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University Social Climate Quality Scale (USCQS) – Results of a Pilot Study

Maria Łukaszek
University of Rzeszów (UR), Institute of Pedagogy,
Department of Pedagogy and Philosophy
https://orcid.org/0000-0001-8637-3171

Alicja Kozakiewicz[1]
University of Zielona Góra, Collegium Medicum, Institute of Health Sciences,
Department of the Humanization of Medicine and Sexology
https://orcid.org/0000-0001-6490-2511

Joanna Mazur
University of Zielona Góra, Collegium Medicum, Institute of Health Sciences,
Department of the Humanization of Medicine and Sexology
https://orcid.org/0000-0002-3937-7230

Abstract

Aim: The aim of this study was to develop a short, culturally adapted version of the *University Social Climate Quality Scale* (USCQS) to measure the university social climate as perceived by students, and to evaluate its basic psychometric properties. The tool was developed to enable a quick, reliable, and practical assessment of institutional factors that may affect the well-being of college students in Poland.

Method: The pilot study was conducted as an online survey (CAWI) among 500 students recruited using the snowball sampling method. Initially, 14 scale items, developed based on a literature review, were evaluated. As part of the assessment of the scale's psychometric properties, the distributions of individual items, internal consistency (Cronbach's alpha), correlations between items, and factor structure (PCA) were analysed, along with an assessment of sampling adequacy and sphericity (Kaiser-Meyer-Olkin index and Bartlett's test, respectively). Based on this, a shortened version of the scale containing 7 items was developed, and its properties were also tested.

[1] Correspondence: a.kozakiewicz@inz.uz.zgora.pl.

Results: The 7-item version demonstrated high reliability (α = .90) and more consistent correlations between items (*r* = .46–.67) than the 14-item version. PCA analysis confirmed a unidimensional structure for both the full and shortened versions of the scale, with a single dominant component explaining 55.83% and 61.78% of the variance, respectively. Descriptive statistics indicated moderate floor and ceiling effects, with a distribution of total scores that was close to normal.

Conclusion: The results indicate that the 7-item version of the USCQS is a brief, reliable, and valid tool, suitable for use in population-based studies as part of multi-item questionnaires to measure the social climate of universities. Furthermore, the scale can support the identification of institutional risk factors for dropping out of college and the development of intervention strategies in the academic environment.

Keywords: university social climate, students, psychometric properties, psychometric analysis, measurement scales

The social climate constitutes a unique character of educational institutions and environments, reflecting the way their operations are organized, the quality of interpersonal relationships, and the conditions favourable to their development (Moos, 1975). In the context of higher education, it refers both to the objective characteristics of the academic environment and to students' subjective perceptions of the university (Rania et al., 2014). It includes a set of factors that create conditions conducive to learning and development, promote physical and emotional safety, foster social connections, ensure access to support, and encourage engagement in the academic community (U.S. Department of Education, & Office of Safe and Healthy Students, 2016).

The social climate is typically defined as a set of characteristics, situations, and events – as perceived subjectively by the members of an institution – that are relatively enduring consequences of functioning within an established organizational and educational system, and that shape the motivations and behaviors of individuals and groups within that institution (Pytka, 2000). Pérez's research team highlights that this subjective, individual perception of the academic climate expressed by members of the academic community applies to all aspects related to the internal, daily functioning of the institution (Pérez et al., 2010).

Previously, within the concept of the "social climate" of a school or college, numerous components have been identified, the conceptualization of which was based on various theoretical approaches. Of particular significance were Rudolf Moos's classical theory of social climate (Moos, 1975, 1994), further developed by Rostan Sánchez (Rostan Sánchez et al., 2017), Job Demands-Resources Model (Bakker et al., 2023; Demerouti et al., 2001) and its application to the academic setting: Study Demands-Resources Theory (Bakker & Mostert, 2024; Gusy et al., 2016; Jagodics & Szabó, 2022; Lesener et al., 2020; Martin & Collie, 2022). Based on research conducted to date, four of the most frequently described components of the social climate can be distinguished (Betz et al., 1970; Chirkowska-Smolak

et al., 2023; HERI, 2025; Moos, 1975; Nogueira, 2019; Pérez et al., 2010; Rostan Sánchez et al., 2017; Santos et al., 2013; Schleich et al., 2006):

- the organizational and institutional component – encompassing university policies and procedures, educational conditions, organizational structure, academic support, providing students with opportunities for professional and personal development, and instilling a sense of trust in the institution,
- the peer relationship component – relating to interpersonal relationships and social functioning within a peer group,
- the professor-student relationship component – including the quality of education, professors' expertise and teaching professionalism, as well as the quality of the professor-student relationship,
- the emotional and identity component – related to satisfaction with one's role in a given academic community, adherence to the institution's norms, a sense of connection to the place, identification with the institution, and a sense of belonging to the academic community.

The above-mentioned areas that shape the social climate of a university are noteworthy in the context of the holistic Study Demands–Resources theory (SD–R) which explains student well-being in an academic environment (Bakker & Mostert, 2024). According to the developed model (based on earlier Job Demands–Resources model (Bakker et al., 2023; Demerouti et al., 2001) and Study Demands-Resources model (Gusy et al., 2016; Jagodics & Szabó, 2022; Lesener et al., 2020; Martin & Collie, 2022), well-being stems from the relationship between the *study demands* and *study resources* (Bakker & Mostert, 2024). These resources (which relate to both the learning process and university resources) include, for example, professors' expertise and support, allowing students autonomy, the opportunity to explore new and interesting topics, receiving constructive feedback, peer support, good infrastructure and organization of the educational process, and the integration of the academic community with the associated sense of belonging. According to the SD–R framework, the desired social climate can therefore be understood as a set of academic and social resources that counteract the negative consequences of the high demands of higher education, promote higher educational outcomes, and support students in their development and the achievement of their academic goals.

It has been found that a positive academic environment at a university strengthens students' self-esteem and positive self-concept, motivates them to evaluate their own achievements, and helps them recognize the developmental potential of educational challenges (Reyes Piñuelas et al., 2018). Research findings indicate that it also enhances one's understanding of student development, motivation, and phenomena such as persistence or dropout rates, while serving as a useful tool for evaluating the quality of educational environments (Joe et al., 2017). This is a key factor related to the effectiveness of the education and upbringing process (Pytka, 2016). It has been proven that a negative academic climate is strongly associated with student burnout (Jagodics & Szabó, 2022) and the associated student *drop-out* rate, which is the incidence of students dropping out or quitting their studies before graduating (Kutsyuruba et al., 2015).

Drop-out has become an increasingly widespread problem for the operation of academic institutions (Kehm et al., 2019; Wiktorko et al., 2020).

Furthermore, data from the Central Statistical Office indicate that, despite a steady increase in the number of students in Poland since the academic year of 2020–21, the number of graduates has been constantly decreasing. Between the academic years of 2015/16 and 2023/24, it dropped from 364,600 to 292,000 (GUS, 2025). A detailed analysis of data from the Central Statistical Office (GUS) on the number of students attending university during the 2020/21–2023/24 academic years (GUS, 2021, 2022, 2023, 2024) indicates that by far the highest percentage of students drop out before their second year. Of those who began their studies in the 2020/21 academic year, 86.1% remained in their second year of master's degrees, 70.7% in engineer's degrees, and 73.3% in bachelor's degrees. Similar results were recorded for the academic cycle beginning in 2021 – 82.8%, 70.1%, and 72.2%, respectively. In the third year, such significant drops were no longer observed – generally, 1–2% fewer students remained in master's and bachelor's degree programs, while 6–8% fewer remained in engineering degree programs.

A meta-analysis of studies on the determinants of dropping out of college (Guzmán et al., 2021) identifies four groups of factors: individual factors, related to the student's personality traits, life circumstances, health, motivation, and self-regulation skills; socioeconomic factors, relating to the student's socioeconomic status and their environment; academic factors, resulting from prior educational experiences and existing competencies; and institutional factors, encompassing the characteristics of the institution, including institutional policies, the financial aid system, teaching resources, the quality of relationships with lecturers, and academic support.

In the context of Poland, the main factors contributing to student *drop-out* include individual factors – such as a lack of interest in the field of study, personal problems, or family and work obligations – as well as institutional factors related, among other things, to the curriculum, the organization of studies, costs, infrastructure, and the quality of communication at the university. It is emphasized that *drop-out* is typically influenced by multiple factors (Behr et al., 2021; Wiktorko et al., 2020).

Identifying the institutional risk factors behind this phenomenon offers an opportunity to reduce the *drop-out* rate among students. There are few tools available in Polish for evaluating university performance; those that do exist are often overly complex or poorly adapted to the current model of higher education in Poland. In the post-pandemic environment, students are increasingly facing high living costs and an inability to meet their accommodation needs, which forces them to take on employment at the expense of their health and commitment to their studies (Kurowska et al., 2024). Research shows that 80% of students in Poland are engaged in occupational activity (Hauschildt et al., 2021).

The study aimed to develop a short, culturally adapted version of the USCQS scale for measuring the social climate of a university, as well as to conduct a preliminary assessment of its psychometric properties.

Method

Respondents and Research Procedure

The analyses presented here were conducted during the initial phase of a six-year prospective cohort study titled Nationwide Epidemiological Study of Sexual and Procreative Health in the Burden of Multimorbidity (*POLARES*) (project number: 2023/ABM/03/00046/P/07), funded by the Medical Research Agency. The POLARES project protocol calls for a prospective study of various population groups, including sexually active students as one of four segments. During the questionnaire development phase, a series of pilot studies was planned to test the newly developed tools.

The pilot study, the results of which are presented in this article, was conducted as an online survey (CAWI) using Google Forms in December 2024. Participants were recruited using the snowball sampling method through students at a university in southeastern Poland who were taking a course on social research methodology. Each student emailed a link to the survey to five friends (studying various academic disciplines) with a request to participate in the survey and to share the link with five more people. The recruiters informed respondents that participation was voluntary and that their responses would remain entirely anonymous. The inclusion criterion for the study was being at least 18 years old. A total of 500 responses were collected.

Table 1 presents the characteristics of the study sample. A total of 500 people participated in the study. Women constituted the majority of respondents (77.0%), while men accounted for 21.0% of the sample. The largest group of participants were undergraduate students, with second-year students representing the largest percentage—30.6%. The vast majority of respondents were attending full-time study programs (83.6%), while a smaller proportion were participating in part-time study programs (15.0%).

Measurement Tool

As part of the POLARES project, the use of a range of measurement tools available both in Poland and abroad is planned. These tools are being adapted or developed specifically for the purposes of this study. To minimize the time needed to complete the questionnaires, short and standardised scales are preferred. One of the tools developed by the research team as part of the POLARES project is the USCQS scale. The items comprising the scale were formulated based on a review of the literature. The list of items was analysed, modified, and reduced by the POLARES project team, which included experts representing various fields relevant to the evaluation of the items' content: sexology, medicine, psychology, education, and public health. Subsequently, consultations were conducted with two focus groups of education students who had completed a course in social research methodology. The consultations focused on the relative importance of individual statements in the questionnaire, their completeness as a set,

Table 1

Sample Characteristics

Variable	*N*	%
Gender		
Female	385	77.0%
Male	105	21.0%
Other	8	1.6%
Not specified	2	0.4%
Bachelor's Degree Program		
1st year	73	14.6%
2nd year	153	30.6%
3rd year	59	11.8%
4th year	3	0.6%
Various years	5	1.0%
Not specified	207	41.4%
Master's Degree Programs		
1st year	37	7.4%
2nd year	17	3.4%
3rd year	4	0.8%
4th year	3	0.6%
5th year	3	0.6%
6th year	1	0.2%
Various years	2	0.4%
Not specified	433	86.6%
Integrated Master's Programs		
1st year	25	5.0%
2nd year	54	10.8%
3rd year	33	6.6%
4th year	14	2.8%
5th year	26	5.2%
6th year	1	0.2%
Various years	1	0.2%
Not specified	346	69.2%
Mode of study program		
Full-time	418	83.6%
Part-time	75	15.0%
Various modes	6	1.2%
Not specified	1	0.2%

the accuracy of the wording, and the clarity and comprehensibility of the statements. Respondents provided their answers using a five-point Likert scale: 1 – *Strongly disagree*, 2 – *Disagree*, 3 – *Neither agree nor disagree*, 4 – *Agree*, 5 – *Strongly agree*. In the next stage, a short index with satisfactory psychometric properties was selected from a larger set of items.

Data Analyses

As part of the assessment of the scale's psychometric properties, the distributions of individual items were characterized by calculating the mean, standard deviation, skewness, kurtosis, and floor and ceiling effects. The internal consistency of the scale was assessed using Cronbach's alpha. To assess the relationships between items, a correlation analysis was conducted. The factor structure was verified using Principal Component Analysis (PCA). The adequacy of the data was assessed using Bartlett's sphericity test and the Kaiser-Meyer-Olkin (KMO) index. Additionally, an analysis of a shortened, 7-item version of the scale was conducted. For this version, the total score was calculated, and its distribution was presented in a histogram with a normal curve. Statistical analyses were performed using IBM SPSS Statistics for Windows, version 29.0.

Results

The structure of the 7-item scale is presented in Appendix A, and the complete list of items is provided in Appendix B. Table 2 presents descriptive statistics for each item of the shortened USCQS scale, including means, standard deviations, skewness, kurtosis, and floor and ceiling effects. The mean values ranged from 2.94 to 3.71. The skewness and kurtosis values did not indicate significant deviations from a normal distribution. Floor effects ranged from 6.8% to 11.4%, while ceiling effects ranged from 8.4% to 26.8%, indicating no excessive concentration of responses at the extremes of the scale. It should be noted, however, that for two items (items 5 and 8), the ceiling effect values exceeded the recommended threshold of 15%, which may indicate limited sensitivity of these items at the upper end of the scale (Terwee et al., 2007a).

Comparison of Inter-Item Correlations

A comparison of the correlation matrices for the full, 14-item version of the scale and the 7-item abbreviated version showed that the abbreviated version has superior psychometric properties. For the 14-item scale (Table 3), all correlations were positive and statistically significant, however, their range was quite wide (r = .37–.70). The shortened version, including 7 items (Table 4), showed more consistent correlation coefficients (r = .46–.67).

Table 2

Descriptive statistics and floor and ceiling effects for individual items

Item	*N*	*M*	*SD*	Skewness	Kurtosis	Floor effect	Ceiling effect
1	499	3.31	1.04	−0.57	−0.30	6.8%	8.4%
3	497	3.23	1.13	−0.42	−0.61	9.6%	10.6%
5	494	3.71	1.16	−0.99	0.23	8.2%	24.2%
6	498	2.94	1.16	−0.08	−0.86	11.0%	9.8%
8	496	3.59	1.28	−0.73	−0.54	10.4%	26.8%
9	494	3.33	1.22	−0.53	−0.71	11.4%	14.8%
12	498	3.14	1.14	−0.33	−0.63	11.0%	9.8%

N – number of valid responses; *M* – mean; *SD* – standard deviation; Floor effect = % of respondents selecting the lowest response category; Ceiling effect = % of respondents selecting the highest response category.

Table 3

Correlation Among the Scores for All 14 Items

Item	Correlation range (*r*)	Mean inter-item correlation
1	.49 – .67	.59
2	.41 – .65	.53
3	.43 – .67	.56
4	.42 – .70	.57
5	.43 – .70	.58
6	.43 – .58	.52
7	.45 – .65	.55
8	.37 – .58	.50
9	.49 – .67	.57
10	.37 – .56	.45
11	.40 – .69	.55
12	.39 – .57	.51
13	.43 – .69	.56
14	.38 – .58	.49

All correlations were statistically significant at the $p < .01$ level (two-tailed). Mean inter-item correlation = .55

Table 4

Correlation Matrix Between Items for the Final 7-item Scale

Item	1	3	5	6	8	9	12
1	—	.67	.65	.55	.52	.67	.56
3		—	.60	.52	.49	.60	.55
5			—	.54	.58	.56	.51
6				—	.46	.56	.48
8					—	.55	.54
9						—	.51
12							—

All correlations were statistically significant at the $p < .01$ level (two-tailed). Mean inter-item correlation = .55

PCA – Principal Component Analysis

The suitability of the data for factor analysis was assessed using the KMO index and Bartlett's sphericity test. For the full 14-item version of the scale, a very satisfactory KMO value was obtained (KMO = .952) along with a statistically significant result for Bartlett's test, χ^2 (91) = 4,121.30; $p < .001$, indicating high data quality and strong correlations among the items. For the shortened, 7-item version of the scale, the results were also very favourable [KMO = 0.913; χ^2 (21) = 1,726.94; $p < .001$]. The indices for both versions confirm that the data were suitable for factor analysis.

PCA was conducted to examine the dimensionality of the scale. For the 14-item version, the first component had an eigenvalue of 7.82 and explained 55.83% of the total variance in the unrotated solution, while all subsequent components had eigenvalues below 1. This result supports a unidimensional structure of the scale. In the 7-item version, the first component had an eigenvalue of 4.32, explaining 61.78% of the total variance in the unrotated solution. All items showed strong correlations with the extracted component (≥ .74), supports a predominantly unidimensional structure**.** These results indicate that the shorter version of the scale retains its unidimensional structure while maintaining strong psychometric properties (Table 5).

Cronbach's alpha

Cronbach's alpha reliability coefficient for the full, 14-item version of the scale was .94 – while for the shortened, 7-item version of the scale, α = .90. Thus, the shortened version retained high internal consistency despite the reduction in the number of items. The very high alpha coefficient obtained for the 14-item version may suggest some degree of item redundancy.

Table 5

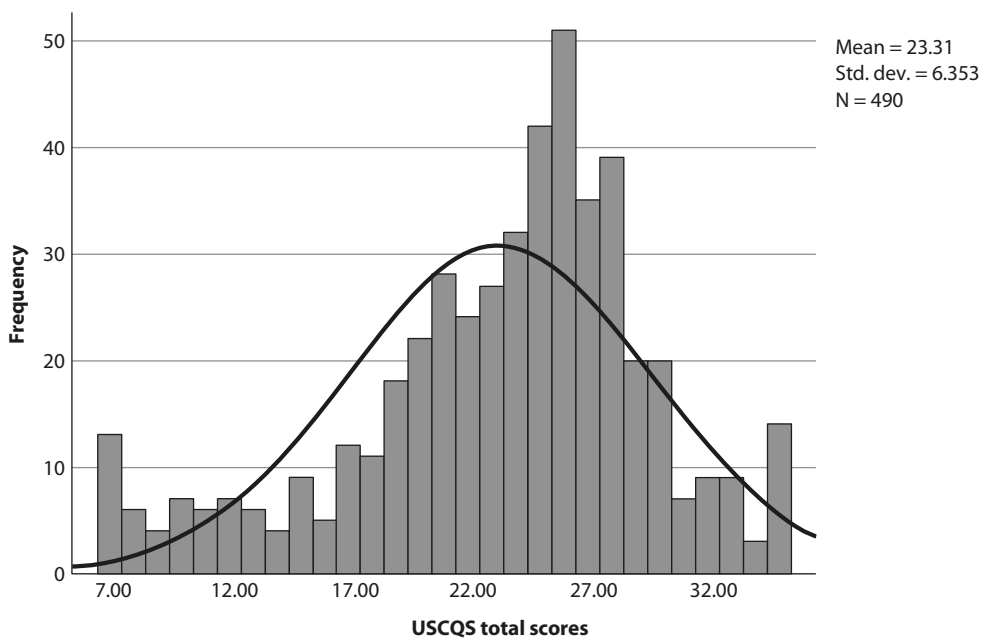
Comparison of PCA Factor Loadings for the 14-Item and 7-Item Versions of the Scale

Item	Factor loading (14-item)	Factor loading (7-item)
1	.82	.84
2	.75	—
3	.79	.81
4	.77	—
5	.78	.81
6	.73	.74
7	.76	—
8	.71	.74
9	.79	.81
10	.64	—
11	.72	—
12	.72	.75
13	.77	—
14	.67	—

Extraction method: principal component analysis (PCA). Rotation: not applied. In both versions, a single component was identified.

Figure 1

Distribution of Overall Scores on the 7-Item USCQS Scale



Summary Results

For the 7-item version of the scale, a total score was calculated to serve as an indicator of the perceived academic climate. This score was the sum of the responses to all items – higher scores indicated a more positive academic climate. Possible scores ranged from 7 to 35. In the sample (N = 490), the mean overall score was M = 23.31 (SD = 6.35), the median was 25, and the observed range was between 7 and 35. The distribution of scores was close to normal, with moderate negative skewness (skewness = –0.73) and slightly positive kurtosis (kurtosis = 0.32). Most respondents scored in the moderate-to-high range, indicating a generally positive assessment of the academic climate. Figure 1 shows the distribution of overall scores with a superimposed normal curve.

Discussion

Contemporary research on student performance emphasizes the importance of the social climate at universities as a factor that influences both well-being and the reduction of the risk of dropping out (Berhanu & Sewagegn, 2024; Konstantinidis, 2024). However, measuring this construct requires tools that are accurate, reliable, and adapted to today's educational contexts.

The available tools for assessing university performance focus on several overlapping aspects: academic satisfaction, academic burnout, the university's social climate, student integration, and students' experiences within the campus. Nonetheless, they refer to various theoretical concepts, for example *School Classroom Social Climate Scale* (ECSA-U) (Rostan Sánchez et al., 2017) references and expands upon Moos's classic theory of social climate (Moos, 1975, 1994). The authors identify the following three fundamental components of a university's social climate: student-student relationships, faculty dynamics, and professor-student relationships; as well as community standards, a sense of belonging, and the social atmosphere. The tool *Areas of Academic Life Scale* (Chirkowska-Smolak et al., 2023) is based on the concept of burnout (Leiter & Maslach, 2003), whereas *Academic Life Satisfaction Scale* (ALSS) (Nogueira, 2019) refers to the Multidimensional Model of Adjustment of Youth to the University Context (MMAU) (Soares et al., 2012). The Lesener team's research, in the section on academic resources, is based on the concept of Study Demands–Resources (SD–R) (Bakker & Demerouti, 2007). Some tools, such as the ECSA–ESO climate scale, draw on a variety of concepts that allow for a broad definition of social climate (Pérez et al., 2010) and highlight the complexity of the construct in question.

The research tools cover both individual factors – related to students' resources and deficits—and institutional factors concerning the functioning of the university. Their main drawbacks are their extensive nature, the excessive detail of the items, and the fact that they are based on a model of studying that is outdated in the Polish context – one understood as focused exclusively on the role of a student spending most of their time on campus.

The available scales vary significantly in terms of scope and level of detail. The most comprehensive tools include *Social Climate Environment Scale* by Moos (Moos, 1975, 1994) comprising 90–96 items across nine subscales and designed to provide a multidimensional assessment of the institutional climate, and *Questionário de Vivências Acadêmicas* (QVA–r) (Almeida et al., 2002), which, after being reduced from 170 items, now contains 60 items covering five areas of academic adaptation. Similarly, *College Student Satisfaction Questionnaire* (CSSQ) (Betz et al., 1970) 6-dimensional scale consists of 92 items. The tools for measuring student satisfaction are particularly extensive; for example, *Satisfaction with Academic Experience Scale* (Santos et al., 2013; Schleich et al., 2006) contains 35 items related to satisfaction with classes, opportunities for development, and the institution's operations. Another tool for measuring student satisfaction *Escala de Satisfação com a Experiência Acadêmica* (ESEA) (Schleich et al., 2006), based on the earlier QVA-r questionnaire (Almeida et al., 2002), contains 40 items across five conceptual dimensions: personal, interpersonal, professional, academic, and institutional.

The Areas of Academic Life Scale (Chirkowska-Smolak et al., 2023), includes 25 items across six areas related to educational quality, administration, and academic relations, while the *College Student Survey* (HERI, 2025) includes 27 items across five areas.

In the literature, there is a growing tendency to reduce the length of the original social climate assessment instruments. For example, the ECSA–ESO climate scale developed by Pérez, Ramos, and López (Pérez et al., 2010) contained 41 items that assessed nine aspects: *Interest/Respect/Anxiety, Satisfaction/Expectations, Relationships, Competitiveness/Popularity, Communication, Cooperation/Democracy, Norms/Discipline, Group Cohesion,* and *Group Organization* as a result of the adaptation, it was reduced by half. New scales were developed, such as the ECSA–U, which contains 22 items across 3 factors: peer relationships, professor–student relationships, and adherence to rules and a sense of belonging (Munizaga Mellado et al., 2018) or its further adaptation, the ECSA-UCL, which contains 24 items, also organized into 3 factors (León et al., 2024).

Rostán et al. adapted the ECSA–ESO to improve its alignment with university settings. As a result of the adaptation and validation process, *School Classroom Social Climate Scale* (ECSA–U) identified three distinct CSCS–U factors across 22 items in a university setting: (1) student relationships, (2) faculty performance and professor–student relationships, and (3) adherence to norms and a sense of belonging (Rostan Sánchez et al., 2017).

Among the most concise tools is *Academic Life Satisfaction Scale* (ALSS) (Nogueira, 2019), consisting of 8 items across two factors: personal satisfaction and satisfaction with the academic environment.

The above analysis of available tools points to the need to develop a concise, contemporary tool adjusted to the realities of Polish universities, one that will enable the assessment of key institutional aspects of the university's social climate from the students' perspective. It was assumed that such a measurement should be as concise as possible to ensure its usefulness in population-based studies and to allow for the formulation of recommendations aimed at reducing

the risk of student *drop-out*. Based on the literature review, a short scale for assessing the quality of the university social climate, the USCQS, has been developed.

The results confirm that both the full and the abbreviated versions of the scale exhibit very satisfactory psychometric properties; however, the 7-item version demonstrates a more favourable psychometric profile. High Cronbach's alpha coefficients in both versions of the scale indicate high internal consistency, although an α value above .90 in the full scale suggests potential content redundancy (Tavakol & Dennick, 2011). Reducing the number of items made it possible to maintain high reliability while eliminating redundant content.

An analysis of the correlations between items provided additional evidence supporting the superiority of the short form. In this version, the correlation values were more consistent, and the mean inter-item correlation coefficient fell within the optimal range (DeVellis, 2017). The PCA results also clearly indicate that the USCQS scale measures a single construct – in both the 14-item and 7-item versions, a single component with a high eigenvalue was identified, explaining 55.83% and 61.78% of the variance, respectively, in the unrotated solution.

The item analysis highlighted moderate floor and ceiling effects, indicating satisfactory scale sensitivity, although in two items the ceiling effect exceeded the recommended values (Terwee et al., 2007b). This may indicate that, in areas related to interpersonal relationships and support from the academic community, respondents are more inclined to give positive assessments, a factor that should be considered in further stages of work on the tool.

The results should also be interpreted in the context of previous studies indicating that both student engagement and burnout are significant predictors of academic achievement and the intention to drop out of university, with burnout undermining the positive effect of engagement (Marôco et al., 2020). This underscores the importance of institutional factors – such as relationships, support, and the organization of education – that can foster engagement while also preventing burnout. Furthermore, it is noted that the first semesters of university require means of support to help students adjust, including such measures as orientation programs, workshops on study organization, and strategies for managing academic workload (Behr et al., 2021). In this context, the USCQS can serve as a useful tool for identifying areas of the academic environment that are important for students' well-being and limiting the risk of *drop-out*.

Limitations and Directions for Further Research

The analyses used in this study allowed for a preliminary assessment of the scale's properties and an appropriate reduction in the number of items. The shortened, 7-item version of the USCQS is characterized by high reliability and a consistent structure, while limiting redundancy in content. However, this study has certain limitations. First and foremost, the sample was collected using the snowball sampling method, and this recruitment method means that the group of participants is not fully representative and may reflect the specific characteristics of the environment of those inviting others to participate (Pasikowski, 2024).

The sample was heavily female dominated (77% women), which reflects the specific nature of certain fields of study but may also limit the possibility of generalizing the results to the student population in Poland. At the same time, it is worth noting that the overrepresentation of women in student studies is a phenomenon also observed in OECD analyses (OECD, 2025). Another limitation is that the pilot study was cross-sectional in nature, which precludes the analysis of changes over time and the assessment of test–retest stability. This study provides a foundation for further validation work, including an analysis of external validity and potential differences among subgroups. In the future stages of the project, it is planned to conduct studies on more demographically diverse samples and to conduct CFA analyses, which will allow for a comprehensive assessment of the scale's properties. Furthermore, the planned inclusion of the USCQS scale in studies of college students as part of the POLARES project will enable the assessment of long-term changes in the perception of the college climate and an examination of to what extent this climate is associated with indicators of mental health and the engagement in risky behaviours within this group, including analyses aimed at assessing external validity by examining the correlations between the scale's scores and the level of social support and mental well-being among students.

Conclusion

A pilot study showed that the abbreviated, 7-item version of the USCQS is a tool of high psychometric quality, allowing for a reliable and concise measurement of the social climate at a university. This tool can be helpful not only in assessing the quality of the academic environment but also in identifying areas that may be important for students' well-being and their retention in the academic program. Thus, the USCQS can provide valuable support to higher education institutions in designing initiatives aimed at improving the social climate and responding early to risk factors, such as a diminished sense of support or an increasing academic workload. The results obtained confirm the tool's potential for both research and practical applications.

Declarations

Declaration of conflict of interest
The Authors declare that none of the Authors has a potential conflict of interest regarding the research, authorship, or publication of this article. The Authors have no material financial or nonfinancial interests that require disclosure, nor do they have any competing interests related to the content of the article. The Authors also confirm that they are not affiliated with or involved in the activities of any organization or entity that might have a financial or non-financial interest in the subject matter or materials discussed in this manuscript.

Entities that contributed to the publication and their contribution
Not applicable

Ethical approval
This study was approved by the Ethics Committee (number and name of the institution): 345/2024, University of Warsaw

Data availability statement
The data are not available in the repository and are not accessible upon request from other researchers: The data contain sensitive information about the participants. The consent given by the study participants did not cover the public release or transfer of the data to other researchers.

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In preparing this article, the Authors used artificial intelligence-based tools to make stylistic and editorial corrections throughout the text. All changes suggested by the artificial intelligence tool were carefully reviewed by the Authors. The Authors bear full responsibility for the final content of the manuscript.

Declaration of authors' contributions to the manuscript
Maria Łukaszek: Conceptualization, Data Management, Research, Project Management, Resources, Writing – First Draft, Writing – Review and Editing.
Alicja Kozakiewicz: Conceptualization, Data Management, Formal Analysis, Research, Methodology, Visualization, Writing – First Draft, Writing – Review and Editing.
Joanna Mazur: Conceptualization, Data Management, Formal Analysis, Research, Methodology, Supervision, Validation, Visualization, Writing – First Draft, Writing – Review and Editing.

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Appendixes

Appendix A

Scale layout

Please assess the extent to which the following statements reflect the social climate at the university or college where you are currently studying.

Content of the statement	1. I strongly disagree	2. I disagree	3. I neither agree nor disagree	4. I agree	5. I strongly agree
1. Courses are well prepared and taught in a clear and understandable manner.	☐	☐	☐	☐	☐
2. The requirements placed on students are reasonable and promote the development of high professional competence.	☐	☐	☐	☐	☐
3. The relationships between students and professors are based on mutual respect.	☐	☐	☐	☐	☐
4. Students have a say in decisions made by university administrators.	☐	☐	☐	☐	☐
5. Students in my classes support one another.	☐	☐	☐	☐	☐
6. My university provides good learning conditions by offering a well-developed and extensive infrastructure tailored to students' needs.	☐	☐	☐	☐	☐
7. Studying is accompanied by healthy academic competition.	☐	☐	☐	☐	☐

Appendix B

Initial USCQS scale items

Item	Content of the statement
1.*	Courses are well prepared and taught in a clear and understandable manner.
2.	Students are motivated to expand their knowledge and acquire new skills.
3.*	The requirements placed on students are reasonable and promote the development of high professional competence.
4.	Faculty members evaluate students objectively and fairly.
5.*	Relationships between students and professors are based on mutual respect.
6.*	Students have a say in decisions made by university administrators.
7.	Faculty members provide students with both academic and emotional support.
8.*	Students in my classes support one another.
9.*	My university provides good learning conditions by offering a well-developed and extensive infrastructure tailored to students' needs.
10.	The university's administrative services are well-organized and run smoothly.
11.	The university facilitates the integration of the academic community during free time outside of classes.
12.*	Studying is accompanied by healthy academic competition.
13.	The university provides students with opportunities for active recreation and supports the development of their interests.
14.	The professional skills acquired during the program seem to align with the requirements of the employment market.

* Items included in the final version of the 7-item USCQS scale.