

Demotivation among dental students: a qualitative analysis

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ABSTRACT

Demotivation among university students has been associated with unsatisfactory academic performance and inadequate psychological adjustment to university life. There is little evidence on the study of motivation as a dependent variable in dental education. The learning environment plays an important role in fostering motivation, although it is related to the intrinsic and extrinsic motives of each person. The aim of the present study was to evaluate the perception of dental students on factors related to the lack of motivation in the university. Two focal group interviews were carried out with last-year undergraduate dental students from the University of Pernambuco School of Dentistry (Camaragibe Campus/UPE). The discussions were recorded and transcribed to reproduce the participants' perspectives, with subsequent thematic analysis. According to the results, there was a predominance of negative reports, mainly referring to professor's behavior and teaching methodology, as well as to dissatisfaction with the physical structure of the university and to the curricular matrix of the course.

Descriptors: Motivation. Students, dental. Universities.

1 INTRODUCTION

In psychology, motivation is defined as a set of processes that shape one's behavior towards an intention, a determined direction and a form of development inherent to the individual's activity. De-motivation is the

absence of intention to pursue an activity. Extrinsic motivation refers to an activity devoid of a sense of obligation or of as a mean to an end. The regulation of extrinsic motivation can be subdivided into three types, which are arranged based on a continuum of self-determination. The

lowest extrinsic regulation level is that in which students participate to obtain rewards or to avoid punishments. In introjected or intrinsic regulation, individuals begin to internalize the motives of their actions, although their behavior remains regulated by demands or external requirements of the environment to avoid internal conflicts¹.

The learning process can be categorized into three dimensions, namely: cognitive (what to learn), affective or motivational (why to learn), and metacognitive regulation (how to learn). The cognitive component includes reasoning activities related to content retention, e.g. selecting, associating, materializing, and applying information. The affective component deals with the feelings resulting from the learning process, which can be affected positively, neutrally or negatively. Motivation, for instance, is included in this component. Lastly, metacognitive regulation involves guidance, planning, follow-up, testing, diagnosis, adjustment, assessment and reflection on the student's learning behavior. These three dimensions should guide the construction of a learner-centered learning environment². Motivation is considered as a complex issue as well as are the articulations of this phenomenon with the teaching and learning processes. When professors refer to demotivation as a cause of lack of learning, they need to be aware of the complexity of the phenomenon and the lack of theoretical consensus about it³. In addition, the patterns of neural connection between the systems of emotion, motivation, and cognitive processes related to the pursuit of long-term goals undergo a natural and maturational reorganization of refinements during adolescence. In contrast to the rapid and early changes in affective systems – that appear to be linked to pubertal maturation, another set of cognitive and self-control skills seem to develop

during adolescence and continue to consolidate afterwards, characterizing an imbalance between motivational influences and behavioral control systems. Thus, the students' perspectives should be taken into account in curricular discussions and decisions to improve their quality of life and well-being. This could provide them with a global educational experience and positively influence their future career⁴. In recent years, higher education institutions have tried to adapt to the increasingly heterogeneous demand of the university population to promote cognitive, vocational, personal, social and cultural development of their students during the training process. However, besides technological innovation and new teaching methods and educational spaces, there is a need to better know the student within this context. The student's entire academic trajectory should be considered, which is dynamic and includes some specific variables related to the quality of teaching, the curriculum, the relationship with professors and colleagues, the facilities and resources of the university, and the perception on the academic and intellectual environment⁵.

There is a scarcity of studies in the literature addressing motivation as a dependent variable in dental education, suggesting that the learning environment plays an important role in increasing motivation. While some aspects of motivation cannot be modified, one can identify those that are possible to intervene in to build a teaching-learning environment more conducive to motivation. Since motivation is a construct, also called latent trait, it is composed of great subjectivity and fluctuation in time and in different locations. The use of qualitative research has proven effective in the analysis of this phenomenon. Thus, the present phenomenological study aims to describe the perception of undergraduate dental students from the University of Pernambuco/Camaragibe

Campus on demotivation factors related to the academic setting.

2 METHODS

This was a qualitative study with a phenomenological approach. Phenomenology provides a deep understanding of a phenomenon as experienced by several individuals. Theoretically, there is a very important distinction between experience and knowledge for the practice of research. While many individuals can simultaneously have the same experience, the knowledge acquired from this experience is distinguished and variable based on the individual's biography and reflective background⁶. The rationale for the development of this study came from professors' reports and from the findings of a larger quantitative study carried out in different academic cycles at the University of Pernambuco. This previous study indicated high levels of perceived stress in the academic population associated solely with the training demands. Thus, dental students enrolled in the 10th semester of the undergraduate dental training were interviewed in the present study.

The study sampling was intentionally defined by the saturation method. All dental students aged between 20 and 25 years, enrolled in the 10th semester of the course, were included.

The data were collected using the Focal Group technique. The main aspects of this technique consist of the human capacity to form opinions and attitudes during interaction with other individuals.

Initially, a researcher-mediator informed the students of the study purpose. After establishing a *rapport*, the mediator guided the discussion through questions previously elaborated for the script containing topics relevant to the study (Chart 1). The focal group discussion took place in a pleasant and familiar environment, allowing participants to feel free to share their opinions on the matter. It was informed that the duration of the dialogue would be between 60 and 120 minutes. Two focal groups were created, with 8 students each and a 15-day interval in between the two meetings. A total of 16 students were interviewed. Audio recordings were transcribed by the researcher and submitted to thematic analysis.

Chart 1. Focal group guiding questions

- What do you understand by motivation?
- How was this feeling for you during dental school?
- For you, what a motivator professor is like?
- Do you feel motivated for university activities?
- What do you consider a good class to be like?
- What motivates and / or discourages you during clinical activities?

Study participants were not identified and had their names concealed. Those who volunteered to participate in the study signed an Informed Consent Form that was prepared in accordance with Resolution CNS 466/2012. This study project was previously approved by the Research Ethics Committee at the University of Pernambuco/Camaragibe Campus, under protocol CAAE 47993215.2.0000.5207.

3 RESULTS AND DISCUSSION

Once audio recordings were transcribed, their content was categorized into themes, which will be presented and discussed simultaneously herein. The following themes were addressed: Dissatisfaction with the teaching staff; Frustrated personal motivation; Disapproval of the current curricular matrix; Dissatisfaction and demotivation during the course; Precariousness of the physical structure of the university; Desire for a modern and innovative classroom model; and Feeling lack of autonomy. The results of the present study pointed out the major problems related to (de)motivation throughout the undergraduate dental training. According to the reports, being a graduate student, in many moments, seems to correspond to an arduous, suffering and demanding journey. While it is critical to be motivated to take on this journey, the interviewees presented a high degree of demotivation.

Dissatisfaction with the teaching staff

"There are professors who don't have motivation to teach..."

"Just a few professors would [...], I wouldn't say force... but encourage you "go, do it! This way, that way..."

"There are professors who are there just to be hangmen..."

"[...] Because there are professors who come in and just start screaming, saying

dirty words..."

These findings pointed out some degree of student dissatisfaction with part of the teaching staff. They further noted that many professors still use outdated and even incoherent teaching methods, are too rigorous, do not seem to be aware of the students' limitations, as well as seem to be unmotivated with their teaching life. According to Cerasoli⁷, the more intrinsically motivated a student is, the more likely he or she will demonstrate commitment to study at any point in time, suggesting that educators should increase student participation and involvement by cultivating intrinsic rather than extrinsic motivation.

Frustrated personal motivation

"The role of professors in professional motivation is very important, because for many they are the first professionals in that area that you will have contact with. There is a lot of people who don't have someone in their family who is a professional in this area to give that support and [...] then to many people it's the first contact."

"Sometimes they are not professors from within the university, but preceptors, professionals who, for some reason, are not satisfied with the profession. This discourages someone who is trying to pursue the goal..."

It should also be noted that extrinsic motivation (transmitted by professors or others) exerts a strong influence on the students' academic performance, as well as on the choice of the specialty to follow. Motivated professors serve as a mirror to encourage and drive their students towards the best path to choose from.

Disapproval of the current curricular matrix

"Surgery... we hardly did it during dental school; endodontics... we hardly did it [...] I

never extracted a tooth while at dental school!"

"Out of my whole undergraduate training, I performed tooth extraction just in the last semester. I did not do any root canal treatment at dental school; I am taking an endodontic training now because I felt very [...] insecure. I did not know how to do it!"

Significant complaints about the curricular matrix of the course were reported, particularly concerning disorganization of the university. The students further reported that their clinical learning was significantly affected due to lack of basic resources, inefficiency of maintenance and replacement of damaged equipment, divergence of clinical conducts among professors, as well as inappropriate screening and distribution of patients at the undergraduate dental clinics. Another topic of discussion was the fact that not all students were able to perform basic and equivalent clinical procedures required for the training of a dentist. This may be a consequence of the changes in the curricular matrix. According to the students, demotivation results from the lack of decent conditions to perform learning procedures as compared to the great physical and financial effort that is required from the students. Almeida⁸ points out that the student needs encouragement to experience the opportunities provided by the higher education institution to undergo a thorough training and thereby feel prepared to exercise their profession.

Dissatisfaction and discouragement during undergraduate dental training

"At first, that expectation, and then..."

"For me, I think it varied from the beginning to the end (the motivation). There were people, there were many things that motivated me at the beginning but discouraged me in the same way; as well as in the end there are still things that motivate me a lot and things that discourage me."

"I was anxious to see what it would be like ..."

"But at the eighth, I wouldn't say eighth, but at the ninth, tenth ... even at THE TENTH (semester) I still don't have it [...] [motivation]"

The motivation seems to suffer a decline over time, possibly related to expectations not being reached throughout the undergraduate dental training.

Precariousness of university installations

"Sometimes you leave Wednesday, come back Friday and the thing is still broken; then Wednesday of the following week, it remains broken."

"Sometimes you come ... the saliva ejector does not work, the dental handpiece does not work, this or that does not work."

"They're not using technology in college yet."

The precariousness of public institutions may reflect the crisis in the State. Without enough resources, there is no possibility of maintaining dental school services: from house cleaning to the students' needs, there is a whole interdependent system involved.

Desire for a modern and innovative classroom model

"We see a slide that contains a text, just text, we are already falling asleep, you know?"

"I think we feel a lot more motivated when it has a dynamic, an exchange with the professor, when the professor shows that he is really interested in the student's learning ..."

"That same thing, that same routine, nothing different, nothing motivates you to go again the other day, you understand me?"

It is necessary to discuss the didactical aspects applicable to the teaching-learning process in higher

education. There is a need to redefine teaching models, since the traditional teaching methods often fail to meet the specificities of contemporaneity. It is not about a student in general, but a student living in a certain society who is part of specific social groups and cultures, circumstances which may interfere in their learning capacity.

Feeling lack of autonomy

"So, if you want to change something that the university system does not agree with, you're not going to change it!"

"When I think like that, a lot of what has discouraged me has to do with ... how many times we get judged like that, and we have no right to answer." [Feeling misunderstood]

The undergraduate students demonstrated in their reports a feeling of revolt at not having their requests considered. They reported that they unsuccessfully tried to change something in order to improve the student community, to foster innovation, which could motivate them. According to the reports, there was great difficulty in exercising their rights within the university.

The effectiveness of educational interventions based on the current university model is questioned. It is essential to address this issue to improve the motivational efficiency of learning environments and adjust them to different individuals. It is not the learning situation *per se* that is crucial, rather its meaning for the student. Higher education institutions should be able to identify the students' needs and plan solutions accordingly. If the issue is related to high failure rates or poor performance, there should be a good support system providing counseling so that students can find help and feel satisfied. Three subscales of the learning environment are significantly associated with the student's performance, namely: significant learning environment, emotional condition and student-student interaction⁹.

Changes in the educational environment and early detection of the students' characteristics can reinforce self-determined forms of motivation. In addition, they can positively influence how the students process information and their emotions and how they address their learning activities. Ultimately, these actions may contribute to the fundamental purpose of health education, which is the improvement of clinical practice, patient care and patient outcomes. While there is current evidence demonstrating how motivation is directly influenced by different determinants, there is no information available about the effect of mediating variables. The way how determinants affect the student's basic psychological needs – instead of producing the original intended effect – has a strong impact on one's motivation. The motivation of undergraduate students has been a topic of growing interest among educators and researchers who propose instructional models to create highly encouraging learning environments¹.

Intrinsically motivated students are more likely to be involved in deep-level study strategies coupled with improved conceptual learning, creativity, cognitive flexibility, improved self-esteem, and psychological well-being. On the other hand, lack of motivation has been associated with poor competence, poor well-being, and inadequate psychological adjustment to university life. Understanding the students' profiles and motivation is relevant in dental education¹⁰.

The complaints discussed herein by last-year undergraduate students are pertinent and require full attention. According to Santos¹¹, evaluating the motivation in each person is knowing how to understand and perceive the needs of that human being individually and subjectively. Taken altogether, the findings described herein point out the need for further research on the subject and the use of new approaches for data collection^{12,13}. Students should be followed-up since the very beginning of the course, with a focus on their

academic trajectory. Future studies should also address the motivation-related factors among professors. This study was carried out with a specific group of students, where each one could present their perception about (de)motivation within the university. Opinions and experiences are individual and subjective; therefore, these same findings may not be applicable to another group of university students. There should be an effort to help students cope with the issues encountered while under undergraduate training¹⁴. Moreover, student-centered teaching strategies are encouraged to provide support to the students, whom consist of a fundamental party and reason for the university to exist.

4 CONCLUSION

Most of the study participants were found to be unmotivated to meet their academic requirements. There was a predominance of negative reports, mainly referring to professors' behavior and teaching methodology, as well as to dissatisfaction with the physical structure of the university and to the curricular matrix of the course.

RESUMO

Desmotivação entre estudantes de Odontologia: uma análise qualitativa

A desmotivação na universidade tem sido associada ao desempenho acadêmico insatisfatório e inadequado ajuste psicológico à vida no contexto universitário. As pesquisas sobre motivação como uma variável dependente na educação em odontologia são escassas, e sugerem que o ambiente de aprendizagem desempenha um importante papel em fomentar a motivação, não obstante esteja relacionada a motivos intrínsecos e extrínsecos de cada pessoa. O objetivo do presente estudo foi avaliar a percepção de estudantes de odontologia sobre os fatores relacionados à falta de motivação na universidade. Foram realizadas duas entrevistas de grupos focais com estudantes concluintes de odontologia da Faculdade de Odontologia de Pernambuco (Campus Camaragibe/UPE). As

discussões foram gravadas e transcritas, reproduzindo as perspectivas dos participantes, com posterior análise temática. De acordo com os resultados, houve preponderância de relatos negativos, principalmente referentes ao comportamento e ao método de ensino adotado por alguns professores, insatisfação com a estrutura física e com a matriz curricular do curso.

Descritores: Motivação. Estudantes de Odontologia. Universidade.

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