedside Teaching (BST) is the primary method in clinical education as it allows students to interact directly with patients to practice medical interviews, physical examinations, clinical decision-making, procedural skills, and develop professional and humanistic attitudes. BST is structured progressively: students initially observe, then practice under supervision, and finally perform skills independently. Research indicates that BST is effective in developing communication, clinical reasoning, and professional behavior, although its implementation has declined due to time constraints and patient census limitations (Edwards et al., 2020; Blaschke et al., 2022; Thompson et al., 2024).

Student experiences show that the success of BST is influenced by teaching skills, interpersonal abilities, and the attitude of the educators. Students appreciate instructors who are responsive, do not embarrass learners, and can connect skills training with basic sciences and clinical practice. Furthermore, students require clear learning objectives, structured sessions, effective time management, consistent teaching, and a supportive learning environment. This emphasizes the crucial role of clinical educators as facilitators, case selectors, and supervisors to ensure that learning objectives are optimally achieved (Marjel van Dam et al., 2021).

At the Faculty of Medicine, Universitas Negeri Gorontalo (FK UNG), clinical education is conducted at primary and affiliated hospitals according to the established curriculum. As a relatively new faculty, FK UNG faces several challenges, including irregular student rotations, a less structured assessment system, reduced number and variety of cases due to BPJS policies, and hospital regulations restricting direct patient examinations. These conditions affect the effectiveness of clinical learning, students' competency achievements, and their readiness for professional practice.

Although BST is essential for developing clinical skills and professional attitudes, its current practice often shifts to case presentations or discussions without direct supervision. High workloads for supervising lecturers, urgent patient needs, and limited facilities in affiliated hospitals are major challenges in BST implementation. Therefore, analyzing the implementation of BST in clinical clerkship at FK UNG is crucial to identify solutions that can enhance the quality of professional medical education and ensure graduates are prepared to face real clinical practice challenges.

METHOD

This study employed a qualitative research method with a descriptive approach to gain an in-depth understanding of the implementation of bedside teaching (BST) during the clinical clerkship of medical professional students at Universitas Negeri Gorontalo. Qualitative research was chosen because it allows exploration of students' experiences, perceptions, and perspectives in real clinical settings, particularly in mastering clinical skills such as medical interviewing, physical examination, clinical decision-making, counseling, humanistic/professional qualities, procedural clinical skills, and overall clinical competence (Adiputra, et.al, 2021; Creswell & Creswell, 2023). The research was conducted at the main teaching hospital and affiliated hospitals, with students selected through purposive sampling to achieve data saturation.

Data were collected using a combination of semi-structured in-depth interviews, participant observation, and documentation of the curriculum and supervision records. Interviews were used to explore students' experiences regarding BST implementation, observations to understand interactions between students, patients, and clinical educators, while documentation served as supporting data (Kvale & Brinkmann, 2015; Marshall & Rossman, 2016). The validity of the data was ensured through triangulation of sources and methods, member checking, and maintaining an audit trail so that the research findings could be trusted and verified (Moleong, Lexy, 2017).

Data were analyzed using inductive thematic analysis, starting with transcription, repeated reading, and coding to identify key themes related to BST effectiveness, implementation challenges, the role of educators, and the impact on student competencies. The results were presented narratively, supported by direct quotations from participants to strengthen the findings (Creswell & Poth, 2018). This method enables the study to provide a comprehensive overview of BST implementation, the challenges encountered, and its contribution to the development of clinical skills and professionalism among students during their clinical clerkship.

Result/Findings

The interviews conducted were not only aimed at exploring perceptions of bedside teaching practices but also at assessing the extent to which planning had been structured according to curriculum standards, how implementation was managed by clinical instructors across various teaching hospitals, and how learning evaluation was carried out to ensure students achieved their professional competencies. Thus, the interview

approach in this study aligns with the principles of educational management, which involve managing human resources (lecturers and students), infrastructure (hospital facilities), and learning strategies to ensure the objectives of medical professional education are effectively achieved.

Planning

Question: How do you perceive the planning of bedside teaching implementation in the clinical clerkship environment at FK UNG?

- I1: ...The planning exists within the curriculum, but its implementation is sometimes not optimal due to limited time and the number of clinical instructors.
- I2: ...Overall, the bedside teaching planning is well-structured, but coordination among teaching hospitals still needs to be strengthened.
- I3: ...The learning plan is clear; however, the high clinical workload often causes implementation to deviate from the schedule.
- I4: ...The planning follows the guidelines, but student readiness varies, requiring adjustments during implementation.
- I5: ...The planning exists in documentation, but implementation still depends on patient conditions and the availability of instructors.
- I6: ...The plan is in place, but the facilities and infrastructure supporting bedside teaching still need improvement.
- I7: ...In my opinion, the planning exists, but sometimes instructors announce schedules at the last minute, leaving insufficient preparation.
- I8: ...The plan is good, but often changes due to instructors' busy schedules in the hospital.
- I9: ...Planning is done at the beginning of the block, but in practice, bedside teaching schedules are often inconsistent.
- I10: ...The plan exists, but as students, we sometimes lack detailed information, limiting our preparation.

Implementation

Question: How do you perceive the implementation of bedside teaching (BST) during the clinical clerkship at FK UNG, particularly regarding the involvement of lecturers, students, and the conditions at the teaching hospitals?

- I1: ...The implementation is ongoing, but the limited number of clinical lecturers sometimes prevents the activities from being fully optimal.
- I2: ...Overall, the implementation follows the guidelines, but consistency across different teaching hospitals still varies.
- I3: ...Implementation is fairly good, although the workload at the hospital often hinders proper supervision of students.
- I4: ...BST takes place, but the large number of students results in uneven guidance.
- I5: ...The implementation is conducted routinely, yet patient conditions do not always support the learning process.

I6: ...Implementation follows the schedule, but limited treatment room facilities sometimes pose obstacles.

I7: ...In my view, the implementation is helpful, but lecturers are occasionally rushed due to clinical duties.

I8: ...Implementation exists, but the frequency of direct face-to-face interaction with lecturers is still limited.

I9: ...We learn a lot from patients, but time constraints prevent practicing all required competencies.

I10: ...Implementation is ongoing, yet coordination between lecturers and students is sometimes unclear.

Medical Interviewing Skill

Question 1: Does the Clinical Skills Department (DPK) teach and train students to develop medical interviewing skills? (for example, greeting patients, introducing themselves)

I1: ...Yes, this is our obligation as the Clinical Skills Department (DPK)

I2: ...We at DPK always apply communication methods to students

I3: ...According to the guidelines, DPK equips students with interviewing techniques

I4: ...Even though time is limited, students have already been given practice in patient interviewing techniques

I5: ...Communication skills are taught both in the academic curriculum and through DPK training sessions

I6: ...This stage is mandatory for students to master

I7: ...We always implement the communication methods that have been taught

I8: ...Yes, we are taught to master two-way communication

I9: ...Sometimes, due to time constraints, communication does not go as smoothly

I10: ...DPK indeed teaches us simple interview procedures. Ideally, there should be a simulator to train students.

Question 2: Does the Clinical Skills Department (DPK) facilitate patients or their families to tell their story; ask questions effectively to obtain accurate and adequate information; speak clearly, listen actively, take notes; and respond appropriately to other non-verbal cues?

I1: ...Yes, sometimes we involve patients, but sometimes not

I2: ...If time permits, we involve the patient's family in the communication process

I3: ...It depends on the situation; if the information flows well, facilitation may not be needed

I4: ...It depends on the student's skills; if the student is less communicative, DPK provides guidance

I5: ...At the initial clinical clerkship briefing, DPK provides material on assisting students in interviews

I6: ...It is DPK's duty to provide guidance in doctor-patient communication

I7: ...If the patient understands, we do not take additional steps

I8: ...There is difficulty if the language used is not clearly understood

I9: ...It depends on the situation; if communication goes well, we do not facilitate

I10: ...Students are essentially guided toward proper doctor-patient communication

Physical Examination Skill

Question 1: Does the Clinical Skills Department (DPK) teach and train students to follow a logical, efficient sequence and balance screening and diagnostic steps?

I1: ...Yes, before BST is conducted, DPK briefly explains the procedures to be performed

I2: ...Usually, there is a brief explanation from DPK about the stages of clinical examination skills

I3: ...According to the guidebook, DPK reviews what has been learned in theory during the academic phase

I4: ...We, DPK, correct the actual diagnostic steps if students explain something incorrectly

I5: ...Indeed, DPK should provide prior briefing to students on the screening steps for the cases encountered

I6: ...It is DPK's duty to start BST by explaining the stages of physical examination efficiently

I7: ...Yes we are taught through practice in BST according to the theory learned in the academic phase

I8: ...Oh, that depends on the DPK, because sometimes due to time constraints, the steps are not in the theoretical sequence

I9: ...In principle, it fully depends on the willingness of DPK to give us the opportunity to perform actions

I10: ...One of our difficulties is the lack of cases encountered

Question 2: Does DPK teach and train students to inform the patient during examination, be sensitive to patient comfort, and act politely?

I1: ...Yes, at the beginning of BST, DPK generally trains students in the physical examination procedures

I2: ...Yes, we, DPK, teach about politeness in dealing with patients and provide concrete examples

I3: ...As taught in junior clinical clerkship, students are always instructed and given examples of courteous behavior toward patients

I4: ...It is our habit, DPK precedes BST with general preparation for facing patients, such as polite manners

I5: ...For physical examination skills, students are taught by DPK to be sensitive to patient comfort and satisfaction

I6: ...MEU begins BST by reminding students of the correct diagnostic procedures, including ethics in dealing with patients

I7: ...For this aspect, we always act politely and prioritize patient comfort

I8: ...In general, patients are always open to the approaches we take

I9: ...Patients feel comfortable when we are accompanied by DPK while performing diagnostic or therapeutic procedures

I10:...In BST, we practice what DPK conveys, especially politeness and patient comfort.

Clinical Judgment

Scope of Clinical Judgment: The scope of clinical judgment includes students' skills in making differential diagnoses, establishing accurate diagnoses, and formulating appropriate patient management plans. It also involves selectively choosing diagnostic support examinations by weighing their risks and benefits.

I1: ...We, DPK, strive to teach and train students in making differential diagnoses and progressing to subsequent actions

I2: ...DPK usually elicits students' opinions on differential diagnoses and provides solutions based on their reasoning

I3: ...For differential diagnoses, we, DPK, introduce students to procedures from the diagnostic stage to therapeutic actions according to the cases encountered

I4:...Briefly, we, DPK, ask students for their opinions on the established diagnosis and then compare it with similar diagnoses

I5:...Clinical judgment is carried out by students according to correct procedures and approved by DPK

I6: ...We, MEU, monitor clinical judgment through logbooks created by students with DPK's awareness

I7:...Yes, DPK trains us to perform differential diagnosis during BST, but we are often nervous because it is done in front of patient

I8:...We always try to make clinical judgments according to our ability, but DPK gives guidance according to theory if we make mistakes

I9:...Often, clinical judgment is not well-structured due to time constraints

I10:...Good clinical judgment occurs when there is a balance between the number of patients and the available time

Question : Does DPK teach and train students to selectively choose supportive diagnostic examinations?

I1:...We, DPK, prompt students to select appropriate diagnostic support and guide them according to the needs

I2:...Sometimes students suggest supportive examinations as in theory, which are not appropriate for diagnostic needs

I3:...Usually, if students are ready for the BST stage, DPK does not provide too many alternative diagnostic supports

I4:...It depends on the skills of the students; sometimes they need to be taught and trained on how to utilize supportive diagnostics

I5:...Academically, selecting supportive diagnostic tests sometimes depends on BPJS procedures

I6: ...Selecting diagnostic support tests based on DPK's suggestion is not always approved, depending on the availability of facilities in the hospital

I7: ...Supportive diagnostic tools are adjusted to the class of patients treated, which sometimes is not academically ideal

I8: ...Supportive diagnostic tools are always adjusted to the benefits and risks, which often academically do not match the available resources

I9: ...Students are accustomed to utilizing available facilities according to hospital policies

I10: ...Diagnostic steps are adjusted to available resources and patient class, and we are taught to comply with existing regulations.

Counselling Skill and Humanistic Qualities/Professionalism

Question 1: Does DPK teach and train students in making differential diagnoses, establishing accurate diagnoses, and formulating appropriate patient management plans?

I1: ...Some students participating in BST still show low counseling skills because they lack experience in clinical rotations

I2: ...The first experience in clinical rotation shows counseling techniques that are not yet as expected

I3: ...Perhaps because it is the first time entering the BST stage, they are not yet very skilled

I4: ...Counseling skills vary depending on the cases encountered

I5: ...It must be realized that counseling skills highly depend on the relationship between DPK and the students

I6: ...From the beginning, it has been emphasized that all student actions must be professional with a humanistic approach

I7: ...Counseling skills are trained by DPK, but sometimes not evaluated comprehensively

I8: ...During BST, students are required to perform counseling as per theory, but in practice it is not fully carried out due to time constraints

I9: ...If time allows during BST, students perform counseling skills. If not, simulations are conducted in the tutorial room after BST

I10: ...Because cases vary, sometimes not all counseling runs effectively

Question 2: Does DPK teach and train students to selectively choose diagnostic support tests while considering risks and benefits?

I1: ...Students often hesitate to explain to patients and frequently need DPK to explain to the patient's family

I2: ...We, DPK, give students the opportunity to explain to patients and families about findings in the diagnostic process

I3: ...DPK usually trains students to act honestly and openly and to explain to patients and families as long as it does not violate the code of ethics

I4: ...We teach and train students to communicate in layman's terms so there is good interaction

I5:...Yes, students are taught to always explain the rationale for examinations or therapy to patients for every case encountered

I6:...They have been trained for two-way communication, always being open, honest, and empathetic toward patients and families

I7: ...If the patient is communicative, communication goes well, and we can convey what the patient expects

I8:...It depends on the condition of the patient and family because sometimes communication does not run smoothly and takes a long time

I9:...It is often difficult to apply this due to the stressful situations and conditions of patients and families

I10:...Yes, it takes a long time to explain procedures, especially concerning disease progression that is not understood by the patient and family

Question 3: Does DPK teach and train students to respect patients, show empathy and compassion, build trust, help patients feel comfortable, and maintain confidentiality?

I1: ...Yes, it is our duty as DPK to remind students about patient comfort and satisfaction

I2:...Yes, during BST, we train students to apply empathy to what the patient experiences, thereby building patient trust in the doctor

I3:...Indeed, we emphasize to BST students that patients must be placed in the primary position so communication runs well

I4: ...Yes...students are trained and taught a holistic approach to create comfort between doctor and patient

I5:...Students are taught and trained to show empathy, compassion, comfort, and build trust toward patients

I6:...Oh, yes, students are trained to respect patients, show empathy and compassion, build trust, including maintaining confidentiality

I7:...Yes, usually DPK teaches and trains us to respect patients and show empathy and compassion

I8:...We are trained to build patient trust and comfort

I9:...We students are trained to foster patient trust in the actions we perform

I10:...Supervisors teach and train us to show empathy and compassion and help patients feel comfortable

Procedural Clinical Skills

The scope of procedural clinical skills includes students' abilities in both diagnostic and therapeutic procedural clinical skills.

Question: Does DPK teach and train students in diagnostic procedural clinical skills?

I1:...We, DPK, always review diagnostic procedural clinical skills before BST

I2:...Diagnostic procedural clinical skills are taught during BST

I3: ...Sometimes diagnostic procedural clinical skills are difficult to teach when the cases are too complex

- I4: ...Often due to limited time, diagnostic procedural clinical skills do not run smoothly
- I5: ...At the beginning of BST, DPK has already taught and trained students in diagnostic procedural clinical skills
- I6: ...Monitoring the logbook shows that students perform diagnostic procedural clinical skills
- I7: ...During BST, it is DPK's duty to teach and train students in diagnostic procedural clinical skills according to the handbook
- I8: ...DPK teaches and trains students in diagnostic procedural clinical skills
- I9: ...Diagnostic procedural clinical skills are taught, but not all stages are assigned to students
- I10: ...Yes, we are trained in diagnostic procedural clinical skills, but some stages do not run well.

Question 2: Does DPK teach and train students in therapeutic procedural clinical skills?

- I1: ...Before BST, students are reminded to master therapeutic procedural clinical skills
- I2: ...Therapeutic procedural clinical skills must be taught during BST according to the clinical rotation guidelines
- I3: ...During BST, therapeutic procedural clinical skills are attempted to be trained, but sometimes insufficient time prevents complete teaching
- I4: ...Sometimes what is taught in therapeutic procedures is not carried out by students due to hospital regulations that do not match the guidelines
- I5: ...Students are taught and trained in therapeutic procedural clinical skills according to BST implementation guidelines
- I6: ...Therapeutic procedural clinical skills are systematically taught by DPK
- I7: ...For therapeutic procedural clinical skills, it is DPK's duty to teach and train students
- I8: ...Therapeutic procedural clinical skills are indeed taught, but not all students perform them
- I9: ...Theoretically, therapeutic procedural clinical skills are taught, but students do not always perform them
- I10: ...Yes, during BST, DPK teaches and trains students in therapeutic procedural clinical skills, but it depends on the time available

Overall Clinical Competence

Question 1: Does DPK teach and train students in diagnostic procedural clinical skills?

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I9: ...Theoretically, therapeutic procedural clinical skills are taught, but students do not always perform them

I10: ...Yes, during BST, DPK teaches and trains students in therapeutic procedural clinical skills, but it depends on the time available

Evaluation

Question 1: How do you view the evaluation of bedside teaching implementation in the clinical clerkship at FK UNG, in terms of student assessment, feedback from lecturers, and follow-up for improving the quality of learning?

I1: ...Evaluation of bedside teaching is already conducted formally through clinical skills exams and clerkship reports. However, I see that the evaluation still tends to focus on students' final results rather than the ongoing learning process. Feedback from lecturers should be provided more systematically and consistently so that students understand their strengths and weaknesses. We are also encouraging regular evaluation meetings among clinical lecturers and faculty management to align assessment standards.

I2: ...From the MEU perspective, evaluation mechanisms exist, such as mini-CEX and direct observation. However, implementation is often uneven across teaching hospitals. Evaluation should not only be conducted at the end but also in a formative manner,

providing feedback during the bedside teaching process. This is important so that students can immediately correct their deficiencies. Additionally, evaluation results need to be compiled as a basis for curriculum improvement.

I3:...In practice, evaluation is done through direct observation when students interact with patients. However, due to the large number of patients and limited time, not all students can receive detailed evaluation. We usually provide brief notes, but students often feel they lack specific guidance. Ideally, there should be a standardized written system so that students can follow up on the evaluation results.

I4:...Bedside teaching evaluation at RSUD Dunda is conducted verbally after the practice session. We provide comments on students' anamnesis, physical examination, and behavior towards patients. The challenge is that this evaluation is often brief due to a busy clinical schedule. There needs to be dedicated time allocated specifically for feedback, so students not only hear a short assessment but also understand concrete steps for improvement.

I5:...So far, evaluation has been carried out, but it focuses more on students' performance during case presentations. Bedside teaching should also assess students' communication, empathy, and ethics with patients. I believe the evaluation instruments should be expanded to assess competencies holistically, not just academic ability. We also hope evaluations are conducted collaboratively between lecturers and students through reflection.

I6:...I see that evaluation has been conducted well, especially at the end of the clerkship rotation. However, the weakness is the lack of written documentation that can serve as a reference for students. Feedback is often verbal and undocumented, making it difficult for students to review their progress. It would be better if the faculty provided a standard written evaluation format.

I7:...From the students' perspective, evaluation is still inconsistent. Sometimes lecturers provide very detailed assessments, but other times only briefly. We hope evaluation is given during every bedside teaching session, so we immediately know what is lacking and can improve. More structured evaluation also makes us more confident in dealing with patients."

I8:...Evaluation exists so far, but it is mostly provided at the end of the block. This does not allow us to correct mistakes while still in the learning process. We feel there is a need for continuous formative evaluation, for example, after performing a physical examination or presenting a case, the lecturer immediately provides correction. This makes the learning process more meaningful.

I9:...The evaluation we receive is often only in the form of a final grade without detailed explanation. We need clear feedback to improve our clinical skills. In my opinion, bedside teaching evaluation should be more transparent and provide written notes so that students know exactly what needs to be improved. This type of evaluation makes the learning process more focused.

I10:...I feel evaluation is conducted, but not optimally. Some lecturers diligently provide input, while others only give grades without explanation. As a result, students struggle to

know the competency standards they must achieve. Our hope is that evaluation can be more structured with clear and uniform rubrics across all teaching hospitals, so students receive fair and equal learning experiences.

Drawing Conclusions from In-Depth Interviews

Table 1. Conclusions from In-Depth Interviews

Skills	Bedside Teaching
Planning	The interview results indicate that the planning of bedside teaching at the Faculty of Medicine, Universitas Negeri Gorontalo, is essentially outlined in the existing curriculum and clinical clerkship guidelines. However, the implementation of this planning still faces several challenges. Coordination between the faculty, teaching hospitals, and clinical instructors is often suboptimal, leading to inconsistencies in scheduling and execution. From the instructors' perspective, the high clinical workload often makes it difficult to prepare lessons according to plan. Meanwhile, students often feel they lack clear and timely information regarding schedules and learning materials, limiting their preparation. Additionally, the facilities at teaching hospitals do not fully support the ideal implementation of bedside teaching. Overall, although the planning is structured, limitations in teaching staff, coordination, and facilities remain the main challenges in executing the plan.
Implementation	Bedside teaching in the clinical clerkship at FK UNG is conducted across all teaching hospitals, but its effectiveness varies. Clinical instructors attempt to provide guidance, but the limited number of instructors and heavy workload often hinder optimal supervision. Large student groups also pose difficulties, as guidance becomes uneven. Moreover, the execution heavily depends on patient conditions; not all patients are suitable or willing for practice, limiting students' learning opportunities. Time is often constrained due to instructors' hospital duties, so students feel they do not receive sufficient depth in learning. Consistency across teaching hospitals varies in terms of schedule, methods, and intensity of bedside teaching. From the students' perspective, unclear communication and coordination with instructors sometimes leave them underprepared. Therefore, while implementation occurs, improvements are needed regarding instructor availability, time allocation, inter-institutional consistency, and clearer communication between instructors and students.
Medical Interview Skills	In-depth interviews revealed that clinical instructors largely teach and train students in developing medical interview skills (e.g., greeting, self-introduction) as taught in communication theory at the academic level.

Physical Examination Skills	Interviews and document observations show that clinical instructors mostly teach and train students in physical examination skills according to academic-level theory. However, limited time from academic instructors hinders mastery. Additionally, students undergoing BST often lack senior guidance, so challenges encountered are not always adequately addressed.
Clinical Judgment	Interviews indicate that clinical instructors mainly teach and train students in clinical judgment skills as instructed at the academic level. Nevertheless, most clinical decisions are made entirely by the clinical instructors due to hospital policies prioritizing quality assurance.
Counseling Skills and Humanistic/Professional Qualities	In-depth interviews show that clinical instructors largely teach and train students in counseling skills and humanistic/professional qualities according to counseling theory at the academic level. However, limited time allocation sometimes prevents optimal counseling practice.
Procedural Clinical Skills	Interviews reveal that clinical instructors generally teach and train students in both diagnostic and therapeutic procedural clinical skills as taught at the academic level. However, hospital policies and limited supervision time sometimes prevent certain procedures from being performed optimally. A lack of patient availability in some hospitals also hinders continued clinical guidance.
Overall Clinical Competence	Interviews indicate that clinical instructors largely teach and train students in overall clinical competence according to academic-level theory. However, since hospital policies are not standardized across all students, practice still heavily depends on the supervising clinical instructor.
Evaluation	According to interview results, bedside teaching evaluation in the clinical clerkship at the Faculty of Medicine, Universitas Negeri Gorontalo, is generally conducted but has several areas needing improvement. Evaluations are typically carried out through direct observation, clinical skills exams, clerkship reports, and case presentation assessments. However, evaluations still emphasize final student outcomes rather than the learning process. Feedback from instructors is inconsistent; some provide detailed guidance while others give only brief assessments without clear direction. Most evaluations are oral and rarely documented, making it difficult for students to review their progress. Students desire formative, ongoing evaluation rather than only at the end of rotations, so mistakes can be corrected promptly. They also suggest the need for more transparent and standardized

evaluation instruments or rubrics across all teaching hospitals, ensuring fair achievement of expected competencies. Thus, while evaluation mechanisms exist, improvements in consistency, documentation, transparency, and continuity are needed to enhance the quality of bedside teaching.

Validity Testing / Data Triangulation

Table 2. Source Triangulation

Bedside Teaching Aspect	Triangulation Results
Planning	The faculty has prepared the curriculum and guidelines; however, DPK faces workload constraints; students report unclear information; hospitals have limited facilities.
Implementation	DPK tries to provide guidance, but there are limitations in staff and patient availability; students feel the time is short; hospital administrators note variations between hospitals.
Medical Interview	DPK trains according to theory; students acknowledge receiving guidance, though sometimes time is limited.
Physical Examination	DPK teaches; students encounter practical difficulties; hospitals report limited patient availability.
Clinical Decision-Making	DPK provides guidance, but most decisions are still made by the instructors; students have limited authority.
Counseling & Humanism	DPK emphasizes empathy and ethics; students feel there is insufficient time; patients sometimes experience brief communication.
Procedural Skills	DPK provides opportunities; students cannot always practice; hospitals restrict certain procedures.
Overall Competence	DPK strives for standardization, but practices differ between hospitals; students remain highly dependent on instructors.
Evaluation	Some DPK give detailed feedback, others provide brief comments; students hope for more consistent evaluation; administrators emphasize that standards still vary.

Table 3. Technique Triangulation

Aspects of Bedside Teaching	Data Triangulation Results
Planning	Interview → plan exists; Document → written curriculum & guidelines; Observation → implementation often deviates from schedule.
Implementation	Interview → workload constraints; Observation → brief supervision, large groups; Document → attendance & logbooks show variation in intensity.
Medical Interview	Interview → teaching greetings & basic communication; Observation → students sometimes not fluent; Document → communication module available.
Physical Examination	Interview → taught according to theory; Observation → examination sequence often interrupted; Document → guidelines available.
Clinical Decision Making	Interview → faculty supervises; Observation → faculty dominate decision-making; Document → logbook limited to simple notes.
Counseling & Humanism	Interview → emphasis on empathy; Observation → counseling sometimes brief; Document → ethics guidelines available.
Procedural Skills	Interview → taught; Observation → practice often limited; Document → skills

DISCUSSION

Planning is the initial stage that determines the direction and quality of BST. Informants stated that planning considers learning objectives, student readiness, patient conditions, and resource availability. This aligns with recent research findings on clinical teaching planning, particularly within the framework of Entrustable Professional Activities (EPAs) for clinical educators (Rafiq et al., 2024). Students are also involved in case discussions prior to practice, following the andragogical principles of adult learners who actively participate in their learning process (Knapke et al., 2024). Planning includes case selection, preparation of learning instruments, and division of roles between lecturers and students.

BST implementation involves direct interaction between students and patients under lecturer supervision, including anamnesis, physical examination, and case discussions. Experiential learning theory and Vygotsky's Zone of Proximal Development (ZPD) principle remain relevant in modern clinical education literature. Fayol's organizing function is reflected in the distribution of roles: lecturers as facilitators, students as active participants, and patients as learning objects. Effectiveness occurs when all parties perform their roles according to their functions.

BST trains students' medical interviewing skills, including communication, ethics, and empathy. The success of BST depends on the collaboration between clinical lecturers, students, and patients. Recent studies indicate that constructive feedback is highly valued

by students in modern BST contexts (Uhomoihi et al., 2024). Students need adequate preparation in knowledge, communication skills, and clear learning objectives before engaging in BST. This method enhances doctor-patient interaction, clinical competence, and patient comfort.

Physical examination includes inspection, palpation, percussion, and auscultation to diagnose and monitor patient conditions. BST remains effective in developing students' clinical competence. Success factors include lecturer expertise, student readiness, and patient involvement. Engaging patients as active participants helps students gain real clinical experience and strengthens their psychomotor competence.

Clinical judgment involves problem identification, data collection and analysis, diagnosis, planning, implementation, and evaluation. Factors influencing clinical decision-making include scientific evidence, clinical experience, patient preferences, resources, and ethical considerations. Supervising lecturers act as role models and clinical instructors who guide students through this process, thereby enhancing interpersonal skills, decision-making abilities, and active learning.

BST trains counseling skills such as active listening, questioning, reflection, providing feedback, and relationship building. Moreover, humanistic and professional qualities including empathy, respect, trust, authenticity, and professional ethics are crucial. Students learn to interact professionally with patients, while lecturers serve as preceptors, role models, facilitators, and mentors.

BST is used to teach diagnostic and therapeutic procedural skills directly. Students learn through demonstration, hands-on practice, observation, and lecturer guidance. Success depends on knowledge, mental and emotional readiness, and a supportive learning environment. BST allows students to master procedures, develop professional attitudes, and gradually improve their psychomotor competence.

BST contributes to the development of overall clinical competence including decision-making, synthesis, empathy, efficiency, and awareness of limitations. Student satisfaction with BST methods affects the success of clinical practice. Supporting factors include learning motivation, readiness, experience-based curriculum, and the use of learning modules or media. In the modern context, it is also essential to consider the role of clinical educators and institutional structures to ensure that BST remains effective and sustainable (Rafiq et al., 2024).

CONCLUSION

Based on the discussion of Bedside Teaching (BST), it can be concluded that BST is an effective clinical learning method for developing various competencies in medical students. A well-structured planning phase ensures that learning aligns with objectives, student readiness, patient conditions, and the availability of resources. The implementation of BST allows direct interaction between students and patients, guided by instructors as facilitators, making the learning experience real and meaningful. BST specifically enhances medical interviewing skills, physical examination, clinical decision-making, counseling abilities, humanistic/professional qualities, and procedural clinical skills. Active patient involvement and instructor guidance play a crucial role in the success of BST, while student motivation, preparedness, and a conducive learning environment serve as supporting factors. Overall, BST contributes to the development of students'

comprehensive clinical competence, encompassing cognitive, affective, and psychomotor aspects. The success of this method is highly influenced by effective collaboration among instructors, students, and patients, as well as the application of experiential learning principles.

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