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Analysis of Academic Performance in Professional Subjects Among Bachelor of Science In Physical Therapy Students at General Santos Doctors' Medical School Foundation, Incorporated, South Cotabato, Philippines: Enhancing Curriculum Delivery and Implementation

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ABSTRACT: This study determines the academic performance of Bachelor of Science in Physical Therapy (BSPT) students at General Santos Doctors' Medical School Foundation, Inc., focusing specifically on professional subjects from 2019 to 2024. Utilizing a comprehensive assessment of Level 3 and Level 4 of 28 student grades, the research reveals that most BSPT students received high ratings, with the majority of professional subjects categorized as "very good." In Levels 1 and 2, 11 subjects were deemed "very good," 4 "good," and 1 "satisfactory." Level 3 results indicated 5 subjects at a "very good" rating, 11 "good," and 1 "satisfactory."

However, significant performance disparities were identified, particularly within 4 subjects in Level 2 and 7 subjects in Level 3, warranting attention for improvement. The findings also noted a range of consistency in student performance, with both Levels 1 and 2 displaying 12 subjects that showed no significant differences, while Level 3 revealed 8 subjects without significant variation and 7 with identified differences. These insights call for a thorough evaluation of the curriculum and instructional methodologies to enhance the delivery and implementation of professional subjects, ultimately aiming to elevate the overall academic outcomes of BSPT students and ensure they meet the standards of professional practice.

KEYWORDS: Academic performance, professional subjects, curriculum improvement, educational evaluation, instructional methodologies, student assessment, professional readiness.

I. INTRODUCTION

The problem of recruitment and retention of staff in the allied health professions within the National Health Service of the United Kingdom has been highlighted over the last decade. Despite this attention, the National Health Service is still struggling with staff shortages in these professions. The government's response to the current situation has been to set a recruitment target of 6,500 more therapists and allied health professionals. The specific target for physiotherapy is to increase the number of physiotherapists and vacancy rate. Commentators have described the shortfall of physiotherapists in the National Health Service as 'a crisis situation [1].

The academic performance of students in professional subjects is a critical area of research, particularly within the context of Bachelor of Science in Physical Therapy (BSPT) programs. Understanding factors that influence academic success in these demanding professional courses can offer insights into curriculum development, student support services, and teaching methodologies. Physical therapy, as a profession, requires not only a solid foundation in biological sciences but also the ability to apply theoretical knowledge in clinical settings [2].

The curriculum is described as a set of carefully thought-out learning activities to provide students with learning opportunities in a qualified structure. [3] The activities, experiences, materials and methods, knowledge, values, attitudes, and skills that are intentionally created to accomplish specific goals with a particular group of students. It serves as a guide to achieve focused education, indicating that curriculum is a factor that defines the effectiveness and impact of the educational system, making it the most essential component of whole education [4]. It comprises the information and abilities that students need to have in that particular field as a significant component.

It is essential to explore the existing literature on academic performance, particularly examining the factors that influence students' outcomes in Bachelor of Science in Physical Therapy (BSPT) program. The study aims to analyze the academic performance in the different professional subjects of the Bachelor of Science in Physical Therapy students at GSDMSFI. This will provide valuable insights into the relationship between effective curriculum delivery and students' academic performance in the BSPT program.

The study analyzed the rating of different academic performance in the different professional subjects of the Bachelor of Science in Physical Therapy students from 2019-2024 at General Santos Doctors' Medical, Incorporated. Thus, this study found out the answer the following questions:

- (1) What are the level of academic performance of the different professional subjects of BSPT Students at GSDMSFI?
- (2) Is there a significant difference between the academic performance rating from 2019 to 2024 of BSPT students and their professional subjects?, And (3) Out of the results, what teaching methodologies can be proposed specifically in professional subjects that needs improvement?

This study focused exclusively on the academic performance rating of Level 3 and 4 BSPT students based on their grades in Professional Subjects from academic year 2019-2020 to 2023-2024.

This study is limited to students enrolled in the Bachelor of Science in Physical Therapy program at General Santos Doctors' Medical School Foundation Inc., excluding students from other health science programs or professional degrees that may be offered at the institution. The focus will solely be on professional subjects, thereby omitting general education courses or elective subjects that are part of the broader undergraduate curriculum. Additionally, the study will not consider external factors such as socioeconomic background or personal circumstances, that might influence students' academic performance in these professional subjects. The timeframe for the study will be confined from 2019-2024, ensuring that the analysis reflects the immediate effects of curriculum and teaching strategies on student learning outcomes in professional subjects.

II. REVIEW OF RELATED LITERATURE AND STUDIES

It essentially acts as a blueprint for research study, guiding the researcher in understanding the problem, formulating research questions, selecting appropriate methods, and analyzing data. It is a way to organize ideas and theories to achieve the research purpose.

BSPT Students

Bachelor of Science in Physical Therapy is a four-year program that produces professionals who promote optimal health and function by providing services that develop, maintain, and restore maximum movement and functional ability, for people at any stage of life, when their movement and function are threatened by ageing, injury, diseases, disorders, conditions, or environmental factors. The program culminates in a one-year comprehensive internship program that allows students to work within the health spheres of promotion, prevention, treatment/intervention, habilitation, and rehabilitation, supervised by licensed professionals.

As a student of physical therapy progresses through their clinical, they will take on responsibilities such as conducting assessments: they may be responsible for performing certain assessments to help the physical therapist identify areas of weakness, limited mobility, or pain that need to be addressed; developing treatment plans: based on the assessment results, they will help develop a treatment plan that may include exercises, stretches, manual therapy, and other interventions designed to improve the patient's function, strength, and overall well-being; assisting with

exercises: During therapy sessions, they will assist the patient with performing exercises and activities designed to improve their mobility and function; monitoring progress: they will help monitor the patient's progress and adjust the treatment plan as needed to ensure that the patient is making progress towards their goals; providing education: they may provide patients with education. By the end of their final clinical rotation, students are able to perform each of these tasks with no supervision and by graduation are deemed ready to enter the workplace. While it may be uneasy to work with a student or seem daunting at the time here are a few things to remember. [5]

Physiotherapy is taking on an increasingly crucial role in healthcare as the importance of prevention and rehabilitation grows. However, despite the rising demand for physiotherapeutic services, they are facing a pressing problem, the shortage of skilled workers. They will delve into the main causes of the physiotherapy workforce shortage and present potential solutions to tackle this challenge. [6] Additionally, People are living longer than ever before, leading to an increased prevalence of chronic illnesses that require intensive therapeutic care. Age-related issues such as joint problems, muscular dysfunctions, and neurological disorders are common reasons for the demand for physiotherapeutic interventions. At the same time, society is witnessing a growing awareness of health. People are better informed about the importance of a healthy lifestyle and are increasingly seeking preventive measures to maintain their health and well-being. This combination of an aging population and increased health consciousness has led to a rapid surge in demand for physiotherapeutic services. However, this significant increase has resulted in an imbalance between supply and demand of physiotherapists. The capacities of training institutions and the access to training programs struggle to keep pace with the ever-growing demand. Consequently, we are experiencing a tangible shortage of skilled workers, which is progressively impacting the quality of healthcare and patient satisfaction.

Moreover, Elstermann [6] that a shortage of training facilities results in insufficient study places for aspiring physiotherapists to meet the increasing demand for skilled professionals. This scarcity can create bottlenecks and make access to physiotherapy education more challenging. In some regions or countries, long waiting periods for a training spot may discourage potential candidates from pursuing a career in physiotherapy. Additionally, high admission requirements for studying physiotherapy can also pose a barrier. The profession demands a high level of commitment, responsibility, and empathy to work effectively and safely with patients. Proper selection of suitable candidates is essential to maintain the quality of physiotherapeutic care at a high level.

The professional education of physical therapists encompasses a wide range of subjects critical to developing competent practitioners. Central to this education are foundational courses that cover anatomy, physiology, and biomechanics, which are vital for understanding the human body and its functions. These subjects provide essential knowledge that supports clinical reasoning and effective intervention strategies. Courses in pathology and therapeutic modalities further equip students with the skills necessary to assess and treat various conditions. Research by McCully et al. [7] emphasizes that a strong foundational understanding in these areas correlates with enhanced clinical performance, suggesting that a well-structured curriculum in professional subjects directly influences student competencies.

Beyond foundational knowledge, the integration of evidence-based practice (EBP) within the physical therapy curriculum is crucial for preparing students for contemporary clinical environments. EBP involves integrating clinical expertise, patient values, and the best research evidence into the decision-making process regarding patient care. A study by O'Sullivan et al. [8] highlights that incorporating EBP into physical therapy education enhances critical thinking and clinical decision-making skills among students. Furthermore, the pedagogical strategies employed in teaching EBP, such as problem-based learning, have been shown to promote active engagement and deeper understanding [9]. These findings underscore the importance of innovative teaching methods in professional subjects to foster a culture of inquiry and responsiveness to new evidence among future practitioners.

Moreover, the impact of Inter Professional Education (IPE) in professional subjects of physical therapy cannot be overlooked. IPE involves collaborative learning opportunities among students from different health professions, aiming to prepare them for teamwork in clinical settings. IPE enhances communication skills, mutual respect, and collaborative practice, which are essential for delivering high-quality patient care. Physical therapy programs that integrate IPE into their curriculum enable students to experience real-world scenarios that require teamwork, thus better preparing them for inter professional collaboration in their future careers [10]. As such, the incorporation of IPE into professional

subjects not only enriches the educational experience but also aligns with the evolving landscape of health care delivery, where interdisciplinary collaboration is increasingly essential.

Furthermore, Clinical education is a fundamental component of physiotherapy entry-level education programs, with practice education being a core element. In the study of Magni, et.al [11]. The inclusion criteria were defined using Peter's concept: (population) physiotherapy students; (concept) competencies aligned with the WCPT educational framework; (context) clinical environment. A total of 1798 sources were identified, and 86 studies were finally selected. Studies originated from 14 countries, with the United States, Australia, and Canada being the most represented. Of the selected studies, 62 used specific tools to identify competencies. These are the professional subjects: "Clinical Performance Instrument" and the "Assessment of Physiotherapy Practice" were the most frequently used instruments and covered all of the World Physiotherapy competencies' domains. "Clinical Competence" emerged as the most widely recognized and utilized term across countries. Among the WCPT domains, "Physiotherapy Assessment and Intervention", "Ethical and Professional Practice", and "Communication" were the most represented, whereas "Evidence-Based Practice" and "Quality Improvement" were the least mentioned.[11]

In the academic performance of the Physical Therapy graduates refers the Grade Percentage Average of the Physical Therapy graduates from University of Bohol that all their accumulated major subjects into three groups and their subsequent Licensure Examination results in three the same groups, as well. The study explores the relationship between the licensure exam score and the academic performance of the graduates of the same groups. The study used documentary analysis on the existing school records as to GPA of the three groups from the Professional Regulations Commission. It made use of frequencies, percentages, correlation and analysis of variance of the Licensure Examination Results and Academic Performance (GPA) on the three groups. The results showed that among the three groups, the Physical therapy Applications group has the highest mortality rate. Majority obtained Fair (GPA of 2.6-3.0) in their academic performance; these are not predictors of passing the licensure Examinations. The outcome of the study is one of the bases for the curricular review of the courses and program of the Physical Therapy Department of the University of Bohol. [12].

Physical therapist (PT) education programs seek to identify applicants who will be academically successful in the program and pass the licensure examination. In the systematic literature review of Bowens [13] discuss to understand the value of cognitive variables in PT education admissions. The initial literature search identified 1,592 articles in databases and relevant journals. Of the 39 studies meeting the inclusion criteria, 31 reported on cognitive measures. Results Seven studies identified one or more sections of the Graduate Record Examination (GRE) as significant predictors of students' academic performance in PT programs. Ten studies reported that one or more sections of the GRE predicted National Physical Therapy Exam (NPTE) performance, whereas 4 studies found no significant relationship. Undergraduate grade point average (GPA) predicted academic performance in the PT program and on the NPTE in more than 10 studies, whereas 4 found no significant relationship. Other components of the academic record, such as prerequisite course grades, undergraduate institution quality, undergraduate degree, and retaking prerequisite courses, had varying relationships with academic and NPTE performance. These outcomes appear to inform the policies and processes for admissions into PT education programs, evidenced by customary use of applicants' GRE scores and GPAs in admission decisions. The inclusion of both cognitive measures in admission decisions may help ensure that admitted students successfully manage the academic rigor of doctoral education and pass the NPTE.[13]

In the study of Birkmeier, et.al [14] that the purposes of the study were to explore the relationship of preclinical assessment outcomes and grade point averages (GPAs) with full-time Clinical Education Experience (CEE) performance and determine the predictive value of associated variables to full-time Clinical Education Experience (CEE) performance. In-program academic variables such as performance tests, comprehensive examinations, and GPAs reflect a measure of student performance before clinical education. Limited and conflicting physical therapist education research exists examining the relationship between preclinical in-program academic variables and CEE performance. This is a retrospective convenience sample of 130 graduated Physical Technologist student academic records with expected graduation years of 2018, 2019, and 2020. Academic records related to performance test outcomes, cumulative program GPAs, utilization of a practical retake appeal policy, and comprehensive examination performance were correlated with CEE performance. A dichotomous ordinal rating scale quantified CEE performance per full-time experience based on the presence of a learning contract. Overall, CEE performance was defined as the percentage from the combined CEE performance scores across all experiences. Data analyses included Pearson's correlation coefficient,

Spearman's rho, and a multiple linear regression analysis. The results show that Ten of 25 course-specific performance tests had significant associations with Clinical Education Experience CEE performance. Cumulative GPA and the practical retake appeal were significantly associated with the CEE III score and overall CEE performance. The practical retake appeal was a significant contributor to clinical performance, explaining 5.3% of the variance ($\beta = 0.24$, $P = .01$, 95% CI 0.01 to 0.09, part correlation = 0.23, tolerance = 0.91). These findings support the use of performance tests as an effective assessment strategy before CEEs but only represent one aspect of the full picture of readiness to practice. Academic progression policies can offer a mechanism for early identification to support at risk students before the CEEs.[14]

In the study of Pinckney [15] participated by completing an online survey involving self-report of grade point average (GPA), graduate record examination (GRE) percentile rankings, and reflections on pathway program experiences. Student GPA leading into entry-level Doctor of Physical Therapy (DPT) program application was not influenced by Underrepresented Minority (URM) status or pathway program participation. The relationships between pathway program participation and the three sections of the GRE were inconsistent, yet promising signs of pathway program benefit to GRE performance among some URM students were evident. All students with pathway program experience demonstrated greater career interest development, self-efficacy beliefs, outcome expectations, and goal representations. Pathway programs appear to be a viable avenue through which a diverse composition of individuals may be ushered into the licensed physical therapist profession. [15]

In the study of Becker, et.al [16] that all physical therapy students naturally embrace physical activity, despite group scores surpassing norms. Though a negative link between stress and GPA exists in health profession students, engaging in exercise can positively impact stress-related disorders. Recommending regular exercise to PT students with below-average performance may aid academic improvement. Their research offer valuable insights into the interplay of physical activity, social connections, and academic outcomes for holistic student development.

In the study of Calo, et.al. [17] that grit was an independent predictor for overall academic success and clinical performance in final-year physical therapist students. Low grit may impact negatively on learning and students' ability to cope with challenges associated with university studies and clinical education. Further studies should investigate interventions that best develop grit in health professional students and the overlapping nature of grit, resilience, and a growth mindset. This study helps universities and educators understand noncognitive factors predicting academic success and clinical performance in physical therapist students. Universities and clinical educators may consider screening and providing proactive strategies for students with low grit to improve success and general wellbeing. Curriculum development is a dynamic process that requires systematic planning and implementation to ensure educational programs meet the needs of students and the demands of the profession. According to Tyler [18], effective curriculum development encompasses four essential questions: What educational purposes should the school seek to achieve? What educational experiences can be provided that are likely to achieve these purposes? How can these educational experiences be organized? And how can we determine whether these purposes are being achieved? This framework lays the foundation for developing curricula that are relevant, comprehensive, and structured, ultimately enhancing the educational outcomes for students. Additionally, as noted by Ornstein and Hunkins [19], a collaborative approach involving stakeholders including educators, administrators, students, and industry representatives can lead to a more inclusive and effective curriculum that is tailored to the evolving needs of society and the workforce. In recent years, there has been a significant shift towards competency-based education (CBE) and OBE (outcomes-based education) in curriculum development, particularly in health-related fields such as physical therapy.

III. METHODOLOGY

The study employed an introspective- quantitative research design that have been significant relationship of academic performance in different professional subjects. Additionally, it also showed the average rating results academic performance of the Level 3 and 4 BSPT students from the academic year 2019-2020 to 2023-2024. The respondents were the 28 BSPT students. They were officially enrolled in academic year 2019-2024 and their rating serves as the basis of the analysis of the study. Moreover, the study's respondents were chosen based on the total population in which covers the school year needed in the study. Specifically utilizing purposive sampling. Purposive sampling is a non-probability technique where respondents are selected based on the study's objectives and the characteristics deemed relevant (Crossman, 2020). The researchers established specific inclusion and exclusion criteria to guide the selection

process of respondents for the study. The inclusion criteria present in the study focuses on information collected from the academic performance of Levels 1 to 4 BSPT students based on their grades in Professional Subjects during the academic year 2019-2020 to 2023-2024. The exclusion criteria for the study would involve excluding academic performance of General Education subjects and Level 1 and Level 2 students. Only the ratings of Professional subjects were collected and analyzed.

IV. RESULTS AND DISCUSSIONS

This section shows the results of the academic performance of Professional subjects of BSPT students from 2019-2024 in Levels 1 and 2. Table 3 presents the average rating given by their instructor. It shows that PT 121 (Introduction to Physical Therapy) and PT 122 (Health Informatics) are described as very good with an average rate of 1.86 and 1.84, respectively.

Table 3.Average Rating on the Academic Performance of BSPT Students in Professional Subject at Levels 1 and 2

COURSE CODE	COURSE TITLE	AVERAGE RATE	DESCRIPTION
PT 121	Introduction to Physical Therapy	1.86	Very Good
PT 122	Health Informatics	1.84	Very Good
SECOND YEAR LEVEL			
COURSE CODE	COURSE TITLE	AVERAGE RATE	DESCRIPTION
PT 211	Applied Anatomy and Kinesiology	2.00	Good
PT 212	Psychiatric Foundations	1.87	Very Good
PT 213	Principles of PT Evaluation	2.21	Good
PT 214	Human Development	1.96	Very Good
PT 215	CBR 1	1.90	Very Good
PT 216	Teaching and Learning 1	1.94	Very Good
PT 221	Orthopedic/Rheuma/Sports PT 1	2.18	Good
PT 222	Neuroanatomy	1.86	Very Good
PT 223	CBR 2	1.79	Very Good
PT 224	Physical Agents and Electrotherapy	1.92	Very Good
PT 225	Organization and Administration	1.60	Very Good
PT 226	Teaching and Learning 2 (Mass Education)	1.92	Very Good
PT 227	Assistive Technologies	2.23	Good
PT 228	Pediatric PT	2.52	Satisfactory

*Legend:

AVERAGE RATE	DESCRIPTION
1.00-1.49	EXCELLENT
1.50-1.99	VERY GOOD
2.00-2.49	GOOD
2.50-2.99	SATISFACTORY
3.00	PASSED

Additionally, it is also shown in the Second Level that most of the professional subjects are described as very good. Especially PT 225 (Organization and Administration), PT 223 (CBR 2), and PT 212 (Psychiatric Foundations) with an

average rate of 1.60, 1.79, and 1.87, respectively. These subjects show that most students highly regard studying and learning. Moreover, these professional subjects have to maintain the highest academic performance of the students. Consequently, PT 228 (Pediatric PT), PT 227 (Assistive Technologies) and PT 213 (Principles of PT Evaluation) have an average rate of 2.52, 2.23 and 2.21, respectively. These subjects are described as satisfactory and good. This implies that the lowest average rates shown need improvement to enhance the results of the academic performance of the BSPT students.

The PT 228 (Pediatric PT) deals with all aspects of working with children including decision making, determining eligibility and need for services, screening and selecting intervention techniques and strategies to engage and motivate children development, motor control and motor learning, the impairments of body function and structure and physical therapy management.

The PT 227 (Assistive Technologies) deals with the prescription, application and appropriate fabrication or modification of seating and positioning technologies, aids for locomotion, orthotic devices, prosthetic devices and other assistive technologies to improve functioning.

Table 4. Average Rating on the Academic Performance of BSPT Students in Professional Subject at Level 3

THIRD YEAR LEVEL

COURSE CODE	COURSE TITLE	AVERAGE RATE	DESCRIPTION
PT 311	Orthopedic/Rheuma/ Sports PT 2	2.43	Good
PT 312	Neurologic PT 1	2.07	Good
PT 313	Wellness and Health Promotion 1	2.48	Good
PT 314	Community Development	1.82	Very Good
PT 315	Intro to Research	2.78	Satisfactory
PT 316	Research Proposal Writing	2.15	Good
PT 317	Geriatric PT	1.87	Very Good
PT 318	Health & Social Media	1.83	Very Good
PT INTERN 1	Internship 1 (324 hours)	2.04	Good
PT 321	Orthopedic/Rheuma/ Sports PT 3	2.27	Good
PT 322	Neurologic PT 2	2.13	Good
PT 323	Cardiopulmonary PT	2.13	Good
PT 324	Industrial Rehabilitation	2.30	Good
PT 325	Innovations in PT Service Delivery 1 (Clinical Systems)	2.45	Good
PT 326	Integumentary PT	1.92	Very Good

PT 327	Research Implementation	1.81	Very Good
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*Legend:

AVERAGE RATE	DESCRIPTION
1.00-1.49	EXCELLENT
1.50-1.99	VERY GOOD
2.00-2.49	GOOD
2.50-2.99	SATISFACTORY
3.00	PASSED

The PT 213 (Principles of PT Evaluation) contains with the different principles and techniques that deals tests and measurement used in evaluation of different musculoskeletal, neuromuscular, cardiovascular, integumentary conditions to guide formulation of PT treatment goals. This also includes history taking and proper documentation through the use of SOAP format.

Table 4 shows that BSPT student academic performance results are very good in PT 327 (Research Implementation), PT 314 (Community Development), and PT 318 (Health and Social Media) with an average rating of 1.81, 1.82, and 1.83, respectively. These are the subjects that most of the students are fond of studying and learning. It also implies that most of these professional subjects show that the instructors gave the highest rating.

Some of the professional subjects that need to be improved are PT 315 (Intro to Research), PT325 (Innovations in PT Service Delivery 1), and PT 313 (Wellness and Health Promotions) with an average rating of 2.78, 2.45, and 2.43, respectively. These are described as satisfactory and good. It implies that the lowest average rates need improvement to enhance the results of the academic performance of BSPT students.

PT 315 (Intro to Research) covers the essential concepts related to research design and methodology that practitioners need to become critical evaluators of research and prepare for conducting research in their practices. Focus is on understanding each component of the research process, qualitative and quantitative designs, program evaluation, measurement issues, and data analysis.

PT325 (Innovations in PT Service Delivery 1) provides a framework in which students can continue to develop professional attitudes and insights requisite for sustained growth throughout their field in terms of present-day innovations, PT applications, rehabilitation robotics and gamified physical therapy. This course will integrate fundamental concepts that require students to critically analyze the managements of patients being treated.

PT 313 (Wellness and Health Promotions) is designed to initiate an interdisciplinary learning practicum for health professions promoting a process of support and training in the pursuit of well-being in all dimensions. It focuses on health promotion and disease prevention and identify the knowledge and skills of Physical Therapists in terms of treating and protecting against acute and chronic diseases and its barriers.

Significant Difference Between Academic Performance Ratings in Professional Subjects From 2019-2024 of BSPT Students

This section discusses the results on significant differences between the results from 2019-2024 Professional subjects taken by the students with their rates. It shows in tabular form from levels 1, 2 and 3. Since the population is less than 30, the researchers use Kruskal-Wallis as a statistical tool.

Table 5 shows that PT 216 (Teaching and Learning), PT 122 (Health Informatics), and PT 224 (Physical Agents and Electrotherapy) have the highest values of 0.561, 0.434, and 0.185, respectively. It means that there is no significant difference between the academic performance of the students.

These results imply that there a consistency of curriculum, content, teachers' methods, activities, and assessment. Since most of these subjects are described as very good, it has a good teaching methodology that students get good grades.

These professional subjects have to maintain the quality and good implementation of the course.

Table 5. Kruskal-Wallis Results Between the Academic Performance of BSPT Students in Levels 1 and 2

Sources	χ^2	df	p	ϵ^2	Remarks
PT 121	2.65	2	0.266	0.098	Not Significant
PT 122	1.67	2	0.434	0.0618	Not Significant
PT 211	2.69	2	0.261	0.0996	Not Significant
PT 212	7.78	2	0.02	0.2881	Significant
PT 213	6.38	2	0.041	0.2362	Significant
PT 214	7.1	2	0.029	0.263	Significant
PT 215	4.99	2	0.083	0.1847	Not Significant
PT 216	1.15	2	0.561	0.0444	Not Significant
PT 221	2.1	2	0.35	0.0777	Not Significant
PT 222	2.86	2	0.239	0.106	Not Significant
PT 223	3.65	2	0.161	0.1352	Not Significant
PT 224	3.38	2	0.185	0.1252	Not Significant
PT 225	10.61	2	0.005	0.3929	Significant
PT 226	3.99	2	0.136	0.1534	Not Significant
PT 227	4.95	2	0.084	0.1832	Not Significant
PT 228	5.9	2	0.052	0.2271	Not Significant

*0.05level of Significance

Moreover, the objective of the study is to look for the improvement of professional subjects that need to be enhanced. The PT 225 (Organization and Administration), PT 212 (Psychiatric Foundations), PT 214 (Human Development) and PT 213 (Principles of PT evaluation) has a smaller p-values results such as 0.005, 0.02, 0.029 and 0.041, compare to 0.05 level of significance. The results imply that there is a significant difference between the academic performance of the BSPT students on their professional subjects. It shows that there is an inconsistency on the assessment and methods given by their instructor like activity, quizzes and assign.

Table 6 shows that PT 314 (Community Development), PT 318 (Health and Social Media), PT 323 (Cardiopulmonary PT) has a greater value of 0.276, 0.239, and 0.139, respectively. These results imply as no significant difference between their performance from 2019-2024. The assessment and methods used by the teachers are in uniform and consistent.

However, the PT 315 (Introduction to Research, PT 316 (Research Proposal Writing), PT 325 (Innovations in PT Service Delivery in Clinical System, PT Intern 1 (Internship), and PT 324 (Industrial Rehabilitation) has a smaller value of <0.001, 0.004, 0.006, and 0.005, respectively compares to the 0.05 level of significance difference. The results imply that there is a significant difference between the academic performance of the BSPT students from 2019-2024. And the results are differed from each other.

There is an inconsistency of the average rating given by the instructors and it shows that they differ in methods of teaching, content and assessment.

Table 6. Kruskal-Wallis Results Between the Academic Performance of BSPT Students in Level 3

SOURCES	X ²	DF	P	E ²	REMARKS
PT 311	6.81	2	0.033	0.262	Significant
PT 312	5.41	2	0.067	0.208	Not Significant
PT 313	5.67	2	0.059	0.218	Not Significant
PT 314	2.57	2	0.276	0.103	Not Significant
PT 315	16.48	2	< .001	0.61	Significant
PT 316	16.52	2	< .001	0.612	Significant
PT 317	4.08	2	0.13	0.151	Not Significant
PT 318	2.86	2	0.239	0.11	Not Significant
PT INTERN 1	10.21	2	0.006	0.378	Significant
PT 321	5.09	2	0.079	0.188	Not Significant
PT 322	6.18	2	0.046	0.229	Not Significant
PT 323	3.94	2	0.139	0.152	Not Significant
PT 324	7.38	2	0.025	0.273	Significant
PT 325	11.07	2	0.004	0.41	Significant
PT 326	3.02	2	0.221	0.112	Not Significant
PT 327	6.78	2	0.034	0.271	Significant
*0.05LEVEL OF SIGNIFICANCE					

Enhance the Professional Curriculum Subject for BSPT Students

This section shows the different subjects to be reviewed, checked, and enhanced based on the results for the improvement of the student's academic performance. The objective of this study is to point out the professional subjects that need attention for improvement. The results will serve as the standard method, content, and assessment to be used by the teachers. It is to provide an aid also to both teachers and students. This presented course curriculum may help the professional teachers to be consistent on the topic, content, activity and assessment. Additionally, this is a curriculum model to look up as to teach the course without any hesitation in teaching the BSPT students. They could add some strategies and activities as long as the major topic and activities will be rendered to have a uniformity and to avoid differences of assessment.

Moreover, this research study informs subject curriculum improvement with the following: 1) identifying the subject areas need for improvement. The findings of the study highlight the subject areas where curriculum is lacking or were teaching practices need to be adjusted to better support student learning. 2) Notifying curriculum development. This study can provide valuable insights for designing a curriculum materials, incorporating effective teaching strategies, and integrating technology in meaningful ways. 3) Guiding professional development. This finding can inform professional development programs for teachers, helping them to improve their teaching practices and better support student learning. 4) Promoting student engagement. This study can help educators understand what motivates students and how to design curriculum and learning experiences that are engaging and relevant to their lives. 5) Supporting student well-being. This study may give on the impact of extracurricular activities and peer support can inform the development of programs and initiatives that promote student well-being and create a positive school environment. By conducting and analyzing this study on academic performance and curriculum, educators can gain valuable insights into how to improve the learning experience for all BSPT students and ensure that the curriculum is effectively meeting the needs of the 21st century learner.

Table 7. Professional Subjects in Level 2

COURSE CODE	COURSE TITLE	COURSE DESCRIPTION
PT 212	Psychiatric Foundations	The course deals with the introduction in psychiatry, diagnostic classification of physical therapist-client relationship as the core of practice of health care. It also deals with concept of therapeutic communication skills which is of vital importance in promoting compliance/adherence to the treatment program.
PT 213	Principles of PT Evaluation	This course deals with the different principles and techniques that deals tests and measurement used in evaluation of different musculoskeletal, neuromuscular, cardiovascular, integumentary conditions to guide formulation of PT treatment goals. This also includes history taking and proper documentation through the use of SOAP format.
PT 214	Human Development	This course is both the most fascinating and the most complex science there is. This will introduce students to the issues, forces, and outcomes that make us who we are. This is designed to provide contemporary research and theory on human development consistently emphasize the multidisciplinary approach needed to describe and explain how people change over time. Thus, this will provide a comprehensive, yet highly readable, account of human development across the lifespan.

A traditional way to structure classroom learning is the lecture format, in which teachers explain information while students observe. Teachers lead a lesson by presenting on, showing visual of the modeling examples of a topic. While a teacher is presenting, students can listen, watch, take notes and copy the teacher's demonstrations. While conventional and helpful approach, teachers may alter it for different learning environments. It can advantageous to keep classroom lectures short and concise to maintain student attention and engagement.

Table 8. Professional Subjects in Level 3

COURSE CODE	COURSE TITLE	COURSE DESCRIPTION
PT 315	Introduction to Research	This course covers the essential concepts related to research design and methodology that practitioners need to become critical evaluators of research and prepare for conducting research in their practices. Focus is on understanding each component of the research process, qualitative and quantitative designs, program evaluation, measurement issues, and data analysis,
PT 316	Research Proposal Writing	This course deals with helping develop research skills through its focus on writing and critiquing research proposals. In addition to preparing a complete proposal for the research project, each student will be required to read assigned materials, hand in reflections about readings, give status updates, conduct peer reviews, make presentations, and participate actively in class discussions.
PT 324	Industrial Rehabilitation	The aim of this course is to provide the basic information and application examples about evaluation methods used in industry (business analysis, working capacity, ergonomic analysis, etc.), assessment and training methods used in the vocational rehabilitation, the roles of physical therapists in protective industrial approaches and job training, home and environmental arrangements to the students.

PT 325	Innovations in PT Service Delivery	This course provides a framework in which students can continue to develop professional attitudes and insights requisite for sustained growth throughout their field in terms of present-day innovations, PT applications, rehabilitation robotics and gamified physical therapy. This course will integrate fundamental concepts that require students to critically analyze the managements of patients being treated.
PT INTERN 1	Internship 1	This course is a 324-hour full time clinical and non-clinical experience. The students are assigned to a clinical facility under the direction and supervision of a Physical Therapist Clinical Instructor. Clinical experiences will be representative of settings where physical therapy is routinely practiced. Examples of settings include, but are not limited to: acute care hospitals, rehabilitation centers, outpatient clinics, schools or community. The collective outcome of this internship will encompass patient experiences that ensure students are competent with management of patients across the lifespan and continuum of care. The students can handle musculoskeletal, pediatric and geriatric patients. Whereas, for observation and guided supervision for neurological, integumentary and cardiopulmonary cases.

Additionally, using visual cues in the discussions for presentation is quite engaging wherein the teacher can keep the students interested in the content. Making use of high-contrast colors and bold shapes and lines so students across in the classrooms can see and understand the relayed messages.

Moreover, for those students who are able to do handwriting notes on paper can be a superb way to stay focused during lectures. It can also help people to recall information well and strengthen their spelling and writing skills.

IV. CONCLUSION OF THE STUDY

The findings of the study lead to several key conclusions:

1. A majority of students demonstrated commendable academic performance, achieving higher grades across the evaluated subjects.
2. An analysis of professional subjects from 2019 to 2024 revealed that there were no significant differences in average scores, indicating a level of consistency in student performance over the years.
3. It is essential to address the subjects with the lowest average ratings, as these areas are in need of targeted improvement to enhance overall academic success.
4. The results from the Kruskal-Wallis test indicate that students' average performance ratings of "very good," "good," and "satisfactory" do not show statistically significant differences, suggesting a stable level of achievement that warrants further investigation to foster enhanced learning outcomes.

V. RECOMMENDATIONS

Based on these conclusions, the following recommendations are proposed:



1. The program head or coordinator should conduct a comprehensive review of the curriculum. This review should evaluate the effectiveness of the curriculum as an assessment tool, ensuring it aligns with the learning objectives and adequately prepares students for their professional practice, considering that most professional subjects are rated as "very good."
2. There should be greater consistency in instructional methodologies, particularly in assessment practices for Bachelor of Science in Physical Therapy (BSPT) students. Establishing uniform assessment criteria will help ensure fairness and clarity in evaluating student performance.
3. A thorough assessment and evaluation of the subject curriculum is necessary to promote standardized academic performance among BSPT students. This process should involve gathering feedback from faculty and students to identify areas for curricular enhancement, ultimately supporting improved academic outcomes in professional subjects.

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