

The relationship between sports psychology, self-motivation and educational attainment level at university-level education in China

Fang Zheng^{1,2}

Abstract

With the rapid growth of competitive sports and the rising intense competition trend, the sports circle across the world increases specific skill training. This research study measures the relationship between sport psychology, self-motivation, a, and educational attainment. This research study was conducted in China and is based on primary research. For gathering the data used different questions related to the variables. The sport psychology, self-motivation, and educational attainment are the main independent variables and through the university level education measure the relationship between them, for measuring the data analysis, used smart PLS software and run basic results related to sport psychology. The smart PLS algorithm model, parameter estimated result, correlation coefficient, and histogram analysis. Results found significant and positive relationships between sports psychology, self-motivation, and educational attainment levels. It gradually emphasizes the training and intervention of students related to sport' psychological abilities. Therefore, this study has significance for knowing which qualities may aid athletes in developing strong attention control.

Keywords: Sports Psychology (SP), Self-Motivation (SM), Education Attainment (EA), University level Education (ULE), Competitive sport (CS).

Research Type: Research paper

Introduction

Sport has grown into a sort of public good in many developing countries, satisfying humans' basic physiological needs, such as the need to move and feel emotions. Sport is currently available in several facilities, forms, and places, and it may also be fostered in a range of disciplines. Sport is also one of the most significant factors in defining one's health and developing good habits and attitudes. It might just be an excellent way to kill time. We must remember that sport is a tool for developing countries and towns. Many universities and schools in developing countries design sports activities for students' physical and mental health. They mainly include the course of PE physical education. So that students can participate in sports activities, and it is an essential step for the determination of self-confidence and self-motivation in students at a pre-determined age. The essential factor of sport psychology is the motivation of athletes (Roderick et al., 2017).

In sports, motivation is considered a significant driver of performance. In the beginning, having a variety of dynamic and diverse motivations for beginning, directing, maintaining, and ending effort could be a complicated thing for athletes. In sport psychology, motivation is the most popular research topic, maybe because it has been consistently recognized as an essential element in

impacting people's performance and well-being of athletes. Motivation can be defined as realizing the source of the drivers and movers of the athlete's performance and behavior to satisfy the requirement to attain specific goals. Achievement motivation is more significant in scope and emphasis on athletes; propensity to strive for achievement and how certain conditions impact their emotions, behaviors, desires, and performance. S. Lee (2018) defined three types of accomplishment motivation as striving for success, as shown by perseverance and attempt in the face of adversity. Motivation influences the attention and performance of athletes, and it enthusiastically supports the attempts of participation and training in competition (Baumeister et al., 2018). The motivation factors are concerned with the substance of the action, whereas hygienic elements are concerned with the environment in which an athlete plays or performs. The drive to excel in athletic performance is how an athlete always puts himself in difficult and demanding conditions so that he or she is able and well-developed to achieve goals. Apart from this, motivation is the mix of work and desire to achieve a goal. Several variables influence the motivation to reach a specific goal. The mindset exercise is essential (Love et al., 2018).

According to Sheehan et al. (2018) with the most proper mindset, athletes will get the motion skill that will help athletes get the desired goal efficiently and effectively

¹ Department of Psychology, School of Humanities, Tongji University, Shanghai 200092, China.

² College of Information, Shanghai Ocean University, Shanghai 201306, China.

Email: 1610907@tongji.edu.cn

during training. Athletes can be driven by external and internal elements or by the mixture of both elements, which varies according to the environment and time. Because of the broad and long-standing temptation in motivation, many authors have established different theories, determining universal antecedents, assessed social-environmental elements, and examined other related factors for comprehending motivation (Mandigo et al., 2019). Furthermore, the teacher's position can have a remarkable impact on a student's motivation adopted in physical education PE classes (Marheni et al., 2019). Motivation, according to SDT, can be non-self-determined or self-determined, with the former referring to actions based on an individual's own choices, personal initiative, and decision-making capacity. Non-self-determined motivation, on the other hand, is linked with involvement in activities as a result of acquired external obligations and pressures. Athletes tend to desist and remove themselves owing to a lack of reward or outward social acknowledgment where the connection formerly existed, resulting in a loss of self-regulation of adaptive performance (Cooper & Tomporowski, 2017). Self-determined motivation, in contrast, enhances adaptation since it promotes self-regulation of performance because individuals tend to continue due to the enjoyment they receive from completing the activity. On the other hand, emotions impact motivation since they are a potent energizer that stimulates pupils' innate motivational mechanisms. The three significant kinds of motivation were positively related to mental health performance in sports, confirming previous studies on the maladaptive influences of such motivation (Hartwig et al., 2019). Predictably, emphasizing external merits of social acceptability and self-worth leads to undesirable results because such merits are like pressure or compulsion. Similarly, athletes who have external uncertainty of punishment or reward may suffer higher anxiety as they are sensitive to the judgments that other peoples deduce are not under their control (Escriva-Boulley et al., 2018). Adults are more prone to repeat the habits they developed throughout adolescence and childhood from the age of 6 to 16. As a result, it is the responsibility of teachers and parents to promote a healthy and active lifestyle among adolescents and children. In addition, every school and university subject should encourage, Physical Education and activities of sports. PE (Physical education) is an essential subject for developing healthy lifestyle habits through sport. Social and psychological variables play a critical role in achieving ideal experiences for a healthy and active lifestyle. However, due to the plethora of research studying various aspects in various situations, there may be

a misunderstanding when pedagogical techniques and programs are used in extracurricular or educational contexts (Papaioannou et al., 2019).

Research Objective

This research article aims to analyze the current state of knowledge about the relationship between sports psychology, self-motivation, and sports education at the university level education and other variables like anxiety, stress that influence sport psychology, self-motivation, and physical activity. Physical activities and sports practice involvement are directly connected to psychological variables. Apart from this, a different online survey has been conducted for this research paper, and collected data has been examined using different techniques. It was investigated that self-motivation is a significant factor that directly influences the performance of athletes. On the other hand, university-level education is essential for the determination of self-motivation.

Research Question

This research study determines that:

What relationship is between sports psychology, self-motivation, and education attainment level at university-level education in China?

How are self-motivation, education attainment levels affected at university-level education in China?

Literature review

Sports psychology and self-motivation

Trigueros et al. (2019) studied the association among self-motivation, level of education attainment, sports psychology, and attention control. Apart from this, this research paper has also discussed the impact of sport psychology and athlete's working performance. A sample data of 833 athletes have been collected from different Chinese sports leagues. To understand the association among different variables of sports, the researcher presents different hypotheses, and collected data has been analyzed by utilizing comparative analysis, regression analysis. An unpaired t-test has also used that was based on the sports experience of athletes. It was investigated that attention control has a direct association between self-motivation and anxiety of athletes. Furthermore, self-motivation has a positive influence on sports psychology. Furthermore, the level of sports education attainment in university-level education plays a significant role in athletes' attention control and self-motivation in sports. K. Lee et al. (2017) tested the association among self-motivation, stress, athlete's satisfaction, and sports psychology among the students at Chinese universities. For this purpose, data has been

gathered from the different universities of physical education in China. It was investigated that self-motivation was the essential factor for the athletes working performance and sports psychology. Furthermore, a strong relationship has also been observed in the level of stress and burnout.

[Schinke et al. \(2018\)](#) claimed that for athletes, the primary resource is mental health in association with self-motivation, performance, development, and sports psychology. Athlete's mental health has a direct correlation with the sports education attainment level and self-motivation. Athletes have much more burden than non-athletic people due to a busy lifestyle, tough competition, high training burden, etc. All these elements of life made athletes more stressed, which directly influenced their performance, motivation, confidence working attention. But the education of sports at the university level enabled athletes to enhance the power of self-motivation and confidence level, which in turn cause the best performance during the sport. This research paper also presents the association of public and organizational management with sports industries in China. It was also claimed that sport psychology has a direct association with self-motivation. Therefore, self-motivation is an essential factor for the better performance and development of athletes ([Tomé Lourido et al., 2019](#)).

Self-motivation related to sports at university level education

[Liu et al. \(2017\)](#) explore that teachers at the universities level education in China and other developing countries use different strategies to improve student's self-motivation. sports activities engagement and athletes' perceived autonomy include: (a) emphasizing non-controlling and informational language by exchanging expectations and requirements through flexible and informational messages instead of utilizing controlling language, pressure, rigid and coercive language. (b) take care of internal motivational resources by exploring the way to generate learning activities among athlete's preference, competencies, interests, motivation, sense of fun, and challenges (c) understanding and acknowledging athlete's expressions of negative influence by accepting athlete's perspectives (d) helping athletes understands the merits of uninteresting rationales and activities for a requested behavior or spots action by identifying and explaining the worth, personal benefits, importance and the advantage of learning activities, behavior or procedure.

[Escriva-Boulley et al. \(2018\)](#) studied the relationships between university-level education and self-motivation. It was claimed that teachers at primary, secondary, and

university levels have a great role in determining self-motivation related to sport and other physical activities. To investigate the association between them, a survey was collected from the teachers of different 15 universities in China, and 293 students participated. In this survey, different learning motivational styles of teachers have been observed by the author. The survey results indicated that teacher motivational style matters a lot to determine motivation among students in sports and other physical activities. Moreover, it was investigated that students can improve their self-motivation power with the best motivational speaker at the university level. So, the motivation style in university-level education directly relates to the self-motivational power of athletes.

Sports psychology and Education attainment level in the university level education in China

[Kim et al. \(2017\)](#) explained that level of attainment sports education holds excellent significance for sports psychology in athletic firms. Its scope has been increasing in recent years. With time, the interest in sports has been increased across different geographic locations and cultures. In this research paper, sport psychology, the performance of athletes, and the impact of educational attainment level in the universities of China have also been discussed. The focus of this research paper was to present a comprehensive view of sports psychology and university-level education by understanding the behavior, attitude, motivational style, hope, and performance of sport's students in different universities of China. It was claimed that students learn more through perception, physical activities, and motivational speech at a younger age. So, the motivational styles of teachers hold a great significance for the development of self-motivation, which in turn has a direct relation with sport psychology ([Englert, 2016](#)).

[Kuśnierz et al. \(2020\)](#) investigated the academic performance of physical education students and its relationship with the sport psychology and self-motivation of students of PE. The research examined the difference in academic motivation, personality traits, and gender. It was investigated that women motivated more quickly than men, and academic performance was predicted by self-intrinsic motivation. That is why women show more motivation and better academic achievements as compared to men. [Liu et al. \(2017\)](#) also explore the correlation among physical activities, motives, and mental health in university students of China. For this purpose, data has been collected from the 256 universities of south-central and

south China. The health experts investigated that physical activities are the significant element for the better lifestyle of people (Huhtiniemi et al., 2019). Therefore, to build the motivation of sport among the population, there was a fundamental need to educate people about physical activities, different kinds of sports, and university-level education directly related to sport psychology. The survey was conducted from the different universities of China, and it was claimed that students at Chinese universities were physically active compared to other countries.

Hypothesis development

H1= There is a significant effect of sport psychology at university level education.

H2= There is a direct impact of self-motivation related to the sport at the university level of education.

H3= There is a significant effect of educational attainment level at university-level education in china.

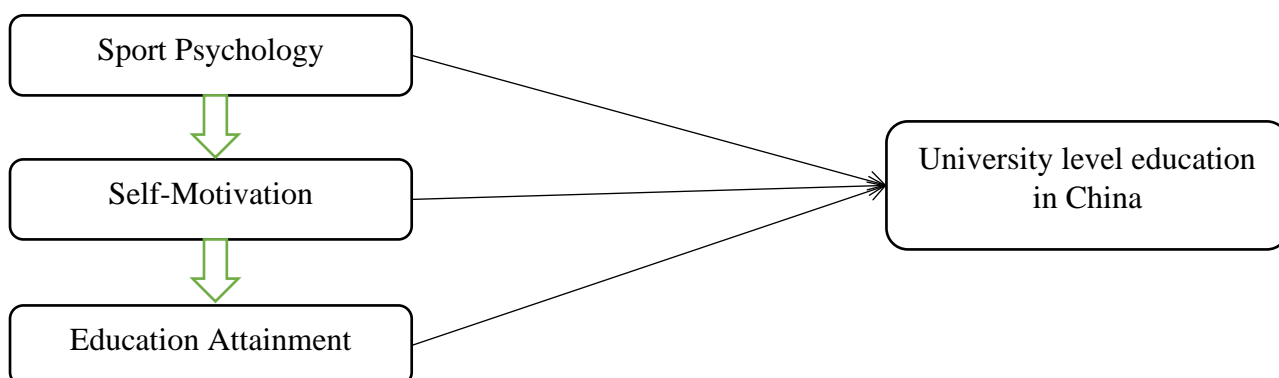
Methodology

This research study determines the sport psychology, self-motivation, and education attainment level related to the university level of education. This research study was conducted in China to measure the effect between self-motivation, education attainment, and sports psychology research in Chinese universities. This research-based on primary data analysis for collecting the data used different questions related to the variables.

Research design

The part of the research design describes that overall strategy related to the integrated study logically. This research study describes the relationship between self-motivation, education attainment, and sports psychology in university-level education. To measure the data analysis, smart PLS software ran different informative results such as the PLS algorithm model, descriptive statistical analysis, histogram analysis, chi-square model, etc.

Theoretical Model



Variables

Sport psychology

The psychological knowledge and skills that must be addressed about optimal performance and sports participant and systemic problems associated with the sport-related organizations. Generally, there are two basic types of sport psychologist people: educational and clinical (Hagan Jr et al., 2017). Sports psychology plays a vital role in controlling the emotional factors of sport-mans during competition and practices.

Self-motivation

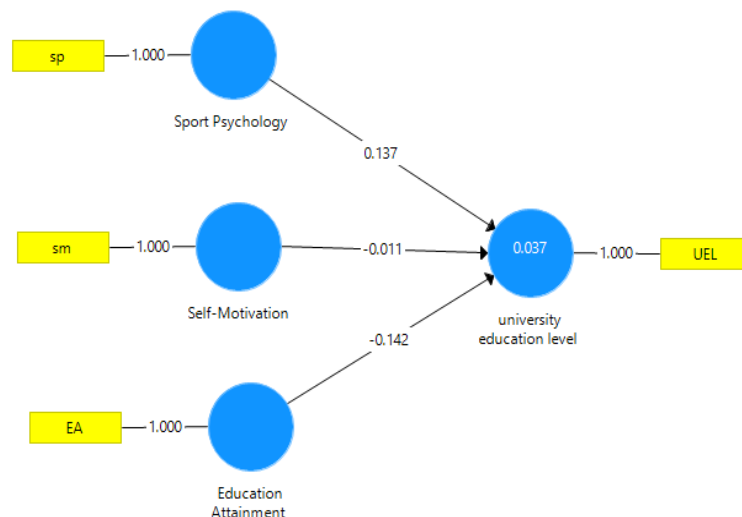
This is the ability to drive over oneself to pursue goals and complete the tasks. Self-motivation is the best form of motivation for people. It is an essential element required to stimulate people's desire to perform their best work. Those who are very self-motivated will always wish to achieve the best and take different willing responsibilities (Liştea et al., 2017). There are different benefits related to self-motivation. One is self-motivation gives your vision, overcome little indecisiveness, overcome negativity which influencer in life, and also that strength to take on challenges in life. In this research, self-motivation was used to measure the relationship between sport psychology and educational attainment at the university level (Furley & Wood, 2016; Roberts et al., 2019).

Education attainment

Education attainment is the highest level of education that a person has completed from university. It's a level at primary and high school. In other words, education attainment refers to a degree completed the education of a person in basic elementary, high school level, technical vocational level, bachelor's degree, college, master's, M.Phil, and doctorate education. In this research study, educational attainment is a specific variable for measuring the relationship between sport psychology and self-motivation (Eysenck & Wilson, 2016; Fletcher & Scott, 2010).

Results and discussion

PLS Algorithm Model



The model describes that the PLS Algorithm model sport psychology presents a positive relationship with university education level performance at a rate is 0.137, the rate of self-motivation, and the university education level is 0.011.

The value of university education level is 0.037, which means that 3% is significant. On the other hand, the education attainment and university education level show a negative effect between them at a rate of -0.142.

Table-1

Estimated Distribution Parameters

	Sport Psychology	Self-Motivation	Education Attainment	University-level education in China
Normal Distribution	Location	1.7700	1.6100	1.6700
	Scale	.81470	.69479	.68246
				.79968

The cases are un-weighted.

The above table represents that estimated distribution parameters of different variables included dependent and independent variables. The result describes that normal distribution with the help of location and scales the sport psychology, self-motivation, and education attainment are considered independent variables. This research study measures the relationship among them at university level education. The result conducted in china the value of sport

psychology is 1.7700 at location point and 0.81470 at scale level. Self-motivation is another variable. Its values of the normal distribution are 1.6100 and 0.6947, respectively. Education attainment is an independent variable. Its value of the location is 1.6700, and the value of scale is 0.6824. The last one is university-level education in china. Its location value presents a positive rate which is 1.8700, and the scale rate is 0.799.

Table-2

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Sport Psychology	1.7700	100	.81470	.08147
	Self-Motivation	1.6100	100	.69479	.06948
Pair 2	Education Attainment	1.6700	100	.68246	.06825
	University-level education in China	1.8700	100	.79968	.07997

The above table presents that paired sample statistical analysis between variables in the first pair describes the sport psychology and self-motivation relation. Its mean values are 1.770 and 1.6100 the standard deviation value is 0.81470 and 0.6947 the standard error of mean value are 0.0814 and 0.069, respectively. In the second pair, the

education attainment and university level of education, its mean value is 1.6700 and 1.8700. The standard deviation values are 0.6824 and 0.799. Its standard error of the mean value is 0.6825 0.07997, respectively. The result describes the statistical performance of the relationship in the pair forms.

Table-3

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Sport Psychology - Self-Motivation Education	.16000	.99209	.09921	-.03685	.35685	1.613	99	.110
Pair 2	Attainment - University level education in China	-.20000	1.11916	.11192	-.42207	.02207	-1.787	99	.077

The above table presents that paired sample test analysis with the help of values mean, standard deviation. The value presents the standard error of the mean; it also describes the 95% confidence interval of the difference at a lower level and upper level. The result presents that t statistic value and also describes that significant level in 2 tailed. In the first pair, add two variables one is sport psychology, and the second is self-motivation. Its mean value is 0.1600. The standard deviation value is 0.9920, the standard error of the mean is 0.09921, the 95% confidence interval is lower rate is -0.0368, and the upper confidence interval is 0.3568, respectively. In the second pair,

add two other variables one is educational attainment, and the second is university level of education in china. Its mean value is 0.2000. Its standard deviation value is 1.1191, the standard error of mean value is 0.11192 the lower value is -0.422. The upper value is 0.022; its t-statistic value is -1.787 shows a negative relationship, and its significance level is 0.077 shows a significant relationship between them. According to the result, sport psychology and self-motivation show a positive relationship and significant relationship and educational attainment. University-level education presents a negative but significant relationship between them.

Table-4

Chi-square analysis:

Test Statistics

	Sport Psychology	Self-Motivation	Education Attainment	University-level education in China
Chi-Square	8.780 ^a	23.420 ^a	20.540 ^a	36.720 ^b
df	2	2	2	3
Asymp. Sig.	.012	.000	.000	.000

a. 0 cells (0.0%) have expected frequencies less than 5. Therefore, the minimum expected cell frequency is 33.3.

b. 0 cells (0.0%) have expected frequencies less than 5. Therefore, the minimum expected cell frequency is 25.0.

The above table shows that chi-square analysis among all variables included independent and dependent. The result describes the chi-square values and significant level of each variable. For example, sport psychology is independent; its chi-square value is 8.780, the value of self-motivation is 23.420, the value of education attainment is 20.540, and the value of university-level education in china is 36.720, respectively. The significant level of each variable are 0.012, 0.00, 0.00, and 0.00, respectively shows 100% significantly.

Table-5

Model Summary and Parameter Estimates

Dependent Variable: University level education in China

Equation	Model Summary			Parameter Estimates	
	R Square	F	df1 df2 Sig.	Constant	b1
Linear	.015	1.535	1 98 .218	1.654	.122

The independent variable is Sport Psychology.

The result describes that model summary and parameter estimates value when the dependent variable is university level of education in china relationship with sport psychology. The above table presents the r-square value, the value of f-statistic, the level of parameter estimates. According to the result, the r-square value is 0.015, the f-statistic value is 1.535, the constant value of parameter estimates is 1.654, and the b1 rate is 0.122, respectively.

Table-6

Model Summary and Parameter Estimates

Dependent Variable: University level education in China

Equation	Model Summary			Parameter Estimates	
	R Square	F	df1 df2 Sig.	Constant	b1
Linear	.511	.139	1 98 .0710	1.940	-.043

The independent variable is Self-Motivation.

As mentioned above, this table also presents the linear regression between self-motivation and university-level education in china. The model summary describes that the value of r-square is 0.511, the f-statistic value is 0.139, the df1 is

one, the df2 is 98, and the significant level is 0.710. According to the result, the parameter estimates the value of constant is 1.940 and b1 is -0.043, respectively. Thus, the results describe that there is a significant relationship between self-motivation and university-level education in china.

Table-7

Model Summary and Parameter Estimates

Dependent Variable: University level education in China

Equation	Model Summary				Parameter Estimates		
	R Square	F	df1	df2	Sig.	Constant	b1
Linear	.81	1.817	1	98	.181	2.134	-.158

The independent variable is Education Attainment.

The above table presents that result analysis related to the educational attainment and university-level education in china. The result describes the model summary and parameter estimates values; its r-square value presents that 81% r-square value means that the model is fit for analysis. The f value is 1.817, the df1 is one, the df2 is 98, and the significant level is 0.181, respectively. The result describes that the constant parameter estimates value is 2.134 shows a positive relationship, but its b1 value is -0.158 shows a negative effect between them.

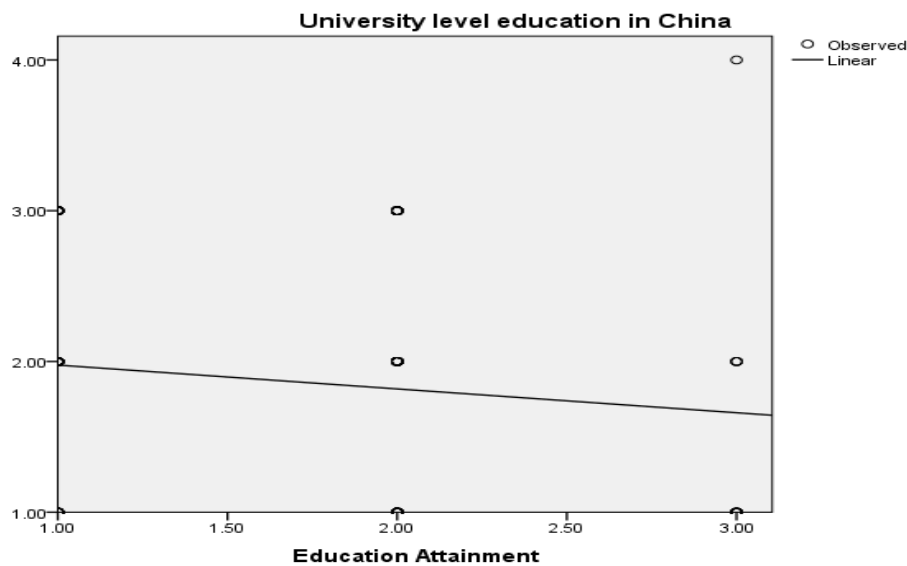
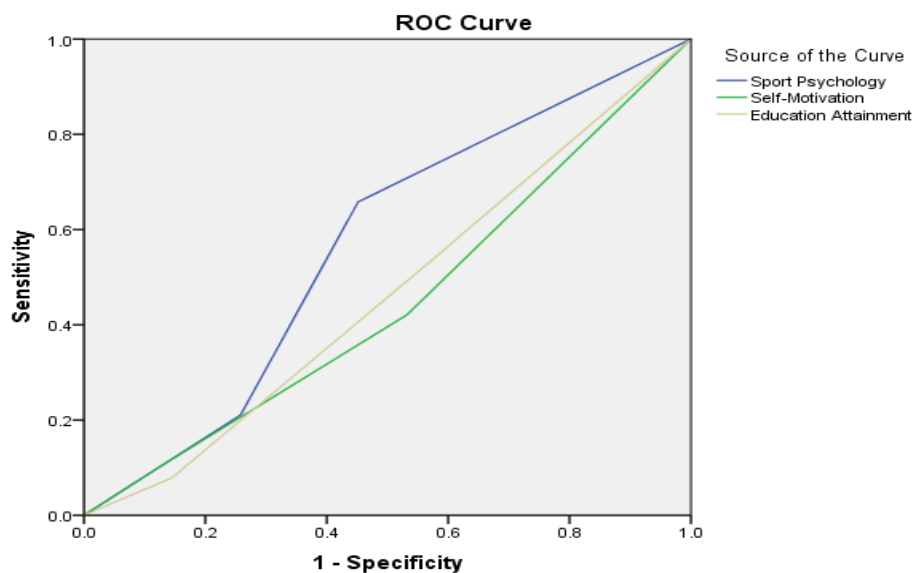


Figure-1 observed linear effect:

The above figure presents that the observed linear effect between university-level education in china and education attainment on the horizontal side presents that education

attainment level is 1.00 to 3.00. The dots present the observed rates, and the line presents that education attainment.



Diagonal segments are produced by ties.

Figure-2 ROC Curve:

The above figure presents that the ROC curve with digital lines on the vertical side presents that sensitivity level, and the horizontal side shows specificity. The purple line shows sport psychology, the green line shows the self-motivation

effect, and the yellow line shows educational attainment and its relationship. The figure starts from point 0.0 and ends at level 1. These curves interrelate with each other at a 0.2 point level.

Table-8*Correlations*

		Sport Psychology	Self-Motivation	Education Attainment	University-level education in China
Sport Psychology	Pearson Correlation	1	.143	.080	.124
	Sig. (2-tailed)		.155	.428	.218
	N	100	100	100	100
Self-Motivation	Pearson Correlation	.143	1	.322**	-.038
	Sig. (2-tailed)	.155		.001	.710
	N	100	100	100	100
Education Attainment	Pearson Correlation	.080	.322**	1	-.135
	Sig. (2-tailed)	.428	.001		.181
	N	100	100	100	100
University level education in China	Pearson Correlation	.124	-.038	-.135	1
	Sig. (2-tailed)	.218	.710	.181	
	N	100	100	100	100

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

The above result presents that the correlation coefficient among all variables included independent and dependent variables (Wood et al., 2016). The result describes the Pearson correlation value, the value of significance and shows several observations. Sport psychology shows that a positive relationship between self-motivation at rate is 0.143. The sport psychology shows that positive relationships with the self-motivation at rat level are 0.080 and that positive with education attainment level is 0.124 respectively. The self-motivation significantly affects education attainment rate point of 0.322, and its significance level is 0.001. Similarly, university-level education in china shows positive relation with sport psychology and negative relation with self-motivation.

Mean test analysis**Table-9***University-level education in China * Sport Psychology*

Sport Psychology	Mean	N	Std. Deviation
strongly agree	1.7021	47	.80528
agree	2.1379	29	.63943
Neutral	1.8750	24	.89988
Total	1.8700	100	.79968

The above table describes the means test analysis between university-level education in china and sports psychology with the help of mean and standard deviation values. The resulting present strongly agree, agree, Neutral level, and

total level (González-Víllora et al., 2019). The mean values are 1.7021, 2.1379, 1.8750, and 1.8700, respectively. The standard deviation values are 0.80528, 0.6394, 0.89988, and 0.79968, which show positive standard deviation values at every point.

Table-10*University-level education in China * Self-Motivation*

Self-Motivation	Mean	N	Std. Deviation
strongly agree	1.8235	51	.74043
agree	2.0541	37	.88021
Neutral	1.5000	12	.67420
Total	1.8700	100	.79968

The above table describes that university-level education in china and the self-motivation relationship between them. Its mean values are 1.8235, 2.0541, 1.500 and 1.8700 its standard deviation values are 0.74043, 0.88021, 0.67420 and 0.79968 respectively.

Table-11*University-level education in China * Education Attainment*

Education Attainment	Mean	N	Std. Deviation
strongly agree	1.9333	45	.78044
agree	1.9070	43	.78115
Neutral	1.5000	12	.90453
Total	1.8700	100	.79968

The above table presents that university-level education in china and education attainment its mean values are 1.93, 1.90, 1.50, and 1.870, respectively present the positive

average value of the mean. On the other hand, the standard deviation values are 0.78044, 0.78115, 0.9045, and 0.799 show a positive deviation from the mean.

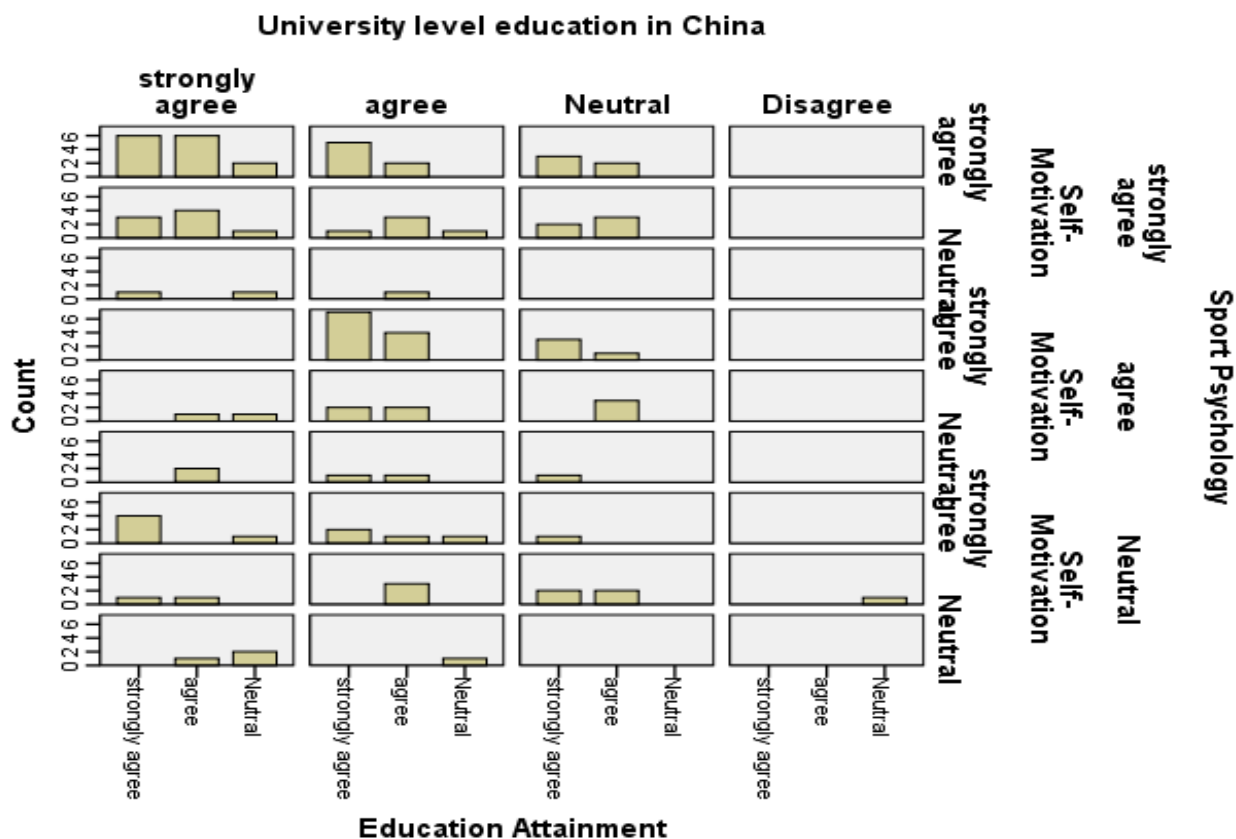


Figure-3 Bar effect of variables

The graph presents the relationship between sport psychology, self-motivation, and education attainment level in university-level education in china. According to the figure, the strongly

agree bar line shows the highest level compared to the other. So, the result describes a strong relationship between sport psychology, self-motivation, education attainment.

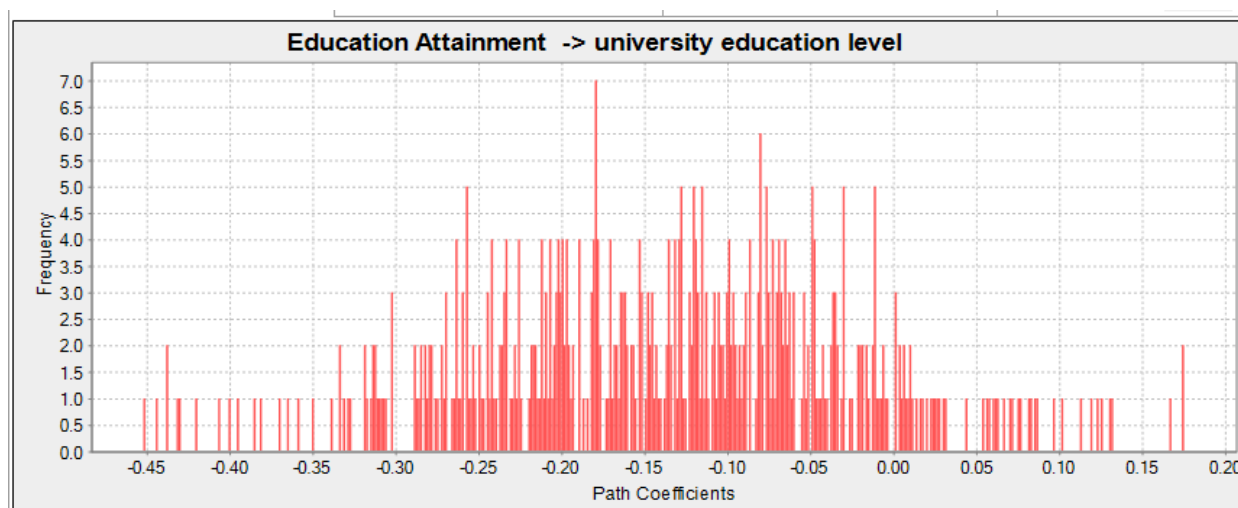


Figure-4 Path coefficient analysis

The figure mentioned above describes the path coefficient effect between education attainment and university education level. On the horizontal side, the level points

start from -0.45 to 0.20. The vertical side presents that the frequency point is 0.0 to 7.0 respectively, the red line presents the performance related to the relationship.

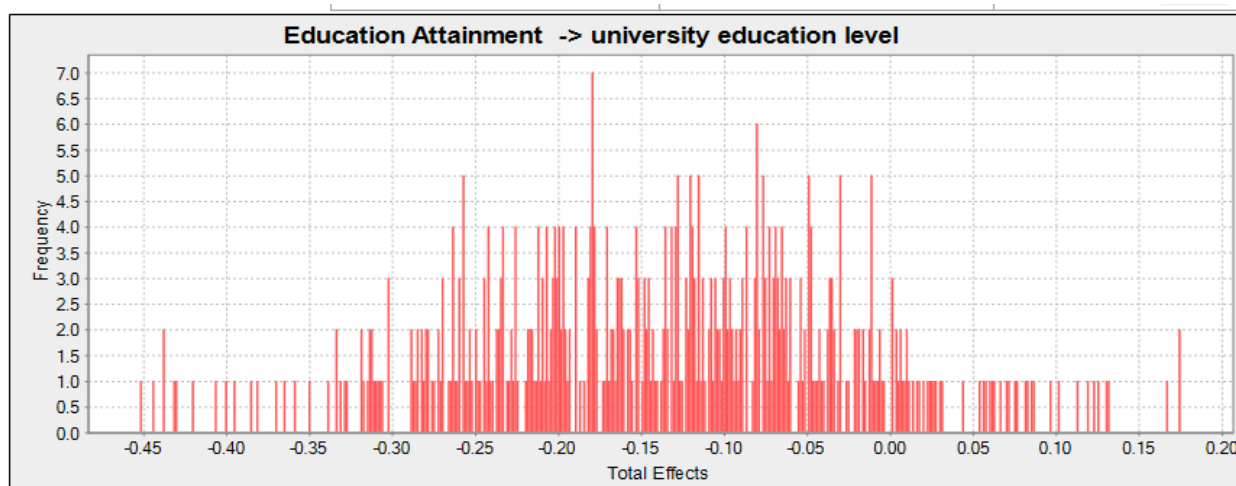


Figure-5 Total effect

The above figure describes the total effect analysis between education attainment and university education level. According to the figure, the horizontal sides start from -0.45 to 0.20, and frequency is present at the vertical side; its rate is 0.0 to 7.0, respectively. The red line presents the relationship between education attainment and university education level.

Discussion and conclusion

Knowledge about sport psychology participants' academic achievements, motivation, and personalities will optimize study programs and the necessary professional skills and competencies according to expectations and behavioral patterns. However, most prior study was done among sport psychology students and so cannot be extended to an entire academic community. Three variables, self-motivation, sport psychology, and education attainment, have not been tested collectively in Chinese universities. The analysis result concluded that sport psychology shows a positive and significant relationship with university education level in China for measuring the data. Self-motivation shows a significant relationship between university-level educations. The education attainment shows a negative but significant relationship between them. Motion imagery is a cognitive approach that is favorable to learning sports abilities and

References

- Baumeister, R. F., Tice, D. M., & Vohs, K. D. (2018). The strength model of self-regulation: Conclusions from the second decade of willpower research. *Perspectives on Psychological Science*, 13(2), 141-145. <https://doi.org/10.1177/1745691617716946>
- Cooper, S. L., & Tomporowski, P. D. (2017). Acute effects of exercise on attentional bias in low and high anxious young adults. *Mental Health and Physical Activity*, 12, 62-72. <https://doi.org/10.1016/j.mhpa.2017.02.002>
- Englert, C. (2016). The strength model of self-control in sport and exercise psychology. *Frontiers in psychology*, 7(3), 314. <https://doi.org/10.3389/fpsyg.2016.00314>
- Escriva-Boulley, G., Tessier, D., Ntoumanis, N., & Sarrazin, P. (2018). Need-supportive professional development in elementary school physical education: Effects of a cluster-randomized control trial on teachers' motivating style and student physical activity. *Sport, Exercise, and Performance Psychology*, 7(2), 218. <https://doi.org/10.1037/spy0000119>

performance development, according to a significant number of practical training studies. It can help athletes increase their skill level. The use of sports psychology to analyze players' motion imagery can assist coaches in grasping the clarity of the athletes' imagery and doing various psychological training for different athletes, in this research study used smart PLS software for measuring the data analysis. The parameter estimated analysis, correlation analysis, linear equation test analysis, and histogram analysis were used. As a result, sport alphabetization or sport literacy is a unique element in the universities curriculum targeted at developing sport competence, which is the ability to deal with a wide variety of technical difficulties while participating in sports.

Limitation of this research study

The current study's participants were all undergraduates studying in physical education departments. As a result, the findings cannot be generalized to an entire student population. Furthermore, the study was carried out at two to three universities in China. Students' GPA may be related to specific resources, student requirements, and level of learning. The study should be repeated with a more representative sample of undergraduates from other universities. It would also be interesting to compare other countries' students in their home countries.

- Eysenck, M. W., & Wilson, M. R. (2016). Sporting performance, pressure and cognition: Introducing attentional control theory: Sport. In *An introduction to applied cognitive psychology* (pp. 341-362). Psychology Press. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315732954-20>
- Fletcher, D., & Scott, M. (2010). Psychological stress in sports coaches: A review of concepts, research, and practice. *Journal of sports sciences*, 28(2), 127-137. <https://doi.org/10.1080/02640410903406208>
- Furley, P., & Wood, G. (2016). Working memory, attentional control, and expertise in sports: A review of current literature and directions for future research. *Journal of Applied Research in Memory and Cognition*, 5(4), 415-425. <https://doi.org/10.1016/j.jarmac.2016.05.001>
- González-Víllora, S., Sierra-Díaz, M. J., Pastor-Vicedo, J. C., & Contreras-Jordán, O. R. (2019). The way to increase the motor and sport competence among children: the Contextualized Sport Alphabetization model. *Frontiers in physiology*, 10(3), 569. <https://doi.org/10.3389/fphys.2019.00569>
- Hagan Jr, J. E., Pollmann, D., & Schack, T. (2017). Elite athletes' in-event competitive anxiety responses and psychological skills usage under differing conditions. *Frontiers in psychology*, 8(4), 2280. <https://doi.org/10.3389/fpsyg.2017.02280>
- Hartwig, T. B., del Pozo-Cruz, B., White, R. L., Sanders, T., Kirwan, M., Parker, P. D., . . . Antczak, D. (2019). A monitoring system to provide feedback on student physical activity during physical education lessons. *Scandinavian Journal of Medicine & Science in Sports*, 29(9), 1305-1312. <https://doi.org/10.1111/sms.13438>
- Huhtiniemi, M., Sääkslahti, A., Watt, A., & Jaakkola, T. (2019). Associations among basic psychological needs, motivation and enjoyment within finnish physical education students. *Journal of sports science & medicine*, 18(2), 239-247. <https://pubmed.ncbi.nlm.nih.gov/31191093>
- Kim, M., Perrewé, P. L., Kim, Y. K., & Kim, A. C. H. (2017). Psychological capital in sport organizations: Hope, efficacy, resilience, and optimism among employees in sport (HEROES). *European Sport Management Quarterly*, 17(5), 659-680. <https://doi.org/10.1080/16184742.2017.1344284>
- Kuśnierz, C., Rogowska, A. M., & Pavlova, I. (2020). Examining gender differences, personality traits, academic performance, and motivation in Ukrainian and Polish students of physical education: A cross-cultural study. *International journal of environmental research and public health*, 17(16), 5729. <https://doi.org/10.3390/ijerph17165729>
- Lee, K., Kang, S., & Kim, I. (2017). Relationships among stress, burnout, athletic identity, and athlete satisfaction in students at Korea's physical education high schools: Validating differences between pathways according to ego resilience. *Psychological reports*, 120(4), 585-608. <https://doi.org/10.1177/0033294117698465>
- Lee, S. (2018). Structural Relationship between Physical Self-Concept, Occupational Instability, and Retirement Intention among South Korean Minor League Baseball Players. *Healthcare*, 9(5), 595. <https://doi.org/10.3390/healthcare9050595>
- Liştea, R., Ducrocq, E., Siminiceanu, A., & Visu-Petra, L. (2017). Getting the butterflies to fly in formation: A review on the modulating effect of attentional control on motor and visual aspects of sports performance under pressure. *Cognition, Brain, Behavior*, 21(4), 249-274. <https://doi.org/10.24193/cbb.2017.21.16>
- Liu, W., Li, X., Zeng, N., Ayyub, M., Xiong, S., Tao, K., & Peng, Q. (2017). Examining Associations among Motivation, Physical Activity and Health in Chinese College Students: A Self-Determination Theory Perspective. *JTRM in Kinesiology*.
- Love, S., Kannis-Dymand, L., & Lovell, G. P. (2018). Metacognitions in triathletes: Associations with attention, state anxiety, and relative performance. *Journal of Applied Sport Psychology*, 30(4), 421-436. <https://doi.org/10.1080/10413200.2018.1440660>
- Mandigo, J., Lodewyk, K., & Tredway, J. (2019). Examining the impact of a teaching games for understanding approach on the development of physical literacy using the passport for life assessment tool. *Journal of Teaching in Physical Education*, 38(2), 136-145. <https://doi.org/10.1123/jtpe.2018-0028>
- Marheni, E., Purnomo, E., & Cahyani, F. I. (2019). The Role of Motivation in Increasing Achievement: Perspective Sports Psychology. *2nd International Conference on Sports Sciences and Health 2018 (2nd ICSSH 2018)* (pp. 59-62). Atlantis Press. <https://doi.org/10.2991/icssh-18.2019.14>
- Papaioannou, A. G., Schinke, R. J., & Schack, T. (2019). Sport psychology in emerging countries, special section 2: Introduction. *International Journal of Sport and Exercise Psychology*, 17, 1-4. <https://doi.org/10.1080/1612197X.2019.1575071>
- Roberts, L. J., Jackson, M. S., & Grundy, I. H. (2019). Choking under pressure: Illuminating the role of distraction and self-focus. *International Review of Sport and Exercise Psychology*, 12(1), 49-69. <https://doi.org/10.1080/1750984X.2017.1374432>
- Roderick, M., Smith, A., & Potrac, P. (2017). The sociology of sports work, emotions and mental health: scoping the field and future directions. *Sociology of sport journal*, 34(2), 99-107. <https://doi.org/10.1123/ssj.2017-0082>

- Schinke, R. J., Stambulova, N. B., Si, G., & Moore, Z. (2018). International society of sport psychology position stand: Athletes' mental health, performance, and development. *International Journal of Sport and Exercise Psychology*, 16(6), 622-639. <https://doi.org/10.1080/1612197X.2017.1295557>
- Sheehan, R. B., Herring, M. P., & Campbell, M. J. (2018). Associations between motivation and mental health in sport: A test of the hierarchical model of intrinsic and extrinsic motivation. *Frontiers in psychology*, 9, 707. <https://doi.org/10.3389/fpsyg.2018.00707>
- Tomé Lourido, D., Arce Fernández, C., & Ponte Fernández, D. (2019). The relationship between competitive state anxiety, self-confidence and attentional control in athletes. *Revista de Psicología del Deporte*, 28(2), 143-150. <http://hdl.handle.net/10347/21113>
- Trigueros, R., Aguilar-Parra, J. M., Cangas, A. J., López-Liria, R., & Álvarez, J. F. (2019). Influence of physical education teachers on motivation, embarrassment and the intention of being physically active during adolescence. *International journal of environmental research and public health*, 16(13), 2295. <https://doi.org/10.3390/ijerph16132295>
- Wood, G., Vine, S. J., & Wilson, M. R. (2016). Working memory capacity, controlled attention and aiming performance under pressure. *Psychological research*, 80(4), 510-517. <https://doi.org/10.1007/s00426-015-0673-x>