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Original Research

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Availability of Social Support, Coping Strategies, Student Stressors and Wellness Among Older Women Studying Online During the Pandemic

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Abstract

Objectives: The purpose of the study was to explore the association between older women's subjective perceptions of available social support, their coping strategies, self-reported wellness, and stressors experienced as online students studying during the pandemic.

Method: A convenience sample of 115 older adult women learners (Mean age = 40.88, *SD* = 11.27) studying online in March 2021 in one of the world's largest providers of higher-education distance-learning courses was gathered using a survey methodology.

Results: Using structural equation modelling, we showed that perceptions of social support were associated with a higher use of positive coping and a lower use of negative coping strategies, ultimately improving markers of wellness and reducing student stressors.

Conclusions: The results indicate that those who perceived that social support from significant others would be available upon request utilised more adaptive coping strategies to deal with study-related adversities during the COVID pandemic.

Implications: The study highlighted the importance of embracing older students' own capacity to cope with adversity and emphasizing that one-to-one support can be available if needed.

Keywords: *coping, online studies, social support, student stressors, student wellbeing*

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Introduction

Online courses have increased in popularity, with more students choosing to study online and proportionally fewer enrolled in traditional face-to-face courses. However, student retention in the former group is lower, leading some scholars to view this situation as a retention crisis (Glazier, 2021; Glazier & Harris, 2020). Students who are more likely to drop out of their studies include parents, ethnic minority groups, and other groups of non-traditional students who fit their studies into demanding schedules (Glazier, 2021). There is a plethora of challenges that may contribute to students' decisions to discontinue or be dissatisfied with a course, and these may vary among traditional and non-traditional students. For example, among students enrolled in face-to-face courses, managing opposing priorities such as childcare duties and work is of pivotal importance for older, non-traditional students. On the other hand, traditional students find it challenging to cope with academic workload and course-related difficulties (Mather & Sarkans, 2018; Xuereb, 2014). This may partially explain why non-traditional students, especially women, chose to enrol in online courses; the flexibility offered allows them to address one of their key concerns, namely being able to better handle competing life priorities (Mather & Sarkans, 2018; Reay, 2002).

As they traditionally hold the burden of disruptions, women have been particularly vulnerable to stress-inducing life changes brought on by the broad disruptions affecting online students' routines. Indeed, evidence from previous pandemics or extensive viral outbreaks has emphasized women's increased vulnerability to becoming victims of domestic abuse (Peterman et al. 2020) or being more heavily engaged than men with duties of childcare during school closures or caring for ill relatives (Bandiera et al., 2018). These challenges are exacerbated by historic psychological barriers among older women in higher education, including gendered anxiety and self-doubt about learning (Reay, 2002). Ultimately, older women studying online during the pandemic were a unique and understudied group of learners. It is this group of learners our study sought to represent.

Literature review

Mental health markers among student populations, consisting of predominantly women, have deteriorated during the pandemic (Savage et al., 2021). While protective factors, such as social support, have broad health-benefits for community populations, the protection they offer varies according to the demographic group studied. For example, the protection gained from strong community ties against health anxiety was more pronounced for females, but community protection against stress was greater for males (Svensson & Elntib, 2021). Similarly, while the coping strategies used by students protected against negative health outcomes (Garbóczy et al., 2021), the type and degree of social support received have mediated that degree of protection (Li & Peng, 2021), illustrating that social support takes many forms with potentially unique benefits.

Recent studies with primarily female students have shown that social support explains some variance in self-efficacy (Warshawski, 2022). Moreover, social support received has been positively associated with resilience and negatively associated with perceived study difficulties, mirroring the negative association found between the availability of support and anxiety and the assumed benefits of social support in coping with the pandemic (Li & Peng 2021). The cohorts recruited by Warshawski (2022) and Li and Peng (2021) consisted of younger students who were respectively asked to study online or self-isolate at home on a temporary basis (rather than being online students per se). Yet, the findings point towards the domino effects triggered by social support and their beneficial effects for handling study challenges and mental wellness. Still, the studies cannot capture the unique challenges experienced by older female students, so any relevant evidence must be interpreted with caution.

Indeed, most of the available empirical evidence involving student populations has been mainly extracted from samples consisting of individuals between 18 and 25 years of age (Garbóczy et al., 2021; Li & Peng, 2021; Mushquash & Grassia, 2021; Plakhotnik et al., 2021; Warshawski, 2022). This misrepresents the perspectives and circumstances of life-long learners, particularly women, enrolled in online courses at a later stage in their lives. For example, protective barriers, such as family support, might not be available or equivalently protective among older students who often have family members for whom they care. Similarly, while students enrolled in conventional face-to-face tuition courses have dealt with school and dormitory closures, leading to a radical shift to online learning platforms (Garbóczy et al., 2021; Li & Peng, 2021), their experiences cannot fully mirror the experience of older distance learners who continued to study online despite the wider disruptions to their families during the pandemic.

While older distance learners studying during the pandemic are misrepresented in the recent literature, two notable papers recruiting learners enrolled in the UK's Open University (OU) have highlighted some of the key challenges involved in studying online as an older non-traditional student during the pandemic. In the first of those two studies, Aristeidou and Cross (2021) demonstrated that the negative impact of COVID on learning was greater for students with childcare duties in comparison to those without. This finding mirrors those from small-scale qualitative research and highlights the disadvantages for mothers in higher education during the pandemic (Savage, 2021). On the other hand, Aristeidou and Cross (2021) also found that students who were younger than 25 years old reported a greater impact of the pandemic on course-related social activities, such as using module forums or social media for study purposes, than older students. Since connectedness induced through peer-to-peer support and communication is one of the cornerstones of student progress and retention in online modules (De Malta et al., 2020; Gay & Betts, 2020), it is notable that the virtual social habits of older students were not impacted as much as of those younger than 25 years of age. Such disparities may reflect older students' adaptive use of the available social support platforms or that their baseline use of virtual socializing tools was not as high as among younger students who typically own and engage more heavily with digital technologies (Andaleeb et al., 2010). Such reductions among younger students in the utilization of social support structures are consistent with earlier findings gathered from UK-based community samples illustrating that perceptions of community cohesion progressively decreased for younger respondents but remained unchanged for older individuals aged 45 and above during the first viral peak of the pandemic (Svenson & Elntib, 2021). This suggests that age and the experience that comes with it may partially protect against adversity through selective adaptations involving the use of available means aimed at dealing with study-related stressors. Aristeidou and Cross (2021) also indicated that fewer interactions with the module tutor negatively affected learning, hinting towards the importance of engagement and connectedness to course support structures, of which the tutor is the main one.

The second OU-based study involved a mixed gender and age cohort of distance learners. Age was found to be negatively associated with loneliness and anxiety and positively predicted wellness (Di Malta et al., 2022). The authors also provided tentative qualitative evidence suggesting a link between connectedness, experienced through participation in online tutorials, student communities and forums, and satisfaction with academic performance. They found that the least satisfied students felt disconnected and were more reliant on their tutors. Importantly, loneliness negatively predicted wellness and positively predicted anxiety. This again highlights the importance of maintaining and utilizing available support structures that maintain connectedness and reduce loneliness. Together, the findings indicate that older students may overall deal more resiliently with the disruptions, for example, through family adaptations (Evans et al., 2020), but they are inevitably challenged with additional family responsibilities impacting their learning and progress by exacerbating existing stressors (Savage, 2021).

Purpose of the Study and Hypotheses

The purpose of the study was to explore the association between older women's subjective perceptions of available social support, coping strategies, wellness, and stressors experienced as online students during the pandemic. This research drew upon relevant research (Aristeidou & Cross, 2021; Di Malta et al., 2022; Li & Peng, 2021; Warshawski, 2022) that shows that social support can trigger a domino effect of positive changes with age acting as a protective factor against study stressors and a driver of wellness (Evans et al., 2020; Svenson & Elntib, 2021). We hypothesized accordingly that perceptions of available social support would be associated with wellness, more use of adaptive coping strategies (i.e., increase positive and reduce negative coping strategies), and the experience of fewer student stressors. It was also hypothesized that older students will cope more adaptively and will rank experienced stressors lower.

Methods

Participants

We recruited a convenience sample of 115 female students (M = 40.88, SD = 11.27) from one of the world's largest and the oldest distance-learning course providers located in the United Kingdom (UK) in March 2021. All participants studied in blended-learning courses that typically involved some face-to-face and online learning events. However, since March 2020, all face-to-face events were cancelled, and classes were delivered fully online. All participants were UK based and lived in households shared by an average of 2.57 persons (SD = 1.48), and 52% were caring for at least a dependent child (M = 1.03, SD = 1.14). Approximately 33% of participants (N = 35) were living with their partner and children, 27% (N = 31) were living with a partner (only), 14% (N = 16) were either single parents or living alone, 7% (N = 8) were living with their parents, and the remaining (i.e., 7.8%) had other housing arrangements.

Measures

Student Wellbeing Process Questionnaire

The Student Wellbeing Process Questionnaire was used to capture several elements of student wellness (Smith & Firman, 2020). Four items captured perceptions of social support from significant others (α = .83; e.g., "there is a person or people in my life who would provide tangible support for me when I need it"). Seven items captured student stressors, including time pressures and academic dissatisfaction (α = .74). Three items captured positive wellbeing (α = .87, e.g., "overall, I feel that I am satisfied with my life"). Four items captured negative wellness (α = .84, e.g., "on a scale of one to ten, how anxious would you say you are in general?"). Three items captured positive coping, labelled by Smith and Firman (2020) as positive personality traits (α = .82, e.g., "I am confident in my ability to solve problems that I might face in life"). Finally, three items captured negative coping traits (α = .64., e.g., "when I find myself in stressful situations, I blame myself"). All items were scored on a 1–10 scale. Their average value was used to compute a mean average value score for each of the six factors.

Procedures

Supervisory and institutional ethics approval were received (#D1621113). The survey was uploaded in Qualtrics, and a link to the survey and brief introduction to the study were uploaded to student social media pages often used for peer support, socialising, and recruitment for research projects. A relevant invitation was posted on the media pages. While no exclusion criteria were used for male respondents, less than 5% of respondents were male participants, ultimately leading the research team to retrospectively exclude responses from male participants from the analysis presented in this paper and focus on the perspectives of females to prevent gender from confounding the findings and modelling of data. Upon reading the study information and clicking on the link, participants were presented with further study information (including an explanation

of their right to withdraw and a consent form) before being directed to the questionnaire. No reimbursement or module credits were awarded, and participation was entirely voluntary.

Pearson correlation coefficients were initially produced to preliminarily assess the associations between the study variables. Structural equation modelling (SEM) was then used to test the hypothesized and two alternative models. SEM was selected to allow a simultaneous investigation of associations while also controlling for key demographic variables of age, household size, and number of dependable children. While a single model including all factors was feasible, we opted for a more selective investigation of direct and indirect associations considering the added multicollinearity that such a complex model could have induced. For example, household size and number of dependent children captured a rather different notion, yet they were also strongly and positively associated. Thus, merging or including both variables together would have made their indirect effects hard to demarcate. Coupled with the high sensitivity of some model fit indices to sample size and model complexity, it was deemed preferable to test less complex models. For example, in samples smaller than 200, the Tucker-Lewis fit index decreases as the number of indicators increases; for a review, see Sharma et al. (2005).

With these caveats in mind, Model 1 incorporated age, and Models 2 and 3 included age as well as household size (Model 2) and number of dependent children living at home (Model 3). Variables were log-transformed before starting SEM. The normed chi-square ($\chi 2/df$) was used as a model fit index, as it minimizes sample size effects; values between 1 and 2 are seen as indicative of a good fit, while values between 2 and 5 indicate an acceptable fit (Carmines & McIver, 1981; Schumacker & Lomax, 1996; Tabachnick & Fidell, 2007; Wheaton et al., 1977). Root mean square error of approximation (RMSEA) values were also used to correct for model complexity, with values below 0.07 (Steiger, 2007) or 0.06 (Hu & Bentler, 1999) indicating good fit. Values closer to zero reflect an excellent fit. Standardized root mean square residual (SRMR), which ranges from 0 to 1, was also assessed. Values lower than .08 reflect acceptable fit, and values between 0.05 and 0.00 reflect good to perfect fit (Hooper et al., 2008). The Tucker Lewis index (TLI) and the comparative fit index (CFI) were also used to measure incremental model fit; values above 0.90 reflect good model fit (Ullman, 2001).

Results

The correlations between the study variables were aligned with the proposed hypotheses (Table 1). Indeed, social support was associated with adaptive coping and wellness and was negatively associated with student stressors. Age, likewise, was negatively correlated with student stressors, negative wellness, and negative coping.

For the hypothesized model, results show overall good model fit, $\chi 2/df = 1.34$; RMSEA =.055; SRMR = .056; TLI = .956; CFI = .967. Unstandardized beta values indicated that social support was significantly and directly associated with positive coping (B = .72, p <.01, CI95: .48 to .98). Correspondingly, positive coping was significantly associated with positive wellness (B = .61, p <.01, CI95: .49 to .74) and negatively associated with negative coping (B = -.48, p <.01, CI95: .76 to -.25). Similarly, negative coping was significantly associated with negative wellness (B = .92, p <.01, CI95: .67 to 1.34) and student stressors (B = .63, p <.01, CI95: .34 to 1.18). Age was significantly and positively associated with positive coping (B = .04, p <.05, CI95: .01 to .07) and negatively associated with negative coping (B =- .03, p <.05, CI95: .01 to .06). No other significant direct effects were found.

Table 1. *Pearson Correlation Matrix Among Study Variable* (N = *115)*

	1	2	3	4	5	6	7	8	9
1. Age	-								
2. Household size	-.25**	-							
3. Number of dependent children	-.04	.61**	-						
4. Social Support	.09	.02	.03	-					
5. Positive coping	.21*	.15	.10	.51**	-				
6. Negative coping	-.30**	-.10	-.16	-.32**	-.57**	-			
7. Positive wellness	.18	.12	.14	.47**	.74**	-.56**	-		
8. Negative wellness	-.31**	-.05	-.17	-.35**	-.55**	.79**	-.61**	-	
9. Student stressors	-.32**	.08	-.12	-.11	-.32**	.52**	-.28**	.59**	-

* Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level.

While social support was not directly associated with negative coping, it was indirectly and negatively associated with negative coping (B = -.37, p <.01, CI95: -.66 to -.19). Social support was also indirectly and negatively associated with negative wellness (B = -.34, p <.01, CI95: -.49 to -.16) through its direct effects on positive wellness. Similarly, positive coping was indirectly associated with negative wellness (B = -.58, p <.01, CI95: -.80 to -39.) and student stressors (B = -.30, p <.01, CI95: -.63 to -.13) through its positive association with positive wellness and negative associations with negative coping respectively. Age was indirectly and positively associated with positive wellness (B =.03, p <.01, CI95: .01 to .05) and negatively associated with negative coping (B =--.03, p <.01, CI95: -.05 to -.01), negative wellness (B =-.05, p <.01, CI95: -.08 to -.03) and student stressors (B = - .03, p <.01, CI95: -.05 to -.01). Incorporating the number of people living in a household (model 2) or the number of dependent children caring for, illustrated as *kids home* (model 3) into the model did not improve model fit.

Table 2 shows fit indices for all models, and Figure 1 shows the resulting models). While model fit was poorer for models 2 and 3, model fit indices still indicated an overall good fit for the models. All significant associations reported in model 1 were also present in models 2 and 3.

While age and household size were negatively associated in model 2, no other significant associations were found between household size (model 2) or number of dependent children (model 3) and all remaining model variables, as seen in Figure 1.

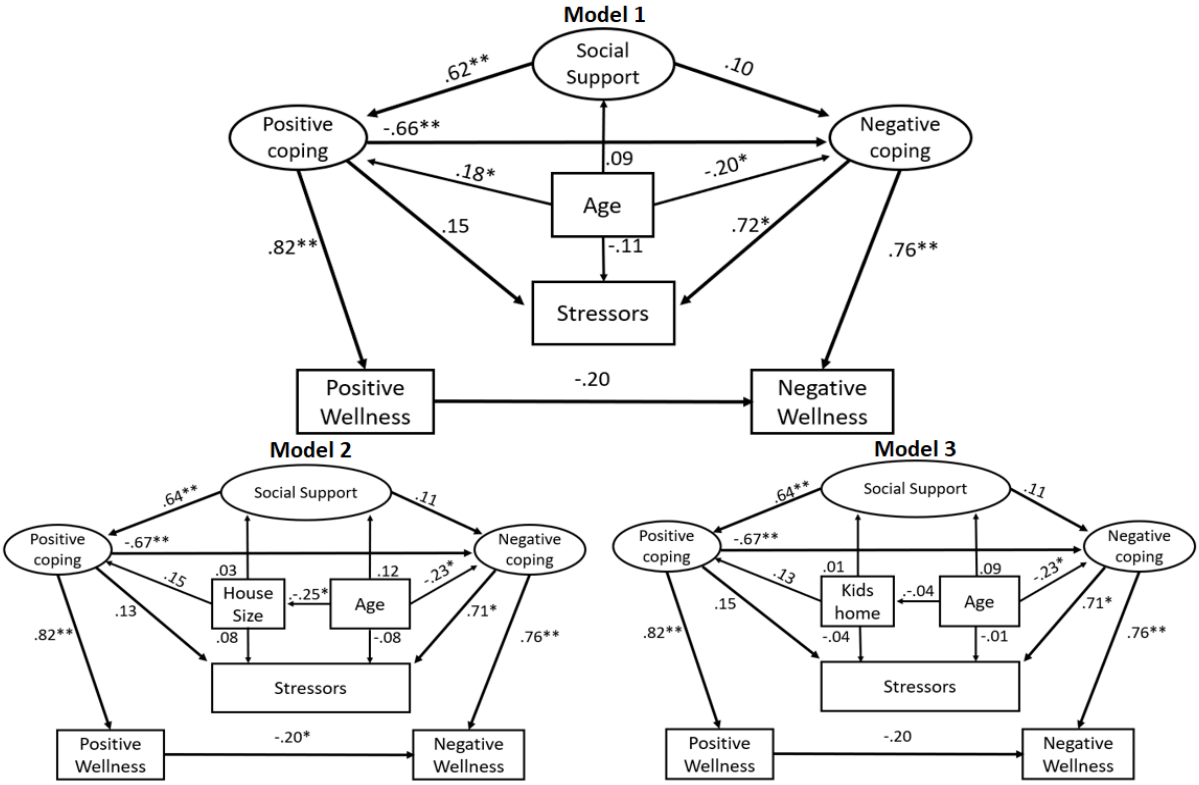
Table 2. *Fit Indices for All Models*

Models	$\chi 2$/df	SRMR	TLI	CFI	RMSEA
Model 1: Hypothesized model	1.339	.056	.956	.967	.055
Model 2: Including nr of people in household	1.368	.066	.946	.959	.057
Model 3: Including nr of dependent children in household	1.374	.063	.944	.958	.057

Note: SRMR = Standardized root mean residual; TFI = Tucker-Lewis fit index; CFI = Comparative fit index.

RMSEA = Root mean square error of approximation

Figure 1: *Standardized Path Coefficients Among Constructs in the Three Models*



Note: $*p < .05$; $**p < .001$

Discussion

Results support the hypotheses by showing that social support is related to improved student wellness through its positive association with positive coping strategies and negative association with negative coping strategies and student stressors. The findings substantiated the protective role of social support for older female students who have been studying online during the pandemic in a severely affected Western country. In line with past research using large community populations of varied age ranges (Kunzler et al., 2021; Peters et al., 2020; Pierce et al., 2020; Sterina et al., 2022; Svensson & Elntib, 2021), older age was a potential protective factor predicting adaptive coping, as shown by direct effects on increased positive and decreased effects on negative coping. The number of dependent children and household size were sequentially embedded in the model but did not seem to influence the findings, as reflected in the model fit indices and the very weak and non-significant associations. If anything, the fit indices weakened after introducing these factors, so the study data could not support assertions regarding the disadvantaged position of mothers (Savage, 2021).

The findings reflect similar assertions made in relation to the younger populations of students (Li & Peng, 2021; Warshawski, 2022) and provide tentative evidence that social support benefitted students, irrespective of age, during the pandemic. For example, Warshawski (2022), who used a similar set of questions to capture social support, found that social support directly improved academic self-efficacy. She also revealed strong positive links between social support, resilience, and self-efficacy, suggesting that the more resilient students see themselves, the better they would cope with the study challenges. This chain of processes, partially

triggered by social support differentials, is also reflected in the current study. Those who receive support or feel that support will be available if needed cope more adaptively and thus are likely more resilient and consequently report fewer student stressors.

Although not capturing social support per se, Di Malta et al. (2022) assessed populations of mainly older students studying online during the pandemic and found that loneliness, partially captured by items measuring subjective self-assessments of social isolation (i.e., "having no people in case of trouble, not being able to count on many people, not having enough close people"; De Jong Gierveld & Van Tilburg, 2010) negatively predicted wellness. On the other hand, connectedness enhanced wellness. With a lack of social support gained through community ties being a key predictor of loneliness, especially in late adulthood (Hutten et al., 2022), it is intuitively reasonable to draw links between the findings from Di Malta et al. (2022) and this study. Indeed, our study also revealed that lacking social support, captured by items similar to those used by Di Malta et al. (2022) to measure social loneliness (e.g., "there is a person or people in my life who would provide tangible support for me when I need it"), negatively predicted wellness. So, social support (or lack of it) has been pivotal for student wellness and their ability to manage study challenges, as reflected in the findings of this and past research.

What is yet missing from the current study and the general literature, though, is the precision to address the type of social support that might be more suitable for older female students during a pandemic. For example, the social support scale used in this study captured broader elements of available support structures that respondents could have applied to their own social network and circumstances. Such specificity has rarely been available in published research in the COVID era. Notably, Li and Peng (2021) explored the selective impact of different types of support, including emotional, family, social, and subjective, on student anxiety during the lockdown using a group of traditional, younger students. Paradoxically, while emotional, family, and social support reduced anxiety, subjective perceptions of support, a notion akin to the one we captured in this study, increased anxiety. The authors asserted that since subjective perceptions of available support largely reflect the capacity for individual resilience, participants might have been young enough to manage the intensity of fear and anxiety induced by the pandemic (Li & Peng, 2021), implicitly suggesting some interaction between the benefits gained by the available support and student age.

Limitations and Implications for Research

Despite the important messages conveyed, this study included a small sample to fully represent the (UK-based) older female students studying online during the pandemic. Yet, it represented a group of older female students that even pre-pandemic research has rarely used in a much larger scale. Optimally, future research should attempt to attract a larger set of respondents and recruit students from different distance-learning courses and institutions. Utilising students enrolled in a particular university, as in this study, inevitably makes the results institution specific. Similarly, we omitted to record and take into consideration the year of study. This would have given a deeper insight and would have allowed us to present a clearer picture regarding the study challenges and value ascribed to social support and whether those are level-specific or not. For example, Aristeidou and Cross (2021) highlighted that while there were no substantial differences between students in Levels (years) 1–3, students enrolled in introductory access modules were as much as 14 times less likely than students enrolled in education, languages, health, and sport studies to engage in assessment activities in comparison to Level 1–3 students enrolled in several different disciplines. Importantly, data was collected during a dynamic period of the health emergency following the largest wave of COVID-19 deaths in the UK (UK Government, 2022). So, it is likely that populations of non-traditional, older students who were enrolled in online courses at the time of the pandemic in other parts of the world were dealing with a different array of challenges.

Implications for Practice

Overall, this study provided a reliable snapshot of the older student experience during a historically troubling period. Highlighting the significance of prospective support coming from significant others may be pivotal in identifying students at risk of withdrawing. So early identification of students who have no other available help except the university (e.g., single mothers *doing it alone*) might allow a more selective scaffolding of their support. For example, students can be reassured that they are not alone, and their tutors can be accordingly notified so that they further reinforce that individualized support can be available upon request. Upon returning to pre-pandemic tuition, it might be fruitful to consider retaining pandemic measures, such as extensions for assignments, upon request or notifying students that the available support, expressed through greater flexibility, would be available as soon as they need it. Support received through flexible adjustments has been highly valued by mothers during the pandemic (Savage, 2021).

Considering that the challenges experienced by those groups were a mere exacerbation of their pre-pandemic circumstances, one might accordingly suggest that such measures are kept indefinitely for groups of non-traditional students. Doing so might enhance student perceptions of support received through flexible university policies and academic staff. Since subjective perceptions of social support may be moderated by several factors, it might also be fruitful to further ascertain and map what drives these perceptions. In a preliminary, pre-pandemic assessment of variations in traditional and non-traditional students, Xuereb, 2014 found notable differences between the potential value credited to different support structures. Specifically, non-traditional students (M = 33.03 years of age) were much more likely than traditional students (M = 20.33) to use individualized support from lecturing staff and university services than traditional students, who are twice as likely to receive support from family and friends. Bearing in mind that some of the stressors experienced by non-traditional students were only exacerbated during the pandemic (Office for National Statistics, 2020a; 2020b), it is essential for the available support services to target the most contemporary reasons for student drop out and map the stressors that might have emerged following the ongoing impact of the pandemic. Since continuing disruptions from the COVID pandemic or from some subsequent global emergency are not too unlikely, it is essential that relevant research becomes more inclusive in understanding older students, a subgroup of students that has grown exponentially in recent years (Hubble & Bolton 2021).

Conclusion

The study emphasized the pivotal role of social support for older learners, specifically older women studying online, and provided glimpses into the dynamic associations between the support received, student wellness, and student stressors. The findings emphasized the importance of embracing older students' own capacity to deal with adversity by offering them individualized support. So, considering non-traditional older students' presumed preference for individualized support from lecturing staff and university services (Xuereb, 2014), reminding students that one-to-one support can be available, if needed, is an achievable aim for universities. Building contact to establish students' available support structures (or perceptions of available support) might also be suitable among older and more resilient student cohorts to ultimately identify students at risk of discontinuing their studies. This study suggests that, especially in situations where no other support is available, students may use maladaptive coping strategies and deal with greater study stressors, resulting in an increase in students dropping out of study programmes.

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