

Evaluation of academic motivation in physiotherapy students

Payal Dalal¹, Dr. Razia Nagarwala^{2*}, Dr. Ashok K. Shyam³, Dr. Parag Sancheti⁴

ABSTRACT

Introduction: Motivation is a very important and integral part of human behaviour, which is very commonly neglected by everyone. Academic Motivation plays an important role in the student's academic behaviour. There are various types of motivation which is also of great significance as it determines the motive behind a person's behaviour. **Objective:** The aim of this study was to find the orientation of motivation in Physiotherapy Students which encouraged them to attend college. **Methodology:** The data was collected using Academic Motivational Scale – College version, data was collected from 378 students from different physiotherapy colleges. **Results:** The students were primarily motivated due to intrinsic motivation to know (89%); followed by extrinsic motivation identified (73.55%); intrinsic motivation to experience stimulation (72.67%); intrinsic motivation towards accomplishment (67.34%); extrinsic motivation of external regulation (63.48%), extrinsic motivation introjected (60.46%); and lastly amotivation (17.72%). **Conclusion:** Students were highly intrinsically motivated followed by extrinsic motivation and amotivation.

Keywords: Academic Motivation, Orientation of Motivation, Intrinsic Motivation, Extrinsic Motivation, Amotivation, Physiotherapy Students.

Motivation is the experience of desire or aversion. Motivation is the word derived from the word 'motive' which means needs, desires, wants or drives within the individuals. It is the process of stimulating people to actions to accomplish the goals. Motivation is a key component in a student's academic life.

Academic Motivation: It is defined as “a student's desire, as reflected in approach, persistence, and level of interest, regarding academic subjects when the student's competence is judged against a standard of performance or excellence” (DiPerna JC, Elliott SN, 1999).

¹BPTH, Sancheti Institute College of Physiotherapy, Maharashtra, India

²HOD and Professor of cardiorespiratory physiotherapy, Maharashtra, India

³Research officer and MS (orthopedic) Sancheti Institute of orthopedic and rehabilitation, Maharashtra, India

⁴Chairman and MS (orthopedic) Sancheti Institute of orthopedic and rehabilitation, Maharashtra, India

*Responding Author

Received: September 07, 2020; Revision Received: September 13, 2020; Accepted: December 31, 2020

© 2020, Dalal P., Nagarwala R., Shyam A. K. & Sancheti P.; licensee IJIP. This is an Open Access Research distributed under the terms of the Creative Commons Attribution License (www.creativecommons.org/licenses/by/2.0), which permits unrestricted use, distribution, and reproduction in any Medium, provided the original work is properly cited.

Evaluation of academic motivation in physiotherapy students

Recent studies showed that motivation is concerned with multiple aspects of human behaviour. It has three main variables that are, biological, cognitive, and social regulation which directly or indirectly affects the level of motivation in an individual. Motivation therefore plays an important role in students' life. The three key elements of motivation are persistence, direction and intensity (Ryan RM, Deci EL, 2000). Motivation is an important aspect in education, especially in a field where it is necessary to accommodate and balance intellectual abilities and physical fitness (Ardeńska A et al, 2016). As mentioned earlier motivation has many aspects to it, so there is no particular reason leading to a certain type of motivation, as it's not a superficial behaviour, many varied experiences and psychological behaviours are associated with it.

Basically, there are two main types of motivation

1. Intrinsic Motivation: which states that the person has some genuine interest in the activity,
2. Extrinsic Motivation: which states that the person is either bribed into or just taking part in the activity in form of fear or under the pressure of being punished later on. (Ryan RM, Deci EL, 2000)

For an optimal functioning of three variables of motivation (social, cognitive, biological) three basic needs have been identified by self-determination theory (SDT), which are:

1. The need for competence-People feels the need to gain mastery of tasks and learn different skills,
2. Relatedness-People feel the need to experience a sense of belonging and attachment to other people,
3. Autonomy- People need to feel in control of their own behaviours and goals.

If the person has some components from all three needs the person can be internally motivated. (Ryan RM, Deci EL, 2000)

Students have a very high calibre when they are intrinsically motivated and have a low calibre when extrinsically motivated. (Guay F, Ratelle CF, Chanal J, 2008).

Vallerand et al had developed a scale measuring all the three types of motivation i.e., intrinsic, extrinsic, amotivation called as "The Academic Motivational Scale". The scale is based on Deci and Ryan's (1985, 2000) construct that further divides intrinsic motivation and extrinsic motivation into three types,

Intrinsic motivation is divided as follows:

1. Towards Knowledge- which assesses the desire to perform an activity for pleasure and satisfaction experienced while learning.
2. Towards Accomplishment- which assesses the satisfaction experienced by achieving certain goals for themselves.
3. To experience stimulation- which assesses the desire to perform certain activity in order to feel happy or experience pleasure out of it.

Extrinsic motivation is divided as follows:

1. Identified- which assesses the desire to perform an activity in order to gain a sense of importance and personal value.
2. Introjected- which assesses the desire to perform an activity out of guilt or pleasure.

Evaluation of academic motivation in physiotherapy students

3. External Regulation- which measures whether the student is participating in activities for receiving positive reinforcements or avoiding the negative consequences.

And lastly the scale assesses amotivation – which measures the lack of motivation. (Vallerand RJ et al, 1992)

The validity and reliability of the scale has been tested in the previous studies which were based, university students, (Vallerand RJ et al, 1993); high school students, (Chakraborty R, 2016); vocational students, (Utvær BK, Haugan G, 2016); dental students (Orsini C et al, 2015).

A study by Ryan and Deci in 2000 quotes that the level of motivation (i.e. how much motivation does a person have?), is less significant than the orientation of the motivation (i.e. the type of motivation the person has) as the orientation of the motivation defines the attitude, goals which gives rise to various human action and behaviour. (Ryan RM, Deci EL, 2000)

Thus, this research tries to determine the motivation in physiotherapy students.

Objective

The aim of this study was to find the orientation of motivation in Physiotherapy Students which encouraged them to attend college.

METHODOLOGY

Participants

After approval from the Institutional Ethical Committee, total of 378 students were recruited from different colleges of physiotherapy from Pune city with prior permission allotted by the principles of the respective colleges. Data was collected in the span of September 2019 to December 2019. (Convenient sampling) These 378 subjects included both post graduates and undergraduates' students of physiotherapy. The average age of the students was 20.28years with standard deviation of 1.84. Out of 378 students, 65 were males and 313 were females.

Procedure

The students were given a brief introduction about the research before they were handed out the questionnaire. They were given sufficient time to solve the questionnaire. The authors handled any doubts or difficulties faced while solving it. The assessment tool used was, 'The Academic Motivational Scale –College Version' developed by Vallerand et al, (ams- c28) Cegep version specifically designed for college students. (Vallerand RJ et al, 1993)

RESULTS

Table No.1: Number of students from each academic year.

YEAR	NO. OF STUDENTS
1 ST YEARS	80
2 ND YEARS	72
3 RD YEARS	70
4 TH YEARS	80
INTERNS	45
POST GRADUATES	31

Table No. 2- Percentage of motivation in students according to academic year.

Years	IM-TK	IM-TA	IM-TES	EM-ID	EM-IN	EM-ER	AM
1ST Years	102%	72.5%	77.5%	76.25%	76.25%	66.25%	2.5%
2ND Years	84.72%	69.44%	76.38%	84.72%	63.89%	63.89%	33.34%
3RD Years	74.28%	71.42%	60%	71.42%	68.58%	74.28%	18.58%
4TH Years	72.5%	57.5%	60%	71.25%	58.75%	51.25%	16.25%
Interns	91.11%	64.44%	77.77%	68.88%	57.77%	53.33%	20%
Post-Graduates	109%	68.75%	84.37%	68.75%	37.5%	71.88%	15.62%
Average	89%	67.34%	72.67%	73.55%	60.46%	63.48%	17.72%

*Note-** (IM-TK: Intrinsic Motivation to Know, IM- TA: Intrinsic Motivation Towards Accomplishment, IM-TES: Intrinsic Motivation to Experience Stimulation, EM-ID: Extrinsic Motivation Identified, EM-IN: Extrinsic Motivation Introjected, EM-ER: Extrinsic Motivation- External Regulation, AM- Amotivation)*

DISCUSSION

The results of the study as indicated by the data in Table No.2 show that, the students are primarily motivated to attend college due to intrinsic motivation to know (89%); followed by extrinsic motivation identified (73.55%); intrinsic motivation to experience stimulation (72.67%); intrinsic motivation towards accomplishment (67.34%); extrinsic motivation of external regulation (63.48%), extrinsic motivation introjected (60.46%); and lastly amotivation (17.72%). According to previous studies we have found that autonomous motivation is of greater quality which is corresponding to the results (Ryan RM, Deci EL, 2000). The results suggest that, 109% of PG's are intrinsically motivated as they are able to learn a lot newer things that they are interested in as they are in their selected in their respective elective. An article published by Ten Cate OT et al on teaching and learning process in medical school concluded that most of the medical students have invested their maximum time and efforts to enter medical school. Medical students are known to be highly motivated from the start of their study. So, this proves the results that, 102% of the 1st years are highly intrinsically motivated (Ten Cate OT, 2011). There has been a study that proves that students who are intrinsically motivated tend to perform much better than students who are extrinsically motivated (Afzal H et al, 2010). Highest amount i.e. 74.28% of external motivation - external regulation is observed in 3rd years, this might be due to, if the student is being externally controlled. Studies have found that to inculcate the feeling of autonomy and relatedness which are the components of SDT leads to intrinsic motivation, mentorship programs during the early years of the medicine school may help in developing those feelings prior hence reducing the increase in extrinsic motivation in the further upcoming years of education, (Ryan RM, Deci EL, 2000) (&) (Ten Cate OT, 2011). The 2nd years were found to be highly a motivated among all the years i.e. 33.34%, so one of the reasons leading to this kind of motivation might be less clinical exposure and more nonclinical subjects in their syllabus, the studies have found that medical students sometimes get a motivated during the 1st and 2nd year of the medical school as they come in less contact with the patients, which tends them to rethink the reason why they pursued this medical career because their main motto was to treat patients, so early patient contact should be integrated in the curriculum by the medical schools in order to reduce the amotivation percentage, (Ten Cate OT, 2011). A study by Orsini C et al also showed the highest number of amotivation in early years of dental school due to late integration of clinical contact with patients, (Orsini C et al, 2015). The highest amount of external motivation- introjected is seen in 1st years

76.25% which indicates that the students are pursuing the career out of some guilt or pleasure, which can be resolved by student-centred education, problem-based learning (PBL), and learning in small groups. A study states that the problem-based learning technique proves to be very effective to create a feeling of autonomy among student as the students formulate their own learning objectives and to choose the source of information. This differs from the traditional learning, in which the students study tremendously hard to acquire the required score in written exams hence an extrinsic factor (Ten Cate OT, 2011).

CONCLUSION

Students are highly motivated to attend college due to intrinsic motivation to know (89%) ; followed by extrinsic motivation identified (73.55%); intrinsic motivation to experience stimulation (72.67%); intrinsic motivation towards accomplishment (67.34%); extrinsic motivation of external regulation (63.48%) , extrinsic motivation introjected (60.46%); and lastly amotivation (17.72%).

Clinical implication

Unmotivated or amotivated students can be troublesome and very demotivating for teachers and other fellow students also, so the teachers should create an environment that supports student to be more autonomous so that the originally externally motivated student also becomes internally motivated. Early identification of the factor causing that, can ensure better academic results. Mentoring of students will help in motivation.

REFERENCES

- Afzal H, Ali I, Aslam Khan M, Hamid K. A study of university students' motivation and its relationship with their academic performance. Available at SSRN 2899435. 2010 Apr1.
- Ahn D, Park G, Baek KJ, Chung SI. Academic motivation, academic stress, and perceptions of academic performance in medical students. Korean Journal of Medical Education. 2007 Mar 31;19(1):59-71.
- Ardeńska A, Tomik R, Berber S, Düz B, Çivak B, Çalışkan U, Ogrodnik J. A comparison of physical education students' motivation using polish and turkish versions of the Academic Motivation Scale. Journal of Human Kinetics. 2016 Dec 1;54(1):207-18.
- Chakraborty R. Dimensional Analysis of Academic Motivation Scale in Indian Secondary School Students. International Journal of Advanced Research in Education &. 2016.
- DiPerna JC, Elliott SN. Development and validation of the academic competence evaluation scales. Journal of Psychoeducational Assessment. 1999 Sep;17(3):207-25.
- Guay F, Ratelle CF, Chanal J. Optimal learning in optimal contexts: The role of self-determination in education. Canadian Psychology/Psychologiecanadienne. 2008 Aug; 49(3):233.
- Guay F, Ratelle CF, Roy A, Litalien D. Academic self-concept, autonomous academic motivation, and academic achievement: Mediating and additive effects. Learning and Individual Differences. 2010 Dec 1;20(6):644-53
- Kusurkar R. Motivation in medical students: a PhD thesis report (Doctoral dissertation, Bohn Stafleu van Loghum) 2012.
- Kusurkar RA, Ten Cate TJ, Vos CM, Westers P, Croiset G. How motivation affects academic performance: a structural equation modelling analysis. Advances in health sciences education. 2013 Mar 1;18(1):57-69.
- Orsini C, Binnie V, Evans P, Ledezma P, Fuentes F, Villegas MJ. Psychometric validation of the academic motivation scale in a dental student sample. Journal of dental

- education. 2015 Aug 1; 79(8):971-81. action perspective. Educational psychologist. 1991 Jun 1; 26(3-4):325-46.
- Ryan RM, Deci EL. Intrinsic and extrinsic motivations: Classic definitions and new directions. Contemporary educational psychology. 2000 Jan 1;25(1):54-67.
- Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American psychologist. 2000 Jan; 55(1):68.
- Sobral DT. What kind of motivation drives medical students' learning quests? Medical education. 2004 Sep;38(9):950-7.
- Ten Cate OT, Kusrkar RA, Williams GC. How self-determination theory can assist our understanding of the teaching and learning processes in medical education. AMEE guide No. 59. Medical teacher. 2011 Dec 1;33(12):961-73.
- Utvær BK, Haugan G. The academic motivation scale: dimensionality, reliability, and construct validity among vocational students. Nordic Journal of Vocational Education and Training. 2016 Nov 8;6(2):17-45.
- Vallerand RJ, Pelletier LG, Blais MR, Briere NM, Senecal C, Vallieres EF. The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. Educational and psychological measurement. 1992 Dec;52(4):1003-17.
- Vallerand RJ, Pelletier LG, Blais MR, Brière NM, Senecal C, Vallières ÉF. On the assessment of intrinsic, extrinsic, and amotivation in education: Evidence on the concurrent and construct validity of the Academic Motivation Scale. Educational and psychological measurement. 1993 Mar;53(1):159-72.
- Vallerand RJ, Pelletier LG, Blais MR, Brière NM, Sénécal CB, Vallières ÉF. Academic motivation scale (ams-c 28) college (cegep) version. Educational and Psychological Measurement. 1993;52(53):1992-3.

Acknowledgement

The authors acknowledge the Principals and students of Physiotherapy colleges who helped in this research by participating.

Conflict of Interest

The author declared no conflict of interest.

How to cite this article: Dalal P., Nagarwala R., Shyam A. K. & Sancheti P. (2020). Evaluation of academic motivation in physiotherapy students. *International Journal of Indian Psychology*, 8(4), 1669-1674. DIP:18.01.181/20200804, DOI:10.25215/0804.181