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Extracurricular activities: a comparative perspective among health colleges in Brazil and Ireland

Atividades extracurriculares: uma perspectiva comparativa entre faculdades de saúde no Brasil e na Irlanda

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ABSTRACT

Introduction: University influences psychosocial and cognitive development of students, shaping their overview about professional career. Extracurricular activities (EAs) represent a complementary training in university context, which can enhance critical and technical skills. **Objective:** Describe the profile of extracurricular activities developed in two different colleges: Universidade do Estado do Pará (UEPA), in northern Brazil, and Waterford Institute of Technology (WIT), in Southeast Ireland, in the period from March to May 2015. **Methods:** This study is characterized as descriptive, cross-sectional, observational, with a sample of 452 academics from 5 courses: Medicine, Physiotherapy and Occupational Therapy in UEPA (n=306) and Health Promotion and Exercise and Health Studies at WIT (n=146). Data collection was conducted through self-administered questionnaires. **Results:** Most of students have performed extracurricular activities (80%), with greater female participation (60%). Students also believe that EAs contribute to their training (87%), and have satisfied their initial motivations (97%). The most performed activities are academic leagues, internships and scientific research in UEPA and extension activities (volunteering) and athletic associations in WIT. **Conclusion:** This study demonstrated that the extracurricular activities most frequently performed by undergraduates from Universidade do Estado do Pará are professional internships, academic leagues and research. However, undergraduates' participation in volunteering and athletic associations predominates in Waterford Institute of Technology. Such divergences reflect social, cultural and economic issues of the respective societies, and may have an impact on professional profile.

Keywords: medical education; area health education centers; medical students; curriculum.

RESUMO

Introdução: A universidade influencia o desenvolvimento psicossocial e cognitivo dos estudantes, moldando sua visão geral acerca da carreira profissional. As atividades extracurriculares (AEs) representam formação complementar no contexto universitário, aprimorando habilidades críticas e técnicas. **Objetivo:** Descrever o perfil das atividades extracurriculares desenvolvidas em duas diferentes universidades: Universidade do Estado do Pará (UEPA), no norte do Brasil, e o Waterford Institute of Technology (WIT), no sudeste da Irlanda, no período de Março a Maio de 2015. **Método:** O estudo caracteriza-se como descritivo, transversal e observacional, com casuística de 452 universitários de 5 cursos: Medicina, Fisioterapia, Terapia Ocupacional na UEPA (n=306), Promoção de Saúde e Estudos de Saúde, Exercício no WIT (n=146). Os dados foram coletados por meio de questionário autoaplicável. **Resultados:** Os resultados mostraram que a maioria dos estudantes desenvolvia atividades extracurriculares (80%), com maior participação feminina (60%). Os estudantes acreditam que as AEs contribuem para sua formação (87%) e tiveram suas motivações iniciais satisfeitas (97%). Entre as atividades mais desenvolvidas estão ligas acadêmicas, estágios e pesquisa científica na UEPA e voluntariado e associações atléticas no WIT. **Conclusão:** Este estudo demonstrou que as atividades extracurriculares mais frequentemente desenvolvidas pelos graduandos da Universidade do Estado do Pará são estágios profissionais, ligas acadêmicas e pesquisa, enquanto entre os graduandos do Waterford Institute of Technology predominam a participação em voluntariado e associações atléticas. Tais divergências refletem questões de ordem social, cultural e econômicas das respectivas sociedades, podendo ter impacto no perfil de profissional formado.

Palavras-chave: educação médica; centros educacionais de áreas de saúde; estudantes de medicina; currículo.

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INTRODUCTION

University influences psychosocial and cognitive development of students, shaping an overview about professional career. Its context consists of activities from formal curriculum, mandatory, and extracurricular activities, not mandatory, which provides contact with new values, beliefs, questions and experiences. Extracurricular activities can influence directly student's growth, providing a broader training, which can enhance their professional qualification[1-3].

There are different types of extracurricular activities (EAs), contributing in distinct ways to the training of students. According to Peres *et al.*[4], EAs are organized in five key fields: knowledge and academic skills; practical competence; interpersonal skills; and humanitarianism.

Once students develop interest in a certain activity, they become more motivated to study subjects related to this matter, and acquire more knowledge and practical skills in that field. Through autonomy and active participation, students can experience authentic learning by applying their own ideas, making their learning more productive and rewarding[5,6]. Moreover, these activities may establish a commitment to undergraduate course, making students become less likely to drop out college and have higher chances of satisfaction with their experiences at university[7].

Social integration is another contribution of extracurricular activities, the feeling of belonging to a group can provide motivation and help in adapting to academic routine[8]. In this regard, EAs can also contribute to counter academic stressful factors and improve physical and mental health, in that during free time students can engage in activities not directly related to graduation, such as sports and foreign language learning, bringing fullness and personal satisfaction[6].

The motivations for carrying out these activities are presented in distinct forms, such as improved *curriculum vitae*, academic needs, interaction with colleagues, financial gain, among others[4]. These interests are strongly influenced and shaped by different factors such as institutional culture, personal and professional characteristics of professors, and facilities on campus, which determine what activities, will be available[9].

Although extracurricular activities may improve student satisfaction and contribute to their learning, if not properly balanced, these activities can burden academic routine, reducing time for other essential activities such as mealtimes and free time on weekends. In addition, excessive dedication to extracurricular activities may overlap class schedules resulting in negative consequences[10].

According to Nicolescu[11], through 'comparative management' it is possible to identify and analyze similarities and differences in order to facilitate the exchange of experiences and procedures, increasing the effectiveness and efficiency of organizations. In this regard, internationalization of higher education presents the possibility of integration amongst universities in different countries, in order to promote scientific, technological and cultural cooperation, as well as mobility of professors and students at undergraduate and postgraduate levels. This way, through experiences exchange, it would be possible to improve universities adaptation to globalization demands and challenges[12].

Despite the vast literature on extracurricular activities and the importance of internationalization on university, there is a lack of studies analyzing and comparing universities in different countries. Therefore, this study aimed to describe the profile of extracurricular activities comparing two different contexts: a university in northern Brazil (Universidade do Estado do Pará), and a university in Southeast Ireland (Waterford Institute of Technology).

METHODS

Context and institutions

Universidade do Estado do Pará is a large public university in Northern Brazil, with over 16.000 students in 31 undergraduate courses[13]. The Center of Health and Biological Sciences (*campus* II) consists of three undergraduate courses: Medicine, Physiotherapy and Occupational Therapy. This *campus* is composed by four blocks of classrooms, laboratories, outpatient clinics, auditorium, health center, library, gymnasium and restaurants. Waterford Institute of Technology is a public university in Southeast Ireland, with over 10,000 students and 1,000 staff[14]. WIT carries out its activities in four different campus: Cork Road Campus, College Street, Granary and Applied Technology Building, the first being the main one, where most of courses are concentrated. Cork Road Campus consists of 5 buildings of classrooms, auditoriums and laboratories, library building and gymnasium. The Department of Sport and Exercise Science consists of two undergraduate courses: Health Promotion and Exercise and Health Studies.

Study design and participants

This cross-sectional study was conducted from March to May 2015. Students from Universidade do Estado do Pará (306 students) and Waterford Institute of Technology (146 students) were invited to participate, for a sample size of 452 students. Sample consisted of 175 male participants and 277 female participants, and median age was 21 years (range 19 – 23). Participants were recruited according to this distribution: 186 participants from Medicine, 60 from Physiotherapy, 60 from Occupational Therapy, at Universidade do Estado do Pará (UEPA); and 101 participants from Exercise and Health Studies and 45 from Health Promotion at Waterford Institute of Technology (WIT).

Extracurricular activities

A self-administered questionnaire was developed by the authors based on previous studies[6,10,15,16]. In order to adapt the questionnaire to cultural contexts of each university and country, the instrument was evaluated by researchers from both institutions to reduce intercultural bias.

The questionnaire consisted of 16 multiple-choice questions about students' demography such as course period, gender, age (4 questions); and about types of extracurricular activities students participated, motivations, difficulties and damages as well as the incentives provided by institutions (12 questions). The types of extracurricular activities included were: peer support, professional internship, societies (social clubs), research projects (paid or voluntary), volunteering activity, student representation, language course and sport clubs. The questionnaires were applied during class intervals, and then sealed in envelopes, which were kept by the author, in order to maintain confidentiality of the information provided.

Ethical aspects

Ethical approval was obtained from Research Ethics Committee of Universidade do Estado do Pará (CAAE: 41598814.1.0000.5174), as well as, from Direction of Health and Biological Sciences Center of Universidade do Estado do Pará and International Office of Waterford Institute of Technology. Questionnaires were applied during class breaks, after a brief explanation about the research and application of Informed Consent Term.

Data analysis

The statistical analysis was performed using IBM software Statistical Package for Social Sciences (SPSS ®, Chicago, IL, USA) 20.0. Quantitative variables were represented by mean and standard deviations when their distributions were normal and interquartile ranges and medians when not normal. Normality parameters were defined by graphical analysis and Shapiro-Wilk test[17]. Categorical variables were represented by frequencies and percentages. In univariate inferential analysis between groups, categorical variables were compared using the chi-square test.

RESULTS

Regarding student participation in extracurricular activities (EAs), we observed that 78.1% of WIT students affirmed to carry out EAs; in Universidade do Estado do Pará (UEPA) 81.4% of students performed EAs. Participation was different amongst courses: 77% in Exercise and Health Science and 80% in Health Promotion, both in WIT, and 85.5% in Medicine, 68.3% in Physiotherapy and 81% in Therapy Occupational, both in UEPA. Female participation predominates in both institutions, reaching 60%.

Extracurricular activities occur in different settings, depending on the university attended. In UEPA, 50.7% of EA are performed on campus. In WIT, 60.3% of AE were developed outside the institution's infrastructure.

In Brazilian university, there is a greater participation in academic leagues (52%), internship (51.3%) and research (51.3%). However, in Irish university the most frequently reported activities were sport clubs (65.8%), volunteering (28.9%) and research (20%). When analyzing EAs by gender, male participation is greater in professional internship (42.9%), student representation (15%) and sport clubs (42.1%). In other activities, participation by gender is similar.

Performing extracurricular activities can be difficult for several reasons. Brazilian students reported 'availability of time' (64%) and 'lack of study time for tests' (33.1%) as the most important obstacles. As for Irish students, almost half (46.1%) reported 'lack of study time', but about one-third reported that they had 'no difficulty' (30.7%).

Students from both colleges reported that they suffered from lack of leisure time and rest (28%). The vast majority of students, 96.5% in WIT and 98.5% in UEPA, affirm to believe that these activities are relevant and contribute to their professional training (Table 1).

DISCUSSION

University should provide different forms of activities, both curricular and / or extracurricular, which can enhance intellectual and social development of students. In this perspective, extracurricular experiences can affect formation and construction of professional identity of these students[1,7,18].

Table 1: Summary responses and demographics (N = 452)

Variable	
University	
WIT (Ireland)	146
UEPA (Brazil)	306
Course*	
Health Promotion	45
Exercise and Health Studies	101
Medicine	186
Physiotherapy	60
Occupational Therapy	60
Academic Year	
1st	93
2nd	94
3rd	90
4th	91
5th	54
6th	30
Gender	
Male	175
Female	277
Age	
Median (quartiles)	21 (19 – 23)
Participants in EA	
WIT (Ireland)	114
UEPA (Brazil)	249
Non-participants	
WIT (Ireland)	32
UEPA (Brazil)	57
Number of extracurricular acitivities	
Median (quartiles)	1 (1 - 2)

*Exercise and Health Studies and Health Promotion are four-year courses. Physiotherapy and Occupational Therapy are five-year courses. Medicine is six-year course.

Data showed a large predominance of academics who participated in extracurricular activities, about 80%, in both institutions. This is similar to a study by Tavares *et al.*[19] with medical students from the Universidade Federal de Minas Gerais, where 82.5% participation was found. Similarly, it resembles a study conducted by Roulin and Bangerter[20], with students from a Swiss university, which showed that 80.2% of these were involved in this type of activity. However, it diverges from other surveys, which found higher percentages[9,15,16,21]. These findings show that health professional training program students' participation in extracurricular activities surpass those pre-established by the universities, evidencing their autonomy and proactivity, important issues for future professionals.

As for the average number of activities performed by the students, Universidade do Estado do Pará presented a higher average (2 actives/student), agreeing with the findings of Roulin and Bangerter[20], who observed predominance of students performing 2 extracurricular activities. However, they differ from the studies of Foreman and Retallick[21], at Iowa State University (USA), which identified an average activity of 3.41 ativ. /student.

As regards to levels of EA performance in different courses, a greater participation among medical students (85.5%) was identified, which suggests a greater demand from these students. Such findings reflect the pressure from medical internship contests, which in many cases consider the curriculum constructed by students to assign higher scores during candidates' classification process. This process generates a great level of competition among students, since there is a large of doctors aspiring for medical internship however, fewer opportunities offered in such competitions[16].

Activities profile

Profile of extracurricular activities differs substantially amongst universities. In Universidade do Estado do Pará, three main activities were observed: professional internship (51.3%), research (51.3%) and academic leagues (52%), whereas in Waterford Institute of Technology the preponderance of sport clubs (65.8%), volunteering (28.9%) and research (20%).

Thus, a greater concern of Brazilians with scientific research and practical contact is presented as a demand quite requested by the students, as suggested by Taquette[22]. From another perspective, Irish university presents sport clubs as the main activity of academics, agreeing with other studies[23,24]. The search for leisure and socialization may be a possible explanation for these findings, since those are important factors influencing students' mental health and their integration with the university environment.

Another condition pointed out by Hu[25], which serves as an explanation for low participation amongst Irish students, is the disadvantage of undergraduates in relation to postgraduates when attempting to enter into research projects. Undergraduate students have more knowledge, experience in scientific work and skills, thus favoring their admission.

Extracurricular internships appear expressively in Brazilian university, about half of students practice this modality, with similar values between the courses. According to Tavares *et al.*[9], professional practice is considered fundamental by undergraduate students, and if not offered by schools through formal curriculum, is sought in extracurricular internships.

Interest in extracurricular activities also arises as a need to assume greater responsibility for professional career. Students perceive that important contents for proper professional training cannot be learned in the classroom, leading to seek for such knowledge in other ways[26].

According to profile verified in different course periods, sports activities show a higher prevalence amongst students in the initial years, reaching results around 40%. However, during graduation, it is noticed that students tend to diversify their activities, highlighting the greater participation of undergraduates in recent years in research, professional internships, volunteering and language courses. In an analysis of advanced series, Peres *et al.*[4] agrees with results obtained, demonstrating a greater diversification of extracurricular activities, emphasizing the increase in participation in research and monitoring activities (Figure 1).

Motivations, difficulties and losses

Motivations for interest in extracurricular activities differ significantly when comparing universities. Irish students present reasons directed to personal aspects such as self-realization and

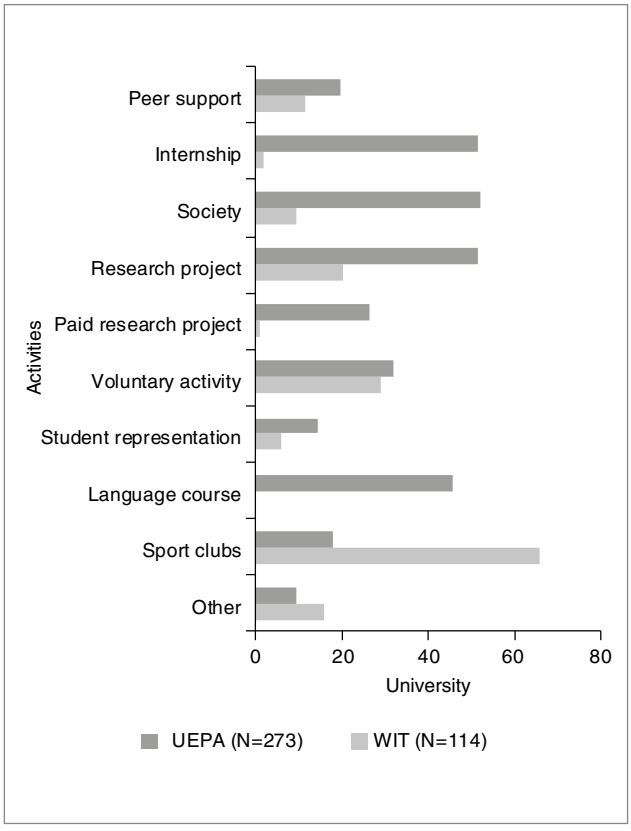

Figure 1: Profile of extracurricular activities performed by health students.

performance improvement, whereas Brazilian students have emphasized professional aspects such as curriculum improvement, acquisition of skills and theoretical knowledge. Improving curriculum and practice, as prevalent reasons, demonstrate a great concern of UEPA students with their insertion in the labor market, whether through internship, post-graduation or entering into professional practice.

A probable explanation for these findings can be related to economic conjuncture of both countries. Ireland is a developed European country, which society values quality of life and health promotion. On the other hand, Brazil is a developing country, with recurrent cycles of economic growth and recession in last decades, producing a highly competitive labor market, which demands professionals well trained and "perfect" resumes. Roulin and Bangerter[20] suggest that students respond to labor market pressures by engaging in activities that recruiters value, thus, employability factors ultimately indirectly influence student activities.

Furthermore, complementary curriculum of Brazilian undergraduate students aims to contemplate the prerequisites for postgraduate admission, which can jeopardize their personal choices or even the pedagogical proposal of their educational institution[27].

In another context, WIT students' motivations demonstrated search for self-realization, inferring that these students can dedicate themselves to personal aspects, which indicates a probable lower pressure from job market. What is not yet clear is origin of this phenomenon, whether for cultural, economic, social, or all these aspects of Irish conjuncture (Table 2).

Concerning to obstacles faced by students when performing extracurricular activities, students from Universidade do Estado do Pará mention important issues, such as lack of contacts and opportunities, shortage of time and few places to work. The last factor was the most prominent reason, pointed out by more than half of the students. These findings are similar to other studies[16,28], which also indicate time availability, lack of professional contacts and shortage of places to work amongst the main difficulties encountered by students.

The sense of lack of contacts and opportunities reflects a highly competitive environment amongst Brazilian students, as emphasized. The competition for curriculum enhancement promotes increased demand for these activities, and consequently, a lack of vacancies. The integration amongst formal curriculum, offered by university, and 'informal curriculum', proposed by students through extracurricular activities, represents another difficulty to students' performance in these activities.

At Waterford Institute of Technology, students report lack of time to study for exams due to their extracurricular activities, reducing performance in evaluations, as an important disadvantage, agreeing with Carvalho *et al.*[15] that emphasizes the multiplication of activities as a harmful factor to academic performance.

In this context, higher levels of academic involvement with parallel activities may decrease the available time and other resources of students to invest in curricular activities[29]. According to Tavares *et al.*[9], this circumstance contributes to the loss of academic activities, through absences from university classes or an unwillingness to fulfill academic duties, however, absence to classes was not reported by large numbers students in this research.

Despite the difficulties and possible damages of extracurricular activities, students' perception about the relevance of these activities to their professional formation is positive and resembles in both university contexts, agreeing with findings of other authors[16,30] (Figure 2 and Table 3).

In conclusion, EAs can represent a positive influence on student's professional formation, improving academic confidence, analytical and critical skills, as well as it can contribute to faculty interaction, social capital and their sense of well-being at universities. However, management of commitments, study skills, and priorities are essential aspects to their academic outcome[24,28,31,32].

This study presented the characteristics of extracurricular activities as: a high level of students, mainly female participation, high index of positive perception about its relevance, broad spectrum that increases as academic advancement and differences amongst the researched institutions. It is observed that Universidade do Estado do Pará presents a greater participation of students in internship activities, academic leagues and scientific research, whilst Waterford Institute of Technology presents high participation in

Table 2: Motivations reported by health academics for extracurricular activities

Motivations	WIT (N = 146)	UEPA (N = 273)	P value*
Improve curriculum vitae	46 (40,4)	212 (77,1)	< 0,001
Improve skills	45 (39,5)	161 (58,5)	0,001
Theorical knowledge	35 (30,7)	135 (49,1)	0,001
Contact with interest field	25 (21,9)	118 (42,9)	< 0,001
Meet university needs	18 (15,8)	89 (32,4)	0,001
Personal satisfaction	51 (44,7)	110 (40,0)	*0,388*
Improve personal perfomance	61 (53,5)	51 (18,5)	< 0,001
Remuneration	2 (1,8)	47 (17,2)	< 0,001
Other	4 (3,5)	4 (1,5)	*0,683*

Data presented as n (%). *Chi-square test.

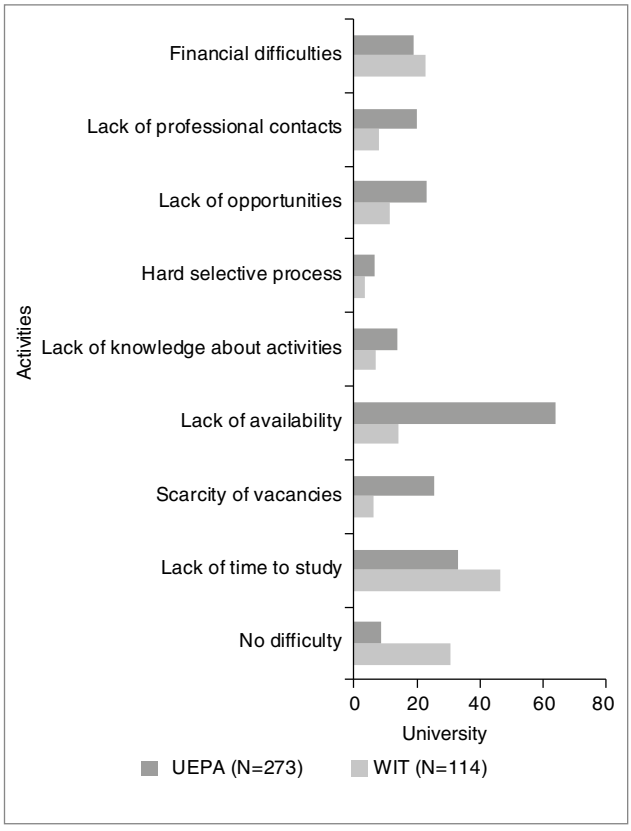

Figure 2: Difficulties to perform extracurricular activities reported by health students.

volunteering activities and sport clubs. The influence on vocational training can be considered positive, given that, even with the variety of difficulties pointed out, most of undergraduates refer satisfaction of the initial motivations and believe in EAs contributions to their training.

The divergences found amongst extracurricular activities most frequently performed by the students of Universidade do Estado do Pará and Waterford institute of Technology also reflect social, cultural and economic issues of their respective societies and may have repercussions on the profile of trained professionals.

There are limitations in this study. The differences amongst national contexts which the universities are inserted may represent a huge influence on these findings. Factors as economy, culture, societies' conceptions, labor market pressure can determine student's perspectives and choices. For this reason, some conclusions about the students' profile cannot be generalized or strictly compared. Despite the questionnaire of this research was based on previous studies about extracurricular activities, the instrument has not yet been validated, which could represent another limitation.

Table 3: Problems related to performance of extracurricular activities

Problems	WIT (N = 146)	UEPA (N = 273)	P value*
No damage	55 (47,8)	60 (45,8)	0,372
Lack of leisure and rest	31 (27,0)	38 (29,0)	0,415
Difficult to practice physical activities	9 (7,8)	34 (26,0)	< 0,001
Relationship with family friends	11 (9,6)	23 (17,6)	0,051
Financial damage	14 (12,2)	10 (7,6)	0,163
Frequency in classes	12 (10,4)	13 (9,9)	0,530
Performance in assessments	15 (13,0)	20 (15,3)	0,377

Data presented as n (%). *Chi-square test.

The non-obligatory character of extracurricular activities does not exempt universities from the commitment to the training of their future professionals, as well as EAs should not override formal curriculum proposed by institutions. The conciliation of both activities is based on the principle of curricular flexibility, which presupposes innovations in pedagogical projects, recognizing extracurricular and curricular activities as relevant in university development.

The role of universities cannot be restricted to training of professionals in a strictly technical perspective. Institutions should develop an integral training to their students, providing well-founded technical and scientific knowledge, but also social awareness, benefiting all society.

These findings can provide important reflections about the factors that improve students' performance and the influence of extracurricular activities in professional qualification. Future research should analyse the relation amongst EAs and student's academic outcomes and EAs in different academic fields and in other countries.

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