

# From Pressure to Perspective: Longitudinally Monitoring Student Well-being and Academic Experience in Dutch Higher Education

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## Abstract

Student well-being is an increasing concern in higher education, yet longitudinal insight into students' own evaluations and needs remains limited. Using an annual Well-being Monitor at a Dutch university of applied sciences (2021–2024;  $N = 7,689$ ), this study examined trends in well-being and academic experience, reported concerns, help-seeking, and student-defined needs. Analysis of variance (ANOVA) and chi-square analyses showed gradual improvements in emotional, social, and financial well-being across cohorts, while concerns about mental health and finances persisted for a substantial group. Students predominantly sought support through informal networks rather than formal services. In open-ended responses, students consistently called for personal attention, social cohesion, clear communication, meaningful and relevant education, and reduced study pressure. The findings indicate partial post-pandemic recovery alongside continuing vulnerabilities, pointing to the need for integrated, student-centred approaches.

**Keywords:** Student well-being; higher education; longitudinal survey; help-seeking behaviour.

## Introduction

Jasper (21) is a fourth-year commercial economics student at a Dutch university of applied sciences (UAS), currently completing his final internship. For two years, he has faced recurring depressive symptoms, which intensified as graduation approached. Academic pressure, high personal expectations, and his dyslexia contributed to sleep problems, fatigue, and reduced functioning. Eventually, he sought support through his internship supervisor and the university's student counsellor and psychologist. Looking back, Jasper describes this period as transformative: learning to recognise his limits and to seek support became as important as academic achievement itself.

Jasper's story is not unique. Students in higher education worldwide increasingly face psychological distress and mental health challenges (e.g., Madigan & Curran, 2021; Schaufeli et al., 2002). Contributing factors include academic pressure; financial uncertainty; personal circumstances; and balancing study, work, and social life (e.g., Murali & Avudaiappan, 2024). The transition into higher education adds further strain, as students simultaneously navigate academic demands, social restructuring, identity development, and increasing autonomy (Fletcher, 2010; van der Zanden et al., 2018). The COVID-19 pandemic worsened student mental health, with reports of reduced physical activity; impaired concentration; and increased depression, anxiety, and loneliness (Bosmans et al., 2022; Caring Universities, 2020). Vulnerable students faced magnified psychological and academic challenges (Sakaretsanou et al., 2025), yet many hesitated to seek professional support (Bosmans



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et al., 2022). Although post-pandemic recovery has been observed, concerns remain prominent in the Netherlands and internationally (Caring Universities, 2023; Trimbos Institute et al., 2023).

Since well-being and academic experience are closely intertwined (e.g., Datu & King, 2018), monitoring students' psychological symptoms, study experience, perceived needs, and coping capacity is essential. Previous studies often emphasise the prevalence of mental health issues; however, they offer limited insight into what students themselves consider important for well-being and academic success (e.g., Caring Universities, 2020).

This study adopts a broader, student-centred perspective by asking: How are students doing? What concerns them? What do they need to succeed on their own terms? Using a purpose-built Well-being Monitor, we longitudinally examined students' evaluations of their well-being and academic experience between 2021 and 2024 at a Dutch UAS. This study maps trends in well-being, concerns, help-seeking, and student-defined needs.

## **Theoretical Background**

### ***Student Success as a Multidimensional Concept***

Student success extends beyond academic achievement (Sundararaman et al., 2025). While institutions often define success through credits and degree completion, research emphasises integrating well-being, engagement, and personal growth with academic outcomes (Datu & King, 2018; van der Zanden et al., 2018). Success is shaped by emotions, relationships, and meaning-making, and is therefore both objective and subjective. Higher education is increasingly expected to foster resilience, self-regulation, and agency within a culture that tolerates failure (Carter, 2005; McKinnon & Lowry, 2012; Trinidad et al., 2023). Well-being and study success are deeply interconnected, each reinforcing the other through institutional guidance and support (Khatri et al., 2024; Li, 2025). Many higher education institutions struggle to adopt an integrated approach to student support that addresses cognitive, emotional, and social dimensions.

### ***Student Well-being***

Student well-being is dynamic and multidimensional, encompassing positive functioning, meaningful engagement, and supportive relationships, not merely the absence of complaints (Dodge et al., 2012; Kahu & Nelson, 2018; Organisation for Economic Co-operation and Development [OECD], 2019). Holistic well-being models include emotional, cognitive, social, physical, and existential dimensions (Bakker & Mostert, 2024), which are interrelated (Falck et al., 2019). Higher education can be both energising and demanding, as students navigate autonomy, identity development, and academic and financial pressures (Slemp, 2017; van der Zanden et al., 2018). Psychological distress among students remains substantial internationally, and disparities persist for groups such as international, first-generation, and gender-diverse students and students with disabilities (Hill et al., 2024; Trimbos Institute et al., 2023). Broader pressures, including housing insecurity, may further heighten uncertainty (Strating & Bogičević, 2025). International studies report persistently high psychological distress, amplified during the COVID-19 pandemic (e.g., Schmits et al., 2021; Wang et al., 2020). In response, many universities have implemented a range of interventions aimed at supporting student well-being, such as mentoring, learning communities, and student-centred didactic approaches (Deunk & Korpershoek, 2021). However, from an ecological perspective, well-being is shaped not only within the institution but also through interactions with family and peers and in broader social contexts (Bronfenbrenner, 1979; Coulombe et al., 2020). To capture the balance between pressures and protective factors, this study uses Study Demands–Resources (SD–R) theory (Bakker & Mostert, 2024), conceptualising well-being as the interplay between demands (e.g., workload, time constraints) and resources (e.g., autonomy, support, feedback).

### ***Academic Experience***

Academic experience is shaped by individual factors (e.g., autonomous motivation, self-regulation) and programme-level conditions such as workload, curriculum coherence, and alignment with expectations (Ryan & Deci, 2000; Schneider & Preckel, 2017). Study skills, self-regulation, and concentration further contribute to successful engagement (Hassanbeigi et al., 2011; Nota et al., 2004). Institutional factors are equally important (e.g., Ifenthaler & Yau, 2020). Mismatches between student expectations and programme content are common reasons for dropout (Meens & Dijkstra, 2021). High study pressure, fragmented curricula, and competing deadlines can overwhelm students and hinder learning (Kyndt et al., 2011; Masui et al., 2014; van den Berg, 2002). A key relational component is belonging: students are more likely to persist when they feel academically competent and socially connected (Allen et al., 2024; Kahu & Nelson, 2018; Tinto, 1993).

### ***Scope and Research Questions***

Rather than focusing on academic output (e.g., grades or credits), the present study centres on students' subjective experience of their academic journey. This aligns with research that prioritises student agency and subjective interpretation of success over institutional performance metrics (e.g., Hill et al., 2024). Using a longitudinal Well-being Monitor, the study examines how students evaluate multiple life domains, including mental and physical health, finances, housing, social life, academic experience, belonging, and authenticity, across four academic years (2021–2024). In addition, it explores students' concerns, help-seeking behaviour, and perceived needs for thriving.

By analysing changes over time, this study identifies which aspects of student experience show improvement, which remain stable, and which continue to pose challenges. Importantly, the data were collected largely prior to the widespread integration of generative artificial intelligence (AI) in higher education. As such, the findings provide a valuable pre-AI baseline against which future shifts in student well-being and academic experience can be examined.

In line with this student-centred and longitudinal perspective, the present study addresses the following research questions:

1. How do students in Dutch higher education evaluate their own well-being and academic experience over time?
2. To what extent do students report concerns in these areas, and how have these concerns developed between 2021 and 2024?
3. What forms of support do students seek when experiencing challenges, and from whom?
4. What do students indicate they need in order to feel well and succeed in their studies, according to their own definitions of success?

## **Method**

### ***Design and Participants***

This longitudinal cohort study was conducted at a Dutch UAS with approximately 13,500 enrolled students. Data were collected annually between 2021 and 2025, resulting in a combined sample of 7,689 students (age median: 21.4; range: 15 to 59 years). Participation was voluntary and anonymous, and all students gave informed consent prior to completing the survey. The study was approved by the university's research ethics committee (approval number 22.007) and conducted in accordance with *The Netherlands Code of Conduct for Research Integrity* (Association of Universities in the Netherlands [VSNU], 2018). Data protection legislation was taken into account throughout the study. A description of the respondents per academic year is provided in Table 1.

**Table 1***Description of the Respondents per Academic Year*

Year	2021–2022	2022–2023	2023–2024	2024–2025
<i>n</i>	1,191 students (892 female)	1,986 students (1,221 female)	2,192 students (1,297 female)	2,320 students (1,442 female)
Age range	17–53 ( <i>Mdn</i> = 21.2)	16–59 ( <i>Mdn</i> = 21.8)	15–56 ( <i>Mdn</i> = 22)	16–55 ( <i>Mdn</i> = 21.8)
Study year				
<i>First year (propaedeutic)</i>	363	672	787	951
<i>Senior (post-propaedeutic)</i>	823	1,306	1,405	1,369
<i>Unknown</i>	5	8	0	0
Study mode				
<i>Full-time</i>	1,166	1,862	1,987	2,094
<i>Part-time</i>	18	92	160	178
<i>Dual</i>	2	31	45	48
<i>Unknown</i>	5	1	0	0
International students*	58	96	252	244
Response rate	8%	14%	16%	17%

\*The number of international students was determined in two different ways over the years. In 2021–2022 and 2022–2023, this was based on the language in which students completed the Well-being Monitor (Dutch or English). In 2023–2024 and 2024–2025, it was based on self-identification, where students were asked whether they considered themselves Dutch or international students. Due to these differing methods, some distortion in the comparison across years cannot be ruled out.

### **Data Collection Procedure**

A longitudinal survey design was employed using an online questionnaire administered annually as part of the institutional Well-being Monitor. The first measurement (2021–2022) took place between late December and early January. Subsequent measurements (2022–2023 to 2024–2025) were conducted earlier in the academic year (late November to mid-December) to avoid overlap with the National Student Survey. Students were invited by their study programmes to participate voluntarily in the questionnaire. The questionnaire (see Appendix A) was administered via Questback, a secure online survey platform. Participants were informed that they could withdraw at any time without consequences.

### **Well-being Monitor**

The Well-being Monitor is a concise questionnaire that is administered annually to students at the institution. Although administered as a survey, its repeated annual use allows it to function as a longitudinal monitoring instrument rather than a one-off measurement.

The instrument consisted of 26 items derived from sensitising concepts in the literature (see Theoretical Background). Items assessed students' evaluations of key life domains using a 5-point Likert scale (1 = not well at all, 5 = very well). Domains included general well-being; physical, mental, emotional, and social well-being; financial situation; living environment; study

experience (from 2022–2023 onward); feeling at home in the study programme; and being able to be oneself within the programme (from 2023–2024 onward).

For each domain, students were asked whether they experienced concerns (yes/no) and whether they sought support. Students could also indicate from whom they sought help (e.g., peers, family, teaching staff, institutional services). Open-ended questions invited students to describe what their study programme or institution could do to support their well-being and academic success.

Internal consistency of the instrument across years was good (Cronbach's  $\alpha = .80$ ). Exploratory factor analysis was not conducted as the item set was too small to yield interpretable factors.

The Well-being Monitor (questionnaire) was intentionally designed as a practice-oriented tool, prioritising brevity, annual repeatability, and contextual relevance over diagnostic depth. Its purpose was not to assess clinical symptoms but to capture students' lived experiences, concerns, and perceived needs across key domains of student life.

### **Data Analysis**

Quantitative analyses were conducted using IBM SPSS Statistics (version 27). To address Research Question 1, one-way analyses of variance (ANOVAs) were performed to compare mean scores across cohort years. Levene's tests indicated violations of homogeneity of variance for most variables; therefore, Games-Howell post-hoc tests were applied (Field, 2024).

Research Question 2 was examined using chi-square tests on binary (yes/no) concern variables across cohort years. Research Question 3 was analysed descriptively using frequencies and percentages of reported sources of support (Field, 2024).

To address Research Question 4, qualitative content analysis was applied to open-ended responses (Erlingsson & Brysiewicz, 2017). Responses were coded independently by at least two researchers per year. Coding followed an inductive approach, with open codes grouped into categories through iterative comparison. From the second year onward, previously established categories were used as a starting point, while allowing for refinement and the emergence of new themes. Discrepancies were resolved through discussion until consensus was reached. In the final step, categories were clustered into overarching themes (Braun & Clarke, 2006). This iterative and collaborative coding procedure enhanced consistency across cohorts while remaining sensitive to changes in student perspectives over time.

## **Results**

### ***Trends in Student Well-being and Academic Experiences***

To examine how students evaluated their well-being and academic experience over time, one-way ANOVAs were conducted with survey year as the independent variable. As shown in Table 2, significant main effects of cohort year were found for all indicators, with the exception of *being able to be yourself within the study programme*.

Across most domains, post-hoc comparisons (Games–Howell) revealed a consistent upward trend: students in later cohorts reported significantly higher levels of general well-being and emotional, social, physical, and financial well-being, as well as more positive evaluations of their living environment. Satisfaction with the study programme, introduced from the second year of measurement onwards, also increased significantly over time.

The indicator feeling at home in the study programme showed a more modest pattern, with a significant increase only between the 2022–2023 and 2023–2024 cohorts. No significant differences between cohorts were observed for *being able to be yourself*, which was measured from 2023–2024 onward. Mean scores per cohort are presented in Figure 1.

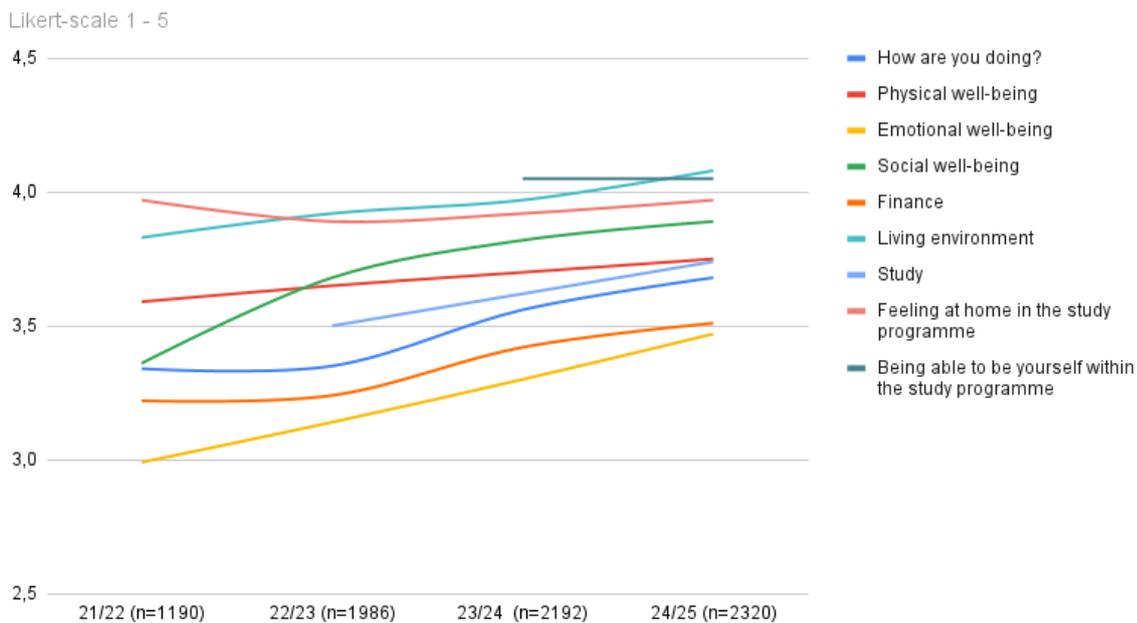
**Table 2**

*One-way ANOVA Results for Student Well-being and Academic Experience by Cohort Year*

Variable	<i>F</i>	<i>p</i> -value	Post-hoc trend
How are you doing?	$F(3,7674) = 51.272$	< .001	↑ each year (all differences significant)
Physical well-being	$F(3,7679) = 10.790$	< .001	↑ each year (all differences significant)
Emotional well-being	$F(3,7679) = 75.177$	< .001	↑ each year (all differences significant)
Social well-being	$F(3,7679) = 92.594$	< .001	↑ each year (all differences significant)
Finance	$F(3,7678) = 34.557$	< .001	↑ each year (all differences significant)
Living environment	$F(3,7678) = 28.808$	< .001	↑ each year (all differences significant)
Study	$F(2,6492) = 39.932$	< .001	↑ each year (measured from 2nd year onward)
Feeling at home in the study programme	$F(3,7640) = 3.712$	< .05	↑ only in 2023–2024 vs 2022–2023
Being able to be yourself within the study programme	$F(1,4510) = .016$	.90	No significant differences (measured from Y3)

**Figure 1**

*Trend Analysis of Student Well-being and Academic Experiences*



*Note.* Likert scale scores range from 1 = not well at all to 5 = very well.

### Trends in Student Concerns

Changes in the proportion of students reporting concerns across domains were examined using chi-square tests on binary (yes/no) responses. As presented in Table 3, significant differences across cohort years were found for all concern domains assessed, including physical, emotional, and social well-being; financial situation; living environment; and study-related concerns.

Overall, the proportion of students reporting concerns decreased steadily across survey years. Standardised residuals indicated that in the later cohorts (2023–2024 and 2024–2025), fewer students than expected reported concerns, while more students than expected indicated no concerns. This pattern was consistent across all domains. Figure 2 visualises the percentage of students reporting concerns per domain over time.

Concerns for the domains *feeling at home in the programme* and *being able to be yourself* were not assessed and are therefore not included in this analysis.

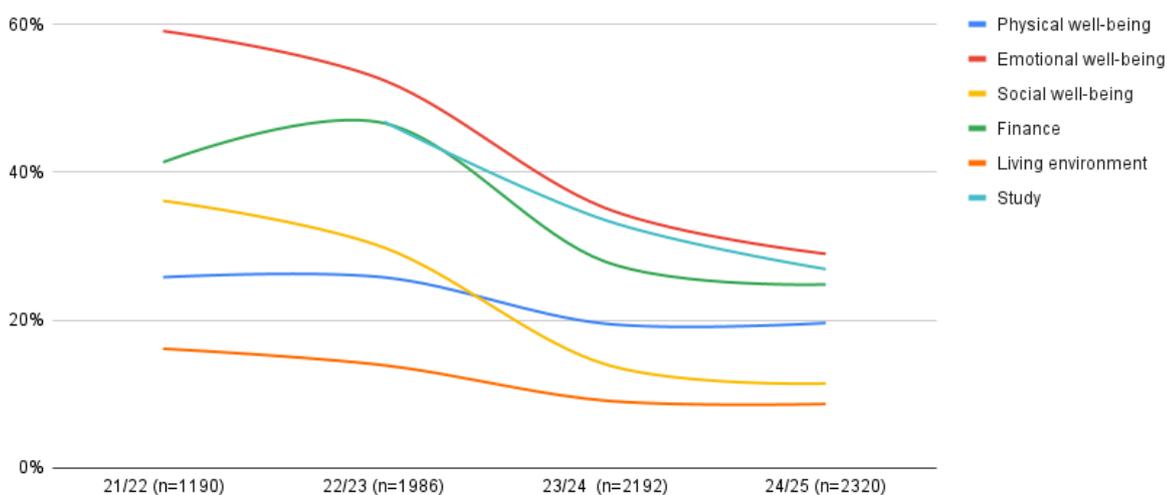
**Table 3**

*Chi-square Test Results for Student Concerns Across Cohort Years (2021–2024)*

Concern domain	$\chi^2$	<i>p</i> -value	Trend interpretation
Physical well-being	$\chi^2(6) = 93.807$	< .001	Significant decrease in concerns over time
Emotional well-being	$\chi^2(6) = 482.095$	< .001	Significant decrease in concerns over time
Social well-being	$\chi^2(6) = 495.935$	< .001	Significant decrease in concerns over time
Finance	$\chi^2(6) = 333.573$	< .001	Significant decrease in concerns over time
Living environment	$\chi^2(6) = 106.757$	< .001	Significant decrease in concerns over time
Study	$\chi^2(4) = 206.604$	< .001	Significant decrease in academic-related worries

**Figure 2**

*Percentage of Students Reporting Concerns per Domain Over Time*



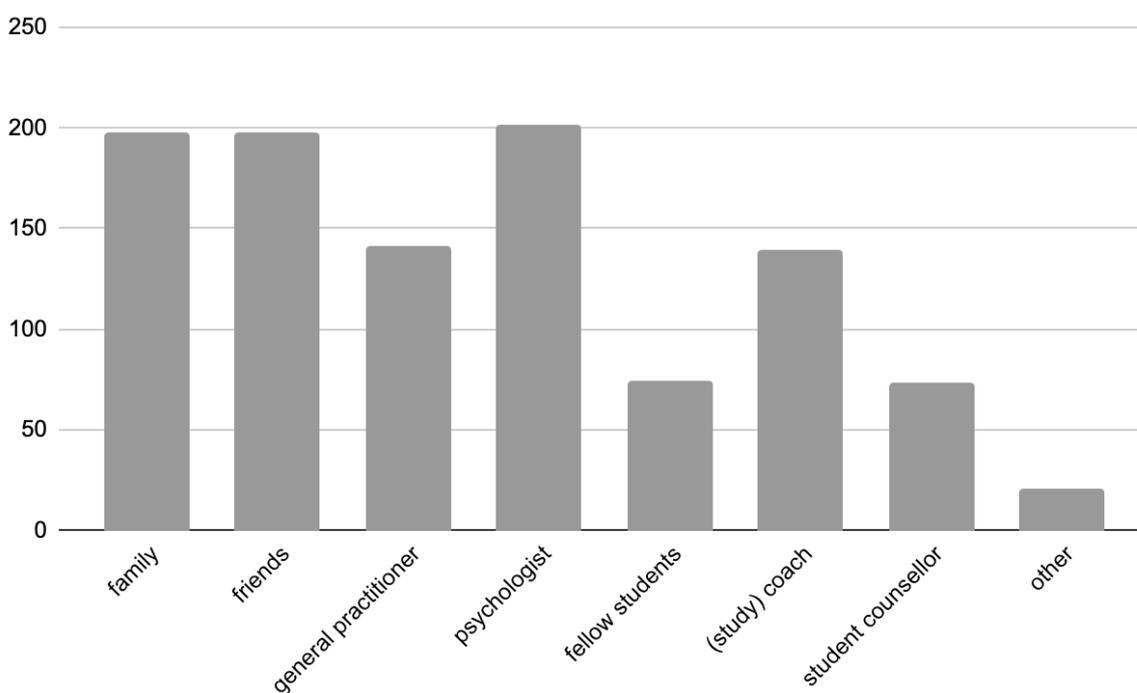
### ***Help-seeking Behaviour***

In the first measurement year (2021–2022), students who reported seeking help for well-being concerns most frequently turned to informal support networks, particularly friends and family (Figure 3). University-based support was used less often and primarily consisted of informal contacts with peers or teaching staff, rather than formal counselling services.

In later survey years, the wording and structure of the help-seeking items changed, limiting direct comparability across cohorts. For this reason, the present analysis focuses on the overall pattern observed in the first measurement year, which provides the most consistent insight into students' preferred sources of support.

**Figure 3**

*Who Do Students Ask for Help Concerning Their Well-being (Year 2021–2022)?*



### ***Student-defined Needs for Well-being and Academic Experiences***

Analysis of the responses to the open-ended questions revealed six recurring themes across all four survey years: personal attention, social cohesion, communication, facilities, quality and relevance of education, and study pressure. Although the questions differed slightly across survey years (focusing on feeling well, feeling at home, or studying successfully), students' responses showed substantial overlap and were therefore analysed jointly.

Personal attention was the most frequently mentioned theme. Students expressed a strong need to be seen as individuals rather than solely as academic performers. They emphasised the importance of approachable teachers and mentors who show interest in their personal situation and proactively check in when difficulties arise. As one student noted:

Stay in contact with us, not only about assignments, but also about how we are doing as students and as people.

Social cohesion was described as essential for feeling at home within the study programme. Students valued opportunities for informal interaction with peers and staff and expressed a desire for continuity in group composition. Several students indicated that feelings of isolation persisted beyond the pandemic, particularly during internships or later study phases:

During internships, you feel forgotten by the programme and disconnected from other students.

As one student stated:

More activities, I feel lonely.

Clear and consistent communication emerged as another central need. Students reported uncertainty and stress when expectations, deadlines, or assessment criteria differed between teachers or changed unexpectedly. At the institutional level, students often indicated that support services existed but were difficult to navigate. As one respondent wrote:

Give the student a clear overview of where to go for [sic] with various complaints or problems.

Facilities were mentioned in relation to both physical learning spaces and scheduling. Students expressed a preference for on-campus education and welcoming study environments that facilitate collaboration. They also reported difficulties associated with long or fragmented study days, which negatively affected concentration and motivation.

Quality of education was closely linked to students' motivation and engagement. Respondents emphasised the importance of meaningful, practice-oriented content that connects clearly to their future profession. Inspiring teaching and opportunities to develop study or practical skills were seen as key conditions for academic success:

Reduce subjects to only useful things. Currently, a lot of time goes into nonsensical things, while that takes away precious time from useful subjects.

Finally, study pressure was frequently identified as a barrier to well-being. Students called for more realistic workload distribution, better alignment of deadlines, and greater flexibility in response to personal circumstances. Several respondents noted a tension between institutional messages about balance and the actual structure of the programme.

Taken together, these findings show that students' perceived needs extend beyond individual coping strategies and point primarily to relational, organisational, and educational features at the programme level.

## **Discussion and Conclusion**

### ***Main Findings***

This study examined how students in Dutch higher education evaluate their well-being and academic experience over time, which concerns they report, what support they seek, and what they identify as essential for thriving. By combining four years of longitudinal survey data with students' own qualitative input, the study provides a student-centred view of well-being and success beyond traditional performance indicators.

Overall, the findings indicate a gradual improvement in students' self-reported well-being and academic experience between 2021 and 2024. Students in later cohorts reported higher levels of emotional, social, physical, and financial well-being, as well as more positive evaluations of their studies and living environment. At the same time, mental health concerns, financial pressure, and study-related stress remained present for a substantial group of students, highlighting that general improvement can coexist with persistent vulnerability. These findings align with international research suggesting partial recovery of student well-being following the acute phase of the COVID-19 pandemic (e.g., Bennett et al., 2023; Reece et al., 2023).

The only item that did not exhibit a significant change over time was *being able to be yourself within the study programme*. Notably, this item received relatively high ratings from its introduction in 2023–2024, suggesting that students largely feel accepted and authentic within their academic environment. Rather than signalling lack of progress, this may point to a strength in the existing institutional culture that should be acknowledged and preserved.

### ***Decreasing Levels of Concern***

Analysis of binary concern items reinforces the broader trend of improving student well-being. Over time, students reported significantly fewer concerns across multiple domains, including emotional well-being, physical health, social life, finances, and academic performance. Standardised residuals showed that students in later cohorts were less likely than expected to report worries, suggesting a reduction in perceived stressors in daily academic life.

These developments may reflect a combination of factors, including post-pandemic psychological adaptation, increased institutional attention to student well-being, and greater openness in discussing mental health. At the same time, prior research cautions that changes in reported concerns may also reflect shifting norms around disclosure, help-seeking, and stigma, rather than straightforward reductions in underlying distress (Gulliver et al., 2010).

Importantly, declining concern levels do not imply that difficulties have been resolved for all students. Because concerns were measured using binary items and captured at a fixed point in the academic cycle, the results should be interpreted as conservative indicators of perceived risk rather than clinical change (Kember, 2004). Moreover, concerns were not assessed for *feeling at home in the programme* or *being able to be yourself*, limiting insight into how inclusion and authenticity develop over time. Given the established links between belonging, psychological safety, and student persistence, future monitoring should incorporate concern indicators for these domains (Allen et al., 2024; Strayhorn, 2018).

Together, these findings support cautious optimism; while fewer students report acute concerns, continued vigilance remains necessary to ensure that persistent vulnerabilities are not overlooked. This underscores the importance of programme-level relational practices, such as proactive check-ins and clear communication, which are consistently identified as protective factors for engagement and persistence (Kahu & Nelson, 2018).

### ***Informal Support Systems Remain Central***

A further key insight concerns students' help-seeking behaviour. When students sought support for well-being challenges, they predominantly turned to informal networks, particularly friends and family outside the university. Within the institution, support was likewise largely informal, involving peers or approachable teaching staff rather than formal counselling services.

This pattern highlights the importance of relational proximity and trust. Students appear more inclined to seek support from individuals they know personally and encounter regularly, a finding consistent with ecological models of student development that emphasise the role of close social environments in well-being (Bronfenbrenner, 1979).

At the same time, the limited uptake of formal support services suggests potential shortcomings in visibility and accessibility. Students may be unaware of available options or perceive them as distant or insufficiently relevant. Strengthening the integration of institutional support services within educational programmes, and equipping teachers, mentors, and advisors with time and resources to fulfil their relational role, may enhance early support and referral (Kahu & Nelson, 2018; O'Keeffe, 2013).

### ***What Students Say They Need***

The open-ended responses provide rich insight into what students themselves identify as essential for well-being and academic success. Across all four years, six recurring needs emerged: personal attention, social connection, clear communication, supportive learning environments, meaningful and relevant education, and reduced study pressure.

Students consistently emphasised the importance of feeling seen as individuals and valued proactive, approachable staff. They expressed a need for social cohesion throughout the programme, particularly to counter isolation during later study phases or internships. Clear and consistent communication, both within programmes and at the institutional level, was repeatedly described as crucial for reducing uncertainty and stress.

In addition, students highlighted the role of physical and organisational learning environments, meaningful and practice-oriented education, and realistic workload distribution. These findings resonate with existing research showing that relational quality, educational relevance, and coherent programme design are central to student engagement and well-being (Deunk & Korpershoek, 2021; Schneider & Preckel, 2017; Surma et al., 2019).

Notably, students rarely framed their challenges in terms of individual deficits. Instead, they pointed to structural and relational aspects of education, suggesting that well-being support should be embedded in programme culture and daily practice rather than addressed solely through individual interventions.

### ***Limitations and Directions for Future Research***

Several limitations should be acknowledged. Data were collected at a single UAS with a relatively low response rate, limiting generalisability. The timing of data collection, towards the end of academic blocks, may have influenced perceptions of stress and workload. In addition, the Well-being Monitor was intentionally concise and did not include clinical measures of mental health, prioritising perceived needs over diagnosis. As such, the findings should be interpreted as indicators of students' lived experiences and perceived needs, rather than as diagnostic assessments of mental health. Nevertheless, future research could benefit from complementing such monitoring tools with validated psychosocial instruments to explore specific problem areas in greater depth.

Future research could further develop the Well-being Monitor by examining the interrelations between specific aspects of student well-being and academic functioning; for example, by linking item-level data across domains. Such analyses may help to clarify how particular stressors or resources influence students' academic engagement and persistence over time.

Finally, the rapidly evolving context of higher education warrants attention. The data in this study were collected prior to the widespread embedding of large language models (LLMs) in everyday study practices. Emerging research suggests that AI tools may affect student well-being in multiple ways by altering academic pressure, expectations of self-regulation, perceptions of academic integrity, and the relationship between effort and achievement (Klimova & Pikhart, 2025; Zhang, 2025; Zhang et al., 2025). The present findings therefore provide a valuable pre-AI baseline, highlighting the importance of continued, longitudinal monitoring as higher education enters a new phase of digital and AI-mediated learning.

### **Conclusion**

This four-year monitoring study paints a cautiously optimistic picture of student well-being and academic experience in Dutch higher education after the COVID-19 pandemic. Although overall scores improved, mental health challenges, financial pressure, and study stress remain salient for many students.

A key contribution of this study lies in its longitudinal, student-centred approach. By embedding the students' voice in annual monitoring, the study moves beyond cross-sectional prevalence surveys and provides insight into how students themselves evaluate their well-being and academic experience over time. These findings highlight that fostering student well-being requires sustained attention to relational, organisational, and educational practices alongside accessible professional support.

### **Statements and Declarations**

The authors have no competing interests to declare that are relevant to the content of this article.

No funding was received for conducting this study.

This study obtained Ethical Approval of Research on behalf of the Ethical Committee for Research of Zuyd University of Applied Sciences.

### **Data Availability Statement**

Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

### **Acknowledgements**

We would like to thank Daan Huberts and Pascal Parren for their valuable support and advice in analysing the data.

### **AI Disclosure**

Artificial intelligence (OpenAI's ChatGPT) was used solely to assist with language editing and stylistic refinement of the manuscript. All substantive contributions, including study design, data collection, data analysis, interpretation of findings, and formulation of arguments, were carried out by the authors.

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**Please cite this article as:**

Theelen, H., Dreesen, C., Mennen, J., Kanera, I., Spierts, N., & Geurts van Kessel, E. (2026). From pressure to perspective: Longitudinally monitoring student well-being and academic experience in Dutch higher education. *Student Success*. Advance online publication. <https://doi.org/10.63608/ssj.3907>

This article has been accepted for publication in *Student Success*. Please see the Editorial Policies under the ‘About’ section of the Journal website for further information.

*Student Success: A journal exploring the experiences of students in tertiary education.*



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## Appendix A

**Table A1**

*Well-being Monitor*

Questions	Answer options
Descriptives	
1. What is your gender?	Male Female Other than above I don't want to say
2. What is your age?	Open question
3. Which year of your study programme are you currently in?	I am a first-year student I am a senior student
4. What is your current study programme?	Select...
5. I am following my study programme:	Full-time Part-time As a dual study variant
Well-being	
6. How are you doing?	
7. How do you rate the following aspects of your life if you reflect on the past month:	
Physical well-being	<input type="radio"/>
Mental well-being	<input type="radio"/>
Emotional well-being	<input type="radio"/>
Social well-being	<input checked="" type="radio"/>
Finance	<input type="radio"/>
Living environment	<input type="radio"/>
Study	<input type="radio"/>
Feeling at home in the study programme	<input type="radio"/>
Being able to be yourself within the study programme	<input type="radio"/>
8. Are you worried about any of the following?	Yes No
Physical well-being	
Mental well-being	
Emotional well-being	
Social well-being	
Finance	
Living environment	
Study	
9. Have you sought help for this?	Yes No Not applicable
Physical well-being	
Mental well-being	
Emotional well-being	
Social well-being	
Finance	

Living environment Study	
10. Who do you turn to for help if you are concerned	Family Friends A GP Psychologist Fellow students Study coach / academic guidance counsellor / Tutor / Coach Student counsellor Other, namely:
11. What can your study programme do to support you in this area?	