



RELATIONSHIP BETWEEN PHYSICAL ACTIVITY AND EMOTIONAL INTELLIGENCE WITH ACADEMIC PERFORMANCE IN PHYSIOTHERAPY STUDENTS

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Abstract

Background

Physical activity can be a mechanism that develops emotions. Participation in physical activity seems to be connected better with higher level emotional intelligence. Physiotherapist with developed emotional intelligence are also better communicators which has been shown to improve patient outcomes. Emotional intelligence has a minor to moderate association with academic success. So, the aim of study was to find out relationship between physical activity, emotional intelligence with academic performance in physiotherapy students.

Method

This was a survey study that included 180 participants (males n= 16, females n= 164) with their informed consent. Physical fitness and emotional intelligence were measured by questionnaire and academic performance was measured by percentage of last year. The data were analyzed using SPSS software version 20 and the significance level was set at a p-value <0.05 and <0.01.

Results

The results showed that significant correlations were found between emotional intelligence and physical activity, between physical activity and academic performance. 'p' value set at in correlation between the physical activity and emotional intelligence showed significant level (<0.01), between the physical activity and academic performance showed significant level (<0.05). but the correlation of emotional intelligence and academic performance was not significant.

Conclusion

It was found that physical activity was associated with academic performance but emotional quotient had not any relationship with academic performance.

Keywords

Physical activity, Emotional intelligence, Academic performance, Physiotherapy students.

INTRODUCTION

1.1 Physical Activity:

Physical activity is defined as any bodily movement produced by skeletal muscles that results in energy expenditure. The energy expenditure can be measured in kilocalories. Physical activity in daily life can be categorized into occupational, sports, conditioning, household, or other activities. Exercise is a subset of physical activity that is planned, structured, and repetitive and has as a final or an intermediate objective the improvement or maintenance of physical fitness. Physical fitness is a set of attributes that are either health- or skill-related. The degree to which people have these attributes can be measured with specific tests. These definitions are offered as an interpretational framework for comparing studies that relate physical activity, exercise, and physical fitness to health.⁽¹⁾ Physical activity is an important public health tool used in the treatment and prevention of various physical diseases, as well as in the treatment of some psychiatric diseases such as depressive and anxiety disorders. However, studies have shown that in addition to its beneficial effects, physical activity can also be associated with impaired mental health, being related to disturbances like "excessive exercise" and "overtraining syndrome". Although the number of reports of the effects of physical activity on mental health is steadily increasing, these studies have not yet identified the mechanisms involved in the benefits and dangers to mental health associated with exercise.⁽²⁾ Physical activity (PA), conceptualized as any bodily movement that results in energy expenditure, and its structured form, exercise, play an important role in public health, preventing and treating a wide range of physical conditions.⁽³⁾ There is a general belief that physical activity and exercise have positive effects on mood and anxiety and a great number of studies describe an association of physical activity and general well-being, mood and anxiety. the association of physical activity and the prevalence of mental disorders, including depression and anxiety disorders have been repeatedly described, only few studies examined the association of physical activity and mental disorders prospectively.⁽⁴⁾ Physical activity and physical fitness may improve academic performance. The utility of PA to improve cognition and academic achievement is promising but uncertain; thus, this position stand will provide clarity from the available science.⁽⁵⁾ The effect of physical activity (PA) on different areas of academic achievement and classroom behaviours and how different characteristics of PA interventions could modify the effect remain unclear.⁽⁶⁾ Research demonstrates a link between decreased cognitive function in overweight school-aged children and improved cognitive function among students with high fitness levels and children engaging in regular physical activity.⁽⁷⁾ Physical activity (PA) can be a promising strategy to buffer these stress-induced complaints.⁽⁸⁾ Physical activity (PA) can be a mechanism that develops emotions.⁽⁹⁾

1.2 Emotional Intelligence:

Emotional intelligence (EI) is one of the most highly used psychological terms in popular nomenclature, yet its construct, divergent, and predictive validities are contentiously debated. Despite this debate, the EI construct is composed of a set of emotional abilities – recognizing emotional states in the self and others, using emotions to guide thought and behaviour, understanding how emotions shape behaviour, and emotion regulation - that undoubtedly influence important social and personal outcomes. In this review, evidence from human lesion studies is reviewed in order to provide insight into the necessary brain regions for each of these core emotional abilities. Critically, we consider how this neuropsychological evidence might help to guide efforts to define and measure EI.⁽¹⁰⁾ Emotional intelligence is the ability to recognize and manage one's own emotions and the emotions of other people. It involves the ability to be aware of one's own emotions the ability to control emotions and apply them to various tasks including problem-solving a thinking, and the ability to manage emotions including regulating one's own emotions and affecting the emotions of other people⁽¹¹⁾. Emotional intelligence (EI) is related to significant public health and psychological benefits.⁽¹²⁾ Emotional intelligence (EI) is related to significant public health and psychological benefits.⁽¹³⁾ Emotional intelligence (EI) has been studied in relation to health and physical activity (PA) or in a sport-specific approach. EI is related to sports performance; however, combat sports seem to show characteristics of their own that involve better control of emotions than other sports.⁽¹⁴⁾

1.3 Academic Performance:

Academic performance is an essential part of educational research.⁽¹⁵⁾ Academic performance is among the several components of academic success. Many factors, including socioeconomic status, student temperament and motivation, peer, and parental support influence academic performance. Academic performance was assessed based on self-reported grades in latest internal examinations. Academic performance is the outcome of students' effort in examinations. Students' academic performance is determined by a number of factors. Academic performance is measured by the average marks of the

previous semesters and the total average marks. The determining factors of student performance have attracted the attention of academic researchers from many areas. They have tried to determine which variables impact student performance in positive and negative direction. University students tend to suffer from problems of sleep regularity, quantity and quality, which can affect their academic performance.⁽¹⁶⁾ Academic performance is a product of the complex environment that surrounds the student, shaped by aspects such as intensity of study, motivation and context of relationships, which affect the academic achievement of individuals. There may be other psychological or emotional factors, such as anxiety, level of psychological well-being, and behaviour strategies for effective adaptation to concrete environment demands and their associated emotional stress. Student academic performance is associated with psychological well-being, feeling of satisfaction with achievements, and coping with stressful situations.⁽¹⁷⁾ Physical fitness (PF) is a construct of health- and skill-related attributes which have been associated with academic performance (AP) in youth.⁽¹⁸⁾

Xin Dong, Olga A Kalugina, Arslan Rafi, conducted study on 'Emotional Intelligence and Personality Traits Based on Academic Performance.' The purpose of this study was to examine the role of personality traits on academic performance. Furthermore, this study also aims at exploring the effects of virtual experience (mediator) and emotional intelligence (moderator) between personality traits and academic performance of the students. The findings imply that personality traits are the strong predictors of better academic performance. However, several personality traits do not have a positive impact on the academic performance. The study further suggests that students who have emotional abilities and virtual experience are more likely to perform well in their academics. The population of this research consists of students in various colleges and universities in developing regions. Education and productivity of the students are influenced by their personality as well as their emotional intelligence abilities. The findings imply that being extrovert is a strong predictor of student achievement and should be prioritized in intervention strategies. This personality feature is responsible for performance in addition to virtual learning experience. Despite its low overall relative value, agreeableness is a significant driver of student achievement. Along with ability and aptitude assessments, personality evaluations might be utilized as a secondary screening tool to identify adolescents at risk of underperformance and academic performance failure. Therefore, learning emotional skills would be beneficial to cope the modern challenges of the competitive educational environment. Virtual experience and being emotionally sound can help students to learn quickly and to be more adaptive into the new world of digitalization. The conclusions of the current study have significant consequences for educators and policymakers. They must accept that boosting emotional intelligence levels through teaching or training is a significant objective of contemporary education. The emotional intelligence abilities of the students related to culture may be shown in a variety of ways, from expectations toward students to interpersonal interactions with students, and from teaching techniques to evaluation methods.⁽¹⁹⁾ Kai ren, Ke Qiu, conducted study on 'The Relationship between Physical Activity and Academic Procrastination in Chinese college students: The Mediating Role of Self Efficacy.' This study examined the Academic Procrastination (AP) has been a common problematic behavior in college students. While physical activity (PA) has been reported to increase self-efficacy and reduce AP, less is known about the potential relationship among them. PA is an effective intervention for directly and indirectly decreasing college students' AP. Therefore, more intervention efforts should focus on the promotion of PA in higher education to improve students' self-efficacy and thus, to reduce AP among college students. They concluded that PA has a significant and positive impact on college students' self-efficacy and self- efficacy significantly mediates the relationship between PA and AP.⁽²⁰⁾ Kun Wang, conducted a study on 'The Relationship Between Physical Activity and Emotional Intelligence in College Students: The Mediating Role of Self Efficacy'. Male college students performed better than female students on tests of self-efficacy, emotional intelligence, and level of physical activity. The self-efficacy of college students in the humanities and social sciences was lower. Senior students had the lowest levels of self-efficacy and physical activity, in contrast, while emotional intelligence didn't differ by subject or grade distribution. Physical activity amount was positively correlated with emotional intelligence. They concluded that regular physical activity can improve the self-efficacy and emotional intelligence of college students, and effectively promote the physical and mental development of students.⁽²¹⁾

Nicolas Sanchez Alvarez and Natalio Extremera conducted study on 'A Meta- Analysis of the Relationship Between Emotional Intelligence and Academic Performance in Secondary Education: A Multi-Stream Comparison'. The meta-analysis study was to: (1) evaluate the relationships between AP and EI, with the hypothesis being that there will be a significant correlation between EI and AP; and (2) demonstrate the relationships between various EI assessment instruments based on the three main AP streams and levels. In keeping with earlier research, it was predicted that EI ability instruments would have a stronger relationship with AP. This meta-analytic study provides a quantitative analysis of the relationship between

EI and AP globally and by category, highlighting the gaps in earlier research on the subject among adolescents. Additionally, this study highlights the shortcomings in the review of related studies and offers recommendations for future empirical AP studies. ⁽²²⁾

Bryce T. Daniel and Erin K. Howie conducted study on 'Relationships between grit, physical activity, and academic success in university students: Domains of physical activity matter.' They examine the relationship between contexts of physical activity, grit, and GPA in a college population. Multiple linear regression models evaluated the correlations between grit, the different physical activity domains, and GPA. Grit was positively associated with domestic physical activity, leisure time physical activity, and GPA. Consistency of interest had no associations with the domains of physical activity or GPA. Perseverance of effort was positively associated with walking, active transport physical activity, domestic physical activity, leisure physical activity, and GPA. They concluded that Perseverance of effort is related to different domains of physical activity and GPA. ⁽²³⁾ Felez-Nobrega, Hillman conducted study on 'ActivPAL™ determined sedentary behaviour, physical activity and academic achievement in college students.' Light PA, MVPA, total sedentary time, total standing time, or total number of sedentary breaks were not related to academic achievement. Independently of PA, the amount of time spent in sedentary bouts of 10-20min during weekdays was positively related to academic achievement. Given that college students spend the majority of their workday in environments that encourage prolonged sitting, these data suggest that interruptions in prolonged periods of sitting time every 10-20min via short breaks may optimize cognitive operations associated with academic performance. ⁽²⁴⁾ Ameneh Gharetepeh and Yahya Safari conducted study on 'Emotional intelligence as a predictor of self-efficacy among students with different levels of academic achievement at Kermanshah University of Medical Sciences.' They concluded that Emotional intelligence and self-efficacy play an important role in achieving academic success and emotional intelligence can explain self-efficacy. Therefore, it is recommended to teach emotional intelligence skills to students with low academic achievement through training workshops. ⁽²⁵⁾

E. Laurette Taylor and Amir Bhochhibhoya conducted study on 'Exploring the Relationship of Physical Activity, Emotional Intelligence, and Mental Health Among College Students.' They selected sample of 438 college students, 18-30 years students from the University of Oklahoma took part in this research. A mass email requesting participation in an online survey that included the Schutte Self-Report Emotional Intelligence Test (SSEIT), the International Physical Activity Questionnaire (IPAQ) long form, the Kessler Psychological Distress Scale K6, and a demographic questionnaire was sent to 20,100 undergraduate students. The next part includes information on each of the three instruments, as well as statistics on their individual reliability and validity. The University of Oklahoma's Institutional Review Board (IRB) gave its consent before any data were gathered. The global measure of EI was calculated by adding the four sub-scores of EI, and it had a theoretical range of 33 to 165, with higher scores suggesting an overall higher level of EI. The purpose of analysis, participants were categorized into three groups based on reported MET- minutes/week: (1) High PA group: more than 1500 MET-minutes/week; (2) Moderate PA group: more than 600 but less than 1500 MET-minutes/week, and; (3) Low PA group: less than 600 MET-minutes/ week. As a result, college students with higher Global EI scores were more likely to engage in physical activity than those with lower Global EI scores. College students' PA behaviour could be improved with the help of EI. Finding the cause-and-effect link between PA and EI should be the goal of future study. Future research should pay particular attention to instruction college students receive to improve their emotional intelligence (EI), as this could improve their general health. ⁽²⁶⁾ Azhar Md Zain and Faezah Hassan conducted study on 'Emotional Intelligence and Academic Performance in First and Final Year Medical Students: A Cross-Sectional Study.' This study examined the effect of EI on academic performance in first- and final-year medical students in Malaysia. They have done cross-sectional study using an objectively-scored measure of EI, the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). Academic performance of medical school students was measured using continuous assessment (CA) and final examination (FE) results. The first- and final-year students were invited to participate during their second semester. Students answered a paper-based demographic questionnaire and completed the online MSCEIT on their own. Relationships between the total MSCEIT score to academic performance were examined using multivariate analyses. A total of 163 medical students participated (response rate of 66.0%). The gender and ethnic distribution were representative of the student population. The total EI score was a predictor of good overall continuous assessment, a negative predictor of poor result in overall continuous assessment, a predictor of the good overall final examination result and was significantly related to the final-year Final examination marks. They concluded that medical students who were more emotionally intelligent performed better in both the continuous assessments and the final professional examination. Therefore, it is possible that emotional skill development may enhance medical students' academic performance. In medical

education and clinical practice, EI has been related to higher academic achievement and improved doctor-patient relationships. ⁽²⁷⁾

Gladys Shuk-Fong Li conducted study on 'Exploring the Relationships of Physical Activity, Emotional Intelligence and Health in Taiwan College Students'. They selected student participants from two classes from each of four universities by randomly selecting two universities from four region of Taiwan. Students were categorized into three levels of activity group; There are three types of physical activity (PA) groups: (1) recommended (Rec) PA group: moderate exercise for 30 minutes per day, five days a week, or vigorous exercise for 20 minutes per day, three days a week; (2) insufficient (Ins) PA group: irregular exercise, less than the recommended level but greater than none, not enough to gain health benefit; and (3) inactive (Ina) group: non exercisers or sedentary people. 105 Rec exercisers, 442 Ins exercisers, and 52 Ina exercisers out of a total of 599 university students (461 females, 138 males) were studied. Incomplete data were discarded. All participants were full- time first-year students, and they were required to sign an informed consent form before completing the demographic questions, the BarOn EQ-I, and the short-form general health survey (SF-36). Before undergoing several physical fitness assessments, subjects were required to complete a Chinese translation of the Physical Activity Readiness Questionnaire. College participants who reported a recommended level of PA scored significantly higher than their insufficient and inactive counterparts in EI. In order to significantly predict the EI of Taiwan college students, it was discovered that the factors "physical activity", "mental health", "gender", "social function" and "flexibility" worked well in a linear combination. The study's findings suggest that taking part in Physical Activity could be a useful strategy for enhancing college students' emotional, psychological, and physical wellbeing. As a result, it's crucial to emphasize the value of increased exercise engagement among college students. The findings provide a basis for research aimed at determining the causal relationship between EI and PA. ⁽²⁸⁾

1.4 Relationship Between Physical Activity and Emotional Intelligence:

Participation in physical activity seems to be connected better with higher level emotional intelligence. EI has been related to better health outcomes including those that are physical, mental and psychosomatic in nature. Emotional dimension of health is the strongest predictor of health. The literature has been consistent regarding the relationship between volume and level of PA on EI.

1.5 Significance of the study

Professional organizations for physiotherapy are realizing how important exercise and physical activity are to maintaining good health and lowering the chance of acquiring diabetes, hypertension, and cardiovascular illnesses. PA also enhances emotional intelligence and academic performance. Increasing physical activity could reduce the burden of disease and increase life expectancy. Emotional intelligence involves the last two intelligences interpersonal, recognizing other motions, and intrapersonal, recognizing one's own emotions.

The impact of improving emotional intelligence showed increased emotional intelligence positively affects the following;

- Psychological Health
- Work performance
- Teamwork
- Conflict management
- Patient satisfaction
- Coaching Skills
- Employability and Re-employment
- Workplace Incivility
- Institutional Climate
- Job Satisfaction

Physiotherapist with developed emotional intelligence are also better communicators which has been shown to improve patient outcomes. This is especially true for physiotherapist for treating patients with chronic pain, as these patients benefit from interventions that emphasize empathy, listening, and trust-building. In other words, students with higher emotional intelligence tend to get better grades and score higher on achievement tests. Emotional intelligence has a minor to moderate association with academic success.

Compared to emotional intelligence rating scales, the association is stronger for skill-based emotional intelligence tests. It excels at measuring emotional understanding and emotional management in skill-based tasks.

1.6 Aims and Objectives:

- To explore relationship of physical activity and emotional intelligence among undergraduate physiotherapy students.
- To explore relationship among emotional intelligence and academic performance.
- To explore predictability of physical activity level and academic performance
- Exploring relationship of emotional intelligence with physical activity

METHODOLOGY

Study Design: Observation study through google form was done.

Study Population: Third year and Fourth year Bachelor of Physiotherapy, intern, post-graduation student was taken for the study from the different colleges with prior permission.

Sampling Technique: Convenient sampling technique was used.

Sampling Size: 250 sampling were taken as per convenience.

Study Duration: Total duration of the study was six months (Oct'22 – April'23)

Study Setting: Surat city Physiotherapy college, The Sarvajanik college of Physiotherapy, Vibrant physiotherapy college, Civil government physiotherapy college, Shree Bhartimaiya college of optometry and physiotherapy, Surat people bank physiotherapy college

Study Criteria:

Inclusion criteria: Undergraduate Physiotherapy students of third year, final year and intern under VNSGU

Exclusion criteria: Those who were not willing to participate in the study.

Outcome Measures:

Emotional Intelligence: It was measured by The Quick Emotional Intelligence scale. It has 4 domains i.e. emotional awareness, emotional management, social emotional awareness and relationship management. Each domain has 10 questions so, total 40 questions. The Quick Emotional Intelligence Self-Assessment.

Physical Activity: was measured by weekly physical activity scale. It has 3 domains, there are total 9 questions. Weekly physical activity self-assessment questionnaire (Appendix-IV) Academic Performance: will be measured by previous year internal and external marks.

Procedure:

After International Ethical Committee guidance study was started with demographic data and with consent form, followed by the respective scales (The Quick Emotional Intelligence Self-Assessment, weekly physical activity self-assessment questionnaire) which was filled by the third year, final year and internship students of different physiotherapy colleges under VNSGU. This survey was undertaken by generating a google form which will be providing the required data.

3.10 Statistics:

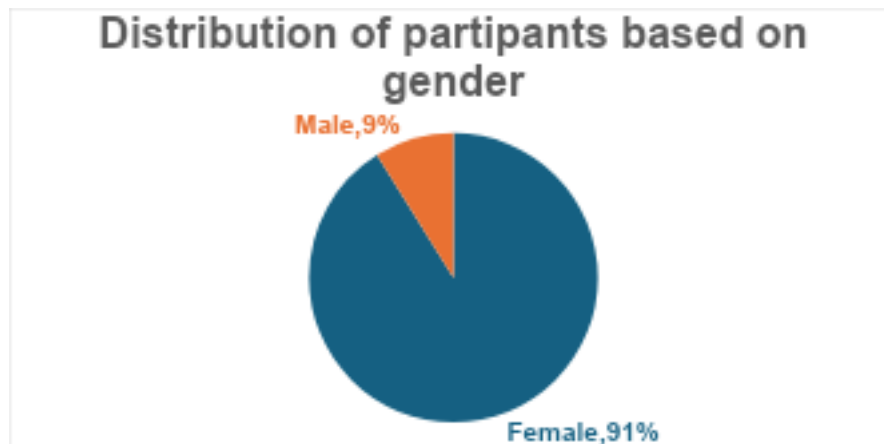
Descriptive statistics was done for demographic information and Pearson's Correlation Test was applied to find out relation between physical activity, emotional intelligence score with academic performance.

DATA ANALYSIS AND RESULTS

4.1 Data analysis

Statistical analysis was done with the use of SPSS version 20. Total number of participants were 180. Descriptive analysis was done with mean and standard deviation. Inferential statistics was done using Pearson's Correlation method.

4.2 Results



Graph 4.1 Percentage distribution of participants based on gender

Graph 4.1 shows the distribution of participants based on gender. In the study 91% participants were female and 9% were male. The total numbers of participants were 180 out of that 164 were females and 16 were males.

Table 4.1 Frequency distribution of participants based on gender

		Frequency	Percent	Valid Percent
Valid	female	164	91.1	91.1
	Male	16	8.9	8.9
	total	180	100.0	100.0

Table 4.1 shows frequency distribution, out of 164 were females and 16 were males.

Table 4.2 Descriptive statistics of Percentage of last year and Age of participants(N=180)

Table 4.2 shows Descriptive statistics of Percentage of last year and Age of participant. It shows the minimum and maximum values as well as the mean and standard deviation of it.

Table 4.3 Descriptive statistics of Emotional Intelligence(N=180)

	Minimum	Maximum	Mean	SD
EA score	14.00	38.00	25.25	4.94
EM score	10.00	40.00	25.91	5.88
SEA score	12.00	40.00	28.90	5.85
RM score	12.00	40.00	27.27	5.86
QEI score	70.00	149.00	107.34	16.52

EA= emotional awareness, EM= emotional management, SEA= social emotional awareness, RM=

	Minimum	Maximum	Mean	SD
Percentage of last year	50	87	65.09	5.551
Age of participants	19	24	21.21	1.161

relationship management, QEI= quick emotional intelligence

Table 4.3 shows Descriptive statistics of all domains of Emotional Intelligence. The domains are Emotional Awareness (EA), Emotional Management(EM), Social Emotional Management(SEA) and Relationship Management(RM). It shows the minimum and maximum values as well as the mean and standard deviation.

Table 4.4 Descriptive statistics of Physical Activity(N=180)

	Minimum	Maximum	Mean	SD
PASA(S) score	0	5	2.68	1.50
PASA(SR) score	2.00	20.00	10.71	4.46
PASA(EP) score	1.00	18.00	10.61	2.80
PASA score	6.00	40.00	24.00	6.08

PASA(S)= physical activity self-assessment sedentary activities, PASA(SR)= physical activity self-assessment sports recreational activities, PASA(EP)= physical activity self-assessment everyday physical activities

Table 4.4 shows Descriptive statistics of all domains of physical activity. The domains are sedentary behaviour [PASA(S)], sports and recreational activities [PASA(SR)] and everyday physical activities [PASA(EP)]. It shows the minimum and maximum values as well as the mean and standard deviation.

Table 4.5 Correlation between Emotional Intelligence and Physical Activity

		EA score	EM score	SEA score	RM score	QEI score
PASA(S) score	Pearson Correlation	-.069	.006	-.13	-.04	-.080
	Sig.(2-tailed)	.35	.93	.07	.57	.28
	N	180	180	180	180	180
PASA(SR) score	Pearson Correlation	-.013	.145	-.049	.084	.060
	Sig.(2-tailed)	.859	.052	.514	.263	.423
	N	180	180	180	180	180
PASA(EP) score	Pearson Correlation	.119	.206**	.131	.249**	.244**
	Sig.(2-tailed)	.113	.006	.079	.001	.001
	N	180	180	180	180	180
PASA score	Pearson Correlation	.028	.203**	-.008	.166*	.137
	Sig.(2-tailed)	.711	.006	.914	.026	.067
	N	180	180	180	180	180

**. Correlation is significant at the 0.01 level(2-tailed).

*. Correlation is significant at the 0.05 level(2-tailed).

Table 4.5 shows that correlation of emotional intelligence and physical activity in participants. There is positive correlation found that physical activity is strongly correlated with emotional management and relationship management, similarly physical activity everyday activities is strongly correlated with emotional management and relationship management.

Table 4.6 Correlation between Physical Activity and Percentage of last year

		Percentage of last year
PASA(S) score	Pearson Correlation	.159*
	Sig.(2-tailed)	.033
	N	180
PASA(SR) score	Pearson Correlation	.053
	Sig.(2-tailed)	.483
	N	180
PASA(EP) score	Pearson Correlation	-.062
	Sig.(2-tailed)	.411
	N	180
PASA score	Pearson Correlation	.049
	Sig.(2-tailed)	.510
	N	180

*. Correlation is significant at the 0.05 level(2-tailed).

Table 4.6 shows correlation of percentage of last year and physical activity in participants. There is positive correlation found that physical activity sedentary domain is significantly correlated with percentage of last year.

Table 4.7 Correlation between Emotional Intelligence and Percentage of last year

		Percentage of last year
EA score	Pearson Correlation	.098
	Sig.(2-tailed)	.191
	N	180
EM score	Pearson Correlation	.085
	Sig.(2-tailed)	.258
	N	180
SEA score	Pearson Correlation	.025
	Sig.(2-tailed)	.737
	N	180
RM score	Pearson Correlation	.141
	Sig.(2-tailed)	.058
	N	180
QEI score	Pearson Correlation	.101
	Sig.(2-tailed)	.179
	N	180

Table 4.7 shows correlation of percentage of last year and emotional intelligence in participants. There is no such significant correlation found in between emotional intelligence and percentage of last year.

DISCUSSION

The objective of our study was to found the correlation between emotional intelligence, physical activity and percentage of last year in physiotherapy students. The result of present study indicate strongly correlation between emotional intelligence and physical activity. The correlation was also found in physical activity and percentage of last year. There was no significant correlation found in emotional intelligence and percentage of last year.

Table 4.1 show frequency distribution of participants based on gender in that the ratio was 164 females and 16 males out of 180 participants. The previous study shows that gender could differ the results. The difference between our results and Kun Wang may, in there study the results was that male are more physically active than female.

In our study results Table 4.6 shows strong positive correlation between emotional intelligence and physical activity. We found strong correlation between emotional management score and physical activity self-assessment (everyday physical activities) score ($r = .206$, $p < 0.01$), between relationship management score and physical activity self-assessment (everyday physical activities) ($r = .249$, $p < 0.01$). There was strong correlation found between quick emotional intelligence score and physical activity self-assessment (everyday physical activities) score ($r = .244$, $p < 0.01$). In our study there was positive correlation found between physical activity self-assessment score and emotional management score ($r = .203$, $p < 0.01$). There is correlation found between physical activity self-assessment score and relationship management ($r = .166$, $p < 0.05$). Additionally, Gladys Shuk-Fong Li evaluated the relationship between emotional intelligence and physical activity among 599 participants, in that it was concluded that college students who were more physically active at recommended level were more likely to have higher emotional intelligence. (1) In previous study of E. Laurette Taylor evaluated that college students with higher emotional intelligence were likely to be physically active than lower emotional intelligence. (2)

In our study Table 4.7 shows that there was correlation between physical activity and percentage of last year. We found correlation between physical activity self-assessment (sedentary activities) score and percentage of last year ($r = .159$, $p < 0.05$). In previous study, Yujiao Hou had done study on 316 students at tongji university examine the relationship between physical fitness and academic performance evaluated physical fitness was a commonly admitted key factor to people's physical and mental health, and it was found to be strongly relevant to academic performance of children and adolescents.(28) Sari Aaltonen had done study on 5600 participants aimed to examine the what extent leisure-time physical activity and academic performance share genetic effects from early adolescence to adulthood evaluated that it should not be thought that the increase in physical activity or academic performance would directly cause an increase in the other variable and a favorable environment may also support a child's potential genetic predisposition to higher levels of physical activity and academic performance.

In our study Table 4.8 shows correlation between emotional intelligence and percentage of last year, there is no significant correlation found between them. In previous study, Boon How Chew evaluates who were more emotionally intelligent performed better in academic performance in medical students. In previous study, Sulaiman Altwirji shows that, in undergraduate medical students, emotional intelligence is significantly and positively associated with academic performance. In previous study, P Ranasinghe shows that Enhancing EI might help to improve academic performance among final year medical student. (29)

The purpose of this study was to determine the physical activity, emotional intelligence and percentage of last year correlations among students of The sarvajanik college of physiotherapy, Vibrant physiotherapy college, Civil government physiotherapy college, Shree bhartimaiya college of optometry and physiotherapy and Surat people band physiotherapy college. The aim of the study was to correlate emotional intelligence and physical activity, between emotional intelligence and percentage of last year and between physical activity and percentage of last year. Emotional Intelligence was measured by The Quick Emotional Intelligence Self-Assessment questionnaire, Physical Activity was measured by Weekly Physical Activity Self-Assessment questionnaire and Academic Performance was measured by percentage of last year for 180 participants. Statistical analysis was done for 180 participants including both genders using SPSS version 20.

Out of 180 volunteered students who participated in this study, there were 164 female students (91%) and 16 male students (9%) as shown in graph 1. Distribution of participants based on college, there were students from 5 different colleges. There were students from third year B.P.T, fourth year B.P.T, internship students and from M.P.T.

Conclusion

The study concluded that the academic performance of the students studying in physiotherapy was not associated with their emotional quotient. But the physical activity was positively associated with the academic performance. The emotional management of the students had relation with the physical activity and relationship management.

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