

Comparative Analysis of Pre- and Post- Intervention Academic Performance of Two Independent Groups of Level I Medical Students in Perspective in Medicine

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ABSTRACT : This study examined the effect of a faculty instructional intervention on the academic performance of two independent groups of Level I medical students enrolled in the first-semester course Perspective in Medicine at Western Mindanao State University College of Medicine. Using an action research design with a mixed-methods approach, the study compared the academic performance of students before and after the implementation of a six-month Organizational Development Intervention (ODI) focused on faculty development. The quantitative component analyzed official academic records of students enrolled before the intervention (Academic Year 2023) and after the intervention (Academic Year 2024), while the qualitative component utilized focus group discussions to identify organizational concerns and evaluate changes in teaching and learning experiences. Descriptive statistical analyses, including mean, median, standard deviation, skewness, and boxplots, were performed using Jamovi version 2.6.2. Findings revealed that students taught after the faculty intervention achieved higher academic performance than those in the pre-intervention group. The mean grade increased from 79.8 to 82.9, while the median improved from 80.1 to 84.5. The post-intervention group also demonstrated a more balanced grade distribution, absence of low-grade outliers, and no students requiring remedial instruction, indicating greater consistency in academic achievement. These improvements were associated with enhanced instructional practices, including the application of outcomes-based education, constructive alignment, learner-centered teaching strategies, and measurable learning activities acquired through faculty training. The findings suggest that structured faculty development programs can positively influence students' learning outcomes by improving instructional quality and promoting meaningful student engagement. The study highlights the importance of continuous professional development as an institutional strategy for strengthening teaching effectiveness and enhancing academic performance in medical education. Future studies employing larger samples, multiple instructors, and inferential statistical analyses are recommended to further establish the causal effects of faculty development interventions on student achievement.

KEYWORDS: *Academic Performance, Faculty Development, Instructional Intervention, Learner-centered Teaching, Medical Education, Organizational Development Intervention, Outcomes-based education, Perspective in Medicine*

I. INTRODUCTION

Academic performance is one of the common indicators used to measure the effectiveness of teaching and learning in higher education. This is especially important in medical education, where students' knowledge, clinical reasoning, and professional competencies have a direct impact on their future practice in healthcare. While students' motivation and cognitive abilities influence their academic success, other factors such as the quality of instruction, curriculum design, learning environment, and institutional support also play an important role. Because of this, improving students' academic achievement has become an important goal of medical schools as they aim to produce competent, ethical, and socially responsible physicians (Frenk et al., 2010).

Teachers have a major influence on students' learning experiences and academic performance. Effective teaching is not limited to presenting lessons or delivering information; it also involves the use of evidence-based strategies, proper alignment of learning outcomes and activities, formative assessment, timely feedback, student engagement, and classroom management. These practices help create learning environments that encourage deeper understanding, critical thinking, collaboration, and independent learning (Biggs & Tang, 2011; Hattie, 2023). In the same way, Lajom et al. (2023) emphasized that effective classroom management, cooperative learning strategies, appropriate use of technology, fair distribution of tasks, and continuous teacher guidance can greatly enhance student participation, skill development, and academic achievement.

Medical education also presents unique demands because students are expected to develop not only strong scientific knowledge but also clinical competence, communication skills, professionalism, leadership, and ethical decision-making. Unlike many other undergraduate programs, medical education requires learners to connect theory with practice through clinical reasoning, problem-solving, and patient-centered care. For this reason, the teaching approaches used by medical educators play an important role in shaping both the academic success and professional development of medical students (Cook et al., 2013).

Several factors have been identified as influencing the academic performance of medical students. These include their previous academic preparation, learning styles, ability to regulate their own learning, intrinsic motivation, quality of instruction, psychological well-being, academic workload, learning environment, and support from faculty members (Artino et al., 2012; Dyrbye et al., 2009).

A positive and supportive learning environment is important in helping students perform well academically while also protecting their psychological well-being. Dyrbye et al. (2009) showed that burnout among medical students may be influenced by the educational environment, individual characteristics, and personal life experiences. Likewise, Artino et al. (2012) found that self-efficacy and motivation significantly affect medical students' academic performance. This suggests that schools should develop interventions that improve teaching methods and increase students' active participation in learning.

The learning environment has long been recognized as an important factor that affects educational outcomes. According to the World Federation for Medical Education (2020), quality medical education requires teaching strategies that actively engage students, encourage critical thinking, promote lifelong learning, and regularly evaluate the effectiveness of instruction. This helps ensure that the intended learning outcomes, teaching activities, and assessment methods are properly connected.

In relation to this, Biggs and Tang's (2011) concept of constructive alignment highlights the need to systematically match learning outcomes, teaching and learning activities, and assessment practices in order to improve student learning and academic achievement.

In the medical curriculum, Perspective in Medicine is considered a foundational course because it introduces students to a holistic view of healthcare and the various roles that physicians perform in society. Aside from gaining scientific knowledge, students are also expected to develop skills and values related to professionalism, communication, ethics, leadership, community involvement, research, and social accountability. These competencies help prepare students to become the ideal "five-star physician," who is able to serve as a care provider, decision-maker, communicator, community leader, and manager while addressing the changing health needs of society (World Health Organization, 1996).

The medical curriculum combines basic sciences and clinical sciences through learner-centered and competency-based teaching approaches. Students are exposed to different fields, including internal medicine, pediatrics, obstetrics and gynecology, surgery, psychiatry, family and community medicine, oncology, ophthalmology, disaster risk reduction and management, forensic medicine, and medical informatics. Learning activities such as problem-based learning, focused group discussions, clinical reasoning, simulation exercises, community immersion, and experiential learning help students relate theoretical concepts to real clinical situations. These methods are aligned with competency-based medical education, which focuses on the development of specific and measurable competencies rather than knowledge acquisition alone (Frank et al., 2010).

Academic performance in medical school is important not only for classroom success but also for students' future professional development. Grades earned during medical training have been found to predict later performance in licensure examinations, residency programs, and clinical practice. Wu et al. (2022) reported that medical students' academic achievement significantly predicts their future clinical competence, which supports the need for educational interventions for students who show lower academic performance. Similarly, Ferguson et al. (2002) found that early academic performance is linked to professional competence, clinical decision-making, and success in postgraduate medical education.

Faculty development has become an important institutional approach for improving the quality of teaching and students' learning outcomes. Professional development programs help educators strengthen their pedagogical knowledge, assessment skills, instructional planning, learner-centered teaching methods, and reflective practice. These improvements can lead to better student engagement and academic achievement (Steinert et al., 2016). When faculty development programs are well-designed, they also help instructors apply outcomes-based education, constructive alignment, and evidence-based teaching strategies that promote meaningful learning among students.

Although many studies support the value of faculty development, only a limited number have explored its direct effect on students' academic performance in specific medical courses, especially in the context of Perspective in Medicine. In addition, there is still limited empirical evidence comparing students' academic performance before and after instructional interventions conducted with the same teacher. Addressing this gap is important because it can help determine whether improvements in teaching competencies lead to measurable improvements in student learning outcomes.

Thus, this study aimed to compare the academic performance of two independent groups of Level I medical students enrolled in Perspective in Medicine before and after a faculty instructional intervention. Specifically, it sought to determine whether teacher training was associated with differences in students' grades and in the distribution of academic performance. The results of this study may add to the growing body of evidence that supports faculty development as a way to improve instructional quality and promote better student learning outcomes in medical education.

II. RESEARCH QUESTION

1. What are the mean pre-intervention and post-intervention academic performance scores of the two independent groups of Level I medical students in the first-semester course Perspective in Medicine?

III. THEORETICAL FRAMEWORK

This study was anchored on the theory discussed by de Jong (2010), particularly Cognitive Load Theory, which explains how students' cognitive capacity affects learning and academic performance. This theory emphasizes that instructional design should take into account the limited capacity of working memory. When information is excessive, unclear, or poorly organized, it may overload students' cognitive resources, which can negatively affect their learning and performance. Effective teaching strategies, therefore, should aim to lessen unnecessary cognitive load while managing the essential and meaningful aspects of learning. This can help students understand and retain information better, leading to improved academic performance. These perspectives provide different ways of understanding the factors that influence students' academic performance, including motivation, self-beliefs, goal orientation, cognitive capacity, and social influences. Combining ideas from these models may provide a more comprehensive approach to improving educational outcomes.

The following literature supports the variables of the study. Mappadang et al. (2022) stated that academic performance is an important outcome of the educational process in the university. It is also considered one of the major factors that may influence students' success in their future careers. The concept of performance is not only applied to companies, government offices, and social institutions, but also to individual achievement. Among the areas commonly examined by previous researchers are students' academic and non-academic performance. In accounting education, academic achievement reflects the learning outcomes gained by accounting students during their studies, as well as their possible career choices after graduation. Strong academic performance may be viewed as a result of quality educational inputs and effective university processes. Students are taught accounting concepts and principles to help them develop analytical, language, business, and information technology skills. Thus, the study focused on the factors that determine the academic performance of undergraduate accounting students.

The study also identified three basic dimensions of learning quality: classroom management, student support, and cognitive activity. Classroom management refers to the learning condition that helps students maintain attention and focus. Student support is needed to strengthen learners' motivation, while cognitive activation refers to situations where students actively participate in constructing knowledge and engaging in higher-order thinking. The Classroom Assessment Scoring System (CLASS) views teaching activity through an interaction framework involving educators and students. This framework includes three important domains that are believed to support student learning and social development: affective support, classroom organization, and instructional support. In addition, students' academic interest in each course was found to be related to their academic outcomes.

IV. RELATED LITERATURE AND STUDIES

4.1 SIGNIFICANCE OF THE INTERVENTION PROGRAM TO IMPROVE ACADEMIC PERFORMANCE

Academic performance is an important indicator of educational quality and institutional effectiveness. In higher education, especially in medical education, students' achievement does not only reflect their cognitive abilities but also the quality of teaching, curriculum implementation, faculty competence, and institutional support available to them. Because of this, educational interventions have become an important approach in improving student learning outcomes, strengthening teaching effectiveness, and supporting continuous quality improvement in educational institutions. Intervention programs are organized and evidence-based initiatives designed to address learning gaps and improve academic achievement through changes in instructional practices, faculty development, curriculum delivery, assessment methods, and student support services (Biggs & Tang, 2011).

Educational intervention programs are based on the idea that meaningful improvement in student learning happens when teaching practices are intentionally connected to clearly defined learning outcomes. Biggs and Tang (2011) highlighted the concept of constructive alignment, which means that learning objectives, teaching-learning activities, and assessment methods should be systematically aligned to support maximum student learning. When teachers participate in professional development and learn innovative teaching

strategies, they become more capable of designing learner-centered activities that encourage critical thinking, collaboration, problem-solving, and deeper understanding of the subject matter.

Faculty development has also been recognized as one of the most effective institutional interventions for improving teaching quality. Steinert et al. (2016) described faculty development as a broad process that strengthens educators' teaching competencies, leadership abilities, educational scholarship, and professional growth. Through structured training programs, teachers are able to improve their skills in curriculum planning, assessment, instructional innovation, feedback delivery, and student engagement. These improvements help enhance teaching effectiveness and may also positively affect students' academic performance and learning experiences.

Studies further show that active learning strategies introduced through educational interventions can improve students' knowledge acquisition and academic achievement. Freeman et al. (2014), in a meta-analysis involving undergraduate science, technology, engineering, and mathematics education, found that students who experienced active learning methods obtained higher examination scores and had lower failure rates compared with students taught through traditional lecture-based instruction. Although the study covered different disciplines, its findings support the use of learner-centered instructional interventions in medical education, where critical thinking and clinical reasoning are essential skills.

Medical education requires teaching approaches that go beyond the memorization of scientific information. Cook et al. (2013) emphasized that educational interventions such as simulation-based instruction, problem-based learning, team-based learning, and faculty development programs can improve students' clinical competence, communication skills, and decision-making abilities. These interventions support experiential learning by helping students connect theoretical concepts with real clinical situations, which strengthens both academic performance and professional competence.

The effectiveness of intervention programs is also supported by educational theories that emphasize social constructivism and experiential learning. Vygotsky's theory of social learning highlights the value of guided interaction between teachers and learners, while Kolb's experiential learning theory focuses on learning through reflection and experience. These perspectives show the important role of trained educators in creating meaningful learning experiences that encourage knowledge construction rather than passive reception of information. As a result, intervention programs that strengthen teachers' pedagogical competencies help create more engaging and supportive learning environments that promote better academic achievement.

In medical schools, intervention programs are especially important because academic performance is closely linked to future professional competence. Ferguson et al. (2002) reported that medical students' academic achievement can predict later clinical performance and professional success. Similarly, Wu et al. (2022) found that medical school grades are reliable predictors of future clinical competence, showing the importance of providing timely educational interventions for students with academic difficulties. These interventions do not only improve examination performance but also contribute to the preparation of competent, ethical, and patient-centered physicians.

In recent years, outcomes-based education has become a common framework in medical schools worldwide. Harden (2007) explained that outcomes-based education shifts the focus from simply covering content to developing measurable competencies. This requires educators to use innovative teaching methods that help students achieve the intended learning outcomes. For this reason, faculty development interventions are necessary in preparing educators to apply constructive alignment, competency-based assessment, and learner-centered teaching strategies.

Overall, the literature shows that educational intervention programs can positively influence academic performance by improving instructional quality, increasing learner engagement, encouraging active participation, and strengthening students' cognitive and professional competencies. In medical education, where academic excellence is closely connected to future patient care and healthcare quality, faculty intervention programs serve as an important part of continuous quality improvement and educational excellence.

4.2 PERSPECTIVE IN MEDICINE AS AN ACADEMIC SUBJECT

Perspective in Medicine is a foundational course that introduces medical students to the philosophical, ethical, professional, and social aspects of medical practice. Unlike traditional biomedical courses that mainly emphasize scientific knowledge, this subject focuses on the holistic development of future physicians by incorporating concepts such as professionalism, communication, leadership, ethics, community engagement, and social accountability. It serves as a bridge between the basic sciences and the humanistic side of healthcare, helping students understand that medicine is not only a scientific discipline but also a profession dedicated to serving individuals and communities.

Contemporary medical education recognizes that effective physicians need more than technical knowledge and clinical skills. Frenk et al. (2010), through the Lancet Commission report, emphasized the need for transformative medical education that prepares healthcare professionals to address complex global health issues using competency-based, patient-centered, and socially accountable educational approaches. This

perspective highlights the importance of developing critical thinking, leadership, teamwork, ethical decision-making, and communication skills alongside scientific competence. Perspective in Medicine reflects these principles by introducing students to the diverse roles and responsibilities of physicians at the beginning of their medical training.

One of the major goals of Perspective in Medicine is the development of professional identity. According to Cruess et al. (2014), professional identity is formed through a gradual process in which students internalize the values, ethical principles, behaviors, and responsibilities expected of physicians. Early exposure to professionalism enables students to recognize their moral responsibilities while fostering empathy, integrity, accountability, and a lifelong commitment to patient care. As a result, courses that promote professional identity formation make valuable contributions to students' academic, personal, and professional growth.

Ethics is another key component of Perspective in Medicine. Ethics education provides students with the knowledge and frameworks needed to address ethical issues encountered in clinical practice while reinforcing the principles of patient autonomy, beneficence, non-maleficence, and justice. Branch (2015) emphasized that professionalism and ethics should be integrated into everyday clinical practice rather than treated as separate competencies. Ongoing exposure to ethical reasoning throughout medical education helps students develop the ability to provide compassionate and patient-centered care.

The course also gives considerable attention to the development of communication skills. Effective communication between physicians and patients has been consistently linked to greater patient satisfaction, better treatment adherence, improved diagnostic accuracy, and more positive healthcare outcomes. Silverman et al. (2013) explained that communication skills can be developed through structured instruction, constructive feedback, and reflective learning. By introducing these competencies early in medical education, Perspective in Medicine helps students build therapeutic relationships based on empathy, respect, and trust.

Another important focus of the course is social accountability, which encourages medical schools to align their teaching, research, and community service with the priority health needs of society. The World Health Organization (1995) stated that socially accountable medical education prepares physicians who are capable of responding effectively to local, national, and global health concerns. Through discussions on public health, health equity, community engagement, and healthcare systems, Perspective in Medicine broadens students' understanding of their responsibilities as future healthcare professionals beyond providing individual patient care.

Leadership, teamwork, and interprofessional collaboration are also emphasized throughout the course. As healthcare increasingly relies on multidisciplinary collaboration, future physicians must be prepared to work effectively with professionals from different fields. The Institute of Medicine (2003) identified teamwork and systems-based practice as essential competencies for improving healthcare quality and patient safety. In response, Perspective in Medicine introduces students to leadership concepts, collaborative decision-making, and organizational awareness to prepare them for collaborative clinical practice.

In addition, Perspective in Medicine is closely aligned with competency-based medical education (CBME), which emphasizes measurable learning outcomes instead of time-based training. Frank et al. (2010) explained that CBME focuses on developing observable competencies such as professionalism, communication, leadership, scholarship, and patient care. These competencies are strengthened throughout medical education, with foundational subjects like Perspective in Medicine providing the groundwork for students' continuing professional development.

Overall, the literature highlights the important role of Perspective in Medicine in preparing future physicians who are academically capable, ethically responsible, socially responsive, and professionally accountable. By combining biomedical knowledge with professionalism, ethics, communication, leadership, and community engagement, the course supports the holistic development of medical students and contributes to the broader objectives of competency-based and outcomes-based medical education.

V. METHODOLOGY

This study used an action research design with a mixed-methods approach to assess the effectiveness of an Organizational Development Intervention (ODI) conducted among faculty members and its effect on the academic performance of Level I medical students. The quantitative part of the study compared the academic performance of two independent groups of first-year medical students before the intervention in Academic Year 2023 and after the intervention in Academic Year 2024. The qualitative part involved Focus Group Discussions (FGDs) conducted before and after the intervention to determine transformation indicators and describe students' experiences related to teaching and learning.

The study was carried out at the Western Mindanao State University (WMSU) College of Medicine in Zamboanga City, Philippines. During the organizational diagnosis phase, all 137 enrolled medical students participated in the baseline assessment through FGDs. These students included 51 first-year, 35 second-year, and 51 third-year medical students. The post-intervention evaluation focused on first-year medical students enrolled during the first semester of Academic Year 2024. The teacher-physicians were the direct recipients of

the ODI, while the students were considered the beneficiaries of the intervention. Participation in all research activities was voluntary.

Academic performance was the main outcome measure of the study and was evaluated using students' official grades. The data were taken from institutional academic records containing coded student identifiers and grades in six first-semester courses: Introduction to Medicine I, Biochemistry, Preventive and Community Medicine, Medical Ethics and Good Clinical Practice, Perspective in Medicine, and Leadership and Management. Official grade records and academic transcripts were used to ensure the accuracy and validity of the data.

After securing institutional approval and research ethics clearance, baseline academic data and qualitative feedback were gathered to identify organizational concerns that required intervention. Based on the results, an Organizational Development Intervention was implemented for six months, mainly through faculty development activities intended to improve instructional practices. After the intervention was completed, post-intervention academic data were collected and FGDs were conducted to assess changes in student performance and identify transformation indicators among students, faculty members, and the institution.

Ethical standards were carefully followed throughout the study. Approval was obtained from the proper institutional authorities and the ethics review board. Written informed consent was secured from all participants, and they were informed that their participation was voluntary and that they could withdraw from the study at any time without any negative consequences. To maintain confidentiality, student identities were replaced with coded identifiers. All electronic data were protected with passwords, and data handling followed the provisions of the Philippine Data Privacy Act of 2012.

Descriptive statistical analysis was conducted using Jamovi version 2.6.2. Students' academic performance was summarized using the mean, median, standard deviation, minimum and maximum grades, and boxplots to present the distribution, central tendency, variability, and possible outliers in the data. Comparisons between the pre-intervention and post-intervention independent groups were made to determine whether changes in academic performance occurred after the implementation of the Organizational Development Intervention.

VI. RESULTS AND DISCUSSION

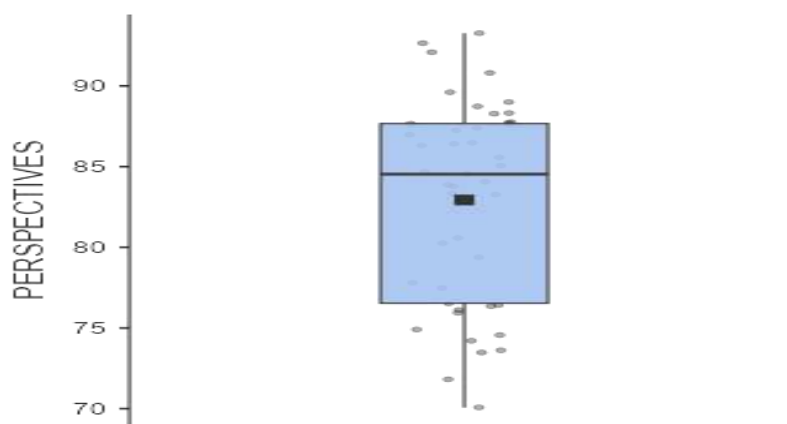


Fig. 1. Perspective in Medicine Grades of Students with Intervention

Figure 1 presents the boxplot of Perspective in Medicine grades of 45 students who were taught by a teacher who had undergone training. The boxplot showed a slight left-skewed distribution, with a skewness value of -0.36. This suggests that more students obtained higher grades, with scores mostly concentrated toward the upper end of the distribution. The grades ranged from 70.1 to 93.3 percentage points, indicating a relatively high and consistent level of academic performance among the students. No outliers were observed, which means that none of the grades greatly differed from the overall distribution. About 84.4% of the students passed the subject, showing a generally satisfactory understanding of the course content, while 15.6% obtained grades below the passing mark.

The mean grade, shown by the small square in the boxplot, was 82.9 percentage points, with a standard deviation of 6.22 percentage points. This indicates that most of the students' grades were closely grouped around the average. The median grade, represented by the horizontal line inside the box, was slightly higher at 84.5 percentage points. Since the median was higher than the mean, the distribution showed a slight skewness to the left, meaning that a greater number of students scored within the higher range of grades. Overall, the distribution suggests that the students' performance was generally balanced, although slightly concentrated

toward higher scores.

Other observed teaching behaviors included the application of constructive alignment principles within the outcomes-based education framework, as well as the use of measurable teaching-learning activities. These practices may have contributed to the students' strong performance in the course, as their scores were fairly consistent and centered around a high average. The results suggest that most students developed a solid understanding of the subject matter. Perspective in Medicine also helped strengthen students' social responsiveness and accountability in health and healthcare delivery. The course is expected to contribute to the development of well-rounded future physicians who reflect the ideal qualities of a five-star doctor, including being a healer, communicator or counselor, community mobilizer, manager or administrator, and researcher.

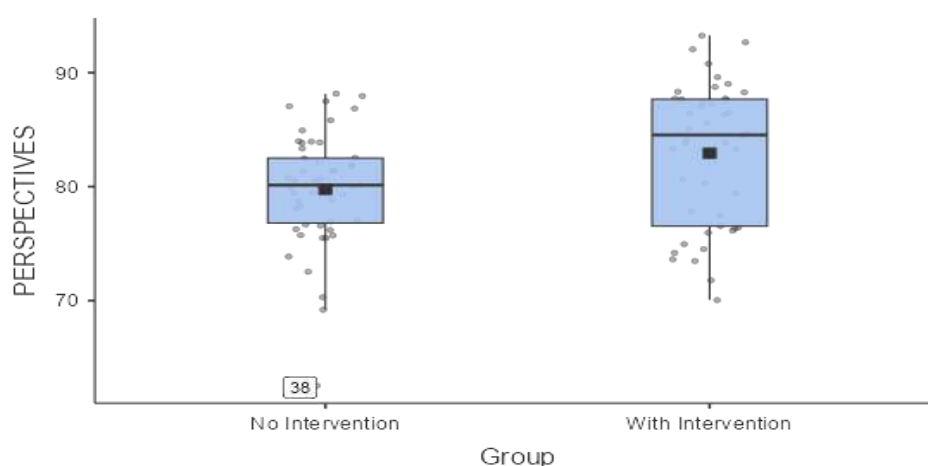


Fig. 2. Perspective in Medicine Grades of Students of the Group

Figure 2 shows the boxplots of Perspective in Medicine grades for two groups of students who were taught by the same teacher and enrolled in the same subject. The main difference between the two groups was that the teacher had undergone a training intervention before handling the with-intervention group. The figure suggests that after the training, students showed improvement in their grades, indicating a possible positive effect of faculty development on student academic performance.

In the with-intervention group, no extremely low grades were observed, and there were no outliers at the lower end of the distribution. In comparison, the no-intervention group had one student with a notably low grade that differed considerably from the rest of the scores. This finding suggests that the training intervention may have helped promote more consistent student performance.

The no-intervention group obtained a mean grade of 79.8 percentage points, with a standard deviation of 4.91, showing that the scores were relatively close to the average. On the other hand, the with-intervention group achieved a higher mean grade of 82.9 percentage points, with a standard deviation of 6.22. Although the scores in the intervention group were slightly more spread out, the overall performance was higher. The median grades also showed improvement, increasing from 80.1 percentage points in the no-intervention group to 84.5 percentage points in the with-intervention group. This supports the observation that student performance improved after the teacher received training.

In terms of skewness, the no-intervention group had a skewness value of -0.89, indicating a left-skewed distribution where more students scored above the mean. Meanwhile, the with-intervention group had a skewness value of -0.36, which was closer to zero. This suggests that after the intervention, the students' grades became more evenly distributed around the mean, with fewer extreme scores. Overall, the results show a positive trend toward improved and more balanced student performance following the teacher's training intervention.

These findings suggest that the intervention had a beneficial effect on student learning outcomes. The improvement may be attributed to enhanced instructional strategies, better learner engagement, or additional teaching resources introduced during the intervention period. A notable result was the reduction of students who needed remedial support. Before the ODI, some students obtained grades below the passing threshold and required additional assistance. After the intervention, no students failed or required remedial instruction, indicating an improvement in overall academic performance. This change highlights the potential of the ODI to improve student achievement by strengthening teaching methods and increasing student motivation.

Overall, Perspective in Medicine showed a positive trend, with the median grade increasing from 80.1 in the no-intervention group to 84.5 in the with-intervention group, reflecting a 4.4-point improvement. This

moderate but meaningful increase supports the possible benefit of the ODI in improving instructional delivery and student learning. More importantly, the improvement was accompanied by the absence of students needing remedial classes, suggesting a stronger overall performance and greater confidence among students in the subject.

VII. CONCLUSION

The findings show that the teacher training intervention was associated with an improvement in students' academic performance in the Perspective in Medicine course. Students handled by the teacher after the intervention obtained higher mean and median grades compared with those in the no-intervention group, indicating a positive change in learning outcomes. The intervention group also showed a more balanced distribution of grades, no low-grade outliers, and greater consistency in student achievement. In addition, the absence of failing students and those needing remedial instruction after the intervention reflected a notable improvement in overall academic success.

The results suggest that the Outcomes-Based Instruction (OBI) or Outcomes-Driven Intervention (ODI) training helped improve the teacher's instructional practices, particularly in applying constructive alignment, measurable learning activities, and learner-centered teaching approaches. These improvements may have contributed to better student engagement, clearer understanding of course concepts, and higher academic achievement. Since Perspective in Medicine aims to develop socially responsive, accountable, and competent future healthcare professionals, the improvement in student performance also suggests that faculty professional development can support the attainment of intended learning outcomes.

Overall, the findings highlight the importance of continuous faculty development as a strategy for enhancing instructional quality and improving student learning outcomes in medical education. Although the results are promising, further research involving larger sample sizes, multiple instructors, and inferential statistical analysis is recommended to better determine the extent to which the intervention directly affects student performance.

VIII. RECOMMENDATIONS

Based on the findings of the study, medical schools and higher education institutions are encouraged to continue supporting structured faculty development programs that enhance teachers' competencies in Outcomes-Based Education (OBE), constructive alignment, learner-centered teaching, and evidence-based instructional strategies. Similar training programs should be integrated into continuous professional development initiatives to strengthen teaching effectiveness and improve students' academic performance.

Curriculum administrators should also promote the regular monitoring and evaluation of instructional practices to ensure that teaching methods remain aligned with the intended learning outcomes. In addition, mentoring programs, peer observation, and communities of practice may be established to help sustain the effective teaching strategies learned through faculty training.

Future researchers are encouraged to replicate the study using larger and more varied samples across different courses, instructors, and institutions to improve the generalizability of the results. The use of experimental or quasi-experimental designs, along with inferential statistical analyses, may provide stronger evidence on the effectiveness of the intervention. Further studies may also explore the long-term effects of faculty development on student competencies, clinical performance, and professional readiness to determine whether improvements in academic achievement led to better healthcare practice.

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