

INCLUSIVE Teaching Practices and Differentiated Instruction in Physical Education as Determinants of Basic Psychological Needs of College Students among Higher Learning Education INSTITUTIONS

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ABSTRACT

This study aimed to determine the inclusive teaching practices and differentiated instruction in physical education as determinants of the basic psychological needs of college students among higher education institutions. The researcher employed a descriptive correlational design, gathering data from the college students in Davao City. The statistical tools used were the mean, standard deviation, Pearson-r correlation, and regression analysis. The findings revealed that the inclusive teaching practices, differentiated instruction, and basic psychological needs of college students in physical education are high. A significant relationship was also found between inclusive teaching practices and psychological needs, as well as between differentiated instruction and psychological needs. Moreover, the inclusive teaching practices and differentiated instruction employed by PE teachers had a significant impact on the students' basic psychological needs.

KEYWORDS: *Physical education, Inclusive teaching practices, differentiated instruction, basic psychological needs, descriptive correlation, Philippines*

INTRODUCTION

The rationale behind which students are actively involved or disengaged in Physical Education classes is intricately associated with the extent to which their basic psychological needs are satisfied. The satisfaction of these needs is closely associated with positive psychological, social, and behavioral outcomes, while their frustration tends to yield adverse psychological consequences (Ryan

& Deci, 2020). The term "basic psychological need" is rigorously delineated to denote a foundational psychological prerequisite critical for individuals' adaptive processes, personal integrity, and developmental progression within the context of empirical research (Van den Broeck et al., 2016). Moreover, in their separate study, they claim that individuals have a limited set of basic psychological needs, and it is important to address these needs. Failure to address these needs may affect students' efficiency, leading to unhealthy behaviors and stress (Ryan & Deci, 2017). Additionally, one of the most significant reasons to cater to the diverse needs of the students is to implement inclusive teaching practices in the general education settings (Johnson et al., 2023). In Physical education, inclusive teaching practices involve modifying traditional sports and games to enhance the skills that enable students to participate in these activities (Tant & Watelain, 2016). It is also a strategy that supports students in improving their basic psychological needs as members of a wider society (Moriña, 2017).

In the United States, specifically at Northwestern College in Iowa, researchers have found that students' unfulfilled basic psychological needs are often the result of not actively participating in physical education classes (Leahy et al., 2020). Physical activities demonstrate and assess the students' performance competence. Whereas academic subjects usually focus on intelligence (Vasconcellos et al., 2020). Furthermore, the best way to fulfill these needs is when a physical education teacher initiates the construction of an autonomous environment that supports learning through the use of self-development, compassion, and consideration towards the students (Bryan & Solmon, 2007). There is also an overwhelming fact that applying differentiated instruction in PE, specifically in dance activities, could improve the attentiveness of the students in their tasks, and it is one of the indicators of basic psychological needs (Diaz, 2024).

In the Philippines, specifically in Metro Manila, Filipino researchers have found that unfulfilled basic psychological needs in school physical education affect students' well-being and motivation (Cagas & Hassandra, 2014). A study conducted at the University of the Philippines (Duliesco & Cagas, 2016) found that one of the indicators of BPN has a moderate level of autonomy among 628 Filipino respondents. Moreover, Filipino students rated their competence and relatedness highest because of the nature of how physical education is taught, especially since most of the activities emphasize collaboration and teamwork with their classmates. When PE students participate in physical activities with their classmates, they form a bond that fosters a sense

of belonging. This finding is also aligned with the results of Measurado et al. (2016), who found that the basic psychological need of relatedness among Filipino students was considered the most significant determinant of flourishing. However, it was mitigated by autonomy and competence.

In the study by Lindner and Schwab (2020), Inclusive teaching practices and differentiated instruction are correlated with providing individualized tasks and special supports for learners with disabilities. In Davao Del Sur, specifically in Digos City, despite the existence of training programs focused on enhancing learning outcomes through differentiated instruction, a considerable number of teachers continue to struggle with developing the essential skills required to create diverse learning activities, processes, and outcomes tailored to the basic psychological needs of the students (Nieves, 2020). This underscores the potential of leveraging differentiated instruction to encourage students to become more engaged in their learning, among other advantages associated with this approach. To achieve this, Wong et al. (2023) stated that educators need to acknowledge the new approach of differentiated Instruction in Relation to the three basic psychological needs of students, which lead to student competence, a feeling of belonging, and the ability to exercise autonomy.

Furthermore, the rationale above demonstrates that the existing studies are limited and inadequate in addressing the basic psychological needs related to physical education, particularly in Region XI, which makes this study even more unique. Thus, the researcher seeks to determine the significant relationship between inclusive teaching practices and differentiated instruction, as well as the impact on students' basic psychological needs, among PE teachers and students in Higher Education Institutions in Davao City. Moreover, the interaction of the two independent variables of this study, such as inclusive teaching practices and differentiated instruction, with the students' basic psychological needs, is underexplored. Lastly, the primary goal of this study is that inclusive teaching practices and differentiated instruction promote quality education, where these diverse students feel valued and supported, regardless of whether they have a learning disability or not. Recently, there has been a trend in how PE teachers handle inclusive Physical Education, considering the limitations some students face in engaging with Physical Education Classes.

METHODS

Research Design

This study employed a quantitative research design, particularly the descriptive correlational approach. This was used to determine the level of inclusive teaching practices, differentiated instruction, and basic psychological needs among college students in higher education institutions. The most appropriate design for this study was the descriptive correlational approach because it assesses the strength and direction of relationships among two or more variables. This design facilitated the exploration of associations and interconnections among variables without establishing a definitive cause-and-effect relationship.

Research Locale

This study was conducted among selected higher education institutions in Davao City. The said city is considered a highly urbanized area located in the Southeastern part of the Philippines, boasting a population of 1,776,949 according to the 2020 census, making it the most populated city in Mindanao. These schools were deemed appropriate for the study as they were all private Colleges and had ample numbers of respondents, mandated by the CHED to include a minor PE subject in the first two years of university. Moreover, Davao City was chosen as the research locale since it is diverse and has a vast number of enrolled students. Furthermore, the researcher was interested in understanding the inclusive teaching practices and differentiated instruction of the PE teachers and their effects on the basic psychological needs of the students.

Research Respondents

The respondents in this study were the 348 PE students from the three prominent private colleges in Davao City. The sample size of the respondents was calculated using the Raosoft online calculator. The study employed a 95 percent confidence interval and a five percent margin of error to ensure the reliability of the strata. Hence, in selecting the respondents, the researcher utilized stratified random sampling.

Research Instrument

The first part of the questionnaire was adapted from Schwab et al.'s

(2022) study titled "How Inclusive Are the Teaching Practices of My German, Math, and English Teachers?" – psychometric properties of a newly developed scale to assess personalization and differentiation in teaching practices." It included two indicators: Personalization and Differentiation. The Cronbach's alpha reliability for all items in each of the scales was good, with a value of 0.79 for the Personalization scale and 0.75 for the Differentiation scale, both of which are considered acceptable. Furthermore, the second part of the questionnaire used in this study was adapted from Suprayogi's (2017) research, entitled "Teaching to address diverse learning needs: development and validation of a differentiated instruction Scale." This section of the questionnaire includes indicators for Instructional Adaptations and Academic Progress monitoring, with Cronbach's alphas of 0.86 for Instructional Adaptations and 0.74 for Academic Progress monitoring. Hence, this shows the reliability of the questionnaire in terms of its internal consistency for both subscales. Lastly, the third part of the questionnaire utilized in this study was adapted from Vlachopoulos et al.'s (2011) research titled "The Basic Psychological Needs in Physical Education Scale." This part of the questionnaire consisted of three indicators: Autonomy, Competence, and Relatedness. The Cronbach's alpha for the three subscales was 0.89 for autonomy, 0.92 for competence, and 0.88 for relatedness. These values, all greater than 0.70, indicate satisfactory internal consistency.

Data Gathering Procedure

The researcher followed protocols and procedures when collecting quantitative data. During the second semester of the 2023-2024 academic year, written letters of permission were sent to the graduate school dean, and ethical clearance was obtained from the UIC Research Ethics Committee (REC). Moreover, permission to conduct the study was obtained from the presidents of the three private colleges in Region XI, the higher education institutions, before disseminating the questionnaire. To minimize disruption to academic schedules, the survey was administered face-to-face directly in the students' classrooms, outside of regular class times. To ensure proper supervision and address any questions, students' respective advisers were present as proctors during the survey administration. A written informed consent form was provided to the respondents and retrieved from them before they began the questionnaire. This form clearly explained the study's purpose, potential benefits and risks, confidentiality of responses, voluntary participation, and right to withdraw at any time. All answers and respondent names were kept strictly confidential, and the results were used solely for research purposes. After retrieving the

questionnaires, the responses were tabulated, analyzed, and interpreted using appropriate statistical tools, including the mean, standard deviation, Pearson Product-Moment Correlation Coefficient, and multiple linear regression.

RESULTS

Level of Inclusive Teaching Practices of PE Teachers

Table 1
Level of Inclusive Teaching Practices of PE Teachers

Category		Mean	SD	Description
Personalization	Category	4.09	.83	High
	<i>Creates a learning environment where students are encouraged to explore the topic</i>	4.23		
	<i>gives individual feedback</i>	3.94		
Differentiation	Category	4.08	.84	High
	<i>uses a variety of grouping strategies</i>	4.15		
	<i>uses different presentation techniques (e.g., whiteboard, flipchart, PowerPoint presentation)</i>	3.87		
	OVERALL MEAN	4.09	.81	HIGH

Shown in Table 1 is the level of inclusive teaching practices of physical education teachers among higher education institutions in Region XI, which was measured in terms of personalization and differentiation. The computations yielded an overall mean of 4.09, indicating a description of 'high'. This implies that inclusive teaching practices are often evident among the physical education teachers in higher education institutions. Moreover, the overall standard deviation is 0.81, which is less than 1, indicating a minimal range of dispersion.

Personalization. This indicator obtained a category mean of 4.09, indicating a high level. Looking at the individual items, the mean ratings ranged from 3.94 to 4.31. The item creates a learning environment where students are encouraged to explore the topic, obtaining a mean rating of 4.23, described as very high. The item provides individual feedback, yielding a mean rating of 3.94 with a corresponding description of 'high'. It means that the personalization of the PE teachers is often evident.

It implies that the PE teacher did not place enough emphasis on giving students individual feedback, which is necessary for improving their performance in class. It gives the impression that the said teachers need to evaluate their teaching strategies, so that after the students' performance, they are expected to provide feedback and create an environment in which students will be encouraged to learn and explore the topic.

It also supports the study by Seden et al. (2020), which suggests that a high level of creating a learning environment is considered a central component for students to explore various topics that can significantly affect not only their learning preferences but also their personal well-being. In addition, studies by Paniagua and Istance (2018) highlight that teacher competencies in creating a learning environment include expertise in subject matter, clarity of presentation, and collaboration with students, which can result in satisfaction with their learning outcomes, leading to student achievement.

Differentiation. This indicator yielded a category mean of 4.08, indicating a high level. Looking at the individual items, the mean ratings ranged from 3.87 to 4.15. Additionally, the item employs a variety of grouping strategies and received a mean rating of 4.15. On the Other hand, the item uses different presentation techniques (e.g., whiteboard, flipchart, PowerPoint presentation) and got a mean rating of 3.87. Both items have a description of high. It means that the differentiation of the PE teacher is often evident.

It indicates that a PE teacher employs a range of grouping strategies to foster inclusivity in their class. The findings also reveal that PE teachers need to use different presentation techniques to catch the attention of students, making the class more engaging.

In addition, the findings align with Sullivan's (2024) study, which suggests that when a PE teacher employs a high-level variety of grouping

strategies, students are more likely to engage in appropriate learning activities, thereby meeting the learning objectives of the PE class. In connection, 93 percent of the PE students at Upton Court Grammar School claimed that a variety of grouping strategies could ignite their interest and improve their personality in the context of attending PE class. Apparently, Penny and Wilkinson (2022) claim that a variety of grouping strategies can nurture tremendous self-confidence and attitudes towards learning, especially for those students who struggle in their PE class.

Moreover, the study is also connected to the study by Liu et al. (2021), which found that the high-level use of different presentation techniques has been significant in PE because students can learn by becoming flexible and adaptable to the various available presentations. Further, the most valuable presentations in physical education are video presentations that enhance students' motor abilities in participating in physical activities. Additionally, Culajara et al. (2023) claim that when PE teachers initiate instruction through different presentation techniques, it unlocks students' inherent abilities, especially in analyzing the use of various presentations, enabling them to adapt the 21st-century skills needed for educational systems.

Level of Differentiated Instruction of PE Teachers

Table 2
Level of Inclusive Teaching Practices of PE Teachers

		Mean	SD	Description
Instructional adaptations	Category	4.01	.82	High
	<i>Adapts the lesson plan format (e.g., presents information in a different sequence),</i>	4.10		
	<i>Varies the complexity of assignments to match students'</i>	3.93		

Academic progress monitoring	Category	4.08	.90	High
	<i>Evaluates the effectiveness of teaching adjustments (e.g., monitor subsequent achievement and progress)</i>	4.11		
	<i>uses students' data to make decisions about teaching adjustments</i>	4.03		
OVERALL MEAN		4.05	.83	HIGH

Shown in Table 2 is the level of differentiated instruction of physical education teachers among higher education institutions in Region XI, which was measured in terms of instructional adaptations and academic progress monitoring. Computations yielded an overall mean of 4.05, indicating a high level. This implies that differentiated instruction is evident among the physical education teachers at higher education institutions. Moreover, the overall standard deviation is 0.83, which is less than 1, indicating a minimal range of dispersion.

It implies that PE teachers adapt the format of the lesson plan, adjust the tasks based on their students' capabilities, and evaluate them to match their abilities. Moreover, PE teachers have also modified the goals and expectations, especially for students who have difficulty, and crafted personalized assignments suited to their abilities. The findings also suggest that weaker students require additional tools and alternative materials, which can be provided by varying the complexity of their assignments to match their abilities.

Furthermore, Darra and Kanellopoulou (2022) stated that a high level of differentiated instruction applied by teachers offers a variety of learning preferences that meet the various needs. Additionally, it alleviates the inequalities and cultural boundaries that students face, as they must acknowledge that individuals are unique and possess their own styles, abilities, and skills in learning.

Instructional Adaptations. This indicator obtained a category mean of 4.01, indicating a high level of performance. Looking at the individual items, the

mean ratings ranged from 3.93 to 4.10. The item adapts the lesson plan format (e.g., presenting information in a different sequence) and obtained a mean rating of 4.10, with a description of high. The item varies the complexity of assignments to match students' abilities, achieving a mean rating of 3.93 with a description of 'high'. It means that the instructional adaptations of the PE teacher are often observed.

The findings suggest that PE teachers who adapt lesson plans clearly deliberate on their lessons, especially when presenting information in a different sequence. In addition, PE teachers find it challenging to vary the complexity of assignments to match students' abilities due to the time-consuming nature of this task.

Thus, the findings are connected to the claims of Batubara et al. (2020) that when a teacher has a high level of adaptation in the format of their lesson plan, it enables the development of strategies and evaluation mechanisms that ensure effectiveness in the teaching and learning process. Hence, regardless of the teacher's skill, adapting to the lesson plan format is undeniable in significantly increasing the productivity of both the teacher and the students. In addition, Mahon (2011) states that a lesson plan is an organized outline that helps teachers craft an instructional strategy needed for lessons, especially in achieving objectives and intended goals in their PE class.

Additionally, it confirms the study by Dauenhauer et al. (2016), which suggests that when a PE teacher varies the complexity of assignments to match the students' abilities, it constitutes a new form of differentiated instruction called tiered assignments. Through this, a PE teacher can guide students to greater heights by crafting assignments that are well-suited to their learning styles and ability levels, especially in engaging physical activities. It also supports the claims of Hogan (2019) that matching students' ability through the complexity of assignments ensures that each student is appropriately challenged in terms of skills and knowledge to achieve continual success in their PE class.

Academic Progress Monitoring. This indicator yielded a category mean of 4.08, indicating a high level. Looking at the individual items, the mean ratings ranged from 4.03 to 4.11. Moreover, the item evaluating the effectiveness of teaching adjustments (e.g., monitoring subsequent achievement and progress) received a mean rating of 4.11. On the Other hand, the item, which uses students' data to make decisions about teaching adjustments, got a mean rating of 4.03.

Both items have a description of high. It means that the academic progress monitoring of PE teachers is often observed.

The findings indicate that PE teachers assess the effectiveness of their teaching adjustments by consistently monitoring their students' achievement and progress. Additionally, it demonstrates that PE teachers should utilize students' data to inform decisions about teaching adjustments, recognizing that some students may struggle to engage in these activities due to physical limitations.

Apparently, the findings are aligned with the study of (Gunn et al., 2016) that teachers who have a high level of evaluating the effectiveness of teaching adjustment are now able to monitor the academic progress of their students because it addresses the needs of educational management while considering the effectiveness of the material that is being assessed. Hence, Teachers are required to follow and comprehend the new academic requirements, as well as modify their teaching strategies as necessary to accommodate adjustments for monitoring the achievement and progress of students in their PE class.

On the other hand, the study by Dauenhauer (2014) affirms that PE teachers who use students' data to inform their teaching adjustments are a substantial key to meeting the needs of their students. The findings of his study also indicated that the data collected by this student could be transformed into actionable knowledge. Although PE teachers reported that the data collection process was time-consuming, the data collected were used to make adjustments and facilitate effective teaching in physical education.

Level of Basic Psychological Needs of PE Students

Shown in Table 3 is the level of basic psychological needs among first- and second-year physical education students at higher education institutions in Region XI, measured in terms of autonomy, competence, and relatedness. Computations yielded an overall mean of 4.06, indicating a high level. This implies that the basic psychological needs of PE students are often manifested in higher education institutions. Moreover, the overall standard deviation is 0.77, which is less than 1, indicating a minimal range of dispersion.

Table 3
Level of Basic Psychological Needs of PE Students

		Mean	SD	Description
Autonomy	Category	4.04	.87	High
Competence	Category	4.09	.83	High
Relatedness	Category	4.05	.86	High
OVER-ALL MEAN		4.06	.77	HIGH

Autonomy. The findings of this study indicate that PE students engage in activities that interest them, allowing them to participate in a variety of physical activities offered in their PE class. Moreover, there is a need for PE teachers to cater to the needs of students, especially by allowing them to choose an activity on their own.

Moreover, the findings of this study align with those of Cheng & Wang (2017), which suggest that when PE students engage in activities that interest them, it significantly improves and enhances the quality of physical education in the teaching and learning process. Furthermore, Roure and Pasco (2018) suggest that incorporating a motivational component into the course content of physical education could stimulate students' interest in engaging in various activities. An appropriate and well-suited curriculum design is one of the factors that contribute to a student's engagement in their activity.

In addition, the results of this study align with the claims of How et al. (2013) that allowing PE students to choose their preferred lessons and activities may encourage perceptions of autonomy support in their class. Additionally, students who have the freedom to choose their preferred activities and lessons in physical education exhibit a significantly higher level of physical activity than those who do not.

Competence. It gives the impression that the PE students have shown improvement, even in the task considered most difficult for them, and excel very well in the various activities and tasks assigned by their teachers.

The findings are parallel to the study by Cattuzzo et al. (2016), which suggests

that to improve in tasks considered difficult by others, the ability to recognize one's own goals is a necessary component of competence. For behavioral requirements, passion is considered an important orientation and intention for PE students to set beliefs about their social position, capacity for independence, and reflection on their skills and ability to perform a specific task. Education needs to support PE students' creative growth as individuals and make informed decisions for their unique life programs, considering each individual's traits and requirements that contribute to the development of skills in physical education.

On the other hand, Pavlova et al. (2020) further affirm that there are exemplary students who excel even when the task is considered difficult by most of the PE students. Apparently, this type of competence in physical education is primarily driven by the desire to improve physical health and engage in active work, ultimately leading to a healthy lifestyle.

Relatedness. It implies that PE students have a friendly relationship with their classmates, which fosters a significant bond that contributes to their success in the class. Additionally, these students must develop a sense of belonging to a large group of close friends, allowing them to enjoy their physical activities.

The findings of this study align with the claims of Vansteenskiste et al. (2019), which suggest that relatedness entails investing effort in creating secure and intimate bonds with classmates and demonstrating concern for them in the context of PE class. Your relationship with your classmates is driven by a desire for relatedness, which motivates you to build connections by showing them that you genuinely care about them and want to be cared for in return.

Moreover, the findings are also aligned with the study by Ryan and Deci (2020), which suggests that having a large group of close friends in physical education is mainly about showing compassion, respect, and making their classmates feel understood and connected. Through this, Students who have a high level of socialization with a large group of friends in physical education tend to work with groups that make group activities in class easy to accomplish.

Further, the findings of this study are associated with the study of (Leyton et al., 2020) that a high level of autonomy is the most important element that helps PE students to achieve success by enhancing their capacity that interests them for personal development and life Happiness in a social

environment, especially in academic settings. Furthermore, the findings align with the study by Cattuzzo et al. (2016), which suggests that a high level of competence is necessary to recognize one's own goals in achieving completion. For behavioral requirements, passion is considered an important orientation and intention for PE students to set beliefs about their social position, capacity for independence, and reflection on their skills and ability to perform a specific task. Lastly, the findings of this study align with the claims of Vansteenskiste et al. (2019) that a high level of relatedness entails making an effort to create secure and intimate bonds with others, as well as showing concern for them in the context of PE class. The urge for relatedness is the effort people make to build relationships with others by showing them that they care about them and want to be cared for in return.

Significance of the Relationship of Inclusive Teaching practices, Differentiated Instruction, and Basic Psychological needs

Table 4
Significance of the Relationship of Inclusive Teaching practices, Differentiated Instruction, and Basic Psychological needs.

X	Y	r	p-value	Description
Inclusive Teaching Practices	Basic Psychological Needs	.850	.000	Significant
Differentiated Instruction		.844	.000	Significant

Table 4 indicates that inclusive teaching practices have a significant, positive, and strong relationship to the basic psychological needs of students, with an R-value of .850. Additionally, it yields a p-value of 0.0, which is less than the alpha level set at 0.05 (two-tailed), indicating a statistically significant relationship. Thus, as the level of inclusive teaching practices in physical education increases, it is expected that the basic psychological needs of students will also increase.

Similarly, differentiated instruction in physical education reveals a significant, positive, and strong relationship to the basic psychological needs of students, with an R-value of .844. Moreover, it yields a p-value of 0.00, which is less than the alpha level set at 0.05 (two-tailed), indicating a significant

relationship. Hence, as the level of differentiated instruction in physical education increases, it is expected that the students' basic psychological needs will also increase.

The study by Quintanilla (2023) demonstrates that inclusive teaching practices are an engaging process that involves the central participation of both educators and students, specifically in implementing educational programs and services that enhance the basic psychological needs of students. Furthermore, one of the many benefits of inclusive teaching practices is that PE teachers are well-equipped to nurture quality access to education and foster a conducive environment for students to achieve success both academically and personally.

Hence, the results on basic psychological needs are linked with the Self-Determination theory by Ryan and Deci (1985). This theory highlights the high levels of self-determination, which include strong intrinsic and extrinsic motivation, and are associated with superior performance. It also posits that athletes with high levels of intrinsic motivation are more likely to have improved students' psychological well-being, which is crucial for their tenacity, mental health, and emotional well-being. The aforementioned theory will be applied in this study, based on the fact that students are motivated to engage in their PE class once their basic psychological needs are met, specifically autonomy, which reflects their desire to choose appropriate activities. Further, competence, which reflects their desire to produce desired results in individual skills, and relatedness with others, which reflects their effort to relate to and care for others while doing physical activities. These findings underscore the crucial role of inclusive teaching practices and differentiated instructional strategies in addressing students' psychological needs, ultimately fostering more meaningful engagement in physical education.

Significance of the Influence of Inclusive Teaching Practices, Differentiated Instruction to the Basic Psychological Needs

Table 5
Significance of the Influence of Inclusive Teaching Practices and Differentiated Instruction on Basic Psychological Needs

Standardized Coefficients	t	p-value	Interpretation
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	Beta			
Inclusive Teaching Practices	.449	7.751	.000	Significant
Differentiated Instruction	.384	6.875	.000	Significant
R	.87			
R Square	.76			
F	487.772			
p-value	.00			

Table 5 shows the result of the multiple regression analysis. The first independent variable, inclusive teaching practices, entails a p-value of .00, which is less than the 0.5 level of significance (two-tailed) with a positive standardized beta of .449, which means that for every unit increase in the value of the level of inclusive teaching practices, there is a corresponding increase of .449 in the level of basic psychological needs. On the other hand, the second independent variable, differentiated instruction, entails a p-value of .00, which is less than the 0.5 level of significance (two-tailed), with a positive standardized beta of .384, which means that for every unit increase in the value of differentiated instruction, there is a corresponding increase of .384 in the level of basic psychological needs.

The results of this study support the theory anchored in Self-Determination Theory by Ryan and Deci (2017). The study's findings on the relationship between inclusive teaching practices and differentiated instruction for PE teachers are linked to the basic psychological needs of PE students. Thus, Byram (2022) attests that Inclusive teaching practices can enhance student autonomy because they encompass the cognitive, affective, and psychomotor domains, allowing students to choose different levels of difficulty in their tasks. Moreover, Aelterman et al. (2013) claim that competence and relatedness will be enhanced if the teacher creates an environment that is less controlling through differentiated instruction, thereby promoting inner motivation in physical activities. Apparently, the basic psychological needs of PE students are something that needs to be enhanced, and this can be influenced by allowing PE teachers to apply inclusive teaching practices and differentiated instruction in PE classes (Garn et al., 2011). Thus, both variables significantly and positively influence students' basic psychological needs, highlighting their essential role in creating supportive and inclusive physical education environments.

CONCLUSION

The inclusive teaching practices of PE teachers in physical education are high, as are their indicators of personalization and differentiation, which are often evident. This implies that PE teachers create a learning environment that is both exploratory and engaging, and they expose students to a variety of teaching strategies. The differentiated instruction of PE teachers in physical education is high, as well as its indicators, including instructional adaptations and academic progress monitoring, which are observed most of the time. This demonstrates that differentiated instruction, as implemented by the PE teachers, tailors evaluations, varies the complexity of assignments, and adjusts goals to match students' abilities by evaluating the effectiveness of their teaching adjustments. The level of basic psychological needs among PE students is high, as well as its indicators: autonomy, competence, and relatedness, which means that these needs are often met. This implies that the profound needs of students in PE class are characterized by engaging in activities that interest them, improving tasks considered difficult, and fostering a friendly relationship with their classmates. Inclusive teaching practices and differentiated instruction both have a significant positive relationship with the basic psychological needs of PE students. It means that as the level of inclusive teaching practices of PE teachers increases, the basic psychological needs of the students also increase. Additionally, as the level of differentiated instruction applied by the PE teacher increases, there is a corresponding significant increase in the students' basic psychological needs. Both variables, inclusive teaching practices and differentiated instruction applied by the PE teachers, have a strong positive relationship with the students' basic psychological needs. The inclusive teaching practices and differentiated instruction of PE teachers had a significant influence on the basic psychological needs of the students. It was also revealed that inclusive teaching practices have a greater influence on the basic psychological needs of students than differentiated instruction. This suggests that PE teachers may apply differentiated instruction to adapt, modify, and adjust teaching instruction to match the abilities of the students.

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