

## DROPOUT FACTORS IN HIGHER EDUCATION: A LITERATURE REVIEW

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### Dropout Factors in Higher Education: A Literature Review

#### ABSTRACT

Dropping out of Higher Education is an international concern with an impact on Higher Education Institutions, in general, and on individual career paths, in particular. In order to prevent this phenomenon and support both institutions and students in their decision-making, it is urgent to identify evasion factors in higher education. A review made in published articles in international scientific journals between January 2014 and December 2018 is presented, based on the Longitudinal Institutional Evasion Model. The search was carried out in four databases, with combinations of the keywords dropout, departure, academic adjustment, college adjustment, academic integration, social integration, and higher education. Twenty-four articles that met the inclusion criteria were fully read. The articles were described and the content was systematized in meta-synthesis. Factors related to attributes prior to entering higher education were identified; objectives and commitments prior and subsequent to this entry; institutional experiences; academic and social integration. Evasion signaling measures were also identified. Implications for research, services and policies of Higher Education Institutions are discussed.

**Keywords:** dropout; higher education; literature review

### Factores de Evasión en la Enseñanza Universitaria: Una Revisión de Literatura

#### RESUMEN

La evasión en lo Enseñanza Universitaria constituye preocupación internacional con impacto en las Instituciones de Enseñanza Universitaria, en general, y en los recorridos de carrera individuales, en específico. Para prevenir ese fenómeno y apoyar tanto instituciones, como estudiantes en su toma de decisión, es urgente identificar factores de evasión en la enseñanza universitaria. Se presenta revisión de artículos publicados en revistas científicas internacionales entre enero 2014 y diciembre 2018, con base en el Modelo Longitudinal de Evasión Institucional. La investigación se realizó en cuatro bases de datos, con combinaciones de las palabras clave *dropout*, *departure*, *academic adjustment*, *college adjustment*, *academic integration*, *social integration* y *higher education*. Se leyeron integralmente 24 artículos que satisfacían criterios de inclusión. Se procedió a la descripción de los artículos y se sistematizó los contenidos en meta-síntesis. Se identificaron factores relativos a atributos previos al ingreso en la enseñanza universitaria; objetivos y compromisos previos y posteriores a esa entrada; experiencias institucionales; integración académica y social. Se identificaron, aún medidas de señalización de evasión. Se discuten implicaciones para la investigación, para servicios y políticas de las Instituciones de Enseñanza Universitaria.

**Palabras clave:** evasión; enseñanza universitaria; revisión de literatura

### Fatores de evasão no ensino superior: uma revisão de literatura

#### RESUMO

A evasão no Ensino Superior constitui preocupação internacional com impacto nas Instituições de Ensino Superior, em geral, e nos percursos de carreira individuais, em específico. Para prevenir esse fenômeno e apoiar tanto instituições como estudantes na sua tomada de decisão, urge identificar fatores de evasão no ensino superior. Apresenta-se revisão de artigos publicados em revistas científicas internacionais entre janeiro 2014 e dezembro 2018, com base no Modelo Longitudinal de Evasão Institucional. A pesquisa foi realizada em quatro bases de dados, com combinações das palavras-chave *dropout*, *departure*, *academic adjustment*, *college adjustment*, *academic integration*, *social integration* e *higher education*. Foram lidos integralmente 24 artigos que satisfaziam critérios de inclusão. Procedeu-se à descrição dos artigos e o conteúdo foi sistematizado em meta-síntese. Identificaram-se fatores relativos a atributos prévios à entrada no ensino superior; objetivos e compromissos prévios e posteriores a essa entrada; experiências institucionais; integração acadêmica e social. Identificaram-se ainda medidas de sinalização de evasão. Discutem-se implicações para a investigação, para serviços e políticas das Instituições de Ensino Superior.

**Palavras-chave:** evasão; ensino superior; revisão de literatura

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## INTRODUCTION

Dropout from higher education constitutes a preoccupation for diverse areas of knowledge, including Psychology and Education. It reverberates internationally, both in the public and private spheres (Ferreira & Fernandes, 2015; Matta, Lebrão, & Heleno, 2017). Such phenomenon constitutes a global preoccupation, due to the crescent social-labor requisites for individual qualification and the elevated competitiveness in education and work environments (Duarte, 2010; Gondim, 2002). The investigation has also raised an issue regarding the impact of higher education dropout in psychological adjustment, in an individual's employability, in the sustainability of higher education institutions, and in the management of community resources (Sosu & Pheunpha, 2019). Thus, there is now the predominance of policies for the reduction of dropout rates in higher education. This is, also, a predicted goal in the 2020 European strategy and in countries such as Portugal, where the prevalent dropout rate among students who enrolled for a degree, with a duration of three years, was 29% (Direção-Geral de Estatísticas da Educação e Ciência, or "General Management of Education and Science Statistics" [DGEEC], 2018).

There are multiple models and definitions of higher education dropout. For example, Spady (1970) relies on institutional data in order to conceive dropout as soon as a student has canceled a registration, even if the same student enrolls in another course and/or institution. Considering this definition, the researcher presents a sociological model that is explanatory of the dropout process, where factors such as intellectual development, academic potential and performance, familiar context (e.g., father's academic qualifications), social support by peers, social integration, satisfaction with experiences, and institutional commitment. On the other hand, Bean (1980) relies on the turnover by collaborators in an organizational context to conceptualize the dropout of students from higher education as an attrition phenomenon. Such attrition can be triggered by factors such as academic performance, routines, and dissatisfaction with the course and/or the higher education institution. These factors are clustered into origin variables (e.g., socio-economic status), organizational variables (e.g., integration), and variables intervenient in the decision to quit higher education (e.g., institutional commitment).

Focusing solely on the reasons presented for dropout from higher education, Cabrera, Bethencourt, Pérez and Afonso (2006) emphasize psychoeducational causes (e.g., academic self-efficacy), evolutive (e.g., the student's personal development), familiar (e.g., parental expectations), economic (e.g., financial commitments), institutional (e.g., interaction with teachers) and social

(e.g., exercise of citizenship).

In turn, Tinto (1975, 1993) presents the Longitudinal Model of Institutional Departure, which allows us to consolidate theoretical and empirical contributions to the topic of dropout from higher education and emphasize the processual nature of student-institution interaction. In the initial conception of this model, Tinto (1975) introduced important distinctions concerning the definition of the concept of dropout, which are crucial to the comprehension of students' behaviors and their interaction with the institution. The first distinction refers to students that temporarily or definitively quit higher education. In this case, Tinto (1975) considers the dropout behavior to be definitive when it remains for two years in a row without any sort of attendance to higher education institutions (Tinto, 1975). The second important distinction is connected to the actor in the dropout decision, that is, there is dropout by the student's own volition and dropout due to institutional dismissal for academic failure (Tinto, 1975). In this realm, the model by Tinto (1975) aims, most importantly, at comprehending the reasons and processes by means of which a student voluntarily decides to drop out of higher education. Nevertheless, in 1993, Tinto better clarified this idea by highlighting four student profiles: the ones that stick to their higher education and complete the curricular programs; the ones that remain in higher education but transfer to another course and/or institution; the ones who are institutionally dismissed as academic sanction; and the ones who voluntarily quit higher education. It is possible to observe, then, that the model by Tinto (1975, 1993, 1982) consists of this last student profile.

With its survey and clarification of different student behaviors concerning dropout, the model by Tinto (1975, 1993), since its introduction to clarification in 1993, was also conducive to four sets of variables that, as time passes by, influence the process of higher education dropout: (a) attributes that preceded the entrance into higher education; (b) goals and commitments that preceded and succeeded the entrance into higher education; (c) institutional experiences referring to the academic system or the social system; (d) social and academic integration. The students' attributes that preceded the entrance into higher education include the family context, individual characteristics, and previous educational experiences (Tinto, 1975, 1993). Issues related to socio-economic level, parents' educational level/academic qualifications, and the area of residence are family context factors that influence the decision to quit or remain in higher education (Tinto, 1975, 1993). On the other hand, gender, race, competences perceived by subjective interpretations of previous results, individual experiences, and personal characteristics related to commitment are individual features that also

influence dropout (Tinto, 1975, 1993). Still concerning previous attributes, past educational experiences represented by the school results before the entrance into higher education and by the characteristics of the attended institutions might reverberate on motivation, on the aspirations, and on the expectations related to higher education and the future, which affects student behavior (Tinto, 1975, 1993).

Previous goals and commitments might be directly related (as in the case of academic intentions, and of personal goals and commitments regarding the institution) or indirectly (which is the case of external commitments, such as having to simultaneously keep a job in order to pay for higher education) with dropout or permanence in higher education (Tinto, 1975, 1993). On the one hand, the educational and/or career plans and expectations that students draw for themselves are connected to the goals and level of individual commitment to the educational plan and the institution (Tinto, 1975, 1993). On the other hand, the life demands that students must provide for in the community outside also affect their behavior, their level of academic engagement, and their plans. For example, being responsible for other people and the difficulty of conciliating diverse roles might contribute to an individual's decision to quit or remain in higher education (Tinto, 1975, 1993).

In turn, institutional experiences occur in academic and social systems, and each system has a formal and an informal component (Tinto, 1975, 1993). Thus, in the formal academic system, experiences of academic performance are considered, whereas in the informal academic system, punctual/momentaneous interactions take place with teachers and other member of staff in the institution (Tinto, 1975, 1993). At the same time, in the formal social system, there are extra-curricular activities such as participation in student associations; in the informal social system, the highlight is on experiences connected to interactions with peers (Tinto, 1975, 1993). When these experiences are positive for each student and permeated by quality and support, they seem to favorably affect the student's academic integration (1975, 1993). Integration takes place both in the academic and in the social level. It depends on formal and informal institutional experiences in each one of the systems. Academic integration might, therefore, be described as a process in which students dive into institutional culture, and are reciprocally committed to share values and increase their feelings of affiliation (Wolf-Wendel, Ward, & Kinzie, 2009). This concept is, sometimes, described in the literature as a component of the students' adaptation to higher education (Casanova, 2018) and as a desirable result that higher education institutions, educational policies, and society must go for (Tinto, 2010).

All these experiences prove crucial for reassessing the plans and expectations that students harbor regarding their training and career, in other words, their institutional intentions, goals, and commitments, as well as their external commitments (Tinto, 1975, 1993). Each group of variables influences the following group in a longitudinal, processual, and dynamic logic. Such interaction must be interpreted not only considering the established relation between students and their higher education institutions, but also taking into consideration other social, economic, and political influences that affect students as well as the higher education institutions (Tinto, 1975, 1993, 2010).

Despite these contributions, the model has been the target of criticisms and Tinto (1982) recognized some of them as legitimate. For example, Tinto (1982) acknowledges the limitations of the model in the analysis of behaviors of course/institutions transfers, in the comprehension of the impact of the financial situations of each student in their decision to quit or remain in higher education, as well as the applicability of the model to specific populations, which is the case of students with special educational needs. Concerning these limitations, we emphasize the need for ethical precautions in the way higher education institutions respond to dropout rates (Tinto, 1982). Thus, the institutions must reinforce their services and their institutional response right after students start to show signs that they are pondering their permanence or dropout in higher education (Tinto, 2010). In order to do so, integrative and constant answers are necessary (Tinto, 1982, 1997), anchored on a humanistic basis and also on supporting, responsive, and proactive institutional and pedagogical relations (Hénard & Roseveare, 2012).

Despite the potential and the limitations of the model by Tinto (1975, 1993, 2010), nowadays, this model is still recognized in the scientific literature on dropout from higher education (Ambiel, 2015; Bernardo et al., 2017; Hjorth et al., 2016; Jenó, Danielsen, & Raaheim, 2018; Sosu & Pheunpha, 2019). Researchers have demonstrated this model as useful to investigate the process, which can serve the purpose of theoretical reference for empirical studies and recommendations for psychological interventions for the operations of higher education institutions, and for sociopolitical decisions. However, there is still a scarcity of structured literature reviews in accordance with this conceptual model and that, subsequently, lead to the identification of variables to be investigated in connection to the theme of higher education dropout.

By recognizing this limitation, this manuscript intends to present a review of the literature published between January 2014 and December 2018 on the factors for definitive voluntary dropout from higher

education, based on the model by Tinto (1975, 1993, 2010). This study might be useful to efforts by higher education institutions towards preventing the dropout of students and better understand their needs, while offering a more integrating vision on a process whose scientific recognition is still fragmented between areas of knowledge. It can also be relevant for sustaining institutional policies and practices, such as interventions on the level of leadership, of the teaching practice, and of Education and School Psychology professionals in higher education (Hénard & Roseveare, 2012; Moura & Facci, 2016).

## METHOD

The literature review was executed by means of referential databases in Psychology and Education with access to full texts, such as *Web of Science*, *Scopus*, *Academic Search Complete*, and *Psychology and Behavioral Sciences Collection*. The research was delimited between January 2014 and December 2018, using combinations of the keywords *dropout or departure*, with keywords *academic adjustment, college adjustment, academic integration, social integration and higher education*. These key words were selected by their designations in the literature on the theme.

The researchers obtained 239 articles, out of which 24 were selected for thorough reading due to the fact that they met the following inclusion criteria: (a) they explicitly present essays and reviews on the literature about higher education dropout; (b) they present results of empirical studies developed with students or former higher education students, conceiving dropout as an interdependent variable in correlational quantitative studies or as result variable in experimental/quasi-experimental quantitative studies; (c) the establish the difference between dropout and a change of courses in higher education; (d) they are published in Portuguese, English, or Spanish.

The selected articles were thoroughly read. The information was characterized in terms of the year of publication, the magazine in which it was published, and the country where it was produced. Information was also systematized in meta-synthesis, by means of the conceptual framework by Tinto (1975, 1993, 2010).

## RESULTS

The years with the greatest number of publications on the theme were 2014 and 2016 (58.3%), while 2015 presented the smallest number of publications (8.3%). The articles were published in 20 magazines, most of them focused on Psychology (Psychotheme) and Education (Quality in Higher Education) (80%), and, less frequently, Health (BMC Public Health), Technologies (International Journal of Intelligent Technologies and Applied Statistics), or of multi-disciplinarian scope (e.g., PLoS ONE). Between 2014 and 2018, the Frontiers in

Psychology, Learning and Individual Differences and PLoS ONE magazines presented two to three publications on the theme, while the other magazines presented only one publication. Spain presented itself as the country with the greatest frequency of published works on the theme ( $n = 4$ ), followed by Brazil with three publications and, finally, the Netherlands and Switzerland, with two publications each. Most of the works were from the European continent (70.8%), with contributions from the Americas and Asia.

Concerning the content of these articles, it was systematized by means of the model by Tinto (1975, 1993, 2010). The following categories are considered: pre-entry attributes; goals and commitments before and after entrance into higher education; institutional experiences; social and academic integration. Considering the existence of empirical contributions not directly compatible with the model by Tinto (1975, 1993), although concerned with the transference of scientific knowledge for psychological intervention and for support measures by higher education institutions and socio-political decisions, one additional category was designated for measures of the signs of higher education dropout (Figure 1).

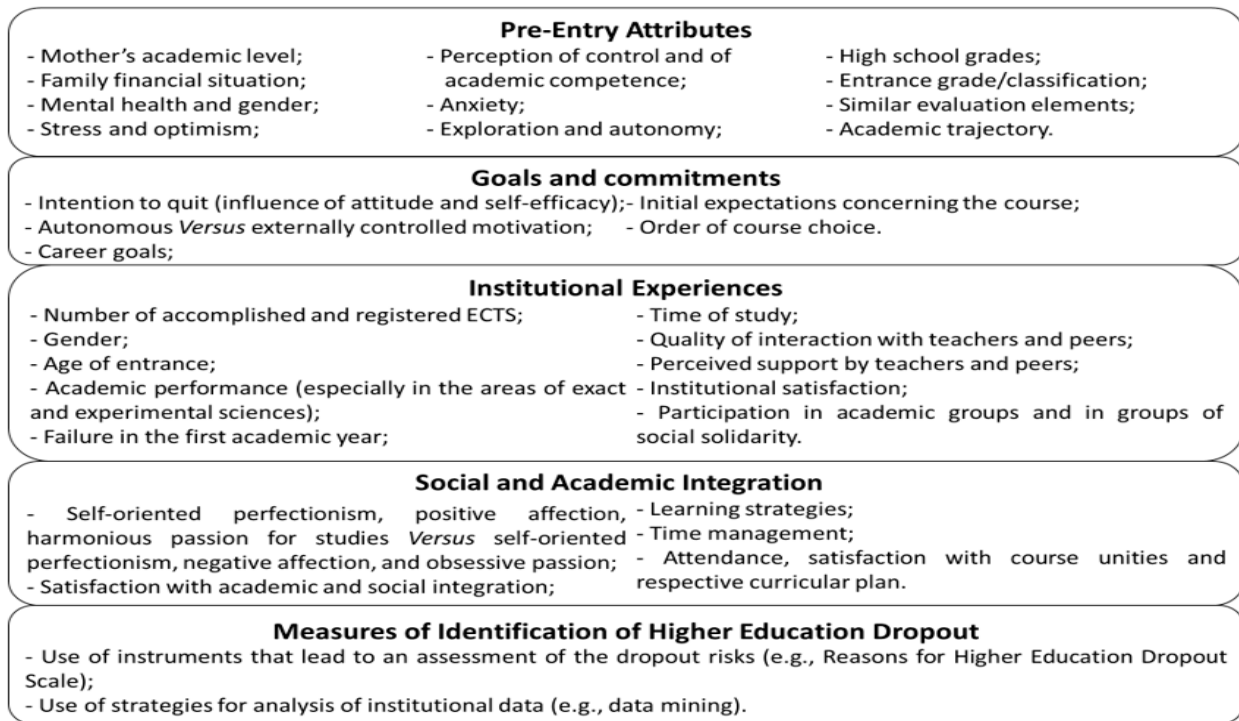
We emphasize that the content of a single article could be framed in more than one category.

### Pre-entry attributes

Out of the reviewed articles, 14 (58.3%) approached attributes from before the entrance into higher education and connected to the family context and to personal characteristics, and previous academic performance. Concerning the family context, the educational level of mothers was consistently reported and must be considered when assessing a student's decision to quit higher education (Casanova, Cervero, Núñez, Almeida, & Bernardo, 2018; García, Gutiérrez, Herrero, Menéndez, & Pérez, 2016). In general, it is consensus that the higher the mother's schooling level, the less likely it will be for a student to quit studying (García et al., 2016). However, when the attended course is not the student's first option, the mother's higher educational level might be a factor that influences a student's decision to quit higher education (Casanova et al., 2018). This probability also increases due to family financial circumstances (García et al., 2016). Thus, there is evidence of greater probability of dropout when the family goes through financial difficulty (García et al., 2016; Hjorth et al., 2016; Rué, 2014) or when students are financially independent and they afford the expenses connected to their studies (Bernardo et al., 2016).

Concerning personal characteristics, it was verified that stress constitutes an explanatory factor in the intentions of dropout from higher education, although optimism might moderate this relation and lessen

**Figure 1.** Higher education Evasion factors identified in the reviewed literature.



such intentions (Eicher, Staerklé, & Clémence, 2014). Researchers also identified mental health problems that preceded or followed the registration into higher education as dropout risk factors (Auerbach et al., 2016), while this preoccupation was greater for men than for women (Hjorth et al., 2016). Anxiety also proved a condition that increases the probability for higher education dropout, while the risk was greater for students who presented less perceived control over academic tasks and the management of life roles (Respondek, Seufert, Stupnisky, & Nett, 2017). In addition, a lower perception of academic competence, greater externally controlled motivation, and lower autonomous motivation constitute explanatory factors for higher education dropout (Jeno et al., 2018). In articulation with dimensions of the career development of the students, the literature suggests that deeper exploration and the perception of control over one's career trajectory are protection factors related to the permanence in higher education. On the other hand, the ruminant exploration, the identity diffusion, and preoccupation with the future are linked to greater probability for dropout during that cycle of studies (Ambiel, 2015; Ambiel, Santos, & Dalbosco, 2016; Meens, Bakx, Klimstra, & Denissen, 2018).

Concerning previous academic performance, the literature is consensual in the identification of lower probability for higher education dropout when there is greater final classification for high school, high entrance grades, and similar elements for assessing high school

and higher education (García et al., 2016; Niessen, Meijer, & Tendeiro, 2016). In this sense, the greater the academic performance, the less likely a student is to quit (Troelson & Laursen, 2014). Although researchers have explored the differences in the probability of dropping out due to entrance into higher education right after high school or with a break between these two cycles, the results are still inconclusive (Bernardo et al., 2016; Gairín et al., 2014).

#### **Goals and commitments before and after entrance into higher education**

Eight (33.3%) articles assessed the contributions by the general intentions of the students regarding higher education, at the moment of entrance and throughout their academic trajectory. The intention to quit higher education is a good predictor of definitive voluntary evasion (Dewberry & Jackson, 2018; Eicher et al., 2014). The greater a student's perception of self-efficacy of students regarding the course they attend, the less likely they are to quit higher education (Dewberry & Jackson, 2018).

Entrance in the first option of course, autonomous motivation, and the perception of coherence between the course and personal career goals emerge as protective factors related to the permanence in higher education (Bernardo et al., 2016; Gairín et al., 2014; García et al., 2016). Contrarily, externally controlled motivation, the unmet initial expectations, and difficulty in the establishment and orientation towards career

goals increase the probability for higher education dropout (Ambiel, 2015; Bernardo et al., 2016; Gairín et al., 2014; Jenó et al., 2018; Meens et al., 2018).

The institutional goals and commitment before and after the entrance of students into higher education were related to the dropout/permanence of students (Chrysikos, Ahmed, & Ward, 2017). That is, the initial institutional commitment seems to directly and indirectly affect later commitment, while the greater the commitment, the lower the probability of dropping out. (Chrysikos et al., 2017).

### **Institutional Experiences**

Twelve articles (50%) identified of academic and social systems, both with formal component, such as the structured educational and social activities and informal, such as the interactions with teachers and peers. Concerning the formal component of the academic system, one of the consensually reported evidences consist of the negative relation between the number of acquired *European Credit Transfer System* (ECTS<sup>1</sup>) and the probability for higher education dropout (García et al., 2016). This relation has proven even stronger for women (Casanova et al., 2018) and for students who entered higher education when they were over the age of 19 (Bernardo et al., 2017). Thus, academic performance has an impact on the decision to stay or quit higher education (Bernardo et al, 2017; Casanova et al., 2018; Gairín et al., 2014; García et al., 2016; Jenó et al., 2018; Lin, 2015; Respondek et al., 2017; Restrepo, Enríquez-Guerrero, & Pérez-Olmos, 2016; Tafreschi & Thiemann, 2016). In this respect, the literature has alerted for the importance of supporting students who attend courses in exact sciences because these courses have a tendency to reveal lower academic performances, and, subsequently, greater probability for dropout (Gairín et al., 2014). Moreover, retention in the first year of course, registration in a greater number of ECTS than what is predicted by academic year and the lesser amount of time invested in studying increase the probability for higher education dropout (García et al., 2016; Restrepo et al., 2016; Tafreschi & Thiemann, 2016). At an informal level, permanence in higher education seems to be positively related with the quality of the pedagogical relation, the perception of support by the teachers and institutional satisfaction (García et al., 2016; Jenó et al., 2018; Massi & Villani, 2015).

Regarding the social system, its formal component has been less approached. Only one of the reviewed articles suggests that the participation in academic

and social solidarity groups, structured while students attend higher education, constitutes a protective factor, associated with lower probability of dropping out (García et al., 2016). In the informal component of the social system, there is evidence that the probability to remain in higher education is greater when there is perceived support by classmates and other collaborators in the institution, academic experiences, and satisfactory interpersonal relations (Ambiel et al., 2016; García et al., 2016; Jenó et al., 2018; Rué, 2014).

### **Social and academic integration**

Variables related to social and academic integration of the students were explored by five (20.8%) articles. Most of the studies focus on academic integration and the results are consensual in pointing at a negative relation with dropout from higher education (Coertjens, Donche, de Maeyer, Vanthournout, & van Petegem, 2017; García et al., 2016; Verner-Fillion & Vallerand, 2016). It was verified that self-oriented perfectionism combined with positive affection and harmonious passion for studies are related to openness, flexibility and academic adjustment, which prevent dropout intention (Verner-Fillion & Vallerand, 2016).

Contrarily, self-oriented perfectionism combined with negative affection and obsessive passion for studies are associated to the perception of performance as an indicator of personal value, to the difficulty in managing life roles and to low academic adjustment, which increases the probability to quit (Verner-Fillion & Vallerand, 2016), as well as difficulties in the adequacy of learning strategies and in time management, as well as low attendance and low satisfaction with the educational plan, the curricular units and the teaching constitute risk factors for higher education dropout (Ambiel, 2015; Coertjens et al., 2017; García et al., 2016). Finally, low satisfaction with academic and social integration is related to definitive voluntary dropout (Troelsen & Laursen, 2014).

### **Measures of identification of higher education dropout**

Two articles (8.3%) attempted to contribute to transfer scientific knowledge to identify students'

risk of dropping out in higher education (8.3%). Ambiel (2015) presented a study of construction and validation of the Reasons for Higher Education Dropout Scale. This scale considers risk factors for higher education dropout and leads to an assessment of institutional, personal, interpersonal and career

motivations, autonomy, social support, and academic performance. In turn, Lin (2015) reported the construction of an alert system of higher education dropout. By means of data mining strategies for

institutional data, it was possible to verify that the system allowed to identify that the frequency of

<sup>1</sup> ECTS é o sistema de créditos de Ensino Superior que foi criado pelos países da União Europeia, de forma a responder às alterações advindas do Processo de Bolonha. Por exemplo, uma licenciatura corresponde a 180 ECTS nos países que implementaram o Bolonha.

doctoral programs without scholarships and personal factors, such as career and academic plans, and low orientation for learning as main causes for dropout. They are tools that will continue to be investigated and will support the identification of students at risk of quitting higher education, who might benefit from psychological interventions and measures for dropout prevention.

## DISCUSSION

This study aimed to review the literature published between 2014 and 2018 about the factors of higher education dropout, based on the conceptual model by Tinto (1975, 1993, 2010). The content of the multiple reviewed studies, even though with few non-consensual results, was systematized in accordance with this model, illustrating its potential to identify reasons that might lead to the decision to quit higher education. Thus, we highlight the necessity to provide answers to the processual and ecological nature of dropping out of higher education and to consider personal and contextual factors, be it in the investigation, be it in the institutional operation, such as services of psychological intervention (Tinto, 2010). Thus, it will be possible to adopt an integrating perspective of higher education dropout, not only for academic performance and outcome indicators, but most importantly focused on the academic and career processes of the students, while privileging individual, institutional, family, social, and cultural characteristics (Casanova et al., 2018; Ferreira & Fernandes, 2015; Sosu & Pheunpha, 2019).

The present review suggests a greater incidence of the literature in the attributes that were previous to the entrance into higher education, while studies at the level of goals and commitments before and after entrance into higher education, and of social/academic integration are still scarce. It is possible to verify that the variables related to academic performance and higher education such as ECTS, to the families' financial situation, and to the establishment of goals are frequently investigated (Ambiel, 2015; Auerbach et al., 2016; Bernardo et al., 2017; Gairín et al., 2014; García et al., 2016; Jenó et al., 2018; Respondek et al., 2017; Rué, 2014). Despite the diverse reviewed contributions, we emphasize the importance of investing on an integrative view of the factors and components in the process of evasion from higher education (Tinto, 1982). Such initiative might take place by means of dynamized studies conducted by multi-disciplinarian investigation teams. This line of research might go on with studies about factors related to social and academic integration and to the goals and commitments before and after entrance, according to the model by Tinto (1975, 1993). Longitudinal studies would also be useful to test the model by Tinto (1975, 1993), while sustaining and expanding its practical utility for higher education institutions (Tinto, 1982, 2010). These studies also allow to meet the processual

nature of dropout from higher education, and to identify variations in the relation between variables and in the weight of the different factors in the explanation of this phenomenon (Sosu & Pheunpha, 2019).

It was also possible to identify advancements in the construction of tools that might support the identification of students at risk of quitting higher education (Ambiel, 2015; Lin, 2015). It is important to invest in validation studies and the consolidation of these tools, so that it is possible to assist systematic practices of psychological assessment in higher education and organizational responsiveness to the students' necessities. Such practices would be useful to detect cases that could benefit organizational measures or of psychological interventions for the prevention of dropout or of support to the decision to keep or quit higher education (Casanova, 2018). In particular, the psychologists in a context of higher education must be attentive to the signs of risk of evasion from studies, while planning psychological interventions that will support the students in their decisions and in their respective implementation, while verifying their efficacy (Tinto, 2010).

At the level of the interventions in the Educational and School Psychology in the context of higher education, they can be direct and indirect intervention, aiming for promotion, for prevention, and for remediation (Auerbach et al., 2016; Bernardo et al., 2017; Hjorth et al., 2016). The direct psychological interventions might be individual or in group, in accordance with the reviewed literature and the necessities of each student, and it might have an effect on the appreciation of previous personal academic trajectories, in the personal meaning attributed to higher education, of emotional self-regulation, in the management of life roles, in the establishment of short-, mid-, and long-term career goals, as well as the drawing of action plans. Beyond direct psychological interventions, Tinto (1975, 1993, 1982, 2010) has highlighted the need to invest on universal institutional interventions, for example, indirect psychological interventions with management and teacher entities, such as consulting. In this context, it would be possible to appeal and engage the educational community in support to the management of students' expectations, while responding to their academic needs by providing feedback, and appreciating the quality of the pedagogical relationship and stimulating institutional engagement.

In this respect, most of the reviewed studies appeal to the need to contextualize the investigation and psychological intervention in the specificities of each higher education institution and its respective population. Thus, it is important to establish national and international recommendations on how to operate to support students at risk of dropping out from

higher education (DGEEC, 2018). In the light of these recommendations, it is necessary that each institution develop their own pedagogical philosophy and policies, and plan measures for handling risk and/or situations of evasion from higher education (Lin, 2015; Rué, 2014; Tinto, 2010). Education and school psychologists might play an essential role in higher education institutions by providing support to the planning of life projects for every student and by providing services compatible with governmental and institutional preoccupations. Therefore, they can contribute to the appropriation of an integrating view on higher education dropout, while respecting both priority socio-political axes and the educational mission of higher education institutions, such as the goals and needs of their target public (Matta et al., 2017; Moura & Facci, 2016).

### FINAL CONSIDERATIONS

In this review, it was possible to verify that higher education dropout is a relevant phenomenon in different continents, which leads to consequences not only to the academic community, but also to the community in general (Gondim, 2012; Sosu & Pheunpha, 2019). To the students, this might be a disruptive moment in their careers and life projects. For the higher education institutions, the students' dropout implies constant reconfiguration of charges, as well as the respective adjustment of necessary financial support to the management of classes, and to economic and socio-political sustainability, such as reflection regarding their educational mission (Tinto, 1997, 2010). Regarding the community in general, the subsidies that the government allocates for higher education such as scholarships, are susceptible to not producing any result in case of evasion from higher education, which might be even more restrictive to the functioning of other areas, including health. In addition, higher education dropout endangers individuals' readiness to face the demands of modern society, which requires higher qualifications, competitive edges, and adaptability (Duarte, 2010; Gondim, 2002). In addition to the impact on the educational community and on society, academic qualification and professional competence represent, mostly, the scientific evolution and the competitiveness of countries. That is the reason why higher education is a phenomenon with an impact not only on the students themselves and higher education institutions, but also on national and international economic growth and sustainable development.

Higher education, due to its capacity to extend its services to the community, assumes a privileged potential to support individual and social development. The literature review presented here leads to the identification of the warning signs to prevent this phenomenon and respond the needs of the students, of higher education institutions, and, finally, of society. By

means of services targeting people, such as psychology services, which operate directly with students and indirectly with political decision makers, managing organs, and teachers in higher education will be able to contribute to the prevention of this phenomenon and promote better social qualification.

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Submitted on: September 15th, 2019.

Approved on: August 03<sup>rd</sup>, 2020

This paper was translated from Portuguese by Régis Lima.