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Persistence and time challenges in an open online university: a case study of the experiences of first-year learners

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Abstract

Student persistence in the first year of studies is a crucial concern in online higher education. Recent accelerated growth in online programs due to the COVID pandemic has increased concerns over higher dropout rates, which are often connected to students' time challenges—time poverty, juggling multiple commitments, and fitting studies into busy lives. However, research seldom focuses on students' perceptions of time issues related to persistence. This study addresses this gap by exploring how 20 second-year students retrospectively viewed their experiences of time challenges and how they impacted their persistence in their first year at an online open university. Content analysis of in-depth interviews demonstrated that time pressure and time-conflicts were crucial barriers for success in the foundational semester; the main barrier was juggling study with multiple priorities. Most persisters had good time management and high levels of intrinsic motivation, satisfaction, and self-determination. However, even procrastinators with heavy work-family duties managed to persevere due to their resilience and personal motivation. Lastly, recommendations and strategies for effective student-based interventions to foster persistence are suggested.

Keywords: Persistence, Time challenges, Retention, Student experience, First year, Online higher education, Open university

Introduction

Time in our contemporary societies has arguably been hugely transformed by the progressive diffusion of internet and communication technologies (Castells, 2000). Computer-mediated interaction and the growth of open online higher education (OHE) have altered the fundamental categories of time, place, and space of learning, creating new time conditions (Kahu et al., 2014). Temporal flexibility offered by OHE appeals principally to the expectations and desires of non-traditional, mature-aged learners with professional and family commitments, who are usually time-poor and represent the vast majority of OHE students. While the ubiquitous promise of studying "anytime, anyplace" marketed by OHE allures these learners, it also increases their individual responsibility and places huge demands on their self-regulation, self-directedness, and notion of the time required by their studies (Hyllegard et al., 2008). Asynchronous online learning

thus presents new challenges, connected to both the desynchronization of study activities and their conciliation with other life commitments, and the intensification of its structure and pacing—which moved time management issues back to learners (Thorpe, 2009).

Such time challenges may have a major impact upon online student persistence, which can be defined as completing a course and continuing to program completion (Hart, 2012). Time represents a structural influence on dropout, persistence, and engagement (Kahu et al., 2014). It is indeed a macro-factor, connected to several important secondary factors: learner preparedness; time management and procrastination (self-regulation); time availability and constraints, linked to learning design but also to student life circumstances such as family, employment, and health issues; and student misconceptions and expectations (Lee & Choi, 2011).

Although online adult learners are more likely to be more independent and self-regulated, they suffer more from external factors such as life commitments than their younger counterparts (Lee et al., 2019). Non-traditional students often face an attrition risk trifecta (George et al., 2021): being mature and studying part-time and in online mode, they often struggle to conciliate four competing demands—study, family, work, and self. The transition to OHE, particularly the first semester, is especially relevant, as dropout occurs mostly during the first year, also affecting traditional students (Sánchez-Gelabert et al., 2020). Hence, supporting and understanding the transition to third-level online education should be an important priority for institutions. However, relatively little research exists that focuses on the temporal dimensions of OHE and its impact on the transition experience and the first year of studies, especially from the student perspective (Veletsianos et al., 2021). Complementing institutional measures of attrition and persistence, it is paramount to give voice to the students' experiences of their learning journeys, which have been less visible to institutions. In the same way that OHE is fundamentally student-centered, so are dropout and retention, for which student and social factors often play a much more crucial role than institutional issues (Myers et al., 2021).

Addressing such gaps, this study aimed at exploring how first-year OHE students experienced and managed their time challenges and how these impacted their persistence.

Literature review

Several theoretical models have addressed a wide range of factors and barriers that impact and may predict OHE retention and dropout (Kara et al., 2019; Lee & Choi, 2011; Xavier & Meneses, 2020). However, over the last two decades some models have focused more on persistence and success. That may reflect a paradigm shift, which is needed in retention research: while the prevailing retention paradigm has been shaped by institutional needs, scientific inquiry should address the students, who seek to *persist* and have their own objectives (Tinto, 2017). Student persistence and success lead to retention, the education institution's goal.

Among such persistence models, the Persistence in Distance Education Model (Powell et al., 1990) distinguishes between predisposing, life change, and institutional factors. The Persistence Model of Non-traditional online learners (Stephen et al., 2020) focuses on the first year of studies and concentrates on specific student factors: self-regulation,

self-direction, and self-efficacy, which are connected to the motivation construct proposed by Tinto (2017) as central to persistence.

Nonetheless, since Kember (1989), retention and dropout models for distance education (e.g., Rovai, 2003) were already following this tendency to de-emphasize social integration components of traditional models and focus instead on factors external to the institution, i.e., student factors: family and employment responsibilities, educational preparedness, and life changes.

All these factors have significant impact upon students' time. Indeed, time-related issues appear to be the primary reasons for students not persisting and dropping out of online courses (Ashby, 2004; Myers et al., 2021). Among such time challenges are time poverty, time pressure, and time-related conflicts, and the need to juggle multiple responsibilities (Lee & Choi, 2011). For adult learners, the main challenge appears to be integrating academic duties with personal and professional life; lack of time and time restraints are the main dropout factor for this cohort (Grau-Valldosera et al., 2018).

Several student factors influence such time challenges. First, OHE places huge demands on student *self-regulation*, as it is largely dependent upon the students' agency, motivation, and skills. Among such skills, *time management* to deal effectively with OHE demands and job and family commitments, and independently plan and self-manage time, is essential for success and persistence (Broadbent & Poon, 2015). On the other hand, *academic procrastination* and poor time management are connected to poor performance and higher dropout rates (Michinov et al., 2011). Many learners begin their studies without previous OHE experience, lacking academic preparedness and familiarity with the OHE model and its demands. Lack of previous experience may appear connected to students' *misconceptions* or unrealistic expectations regarding the workload, time, effort, and discipline required by OHE, and *overestimation* of their own available time, readiness, and capacities (Korstange et al., 2020). Although persistent students may overcome such challenges, they need time to adapt, especially in their first semester. Hence, navigating the first-year transition can be particularly strenuous for online learners (Korstange et al., 2020). When the student's life circumstances change, as in the case of pregnancy, illness, unexpected financial or work changes, they can generate work-studies and family-studies conflicts and severely strain students' time pressure and, consequently, persistence (Lee & Choi, 2011).

Lastly, institutional and program factors also influence time challenges and persistence. Course design (i.e., high assessment load and workload), program difficulty level, poor interaction with instructors, advisors, and peers, and poor institutional support may affect students' time planning and commitment and their intention to persevere in their studies (Kara et al., 2019).

Methods

Context of research

This research was carried out at the Open University of Catalunya (UOC), a fully online university characterized by flexibility of admission, permanence, and enrollment requirements, and the employment of asynchronous delivery, continuous assessment, and student-centered, competency-based pedagogical methods. UOC's typical students (~90%) are adult non-traditional learners. The dropout rate in UOC programs is 57.6%,

with first semester dropouts accounting for nearly half of this total; almost half of the new students drop out in the first year (Sánchez-Gelabert et al., 2020).

Design and participants

This single qualitative case study (Yin, 2003) employed an exploratory cross-sectional design and a descriptive-interpretive approach. A purposive, criterion-based, maximum variation sampling (Patton, 2015) was employed, as our aim was to understand the experiences of students with different profiles, including minorities (e.g., traditional full-time students). Thus, our sample was not designed to be representative of the overall distribution of the student population.

Prospective participants had started their online undergraduate studies in the Fall 2017 semester, without previous enrolments in other UOC programs, and re-enrolled for two consecutive semesters, according to their academic records. Student profiles were generated according to the following criteria:

- age when started OHE: non-traditional ($\geq$ 25 years-old) or traditional students;
- enrollment: full-time (enrolled in more than 18 credits ECTS) or part-time;
- gender: male or female.

That generated eight different profiles; we aimed at selecting two or three students per profile, balancing gender. The research team sent an email to the cohort of 3,448 eligible students inviting them to take part in the study. From this cohort a total of 20 voluntary participants were selected (Table 1). To ensure anonymity, participants were assigned pseudonyms. The UOC granted ethical approval for the study and all participants gave informed consent before taking part in it. A €30 gift voucher was given to each student as economic compensation and incentive to participate.

Data collection

In-depth hour-long semi-structured interviews were conducted (mostly face-to-face; a few via videoconference) at the end of the Fall 2018 semester, employing broad open-ended questions to allow full expression of the students' complex lived experiences. Interviews addressed the students' first year experiences retrospectively, focusing on time-related issues, deducted from the literature explored above: time challenges and how students coped with them, time management, procrastination, time pressure and its effects, and suchlike. Aiming at in-depth breadth of inquiry, questions also explored students' motivations, reasons for choosing OHE, support received, and their experiences in their third semester. The interview protocol is available upon request.

Data analysis

The interviews in Spanish were transcribed verbatim and iteratively analyzed using Schreier's (2016) qualitative content analysis, searching for selected aspects of meaning that were relevant to the research aims. A double coding process was developed to generate the main common themes and codes that arose from the interviews. The first author read all the interviews several times and produced a trial coding, which was then discussed with the second author, revising and expanding the coding scheme with

Table 1 Participants

Profile	Dedication	Participant	Gender	Age (2017.1)	Other commitments	Family responsibilities	Previous HE/OHE experience
Traditional (< 25 y–o)	Part-time	Edgar	M	22	Full time job (FT)	Partner	–
		James	M	21	FT	Partner	On-campus
		Martha	F	19	Studies 2 degrees	–	On-campus
		Becky	F	22	Part time job (PT) 2 degrees	–	On-campus
		Hellen	F	19	3 degrees	–	On-campus
	Full-time	Patrick	M	21	PT (2nd semester)	Partner	On-campus
		Juan	M	20	–	–	–
		Michael	M	20	Casual work	Father care	On-campus
		Paula	F	19	Casual work	–	On-campus
		Sarah	F	19	2 degrees Casual work	–	On-campus
Non-traditional (≥ 25 y–o)	Part-time	Mark	M	25	FT	–	–
		Joe	M	52	FT	Househusband	On-campus
		Bob	M	26	PT	Partner	–
		Jessica	F	29	FT	Partner	On-campus
		Sonia	F	28	FT	Partner	On-campus
	Full-time	Henry	M	27	–	–	–
		Edward	M	25	FT	Partner	On-campus
		Beth	F	51	Casual work	–	On-campus
		Monica	F	31	PT	Partner Sons + Pregnant	On-campus
		Ingrid	F	30	2 degrees Casual work	–	–

refined understandings and insights, until a final coding was generated and agreed upon by the two authors.

Results

This section employs illustrative vignettes to summarize our results in relation to the studies aims. Findings are structured according to the main themes and subthemes developed.

Participants' information

Participants included 20 second-year undergraduate students—50% female, ages ranging from 19 to 52 years ($M = 26.3$, $SD = 9.47$). Most participants (70%) had previous on-campus HE experience; none had prior OHE experience. Noticeably, only three participants in our cohort had very demanding family care commitments. Programs studied by the participants varied considerably; in our cohort, only males (Edgar, James, Mark) were enrolled in programs considered to be very difficult and demanding (Computer Science and Engineering). However, two female participants (Hellen, Sarah) also studied difficult on-campus degrees concomitantly.

Reasons for choosing OHE

The reasons given for choosing OHE are important regarding time and persistence, for they appear connected to expectations, motivation, and life situations. The vast majority (18) of our participants elected OHE because of its *flexibility*, perceived as allowing self-time management and organization, and its easy accessibility, as the UOC is characterized by an open-entry philosophy that is typical of open universities, with very few admission, permanence, and enrollment requirements. "Because it allowed me, first, to be able to organize my time. For me [the reason to choose] was flexibility, the UOC. Total flexibility" (Beth). Many students connected flexibility to the necessity of working at the same time: "To be able to combine it well with my work" (Joe). For some, it was the only way they could engage with tertiary education, for on-campus studies would be impossible for them (for reasons mainly related to time and flexibility). Five students also highlighted open entry: they were not able to access public, on-campus universities, and two mentioned it was because the UOC offered specific programs not available elsewhere.

Transition and first year experience

Time dedication and study load expectations

Students' prior expectations and misconceptions related to time and study load are important issues for transition and the first semester of studies. Significantly, most persisters (seven) projected their studies would demand *more* time and be more difficult than they actually did. "I thought it'd require more time. I guess people associate online and flexible with easy" (Edward). "I thought it'd demand much more work, because online learning depends more on the student" (Becky). Five participants said their expectations were realistic and adequate. Sonia mentioned that academic advising before the first enrollment was crucial for her having adequate expectations: "The first thing they tell you is, how much time can you dedicate [to study]". However, six participants expected their studies would demand *less* or *much less* time and work—a misconception they realized after facing hardships in their first semester. "I thought I'd have to dedicate less hours, because in the beginning I thought, 'well, it's an online university, it'll be easier'. But after the first semester I saw you have to dedicate much more time if you want to do well" (Juan). Other students did not clearly plan their time dedication, but were able to invest more time and work because of their satisfaction and intrinsic motivation: "I hadn't planned a lot either, because I didn't know exactly what I'd have to dedicate… In the end, I was putting in a lot more hours than I'd initially expected. But because I liked [the studies] and they rewarded me, so I dedicated more [time]… because I like to do it well" (Sarah). Beth ascribed her wrong expectation to lack of academic preparedness: "I thought it'd be less time, that dedicating my mornings would be enough. But I hadn't studied for 30 years, so in the beginning you must work full throttle, so the first month was quite hard". Two participants (Bob, Ingrid) had no idea about the time and study load their studies would demand. Noticeably, none of the non-traditional part-time (NTPT) participants—the vast majority of OHE students—expected OHE would demand *more* time and effort from them; two had adequate expectations, two thought it would demand less, and one had no idea.

Transition difficulties and adaptation

Unrealistic expectations and lack of OHE experience contributed to six students experiencing many difficulties in their first semester; they expected that OHE would be easier and less time-consuming. The virtual campus was a novelty often cited as a source of problems: "I had a hard time adapting to the [virtual] campus, because I was used to another [face-to-face] campus. Especially its lack of presence and dialogue (only through the screen)" (Becky); "You don't have anyone to explain things to you in person" (Mark). That places huge demands on student self-regulation: "I was used to the [face-to-face] educational system, they explained and repeated everything to you, and now, you having to take the step to look for everything, inform yourself, look for reliable sources, it's complicated" (Michael). This lack of previous OHE experience led Michael to fail a course. It takes time and effort to adapt to a new learning mode: "At first it was a new experience for me because I hadn't studied anything online, and then I was very nervous, I didn't organize myself well and had many doubts. It was the period of adaptation" (Juan).

However, most (14) participants coped well with such hardships, and for five learners the online system was seen as quite advantageous, provided one succeeded in adapting to it. "In principle the system is very convenient. But in the beginning it's difficult, you must understand the mechanics on your own, know the virtual campus minimally, but once you've got it, it's perfect" (Joe). OHE demands huge personal responsibility, but when the student manages to fulfill that role, it is seen as a source of accomplishment: "At the UOC, when you make the effort, you are making progress, because you do it by yourself. It's your motivation" (Martha). Among the NTPT participants, only Mark mentioned first-semester difficulties (with the asynchronous, non-presential system); the other four adapted well.

Failing courses

Despite often facing many transition difficulties, only three participants failed one course in their first semester; Patrick and Michael failed because they were getting adapted to the educational system and "got lost". Four students failed a course in their second semester, due to varied reasons; for instance, Ingrid had started a job abroad, which limited her time availability. However, most participants did not fail any courses, and eight of them mentioned they received good or excellent grades in all the courses they took.

Time challenges and experiences

Self-regulation: time management and academic procrastination

Most of our persisters mentioned they had very good time management skills. "I always employ the same strategies that work and dedicate a number of hours per day [to my studies]" (Henry). OHE "really takes a lot of time and requires a lot of organization on your part. You cannot leave everything to the last minute. There aren't many secrets. If you organize yourself, you can do it. And time management is one of my strengths" (Beth). Some of them clearly derived satisfaction and motivation to persist from seeing that they were able to manage well their time, studies, and other commitments. "The fact that I'm studying, working, raising two children, and having different activities, makes me feel quite good. My time management strategies work; if they didn't, I

wouldn't continue" (Monica). However, some presented academic *procrastination* in the beginning of the semester: "But as the course advanced, I saw that, damn, I have to get a move on, catch up and structure the work, or I won't make it" (Patrick). Or because of lack of personal motivation: "I used to leave many tasks for the weekend, especially those assignments that I didn't like" (Becky). Five participants said they had good time management but with some procrastination in the beginning due to work commitments, and three improved their skills in their second semester. "Having more work and pressure and motivation to organize myself made me better in my studies and management abilities" (Martha). However, disliking or having no interest in subjects also induced procrastination: "This doesn't attract me at all and then it's harder. Then I postpone doing it until I cannot any longer. Motivation, no doubt" (Ingrid). Only three participants were academic procrastinators—but they managed to pass their courses and persist. "I always start working [on an assignment] very close to the deadline. I've always left everything for last. I end up putting it all together on the last day, and then I stay all day home, working" (Paula).

Self-regulation: time management strategies

Time management strategies were varied and paint a rich picture of how our participants juggled their time. Most learners gave *constant dedication* to their studies: "Two hours per day, constantly, weekends when some assessment activity was due" (Edgar). A few students reported extreme planification and constancy: "Some hours every day. My weekly schedule is, I have a time tracking software and I input every half hour I dedicate to study, then at the weekend I adjust what is needed" (James). Together with constant dedication, some learners also employed the *keeping ahead* strategy: "Mornings I dedicate to the UOC, always trying to be very organized… I prefer to submit an activity a day or week before the deadline, it takes a lot of pressure off me" (Beth). Others were constant in their weekly dedication, but flexible at the same time: "As it provides you such flexibility, maybe one day you dedicate one hour [to studies], another day you dedicate five hours" (Sarah). Beyond rigid constancy, for some self-directedness was key: "During the first year you realize that it doesn't depend so much on fixed hours, but on organizing it as you can. And taking advantage of the moments when you're most productive" (Michael). However, to do that often requires *borrowing time* (from other commitments): "I take time out of leisure, or other [life] tasks" (Juan).

Other students were less constant and more *chaotic* in their time management. Some always tried to *keep ahead*: "I'm quite chaotic to organize myself. I always tried to have it done before [the deadline]" (Becky). "I use the 'do it all ASAP' strategy" (Hellen). Others were indeed chaotic, reporting very inconstant dedication due to unpredictable time schedules and time-availability because of work or family care. Most of them employed the *dovetailing* strategy, weaving study into small time chunks alongside other commitments: "[My time schedule] is completely unpredictable. When I can, I dedicate time. I have no way to plan it. I improvise and juggle all the time. Studies then filled the gaps I had" (Joe). In this case, studies usually are the third priority, and learners struggle to fit them with more important commitments. "I burn the midnight oil if I have to. If my baby is finally asleep, I study half an hour… Willpower is everything. There are priorities, but then I try to compensate [finding time for study]" (Monica). *Procrastinators*, on

the other hand, had a harder time. Some reported a low hourly constancy—a *deadline-driven* time management: "It wasn't a constant organization of my time, I worked when the deadline was very near" (Sonia). Some employed *last-minute cramming*: "I'm a bit chaotic, yeah? But I work a lot under pressure. I never think, 'there's this assessment submission, I'll do it now so I don't have to worry about it'. I try to find gaps, but then time is on me and I submit it just on the deadline" (Bob).

Integration of different commitments

While learners employed diverse time management strategies, juggling different commitments with study load remained a challenge for them—especially for the ones with work/family commitments. However, almost all participants reported they achieved a good conciliation of their studies with other life responsibilities. OHE flexibility helped that: "I think I've balanced [my commitments] well, because of flexibility. That's the best thing the UOC offers you, time flexibility" (Patrick). Yet, striking a good balance had a clear price for some: "Leisure [time], not much left" (James); "You sacrifice your time" (Jessica); "I slept very little" (Edward). Some participants managed to persist and strike a good balance of their studies with their life commitments despite serious challenges: a chaotic, unpredictable work schedule (Joe); severe procrastination (Paula); procrastination due to lack of personal motivation and interest (Ingrid); and stressful, concomitant commitments like work and family care (Monica). Only one NTPT student, Bob, reported poor integration of his life commitments, which he ascribed to procrastination: "I procrastinated, I'm chaotic, but in the second semester I got a top mark [in a course]. I mean, being chaotic doesn't mean you're a bad student".

Time pressure and time conflicts

Roughly, half of the students in each profile experienced a lot of time pressure and conflicts in their first year. Some (Patrick, Juan, Beth) felt time pressure at the end of the semester, when approaching holidays before sitting exams; while other participants (Paula, Jessica, Sonia) experienced time conflicts due to procrastination. However, even when indulging in last-minute cramming, these procrastinators did not feel severe anxiety: "I don't get nervous under pressure. It's when I work best" (Sonia). Other learners had different reasons: more study load in the second semester (Mark), or changes in their work schedule combined with difficult learning design: "I started working mornings, and had to drop out of a course—too many overlapping activities… I didn't have a personal life, and it hurts taking time out of my weekend and of sleep" (Becky). Few others were stressed out because of time conflicts, but self-managed them well: "[I didn't feel] too much time conflict, but it did make me anxious… I always had this issue in my mind, but the distress was not severe enough to make me ill. Such anxiety is associated to a sense of responsibility, but I can cope with the overload" (Monica).

Interestingly, many participants felt time pressure but highlighted that they were used to it and even profited from it: "I work well under pressure. I need it, even. If we don't have this pressure with deadlines approaching, we don't do it as well. I'd rather work under pressure" (Michael). Joe stressed the power of personal motivation stemming from liking course content and degree: "Sometimes I had hundreds of pages to study. In the beginning you say, 'Overwhelming!' But then you begin to study and you like it,

you keep studying and it's like eating popcorn…". Hellen, despite having very good time management skills, had too many overlapping commitments, falling behind in her studies—but managing to continue: "I didn't submit activities, when I had [on-campus] midterms, because I didn't have the time. Managing [this] stress? Well, keep going, like I've always done".

Health and anxiety

Accordingly, most (11) participants did not report health or anxiety issues due to time poverty and conflicts, even whilst managing many concomitant commitments (James); Sonia and Henry said they never felt such issues. However, nine participants reported them. Two felt constant anxiety, but without ill health: "I feel this constant anxiety, 'I must study!', when I don't study as constantly as usual. But I always get things done. It's not excessive" (Monica). Others felt a little distress due to study load and scarce time, or when facing deadlines and overlapping commitments. Noticeably, except for Sonia, all the NTPT learners experienced anxious and stressful periods.

Related factors

Motivations to persist

The vast majority cited more than one source of motivation. Most participants (17) mentioned *personal goal* as their main reason to persist in their studies; among these, seven also mentioned *vocation* or personal interest in the field of studies: "I've always liked Psychology, and I liked the courses. This personal interest was my motivation" (Sonia). Together with these intrinsic motivations, ten participants also mentioned their *professional advancement*: "To get my degree ASAP, so I can work and become independent" (Juan). Only one participant (Joe) said his motivation was *pleasure* and *personal growth*, and Martha mentioned gaining *practical knowledge*. Five participants mentioned *open access*—the *flexibility* of open-entry policy offering the opportunity to study a HE degree.

Satisfaction

Another source of motivation is student satisfaction. Most participants were satisfied (10) or very satisfied (seven) with their OHE studies. Many were thankful for their flexibility: "I'm super happy, you can organize yourself the way you want" (Paula). Many mentioned satisfaction with the OHE system, their academic advisor and instructors, and the results they got. Only three participants were somewhat satisfied, reporting dissatisfaction with bureaucracy (Sarah), degree emphasis (not practical) (Beth), or with the academic advisor and uninteresting courses (Ingrid).

Support received

Most participants mentioned several forms of support in their first year: family, friends, employer encouragement, among others. Nine participants thanked their instructors and academic advisors, and the motivation they gained from their personalized support and attention. "My academic advisor, I love him. Any doubt I have, he's attentive, advises and encourages and supports me. He's key to my persistence" (Jessica). However, two participants criticized the typical "impersonal" treatment they received from faculty:

"My advisor, I don't know how she speaks or looks, she never wrote anything to me in a personal way" (Bob). Peer support was mentioned less often. Only two NTPT students mentioned they had no support; Paula said she had not needed any, and Sarah said she relied completely on her self-determination: "It's difficult to motivate and support you through the computer. But I'm self-motivated and the courses motivate me".

Persistence or withdrawal?

Finally, we asked students whether they had contemplated stopping out or dropping out because of time challenges. Seven participants said they had considered taking a break, for varied reasons—four of them intrinsically related to time challenges: due to time-pressured, stressful moments, and failing a course (Juan, Mark), increased workload and financial issues (Joe), and getting pregnant (Monica). However, their intrinsic motivations and self-determination allowed them to persist. Only Beth contemplated taking a break or even dropping out, but because of her dissatisfaction with the (theoretical) degree emphasis. Interestingly, almost all NTPTs thought about stopping out in their first year. However, most participants (12) said these options had not crossed their minds: "No way!" (James), "Quite the opposite—I want to enroll in more courses" (Michael). "Time is gold—I want to find my limit. The sooner I get the degree, the better" (Bob).

Discussion

Some findings of this study were predictable and expected, as they are supported in prior persistence literature (e.g., Kara et al., 2019). However, results clearly show that even persistent OHE students, including full-time and traditional ones, experienced several time challenges that often heavily affected their learning journeys and desire to persist in their first year. The ways our participants experienced and managed such challenges, embedded in their individual life contexts, varied considerably.

Noticeably, none of our persisters had prior OHE experience, which is quite influential in student success, particularly in the first semester (Greenland & Moore, 2021). Most participants chose OHE because of its flexibility—which makes sense, as most OHE learners tend to be time-poor and have different commitments. For many students, open OHE offers the opportunity to continue education despite the challenges of family, work, and distance (Holder, 2007)—which, however, will remain time-consuming and juggled with OHE responsibilities. Behind such choice is the optimist expectation that OHE will provide time flexibility to study "anywhere, anytime"—a problematic promise that may generate misconceptions (Veletsianos et al., 2021).

Inaccurate expectations regarding study load and time required for study were common, especially among NTPT learners, and represent important factors for first-year dropout (Henry, 2018). Up to 65% of open university students reported they had to study for longer than they expected; for them, time can prove unmanageable (Thorpe, 2009). In our study, most persistent students had accurate expectations, or thought that OHE would be *more* demanding—which made it easier for them to persist. However, several participants expected OHE to be easier and less time-consuming—a common preconception closely linked to open entry (Lee et al., 2019), underestimating workload and time required to balance academic and professional

obligations—which often implies falling behind in courses (Korstange et al., 2020). Students need realistic understandings of the time commitments required to be successful (Veletsianos et al., 2021); accurate expectations facilitate student satisfaction and motivation, especially during the critical first year (Henry, 2018). However, even those participants who fell behind and failed courses managed their situation sufficiently well to persist. For some, intrinsic motivation and satisfaction (liking and learning subjects) strengthened their efforts to succeed and continue, which accords with the literature (Thorpe, 2009).

Participants voiced several transition difficulties, to which they were forced to adapt. Some had difficulties with the virtual environment, which often consumed precious time. Comfortableness with the virtual campus is an important theme related to online persistence (Dews-Farrar, 2018). Many students who had previous on-campus experience made comparisons of asynchronous OHE with face-to-face learning. OHE's absence of physical and temporal co-location with peers and instructors and the need to learn autonomously requires more time and effort, representing an important challenge of self-directed online learning (George et al., 2021). Being used to face-to-face learning and lacking prior OHE experience, learners struggled to adapt to the novelties and requirements of OHE—which takes time. However, with experience, persisters eventually learn know-hows—how to navigate the virtual campus and schedules, and the appropriate strategies to self-regulate their learning (Lee et al., 2019). Most participants managed to do so and then found the online system advantageous, collaborating to their persistence. Nonetheless, some participants did not manage to adapt in their first semester, suffered time conflicts, fell behind and failed courses; falling behind and not being able to catch up is strongly connected to dropout (Greenland & Moore, 2021), but they managed to adapt later and persist.

The time challenges experienced were quite varied, and self-regulated learning (SRL) was deemed crucial to deal with them and persist (Stephen et al., 2020). In the SRL literature, persistence itself is considered a SRL strategy—to persist when confronted with academic challenges is a resource management strategy (Broadbent & Poon, 2015). Unsurprisingly, most participants reported good time study management and self-organization, which are among the SRL strategies with the strongest findings for academic persistence and achievement (Broadbent & Poon, 2015; Holder, 2007). Even learners with a heavy workload tend to persist and succeed, provided they have or *develop* good time management skills to deal effectively with conflictive demands (Hart, 2012)—and this was reported by several participants. Satisfaction and motivation were seen as drivers for such; motivation driving learning maintains use of SRL strategies to persist, even under challenging conditions (Broadbent & Poon, 2015).

Nevertheless, many students reported academic procrastination, sometimes connected to lack of interest and personal motivation. Students tend to procrastinate on tasks they do not like but must be done; flexibility and increased freedom may lead to procrastination, making motivation more critical (Veletsianos et al., 2021). Higher levels of procrastination are related to lower levels of self-regulation, poorer learning outcomes, and dropout (Michinov et al., 2011). Although procrastinators tended to experience heavy time pressure, some reported they managed to improve their skills under pressure, pass their courses, and persist.

The time management strategies reported were diverse; most are similar to the ones found by Lee et al. (2019) among Open University Korea adult persisters. Most participants employed *constant dedication*, as did 80% of the participants in Lee et al.'s (2019) study. Students who are most successful, particularly females, employ scheduled patterns of study as self-managed commitments (Veletsianos et al., 2021). *Keeping ahead* of assignment deadlines and *dovetailing* were also common, but less so in Lee et al.'s (2019) study. Many learners had to *borrow time* from other commitments to insert study time in their routines. It seems persisters must develop and adapt the routines and strategies that work for them according to their specific life conditions (Lee et al., 2019). Nonetheless, *deadline-driven time dedication*, *last-minute cramming* and *procrastination* were also common. Although these strategies are usually more associated with dropout and failure (Michinov et al., 2011), results are mixed in the literature (Veletsianos et al., 2021); in our case, students who employed them persisted, even when they failed a course.

However, balancing different commitments alongside the study load remained a difficult challenge for most students, which is connected to withdrawal intention (Grau-Valldosera et al., 2018). Though some had to pay a steep price in terms of time and effort, the majority managed to strike a good work-study-home balance. Flexibility worked for them in that regard—even when allowing for procrastinating. Work-study-home conflict affected mostly the non-traditional learners, due to procrastination or work and family care responsibilities, which was expected (Carney-Crompton & Tan, 2002). Female students are more affected by the latter, as they are more likely to be primary caregivers. Yet, persisters maintain motivation despite conflicting commitments and show resilience, working through difficulties (Holder, 2007).

However, most learners experienced time pressure because of such conflicts, especially when facing heavy workload compounded by procrastination, or changes in work circumstances. Time pressure is one of the main difficulties for first-year OHE students (Thorpe, 2009), but persisters with high self-determination, discipline, and autonomy manage to succeed (Holder, 2007). When they do and persevere, some feel more motivated—feeling a sense of achievement is a common motivation theme (Lee et al., 2019), particularly among females (Brown et al., 2015).

Time pressure generated stress and anxiety in half of our sample. Time conflicts are associated with greater stress, anxiety, and depression in adult learners (Carney-Crompton & Tan, 2002), and online student anxiety and cognitive overload are dropout influencers (Greenland & Moore, 2021). NTPTs often feel tiredness and exhaustion, and anxiety is more common among female, full-time, first-year learners who often face caregiving responsibilities and unpaid household work (Veletsianos et al., 2021). Nonetheless, many participants worked well under pressure and anxiety, and were sufficiently motivated to persevere.

Several motivations to persist were reported. The most common was personal motivation, goal, and growth. Intrinsic motivation is key to success in OHE (Brown et al., 2015). Indeed, students' SRL involves the capacity to organize behavior guided by their motivations and goals, which is a significant factor for success (Broadbent & Poon, 2015). Other participants were motivated by professional advancement. Students whose study choices are aligned with clear career goals tend to be well motivated (Brown et al., 2015). Others

mentioned flexibility and open access as motivators and source of satisfaction; flexibility and convenience of OHE programs are positively related to persistence (Dews-Farrar, 2018). Accordingly, most participants were very satisfied with their study experience. Persistence is strongly informed by students' academic performance and satisfaction; and satisfaction is informed by accurate student expectations and academic performance (Henry, 2018). A few participants reported dissatisfaction with specific aspects of OHE. Dissatisfaction and boredom induced procrastination and intention to stop out in some students, being negatively related to persistence (Michinov et al., 2011).

Most participants had varied sources of support in their first year. Persisters score higher in emotional support, especially by family and partner (Holder, 2007). Almost half of our persisters highlighted support received from advisors and instructors as a source of learning satisfaction and motivation. Instructor support and connection play a critical role in student retention (Hart, 2012), and orientation programs may increase retention through early elucidation of student expectations and clear advising (Henry, 2018). However, some participants saw the problem of impersonal treatment by faculty as a difficulty. One-on-one personal communication (Greenland et al., 2021) and high-quality personalized feedback are powerful influences on student achievement (Henry, 2018). Few persisters said they had no support. It is known that family, peer, instructional, and institutional support are essential for persistence in OHE (Dews-Farrar, 2018). However, a few learners manage to persist even when they do not have support or feel dissatisfied with it, probably due to their self-determination. Online students are more likely to belong to profiles that are more adaptive and less reliant on collaboration with others (Broadbent & Poon, 2018).

Despite facing many hardships, most participants did not consider the possibility of stopping out or dropping out—which signals persistence and self-determination when facing challenges, so long as they did not have major study-life changes (e.g., pregnancy, changing jobs, health issues) (Lee et al., 2019). However, many learners (and most NTPTs) contemplated taking a break in their first year, for reasons intrinsically connected to time challenges: most felt overwhelmed and torn between the pressure of study and work or the care of dependents, a common issue with NTPTs (Brown et al., 2015), and faced the need to prioritize other life demands over studying, a key withdrawal factor (Greenland & Moore, 2021). This result confirms a key finding of the retention literature: the dominant situational challenge for most OHE first-year students (including traditional ones) is time management, in the sense of balancing study, work, family, and life obligations (Dews-Farrar, 2018). Yet, our participants overcame such challenges and persevered in their learning journeys. Hellen summarized the experience of most persisters: "I was very overwhelmed, I didn't have the time. Managing this strain? Well, keep going, like I've always done".

While this study offers valuable insights into time challenges in first-year OHE, its limitations should be highlighted. First, our sample was diverse but relatively small and not intended to be statistically representative—we sought to capture the diversity of students' experiences with varied profiles. Second, our sample was recruited from one Spain-based open university, which limits generalization. However, it can be argued that the findings have relevance for other countries and universities given the identification in this study of factors seen in previous research. Lastly, this study was conducted prior

to the global pandemic, which may have changed considerably the dynamics and perceptions of time and persistence.

Conclusion

Given the high dropout rates in OHE, and their likely increase due to the compulsory transition to online education with the global pandemic, it is paramount to understand the time challenges that affect student persistence in their foundational year to foster retention. This qualitative study aimed to explore the experiences of time among first-year online persistent students from their own perspective, thus providing a novel comprehension of the first-year student experience in OHE. For them, time challenges were crucial in their first semester and appeared connected to student factors and situational barriers: their time management skills or procrastination, life circumstances, unrealistic expectations, and lack of prior OHE experience. Time pressure and conflicts were commonplace, and the struggle to juggle study time with multiple priorities was seen as the main difficulty. However, our persisters proved resilient; indeed, persistence refers to continuous effort despite the presence of challenges or difficulties. To deal with the latter, most students relied on their SRL strategies, varied forms of support, intrinsic motivation, and learning satisfaction. However, even those with poor time management skills, unpredictable schedules, and heavy work-family duties managed in their second semester to adapt to the huge demands that OHE places on their personal responsibility, made sacrifices to accommodate studies, and persisted.

As for recommendations, temporal factors should therefore guide course design, calibrating workload and pace of learning and flexibilizing assessment; specialized academic advisory, especially for new students during induction and throughout the first year, to set achievable goals and prevent unrealistic expectations; personalized support, particularly to non-traditional students with multiple commitments; and early interventions to improve student time management and SRL strategies, offering planning tools. Future research could explore comparatively such time experiences with cohorts from different programs, compare them with the experiences of students who withdrew, and further explore and evaluate effective time-focused interventions to foster persistence.

Abbreviations

HE: Higher education; NTPT: Non-traditional part-time student; OHE: Online higher education; SRL: Self-regulated learning; UOC: Open University of Catalunya.

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Authors' contributions

MX formulated interview protocols, collected and analyzed the interview data, and wrote the manuscript. JM directed its conceptualization, analysis, and final review. Both authors read and approved the final manuscript.

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The datasets analyzed during the current study are not publicly available due to privacy and ethical concerns, although they are available from the corresponding author on reasonable request.

Declarations

Competing interests
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