U.PORTO

MESTRADO INTEGRADO EM MEDICINA

Mental health literacy in higher education: Perceptions of students from University of Porto

Mariana Fernandes Almeida

M

2025

Mental health literacy in higher education: Perceptions of students from University of Porto

Artigo Original

Dissertação de Candidatura ao Mestrado Integrado em Medicina

Submetida ao Instituto de Ciências Biomédicas Abel Salazar – Universidade do Porto

Autora: Mariana Fernandes Almeida

Estudante do 6º Ano do Mestrado Integrado em Medicina

Instituto de Ciências Biomédicas Abel Salazar - Universidade do Porto

Endereço Eletrónico Institucional: up201807630@icbas.up.pt

Orientadora: Professora Doutora Célia Felícia Belim Rodrigues

Professora auxiliar do Instituto Superior de Ciências Sociais e Políticas, Centro de Administração e Políticas Públicas – Universidade de Lisboa

Endereço de correio eletrónico: cbelim@iscsp.ulisboa.pt

Coorientadora: **Doutora Isabel Maria Lourinho dos Santos Gonçalves Peixoto**

Coordenadora do Gabinete de Apoio ao Estudante, Empregabilidade e Alumni do Instituto de Ciências Biomédicas Abel Salazar – Universidade do Porto

Endereço de correio eletrónico: imlourinho@icbas.up.pt

Coorientadora: Professora Doutora Ana Cristina Garcia dos Remédios Vaz de Almeida Sobral Domingues

Professora Auxiliar do Instituto Superior de Ciências Sociais e Políticas, Centro de Administração e Políticas Públicas – Universidade de Lisboa

Endereço de correio eletrónico: vazdealmeidacristina@gmail.com

Porto, julho de 2025

Mental health literacy in higher education: Perceptions of students from University of Porto

A autora:

Mariana Fernandes Almeida

(Mariana Fernandes Almeida)

A orientadora:

(Professora Doutora Célia Felícia Belim Rodrigues)

A coorientadora:

Isabel Lourinho Peixoto

(Doutora Isabel Maria Lourinho dos Santos Gonçalves Peixoto)

A coorientadora:

Assinado por: **Ana Cristina Garcia dos Remédios Vaz de Almeida Sobral Domingues**
Num. de Identificação: 07380133
Data: 2025.07.17 17:06:48+01'00'

(Professora Doutora Ana Cristina Garcia dos Remédios Vaz de Almeida Sobral Domingues)

Cristina Vaz de Almeida

Porto, julho de 2025

Declaration of Scientific Integrity

I, Mariana Fernandes Almeida, no. 201905736, a sixth-year student of the Mestrado Integrado em Medicina at the School of Medicine and Biomedical Sciences - University of Porto, declare that this dissertation is my own work and has not been submitted for any other course or curricular units, at this or any other institution. References to other authors (statements, ideas, thoughts) strictly comply with citation rules and are properly acknowledged in the text and in the reference list, in accordance with referencing guidelines. I am aware that the practice of plagiarism and self-plagiarism constitutes an academic offence.

Porto, July 2025

Mariana Fernandes Almeida

(Mariana Fernandes Almeida)

Agradecimentos

À Sociedade Portuguesa de Literacia em Saúde, na pessoa da minha orientadora Professora Doutora Célia Belim e coorientadora Professora Doutora Cristina Vaz de Almeida, pelo acolhimento deste projeto, pelo envolvimento próximo e pelos contributos que enriqueceram esta dissertação e que potenciaram a minha aprendizagem e espírito crítico na área da literacia em saúde.

À Doutora Isabel Lourinho, minha coorientadora, com a qual tive o privilégio de trabalhar ao longo de praticamente todo o meu percurso no ICBAS em tantas outras iniciativas e que com o mesmo entusiasmo, paixão e visão crítica que todos os dias aplica à nossa faculdade para o melhor da comunidade estudantil, aplicou também a este projeto e acompanhou cada passo do mesmo.

À Professora Doutora Carolina Lemos, pelo auxílio imprescindível na elaboração da análise estatística deste projeto e pela inspiração que é pela proximidade que tem com a comunidade estudantil e que verdadeiramente representa a essência de biomédicas.

Resumo

Introdução: A saúde mental (SM) é um componente essencial do bem-estar geral, especialmente durante o ensino superior, período marcado por uma maior vulnerabilidade ao sofrimento psicológico. Níveis mais elevados de literacia em saúde mental (LSM) têm sido associados a melhores comportamentos de procura de ajuda, práticas de autocuidado e resultados gerais em saúde mental.

Objetivos: Avaliar os níveis de literacia em saúde mental (LSM) entre os estudantes da Universidade do Porto (U.Porto), identificar fatores influenciadores, explorar comportamentos de procura de informação e avaliação da sua credibilidade, e propor recomendações para melhorar estratégias de LSM no contexto académico.

Métodos: Foi realizado um estudo transversal com metodologia mista, envolvendo estudantes da U.Porto. A componente quantitativa consistiu num questionário online que avaliou a LSM através da versão portuguesa da *Mental Health Literacy Scale* (MHLS). A componente qualitativa envolveu um grupo focal com estudantes de 7 faculdades, selecionados através das associações de estudantes. Os dados quantitativos foram analisados com recurso a estatística descritiva e inferencial; os dados qualitativos foram examinados por análise temática.

Resultados: Participaram no estudo um total de 136 estudantes da U.Porto, maioritariamente do género feminino (73,5%) e provenientes de faculdades da área da saúde (66,2%). Mais de metade dos participantes já tinha experienciado problemas de SM,e 89% referiram ter amigos próximos com experiências semelhantes. As fontes de informação mais utilizadas foram profissionais de saúde mental, amigos e sites institucionais. Embora muitos estudantes aplicassem critérios críticos para avaliar a credibilidade da informação, 11% relataram não avaliar as fontes de forma alguma. A pontuação global na MHLS foi relativamente elevada (M = 133,73; DP = 10,38). O domínio com maior pontuação foi "Atitudes em relação à promoção da saúde mental positiva ou ao comportamento de procura de ajuda", enquanto o mais baixo foi "Conhecimento sobre fatores de risco e causas". Níveis mais elevados de LSM associaram-se significativamente ao género feminino, à frequência de cursos da área da saúde, ao acesso prévio a apoio profissional, ou a ter amigos próximos com problemas de saúde mental. O grupo focal revelou que a ansiedade, *burnout* e depressão são as preocupações mais comuns, que o estigma persiste de forma subtil, e que as redes sociais contribuem para a desinformação. Os resultados mostraram um forte apoio à inclusão da LSM na vida académica e identificaram a falta de informação e o estigma como barreiras centrais

ao acesso ao apoio. Os participantes do grupo focal destacaram a necessidade de melhores estratégias de apoio contínuo.

Conclusão: Os estudantes da UP demonstraram níveis relativamente elevados de LSM, mas persistem lacunas no conhecimento sobre fatores de risco e na capacidade de navegar pela informação em saúde mental. Uma LSM mais elevada esteve associada ao género feminino, ao estudo em áreas da saúde, à convivência próxima com amigos com problemas de saúde mental e à utilização prévia de serviços profissionais. Os estudantes equilibram a confiança nos profissionais de saúde mental com o uso das redes sociais, mas alguns não avaliam criticamente a credibilidade da informação, o que evidencia a necessidade de desenvolver competências digitais e de pensamento crítico na promoção da LSM. A LSM deve ser integrada na vida académica através de estratégias contínuas, práticas e com o envolvimento dos docentes. Este estudo preenche uma lacuna no contexto do ensino superior português e sugere investigações futuras com amostras maiores, desenhos longitudinais e a exploração de ferramentas digitais e curriculares para promover a LSM.

Palavras-chave: Literacia em Saúde Mental; Ensino Superior; Estudantes Universitários; Comportamento de Procura de Informação sobre Saúde Mental; Universidade do Porto

Abstract

Introduction: Mental health (MH) is a key component of overall well-being, especially during higher education, a period marked by increased vulnerability to psychological distress. Higher mental health literacy (MHL) has been associated with improved help-seeking behavior, self-care practices, and overall MH outcomes.

Objectives: To assess MHL levels among University of Porto (U.Porto) students, identify influencing factors, explore information-seeking behaviors and information credibility assessment, and propose recommendations to enhance MHL strategies within the academic context.

Methods: A mixed-methods, cross-sectional study was conducted with U.Porto students. The quantitative component included an online survey assessing MHL using the Portuguese version of the mental health literacy scale (MHLS). The qualitative component involved a focus group (FG) with students from 7 faculties, selected via student associations. Quantitative data was analyzed using descriptive and inferential statistics; qualitative data was examined through thematic analysis.

Results: A total of 136 U.Porto students participated, mostly female (73.5%) and from health-related faculties (66.2%). Over half had experienced MH issues, and 89% reported close friends with similar experiences. The most used information sources were MH professionals, friends, and institutional websites. While many students applied critical criteria to assess information credibility, 11% reported not evaluating sources at all. The overall MHLS score was relatively high (M = 133.73, SD = 10.38). The highest-scoring domain was “Attitudes towards promoting positive mental health or help-seeking behavior” while the lowest was “Knowledge of risk factors and causes”. Higher MHL was significantly associated with being a female student, studying in health faculties, having accessed professional support in the past or having close friends with mental health issues. The FG revealed that anxiety and burnout are the most common concerns, stigma persists in subtle forms, and social media contributes to misinformation. Both quantitative and qualitative results showed significant support towards the inclusion of MHL in academic life and identified lack of information and stigma as key barriers to accessing support. FG participants highlighted the need for better continuous support strategies.

Conclusion: U.Porto students demonstrated relatively high MHL, but gaps remain in understanding risk factors and navigating MH information. Higher MHL was associated with being female, studying in health fields, having close friends with MH issues, and prior use of professional services. Students often balance trust in MH professionals with reliance on social media, yet some do not critically assess information

credibility, which underscores the need for digital and critical thinking skills in MHL promotion. MHL should embedded into university life through ongoing and practical strategies, with targeted interventions and faculty members' involvement. It fills a gap in the Portuguese higher education context and calls for future research with larger samples, longitudinal designs, and exploration of digital and curricular tools to advance MHL.

Key-words: Mental Health Literacy; Higher Education; University Students; Mental health Information-seeking behavior; Help-seeking; University of Porto

List of abbreviations

WHO	World Health Organization
MH	Mental Health
HE	Higher education
HEI	Higher education institutions
MHL	Mental Health Literacy
U.Porto	University of Porto
SASUP	Social Action Services of University of Porto
MHLS	Mental Health Literacy Scale
FG	Focus Group

Index

List of Tables

Introduction

According to the World Health Organization (WHO), mental health (MH) is defined as a state of well-being in which every individual realizes their own potential, can cope with the normal stresses of life, can work productively, and is able to contribute to their community. [1]

In Portugal, approximately 430,000 students are enrolled in higher education (HE), with the majority aged between 18 to 25 years - a critical period when MH disorders often emerge [2]. A recent study showed that a significant proportion of Portuguese HE students experience MH challenges, indicating that around 48% exhibit psychological distress symptoms, approximately 22.8% show signs consistent with MH disorders, and 23% report having ever considered self-destructive behaviors. [3] The higher levels of psychological distress are often related to academic pressures, the need to establish new social networks, financial worries and the task of maintaining their daily routine.[4]

In response, higher education institutions (HEI) in Portugal have taken steps to raise awareness and, where possible, expand MH services and resources to students.[2] University of Porto (U.Porto), specifically, has implemented, since 2024, the program Boost, Meet & Bloom at University of Porto, coordinated by the Social Action Services of the University of Porto (SASUP), adopting a stepped-care model that combines psychoeducational sessions, peer mentoring, mindfulness workshops, brief online interventions, and individual or group psychological counseling, with the main goal of supporting students' emotional resilience and mental health literacy (MHL). [5]

In fact, researchers emphasize the need for targeted strategies, particularly those based on MHL, to equip students with information about MH symptoms and disorders, to facilitate self-compassion and self-care, to address the negative perceptions and attitudes toward poor MH, and to provide clear pathways about how to access mental services when needed. [6, 7]

The term MHL was first introduced in 1997, and it was defined as ‘knowledge and beliefs about mental disorders which aid their recognition, management or prevention’. [8] Furthermore, MHL was defined as having several components, including (a) the ability to recognize specific disorders or types of psychological distress; (b) knowledge and beliefs about risk factors and causes; (c) knowledge and beliefs about self-help interventions; (d) knowledge and beliefs about professional help available; (e) attitudes which facilitate recognition and appropriate help-seeking; and (f) knowledge of how to seek MH information. [9]

Recent research shows that HE students with higher levels of MHL are more likely to recognize symptoms of mental distress, seek professional help, and engage in self-care practices, therefore confirming a positive correlation between MHL and help-seeking behavior. [10] [11] [12] Furthermore, high levels of MHL can lead to better MH outcomes, including reduced distress and improved self-compassion [13], and educational initiatives that enhance MHL can foster a healthier student population, ultimately contributing to academic success and personal development. [10]

This study set out to achieve three main objectives. Firstly, it aimed to assess the level of MHL amongst students at U.Porto and to identify sociodemographic and cultural factors that influence MHL scores. Secondly, it sought to identify the most used sources of MH information and the criteria used to assess its credibility. Lastly, the study aimed to explore students suggestions for improvement and propose recommendations to enhance MHL within U.Porto and, by extension, within the Portuguese HE context.

Methods

A cross-sectional study with an analytical component was conducted among students from U.Porto. This study employed a mixed-methods approach, integrating both quantitative and qualitative data collection techniques.

Quantitative Technique: Online Survey

The quantitative component consisted of an online survey designed to assess U.Porto students' MHL and related experiences, that was available for participants to respond between the 24th of March and the 24th of April of 2025.

The survey consisted of four sections with different thematic dimensions, with a total of 55 items. The first section was related to sociodemographic Information, with questions that covered gender, age, level of HE, faculty, place of residence, social support grants and employment status. The second section regarding MH history assessed students' past experiences, professional help-seeking behaviors, and exposure to MH issues among relatives and close friends, also including questions on sources of MH information and criteria for assessing credibility.

The third section was dedicated to the mental health literacy scale (MHLS)**.** The MHLS is a 35-item measure of MHL that assesses common disorders recognition, knowledge of help-seeking information, knowledge of risk factors and causes, knowledge of self-treatment, knowledge of professional treatments available, and attitudes toward promoting positive MH or help-seeking behavior [(14)]. The MHLS has a minimum score of 35 and a maximum score of 160, where higher scores indicate greater MHL, and has been shown to have good internal consistency with a Cronbach's alpha of .873 and test-retest reliability ($r = .797$, $p < 0.001$).[(14)] MHLS has been adapted and validated for the Portuguese population, demonstrating good psychometric properties, showing a good internal consistency (Cronbach's alpha = .853).[(15)] For the current study, the original content and conceptual structure of the instrument was maintained, and to follow the structure of the MHLS items were rated on 4- or 5- point Likert scales.

The last section was related to students' perceived role of HEI role in MHL promotion. It addressed awareness of institutional psychological support offices, perceived barriers to accessing MH services and views and preferred strategies towards integrating MHL into the academic environment.

The survey was created using *Microsoft Forms,* ensuring secure data collection, wide accessibility and flexible participation, as well as ensuring anonymity. This method offers advantages such as lower financial costs, faster data collection, and the ability to reach a wider and more diverse sample, while also facilitating real-time monitoring of responses and reducing the need for physical materials and labor. [16]

A convenience sampling approach was used. The student population at the University of Porto is estimated at 30,000, and a minimum sample size of 380 was calculated using the formula for finite population correction for a 95% confidence level and 5% margin of error (≈1.3% of the total population). The survey was distributed through multiple communication channels, including Students' Associations, *Instagram*, *WhatsApp* groups, and institutional email platforms.

Qualitative Technique: Focus Group (FG)

A FG discussion was conducted on April 14th of 2025 to gain a deeper understanding of students' MHL and their perspectives on U.Porto's strategies and resources. The FG took place online via *Zoom* to facilitate participation and lasted one hour and thirty minutes. Participants were selected with the support of the Students' Associations from U.Porto, as they were contacted via e-mail and asked to nominate a student from their faculty who was available and willing to discuss the topic of MHL in HE. The aim was to ensure representation across all fourteen faculties, but was ultimately secured from only seven faculties, as some either did not respond or declined to nominate a participant. Ethical procedures were followed throughout, including informed consent, confidentiality, and voluntary participation.

The session followed a structured discussion guide, while also allowing space for open contributions. The guide had three thematic areas and a total of eight questions. The first section explored personal experience and perceptions of MH in HE, with questions about the students' perceived level of knowledge about MH, the clarity of common terms such as *anxiety*, *burnout*, and *depression*, and whether they believe stigma around MH is still present among university students. The second section approached access to and use of MH information and explored where students typically seek information on MH, whether it influences their decision-making or attitudes, and what criteria they use to assess credibility. Finally, the third section focused on the role of HEI in MHL promotion, exploring students' awareness and perceptions of institutional psychological, and suggestions for improving MHL within the academic context.

Data Analysis

The collected quantitative data was analyzed using IBM SPSS version 30.0. Descriptive analyses (frequencies, percentages, means, and standard deviations) were conducted to summarize sociodemographic characteristics of the participants, their MH history and their perceptions on HEI role in MHL. The MHLS total score was computed by summing responses across all items and calculating the mean total score and standard deviation. Mean scores were also calculated for each MHLS subscale, and the relative performance was assessed by comparing obtained scores to their respective maximum values.

To examine relationships between MHLS scores and sociodemographic and MH history variables, inferential tests were applied: Independent-samples t-tests were used to compare MHLS scores across binary variables such as gender, level of education, area of studies, place of residence, receipt of social support grants, employment status, and history of MH problems; Pearson's correlation was conducted to assess the relationship between age and MHLS scores. For each test, statistical significance was set at $p < .05$, and 95% confidence intervals were reported where appropriate.

The FG data was analyzed using thematic analysis. First, the discussions were transcribed verbatim, and significant statements were coded. Recurring patterns were then identified and grouped into categories, such as "Perceived MH issues", "MHL and misinformation", "Stigma", "Behavioral changes", "Sources of information", "Access to services" and "Recommendations for improvement".

Results

Online Survey

Participants and Demographic characteristics

The sample was composed of 136 students from U.Porto, with a mean age of 21.68 years (SD = 2,939), with a maximum of 39 years old and a minimum of 18 years old (Table I). The gender distribution showed a predominance of female participants (73.5%) (Table I).

The sample was almost equally divided between students enrolled in bachelor's degrees or the first three years of Integrated Master's (50.7%) and those attending master's degrees or the final years of Integrated Master'(49.3%) (Table I). Furthermore, most of the participants (66.2%) were from a health-related faculty (Table I).

As for residence status, around 52.2% of participants were living away from their usual place of residence to attend university, while 47.8% lived at their permanent residence (Table I). 28.7% of students reported receiving a scholarship (Table I). 9.6% were working students, with most working less than 10 hours per week (46.2%) (Table I).

MH History

52.9% of students reported having experienced MH problems, while 24.3% said they had not, and 22.8% were unsure (Table II). In addition, 65.4% had sought previous professional MH support, 33.8% specifically in the past year (Table II). Regarding indirect exposure, 64% had first-degree relatives with MH issues, and 89% reported having close friends with similar experiences.

Regarding MH information sources used most frequently, most of the students indicated MH professionals (66.2%) (Table III). Other sources included: Institutional Websites (44.9%); Friends (45.6%); Books and science articles (30.9%); Family members (30.9%); Instagram (28.7%); *YouTube* (22.8%); *TikTok* (16.9%); teachers (16.2%); and Artificial Intelligence (AI) platforms (14%) (Table III).

As for how they evaluate the reliability of these sources, the most frequently reported criteria were the "comparison of information with other sources" (64%), "to check if it is from a recognized institution" (58.1%) and "if there are scientific references" (52.2%) (Table III). A minority of the students (14.7%) trust the recommendation of friends or family members and 11% don't evaluate the reliability of the sources they use regarding MH information (Table III).

MHLS

The scale used showed good internal consistency with an alpha Cronbach of .844 (Table IV). The overall MHLS score revealed a moderately high mean of 133.7279 (SD: 10.37695) (Table IV), indicating that the HE students who participated in this study possessed a relatively solid understanding of MH concepts. The analysis revealed varying levels of performance across its six dimensions. The highest-scoring domain was "Attitudes toward promoting positive mental health or help-seeking behavior" with a mean score of 68,2868 out of a maximum of 80, representing 85.35% of the total score (Table IV). Other domains also showed high mean scores, such as "Knowledge of self-treatment", "Knowledge of professional treatments available" and "Common disorders recognition", as the mean results reached 85%, 84.55% and 82.94% of the total possible scores, respectively (Table IV). The domains with the lowest scores were "Knowledge of help-seeking information" which reached a mean score of 79,25% of the maximum possible result and "Knowledge of risk factors and causes", with 72,05% (Table IV).

Regarding MHLS scores and gender, the results showed a statistically significant difference in the scores, with female students reporting a higher mean score, t(130) = 2.341, p = 0.021 (Table V). Regarding the comparison between age and MHLS mean scores, the analysis revealed a negative but non-significant correlation (r = –0.135, p = 0.118, n = 136) (Table V). The results showed no statistically significant difference in the results according to the level of HE (Table V). However, the analysis indicated that students in health-related faculties scored significantly higher (t(134) = 1.986, p = 0.049) than those in non-health faculties (Table V).

Concerning place of residence and receiving a financial grant for studies, no statistically significant difference was found between the results (Table V). Working students' mean score was lower than non-working students, with a result that approached but did not reach significance (p = 0.066) (Table V).

Although students who reported a history of MH problems had a slightly higher mean score, the results showed no statistically significant difference, t(103) = 1.191, p = 0.236. A statistically significant difference was seen for students who had previous contact with professional services, who showed higher results t(134) = 2.390, p = 0.018 (Table V). Similarly, the scores of students who had used professional MH services specifically in the past year also showed a statistically significant difference, showing a higher mean MHLS t(134) = 3.480, p < .001 (Table V).

Regarding having first-degree relatives with MH problems, the results showed no statistically significant difference (Table V). In contrast, the analysis revealed a statistically

significant difference in scores according to having close friends with MH problems, $t(128) = 2.626$, $p = 0.010$, with those students showing a higher mean score (Table V).

The role of HEI in MHL

Among the 136 responses, the vast majority (84.6%) reported being aware of institutional support structures within their own faculty, while 15.4% indicated they were not (Table VI). Regarding students' perceptions of institutional promotion of MHL in U.Porto, most students rated the institution's efforts as neutral (35.3%) or slightly insufficient (30.9%). Only 2.2% of respondents fully agreed that the university promotes MHL adequately, while 9.6% strongly disagreed (Table VII). Altogether, 40.5% of participants expressed some level of disagreement, while only 24.3% expressed agreement (Table VII).

In response to perceived barriers to accessing MH services in U.Porto, the most reported was "Lack of information about services", acknowledged by 67.6% of respondents (Table VIII). Moderate proportions of students also reported "Stigma associated with help-seeking" (34.6%), "Scheduling incompatibility" (33.8%); and "Lack of trust in mental health professionals" (25.7%) (Table VIII). Logistical and financial barriers were less frequently reported: Only 8.8% mentioned "Difficult to access location", and just 4.4% identified "High associated costs" as a limitation (Table VIII).

Most respondents expressed strong support for the importance of inclusion of MHL in the curriculum, as 41.9% fully agreed and an additional 33.8% agreed, bringing the overall agreement to 75.7% of the sample (Table IX).

In regards of what strategies students perceived should be used to promote this inclusion, the most widely supported strategies were "Establishing student support offices dedicated to psychological well-being" supported by 68.4% of participants and "Offering practical workshops for emotional well-being and self-management", endorsed by 65.4%. (Table X). Other strategies received moderate levels of endorsement: "Including mental health topics within existing courses" was supported by 51.5% of students; "Using social media to disseminate educational content" was approved by 42.6%; "Organizing extracurricular activities related to mental health" was backed by 41.2% (Table X).

FG

The FG was predominantly female, with 2 male participants, and had representation from both health-related faculties (N=4) and non-health related faculties (N=3) (Table XI).

Regarding the category “MH Issues”, all participants, regardless of gender or field of study, identified *“anxiety”* as the most prevalent issue among university students, and some participants also highlighted *“emotional overwhelm”* and *“burnout”* - especially during exam periods. *“Depression”* was also mentioned, as a *“frequent but less openly discussed”(FG-B)* condition. In general, these issues were described as linked to academic overload, time management, and concerns about the future - *“It’s about having so much to do, and then you’re just so drained that you don’t have time for yourself.”(FG-D)*

For the category “MHL and Misinformation”, there was a consensus across all participants that MHL is still lacking in the student community in HE. Health-related students noted that many peers misuse terms like “*anxiety”* and “*burnout”*, often without clinical understanding - *“Burnout is a term people use very casually, but they’ve never even been diagnose”.(FG-E)* Most participants raised concerns about the influence of social media and pseudo-professionals, pointing out how these platforms contribute to self-diagnosis and misinformation - *“People go on TikTok and believe anything if someone shares a diagnosis… I think that’s really dangerous.”(FG-B).* Non-health students admitted to a limited understanding, often based on personal experiences rather than formal knowledge - *“I only know what I’ve been told in therapy… I have no idea about other conditions.”(FG-C)*

For the category “Stigma”, the majority agreed that stigma has decreased, especially among younger generations, but persists in subtle and generational ways. Several students noted that talking to older family members about MH was still seen as taboo - *“Talking about this with my grandmother? Not worth it. She just doesn’t understand.”(FG-B) -,* while some participants expressed that while it is socially acceptable to say one is “stressed” or “burned out,” admitting to formal psychological support still leads to judgment or skepticism - *“There’s a big difference between saying ‘I feel down’ and saying ‘I’m seeing a psychologist.’ That second part still makes people uncomfortable”(FG-G).* Furthermore, a few students highlighted the presence of self-stigma, where individuals avoid seeking help due to fear of appearing weak, despite knowing the benefits of professional help.

Regarding the category “Behavioral Change”, several participants shared experiences of positive behavior change following seeking MH information or specific professional psychological support. Some described implementing coping techniques, such as breathing exercises or reframing anxious thoughts, and expressing greater empathy towards peers - *“I’ve learned how to help others because I went through it too” (FG-G).* Health students also mentioned being more capable of recognizing early signs of distress in others, due to their training - *“Now, with what I’ve learned, I can spot early signs of stress in first-year students”. (FG-F)*

Regarding the category “Sources of Information”, there was a clear difference between groups: health students mostly cited formal education, lectures, and workshops as their main sources of MH information, while non-health students relied more on peers, the internet, or avoided seeking information entirely - *“I don’t have any classes that cover this… I usually ask friends who study psychology”(FG-C).* Despite these differences, both groups expressed skepticism toward unverified online sources, particularly blogs or posts by unqualified individuals, in particular *“pseudo-professionals influencers”(FG-G)*. The credibility of the author, presence of scientific references, and platform reputation were seen as critical indicators of trustworthiness by most of the participants and there was strong agreement on the importance of consulting qualified MH professionals for accurate and personalized guidance.

For the category “Access to Services and Communication”, many non-health students revealed they were unaware of the psychological services offered by the university or their faculties. Health students, especially those involved in student associations, were more familiar with SASUP services and faculty-based support but criticized the limited number of psychologists and long wait times - *“It’s hard to get regular weekly sessions. Sometimes it’s once a month.”(FG-E)* Several students mentioned a perceived lack of visibility of these services within their faculties and called for better communication strategies - *“I didn’t even know my faculty had anything like that”(FG-D,FG-B).*

Regarding the category “Recommendations for improvement”, participants across all demographics agreed that U.Porto should increase the number of professionals available and improve publicity around existing services. Non-health students advocated for MH content to be included in the curriculum - *“They should include this in the curriculum, especially in courses like mine that never talk about it”(FG-G).* Several participants proposed interactive formats like workshops or small group sessions, rather than passive campaigns - *“It should evolve from theoretical lectures to practical workshops, and from passive information campaigns to curriculum inclusion”(FG-F).* There was also a call for continuous and integrated MH initiatives, rather than isolated events - *“It shouldn’t be just one-off campaigns. It needs continuity.”(FG-D).* Innovative ideas such as a MHL podcast tailored for the students’ interest was also mentioned.

Discussion

The high percentage of students reporting previous MH problems and having friends with similar experiences show the high prevalence of psychological distress amongst HE students, data supported by a recent national study which showed that not only over a third of students had a MH problem, but also 40% were using psychotropic medications.[17] Therefore, this study highlights the importance and urgency of placing student MH and well-being at the forefront of academic priorities through local support services and through preventative and institution-wide strategies, as suggested by other literature. [17, 18] Nevertheless, most of the participants had sought previous professional psychological support, a third of students specifically in the past year, which suggests a degree of openness to acknowledging MH issues within this population and understanding of the importance to search for professional help.

The overall level of MHL among students of U.Porto was moderately high, which reflects a solid understanding of MH concepts among this population. In comparison to similar studies, U.Porto students showed higher results, as literature suggests only moderate levels of MHL in HE students.[10, 13] However, it is important to note that most participants in this study were from health-related faculties, which may have contributed to inflated MHL scores and a sampling bias.

The domain of the MHLS with the highest mean score - “Attitudes towards promoting positive MH or help-seeking behavior” — suggests that more than recognizing the importance of MH, students endorse supportive attitudes towards seeking help. High results in the domain “Knowledge of self-treatment” and “Knowledge of professional treatments available” further reinforce that students are aware of both formal and informal support strategies regarding MH, which may empower them to take initiative in managing their well-being. However, the lower results in the domains “Knowledge of help-seeking information” and “Knowledge of risk factors and causes” raises concerns, as students may still lack clarity about how and where to access information and appear to have gaps in foundational knowledge regarding MH. These results suggest that MHL promotion should not only focus on normalizing help-seeking but also emphasize psychoeducation about determinants of MH and clear guidance on navigating support systems.

The significantly higher MHL scores observed among female students reinforced established findings in the literature,[11, 13, 19] and the predominant representation of female students in the sample is consistent with participation patterns observed in similar studies focusing on MH and well-being in academic settings.[13, 19, 20] This may reflect gender-based differences in emotional openness, interest in health-related topics, or willingness to engage with MH issues.

Literature supports this theory, as studies have shown that women tend to express emotions more freely than men, who often feel societal pressure to appear strong and less vulnerable, with the emotional restraint in males correlating with lower MH attitudes and a reluctance to seek professional help. [21, 22]

Although no significant associations were found with variables such as residence status, financial support, or working student status, working students tended to score lower with a difference that nearly reached significance (p = .066), which may reflect reduced time or mental availability for engaging with MH information due to academic and professional pressures and busier schedules.

No differences were observed between level of HE or age and MHL scores, suggesting that simply progressing through university years may not be sufficient to improve MHL. While some studies indicate that younger students have higher MHL [19], particularly in specific subscales, other research suggests that age may not be a significant factor [10] or that older students might be more inclined to seek information.[11] The variation in findings highlights the likely influence of study context, academic discipline, and personal experiences on MHL levels across different age groups.

Students enrolled in health faculties showed significantly higher MHL scores, a finding supported by data from international literature where medical, nursing and psychology students consistently outperformed their peers. [11, 23, 24] This reinforces the importance of curricular exposure and suggests that incorporating MHL across disciplines could be key to improving literacy levels more broadly.

Students who had previously received professional MH support and those who had used MH services in the past year scored significantly higher, aligning with results from similar studies.[10] However, those who reported having experienced a MH problem did not show a statistically significant difference in literacy levels, highlighting that personal experience with psychological distress alone does not necessarily translate into greater knowledge or understanding of MH concepts. These findings align with international research suggesting that help-seeking behavior, rather than mere exposure, is a key driver of improved literacy. [19, 24] Considering that professional services often involve education, diagnosis clarification, and resource orientation, this emphasizes the importance of not only promoting awareness, but also ensuring that support systems are accessible, visible, and trusted, so that students are encouraged to move beyond recognition to action and deeper knowledge regarding MH.

Students with close friends affected by MH problems also had significantly higher MHLS scores, in agreement with other literature. [19, 25] No statistically significant differences were found for students with first-degree relatives with MH problems, indicating that family exposure alone may not be sufficient to influence MHL, which contrasts with other international studies. [11, 19] Although this finding may appear counterintuitive, in fact, families who have members with MH issues may perpetuate stigma, lead to concealment of MH issues and hinder open dialogue and support[26] , and children within these families may experience bullying and social isolation, further complicating their understanding of MH topics.[27] On the contrary, close friendships can provide emotional support, reducing feelings of isolation and stigma associated with MH problems[28] and this study showed, in fact, a higher percentage of students who trusted in friends to seek MH information when compared to family members.

Regarding MH information seeking-behaviors, quantitative results showed that students most frequently relied on MH professionals, friends, and institutional websites, suggesting a mix of formal and informal sources. On the other hand, qualitative insights reflected a complex relationship towards seeking MH information. While participants from health-related faculties favored scientific or professional materials, others acknowledged defaulting to social media or quick internet searches due to accessibility and familiarity, especially when in distress or under time constraints. This duality reflects a broader trend documented in the literature, in which students navigate between the credibility of expert sources and the immediacy and familiarity of peer-shared or algorithm-driven content. [29]

Specifically concerning the use of social media platforms, although social media influencers have the potential to encourage help-seeking behaviors and help normalize conversations around MH, [30] if their content lacks professional grounding it can also contribute to anxiety, depression, distorted self-image, and confusion regarding MH concepts.[31] This was reinforced by the results of the FG, as participants described *"pseudo-professionals influencers"* as confusing and potentially harmful, particularly for students seeking guidance during emotionally vulnerable moments.

This study showed that most students critically assess credibility of sources, cross-referencing sources, checking whether the information came from recognized institutions, or looking for scientific references. However, as shown in the quantitative result, 11% reported not evaluating credibility at all, highlighting a significant minority that may be more vulnerable to misinformation. This reinforces the important role of HEI in equipping students with the necessary skills to navigate the information ecosystem more effectively. Literature suggests this should be done through promoting critical thinking, focusing on identifying reliable information and

understanding biases, as well media literacy training, vital for teaching students how to navigate social media effectively, recognize deceptive strategies and understand the role of credible sources. [32, 33]

In addition, although only 14% of students mentioned the use of AI platforms to search for MH information, the growing use of AI has transformed the way students seek and interact with information, and AI holds substantial potential in promoting MHL. AI chatbots, for example, can offer 24/7 support, addressing students' MH concerns in real-time, increasing accessibility and decreasing stigma as interacting with a chatbot may feel less intimidating or judgmental than speaking to a human, allowing individuals to explore their feelings and concerns in a private, anonymous environment.[34] However, their usefulness depends on students' ability to critically assess their reliability, highlighting the importance of teaching students how to verify information obtained through AI and consider that dependence on AI may diminish the role of human collaboration and peer learning, potentially isolating learners.[35] Concerns regarding privacy, ethical implications, and the risk of dehumanization must be addressed, therefore establishing ethical frameworks is essential for guiding AI development, ensuring alignment with human values and addressing biases.[36]

Regarding barriers to accessing university-provided MH support services**,** while financial and logistical concerns were minimal, informational and psychosocial obstacles were prominent. Although a large majority of students from the quantitative survey were aware that their faculty provides access to MH support services, 67.6% of students cited lack of information as a barrier, results supported by the qualitative analysis, as most of the FG members described the university services as poorly promoted, often discovered only informally. In fact, educational initiatives that inform students about available psychological support services and their benefits are essential for improving help-seeking behaviors. [7, 19] Therefore, the results corroborate that institutional presence alone is insufficient, and without effective communication and proactive engagement strategies, services may remain underused and overlooked.

Over a third of the students mentioned stigma as a barrier to accessing these services, and FG participants also highlighted stigma as an important barrier. This aligns with international literature, which shows that stigma is a significant barrier to seeking psychological help, as it involves internalizing negative stereotypes about mental illness, which can deter individuals from accessing necessary support, [11, 37] considering that students often avoid seeking help due to the fear of being labeled or rejected by their peers.[13] Giving that it has been shown that higher levels of stigma are associated with lower MHL, [13] which in turn may affect individuals' willingness to seek

help, addressing stigma in HE through educational interventions may help enhance help-seeking behaviors, ultimately leading to better MHL and MH outcomes.

A substantial majority of students expressed agreement that MHL should be incorporated into university life, but only a small proportion of students strongly agreed that U.Porto actively promotes MHL. This perception gap highlights a broader issue: the promotion of MHL is not being internalized by students as a visible or meaningful part of their academic environment and is far from students' expectations.

The quantitative results regarding preferred strategies to promote MHL suggest that students expect institutions to address MHL proactively through practical and structured strategies, with a desire for options that are hands-on and skill-based, providing tangible support beyond theoretical awareness. The qualitative data supports this interpretation, and FG participants emphasized the need for integration that feels consistent, accessible, and normalized within academic routines.

Literature supports the benefits of the participants' preferred methods. Several studies have emphasized that integrating MH education into curricula can enhance student well-being and MHL, which indirectly supports academic performance, as it may improve their focus and engagement, promoting a holistic development. [38, 39]

Furthermore, evidence shows that practical workshops improve MHL, help-seeking behaviors and emotional self-awareness, [40, 41] and workshops focusing on creative expression, design thinking and participatory education can significantly enhance MHL. [42, 43] Nevertheless, it is essential to recognize that not all students may respond equally to these interventions, and individual differences in background, experiences, and preferences can influence the effectiveness of various workshop formats.

Social media awareness has also been proven to increase MH knowledge, attitudes and help-seeking behaviors.[44, 45] Using visual and interactive media—such as videos, infographics, quizzes, and polls—can simplify complex MH topics and foster greater student engagement and self-reflection.[20] A multi-channel communication approach is also essential, combining posters, email campaigns, and social media content tailored to each platform's strengths. [20] Targeted stigma-reduction initiatives—such as debunking myths and sharing personal stories—can foster empathy and normalize help-seeking.[37] Peer-led efforts, including support groups and MH first-aid training, play a crucial role in building trust and reducing barriers, and collaborating with student influencers and MH advocates can further amplify outreach.[20] Evaluating campaign effectiveness

through feedback and engagement metrics is essential,[20] as well as having a collaborative approach with the student community when designing interventions.[44]

Finally, although only 16.2% of participants in this study indicated teachers as source of MH information, teachers play a crucial role in HE by shaping students' character and well-being. [46] Therefore, considering MH education for HE teachers may enable them to recognize, identify and address signs of MH issues and foster emotional maturity, enhancing both their own MH and of their students, more research should be conducted towards understanding MHL levels among teachers to implement effective strategies that promote MHL.

Limitations

This study has some limitations that should be considered. Firstly, the use of a non-probabilistic, convenience sampling method for the survey may have introduced self-selection bias, as students with a pre-existing interest in MH and more availability may have been more likely to participate. [47] The self-reported nature of the data also introduces potential biases, as students may have under- or over-reported their MH knowledge, attitudes or engagement with information sources. [48] However, it's important to highlight that the MHLS is a widely used and validated instrument.

In addition, not only did the sample size fall short of the initially estimated target, which limits the statistical power of the analysis and constrain the generalizability of the findings, but it also consisted of an overrepresentation of participants from health-related faculties, which may have influenced the overall literacy scores and limited the ability to compare perspectives between disciplines. Furthermore, the cross-sectional design provides only a snapshot of MHL at one point in time and does not capture long-term changes, but literature highlights it's useful for establishing preliminary evidence in planning a future advanced study.[49]

Finally, this study focuses exclusively on the local context of students from U.Porto, which may limit the generalizability of its findings to other national or international HEI. However, this localized study offers valuable insights into the specific experiences, needs, and institutional structures of U.Porto and informs local representatives of strategies for promoting MHL in HEI with more effectiveness.

Regarding the FG, it was limited in size and scope, and no inclusion criteria were applied concerning sociodemographic factors such as age, gender or level of HE, which limited the ability to ensure broader diversity. Nevertheless, the study had almost equal representation of students from health and non-health faculties, which contributed to a bigger diversity of results and perceptions.

Despite these limitations, the study provides a valuable foundation for future research and institutional planning. Expanding the sample, incorporating longitudinal designs, and using mixed-method approaches with greater representation could help address these constraints and improve the current findings.

Conclusion

The findings indicate that, overall, university students demonstrate relatively high levels of MHL, particularly in attitudes toward promoting positive MH or help-seeking behavior. However, gaps remain, especially in areas such as knowledge of risk factors and causes, and knowledge of how and where to access MH information.

Female students, students enrolled in health faculties and those who had friends with MH problems showed a significant association with increased MHL scores. Variables such as age and level of HE did not show significant associations, highlighting that formal progression through university alone does not guarantee improved literacy. The findings suggest that direct engagement with MH services — rather than personal psychological distress alone — plays a more impactful role in enhancing MHL, as those who had previously accessed professional MH support scored significantly higher.

Information-seeking behaviors revealed a duality between trust in MH professionals and reliance on accessible but potentially unreliable platforms such as social media. A concerning proportion of students reported not critically assessing the credibility of the information they consumed, underlining the urgency of integrating critical thinking skills, as well as digital and media literacy training into MHL promotion.

Both quantitative and qualitative findings revealed that students expect MH to be treated as an integral, visible, and sustained part of university life, with continuous and regular efforts. The role of HEI must go beyond service availability and include proactive communication, stigma reduction, curriculum integration, and hands-on approaches. This study also highlights the importance of involving not only students but also teachers in MHL promotion and initiative design. Finally, the study reinforces that initiatives to promote MHL should focus on addressing disparities in MHL across different demographics and academic disciplines and ensure tailored interventions.

This research offers relevant insights into student needs, behaviors, and expectations. Scientifically, it's the first mixed-methods study regarding MHL in students from U.Porto, therefore contributing to filling a gap in the Portuguese HE context, where studies on MHL remain scarce. Socially and practically, the findings support the need for institutional strategies that are sustained, inclusive, and student-centered, enabling universities to act not only as academic spaces, but as environments that foster psychological well-being and a culture of promotion of MHL.

Future studies should aim to include larger and more representative samples, longitudinal designs to measure change over time, and targeted research on the roles of digital tools, educators, curriculum inclusion and hands-on approaches in shaping MHL.

Appendix

Tables

Table I. Descriptive analysis of sociodemographic characteristics of participants from the online survey

Sociodemographic data	Total (n=136)	%
Age (mean +- SD), years	21.68 +/- 2.94	
Gender		
Female	100	73.5%
Male	32	23.5%
Other	2	1.5%
Rather not say	2	1.5%
Level of higher education		
Bachelor's/1st, 2nd or 3rd year of an Integrated Masters	69	50.7%
Master's/4th, 5th or 6th year of an Integrated Masters	67	49.3%
Area of studies		
Health-related	90	66.2%
Non-health related	46	33.8%
Living situation		
Away from home	65	47.8%
Not away from home	71	52.2%
Social Grant for studies		
Yes	39	28.7%
No	97	71.3%
Working-student		
Yes	13	9.6%
No	123	90.4%
Weekly work hours		
<10 hours	6	46.2%
Between 10 and 19 hours	1	7.7%
Between 20 and 39 hours	5	38.5%
>40 hours	1	7.7%

Table II. Descriptive analysis of the mental health history of participants from the online survey

Mental Health History	Total (n=136)	%
Have you ever had a mental health problem?		
Yes	72	52.9%
No	33	24.3%
I don´t know	31	22.8%
Have you ever had mental health support from psychiatry or psychology professionals?		
Yes	89	65.4%
No	47	34.6%
In the past year, have you had mental health support from psychiatry or psychology professionals within urgency or consult format?		
Yes	46	33.8%
No	90	66.2%
Do you have 1st degree family members with mental health problems?		
Yes	87	64%
No	33	24.3%
I don't know	16	11.8%
Do you have close friends with mental health problems?		
Yes	121	89%
No	9	6.6%
I don't know	6	4.4%

Table III. Descriptive analysis of mental health information-seeking behavior of participants from the online survey

Mental health information-seeking behaviour	Total (n=136)	%
What sources do you use for mental health information?		
Instagram	39	28.7%
Tiktok	23	16.9%
Youtube	31	22.8%
Podcasts	20	14.8%
Artificial intelligence platforms	19	14%
Family members	42	30.9%
Friends	62	45.6%
Books or scientific articles	42	30.9%
Institutional websites	61	44.9%
Mental health professionals	90	66.2%
Teachers or tutors	22	16.2%
I don't search for mental health information	1	0.7%
How do you check if a mental information source is trustworthy?		
I don't check	15	11%
Compare the information with other sources	87	64%
Confirm if there are scientific references	71	52.2%
Trust the recommendations of friends/family members	20	14.7%

Table IV. Descriptive analysis of mental literacy scale scores of participants from the online survey

Table 4. Descriptive analysis of mental literacy scale scores of participants from the online survey

	Alpha Cronbach	Mean (SD)	Min-Max	% of total possible score
Mental health literacy scale	.844			
Total MHLS Score		133.73 (10.38)	92-156	
Scores according to domain				
Common disorders recognition		29.86 (3.08)	22-36	82.94%
Knowledge of risk factors and causes		5.76 (1.02)	2-8	72.05%
Knowledge of self-treatment		6.82 (1.11)	2-8	85.25%
Knowledge of professional treatments available		10.15 (1.96)	6-12	84.55%
Knowledge of help-seeking information		15.85 (2.87)	7-20	79.25%
Attitudes towards promoting positive mental health or help-seeking behaviour		68.29 (6.82)	46-48	85.35%

Table V. Comparison of total mental health literacy scale scores according to sociodemographic and mental health history variables

Variable	Mean Scores (SD)	Mean Difference	p
Gender			
Female	134.96 (10.02)	4.87	0.021
Male	130.09 (10.9)		
Level of higher education			
Bachelor's/1st, 2nd or 3rd year of an integrated masters	133.20 (9.46)	-1.07	0.551
Master's/4th, 5th or 6th year of an integrated masters	134.27 (11.29)		
Area of studies			
Health faculty	134.98 (10.44)	3.7	0.049
Non-health faculty	131.28 (9.92)		
Living situation			
Away from home	132.74 (9.83)	-1.9	0.289
Not away from home	134.63 (10.84)		
Social grant			
Yes	135.26 (8.97)	2.14	0.278
No	133.11 (10.87)		
Working-student			
Yes	128.69 (10.12)	-5.57	0.066
No	134.26 (10.30)		
Previous mental health problems			
Yes	135.25 (10.98)	2.67	0.236
No	132.58 (9.98)		
Previous mental health support from psychiatry or psychology professionals			
Yes	135.25 (10.18)	4.40	0.018
No	130.85 (10.23)		
Mental health support from psychiatry or psychology professionals specifically in the past year			
Yes	137.89 (9.6)	6.29	<.001
No	131.60 (10.16)		
1st degree family members with mental health problems			
Yes	134.52 (10.76)	1.73	0.422
No	132.79 (9.74)		
Close friends with mental health problems			
Yes	134.37 (10.35)	9.37	0.010
No	125 (9.94)		

Table VI. Descriptive analysis from the online survey regarding knowledge of existent support services within their faculty

Knowledge of existent support services	N (136)	%
Yes	115	84.6%
No	21	15.4%

Table VII. Descriptive analysis from the online survey regarding knowledge of existent support services within their faculty

Knowledge of existent support services	N (136)	%
Yes	115	84.6%
No	21	15.4%

Table VIII. Descriptive analysis from the online survey regarding the main barriers to access institutional mental health support services

Barrier	N (136)	%
Lack of information about the services	92	67.6%
Lack of trust in the professionals	35	25.7%
Difficult location	12	8.8%
Schedule incompatibility	46	33.8%
High costs	6	4.4%

Table IX. Descriptive analysis from the online survey regarding if including mental health topics in the curricula is important

Scale (1-5)	N (136)	%
1 - Totally disagree	3	2.2%
2 - Disagree	6	4.4%
3 - Nor agree nor disagree	24	17.6%
4 - Agree	46	33.8%
5 - Totally agree	57	41.9%

Table X. Descriptive analysis from the online survey regarding how they think mental health literacy should be incorporated in the curricula

Method	N (136)	%
Existence of a student support office	93	68.4%
Practical workshops in emotion management	89	65.4%
Inclusion of mental health topics in already existing classes	70	51.5%
Dissemination of educational content in social media	58	42.6%
Extracurricular activities related to mental health	56	41.2%

Table XI. Sociodemographic characteristics of participants from the focus group

Participant	Code	Gender	Faculty
A	FG-A	Female	Faculty of Medicine and Biomedical Sciences (ICBAS)
B	FG-B	Female	Faculty of Arts of University of Porto (FBAUP)
C	FG-C	Female	Faculty of Architecture of University of Porto (FAUP)
D	FG-D	Male	Faculty of Sports of University of Porto (FADEUP)
E	FG-E	Female	Faculty of Psychology and Educational Sciences of University of Porto (FPCEUP)
F	FG-F	Male	Faculty of Medicine of University of Porto (FMUP)
G	FG-G	Female	Faculty of Sciences from University of Porto (FCUP)

Online Survey

Literacia em Saúde Mental no Ensino Superior: Perceções dos Estudantes da UP

Tempo estimado para preenchimento: *10-12 minutos*
Objetivo do Estudo

- *Avaliar o nível de literacia em saúde mental dos estudantes da UP*
- *Explorar as principais dificuldades sentidas pelos estudantes da UP em aceder, compreender e aplicar informações e estratégias na área da saúde mental*
- *Aferir a relação entre o nível de literacia em saúde mental dos estudantes da UP e o seu comportamento na procura, compreensão e uso de informações sobre saúde mental*

Este projeto foi validado com um parecer positivo pela Comissão de Ética da Sociedade Portuguesa de Literacia em Saúde.

- Investigadora Principal: Mariana Almeida - Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto - up201905736@icbas.up.pt
- Orientadora: Célia Belim - Universidade de Lisboa, Instituto Superior de Ciências Sociais e Políticas - cbelim@iscsp.ulisboa.pt
- Co-orientadora: Cristina Vaz de Almeida - Universidade de Lisboa, Instituto Superior de Ciências Sociais e Políticas - vazdealmeidacristina@gmail.com
- Co-orientadora: Isabel Lourinho - Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto - imlourinho@icbas.up.pt

Section 1

1. Aceito o termo de consentimento informado
https://drive.google.com/file/d/1Pfm85MIhDAyFm8Ah7qyjwn4et3vMNf7X/view?usp=sharing
*

- ◯ Sim

Secção 1: Dados SocioDemográficos

2. **Género** *

- ◯ Feminino
- ◯ Masculino
- ◯ Outro
- ◯ Prefiro não dizer

3. **Idade** *

Enter your answer

4. **Ciclo de Estudos** *

- ◯ Licenciatura ou 1-3ºano de Mestrado Integrado
- ◯ Mestrado ou 4-6ºano de Mestrado Integrado
- ◯ Doutoramento
- ◯ Other

5. **Unidade Orgânica** *

- ◯ Faculdade de Desporto da Universidade do Porto (FADEUP)
- ◯ Faculdade de Ciências da Universidade do Porto (FCUP)
- ◯ Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto (ICBAS)
- ◯ Faculdade de Farmácia da Universidade do Porto (FFUP)
- ◯ Faculdade de Direito da Universidade do Porto (FDUP)
- ◯ Faculdade de Medicina da Universidade do Porto (FMUP)
- ◯ Faculdade de Arquitetura da Universidade do Porto (FAUP)
- ◯ Faculdade de Belas Artes da Universidade do Porto (FBAUP)
- ◯ Faculdade de Engenharia da Universidade do Porto (FEUP)
- ◯ Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto (FCNAUP)
- ◯ Faculdade de Economia da Universidade do Porto (FEP)
- ◯ Faculdade de Medicina Dentária da Universidade do Porto (FMDUP)
- ◯ Faculdade de Psicologia e Ciências da Educação da Universidade do Porto (FPCEUP)
- ◯ Faculdade de Letras da Universidade do Porto (FLUP)

6. **É estudante deslocado?** *

- ◯ Sim
- ◯ Não

7. **Recebe alguma bolsa de ação social para frequentar o seu ciclo de estudos?** *

- ◯ Sim
- ◯ Não

8. **É trabalhador estudante?** *

- ◯ Sim
- ◯ Não

9. **Número de horas que trabalha por semana** *

- ◯ Menos de 10 horas
- ◯ 10 a 19 horas
- ◯ 20 a 29 horas
- ◯ 30 a 39 horas
- ◯ 40 a 59 horas
- ◯ Mais de 60 horas

Secção 2: História de Saúde Mental

10. **Tem ou já teve algum problema de saúde mental?** *

- ◯ Sim
- ◯ Não
- ◯ Não sei

11. **Já teve algum acompanhamento profissional de psicologia ou psiquiatria?** *

- ◯ Sim
- ◯ Não

12. **No último ano, recorreu a algum serviço profissional de saúde em contexto de consulta ou urgência, devido a um problema de saúde mental?** *

- ◯ Sim
- ◯ Não

13. **Tem ou teve familiares em 1.º grau (pai/mãe/avó/avô) com problemas de saúde mental?** *

- ◯ Sim
- ◯ Não
- ◯ Não sei

14. **Tem ou teve pessoas amigas próximas com problemas de saúde mental?** *

- ◯ Sim
- ◯ Não
- ◯ Não sei

15. **A que fontes de informação sobre saúde mental recorre com mais frequência?** (Selecione todas as opções que se aplicam) *

- ☐ Instagram
- ☐ Tiktok
- ☐ Youtube
- ☐ Podcasts
- ☐ Websites institucionais
- ☐ Blogs ou fóruns online
- ☐ Livros ou artigos científicos
- ☐ Plataformas de inteligência artificial (exemplo: ChatGPT)
- ☐ Profissionais de saúde mental
- ☐ Amigos/as
- ☐ Familiares
- ☐ Parceiro/a
- ☐ Professores ou orientadores académicos
- ☐ Other

16. **Como avalia se uma fonte de informação sobre saúde mental é confiável?** (Selecione todas as opções que se aplicam) *

- ☐ Verifico se é de uma instituição reconhecida
- ☐ Confirmo se há referências científicas
- ☐ Comparo a informação com outras fontes
- ☐ Confio na recomendação de amigos/familiares
- ☐ Não costumo verificar

17. **Subsecção 3.1. - Reconhecimento das perturbações de saúde mental mais comuns**
A resposta aos seguintes itens é avaliada numa escala de Likert 1 a 4

- 1 representa "Extremamente Improvável"
- 2 representa "Improvável"
- 3 representa "Provável"
- 4 representa "Extremamente provável"

*

	1) Extremamente Improvável	2) Improvável	3)Provável	4)Extremamente p
Se alguém ficou extremamente nervoso ou ansioso em uma ou mais situações com outras pessoas (ex. numa festa) ou em situações de desempenho (ex.: falar numa reunião) por medo de avaliação e de humilhação, então em que medida considera provável que pessoas como esta tenham Fobia Social?	○	○	○	○
Se alguém ficou muito preocupado com um determinado número de eventos ou atividades onde teve dificuldade em controlar esta preocupação e teve sintomas físicos, como tensão muscular e fadiga, então em que medida considera provável que pessoas como esta têm Perturbação de Ansiedade Generalizada?	○	○	○	○
Se alguém experienciou um humor negativo por duas ou mais semanas, teve perda de prazer ou interesse nas suas atividades normais e experienciou mudanças no seu apetite e sono, então em que medida considera provável que pessoas como esta têm uma Perturbação Depressiva Major?	○	○	○	○
Em que medida considera provável que Perturbações da Personalidade é uma categoria de perturbação mental?	○	○	○	○
Em que medida considera provável que o diagnóstico de Agorafobia inclua ansiedade sobre situações em que a fuga possa ser difícil ou embaraçosa?	○	○	○	○
Em que medida considera provável que o diagnóstico de Perturbação Bipolar inclua períodos de humor elevado e períodos de humor deprimido?	○	○	○	○
Em que medida considera provável que o diagnóstico de Dependência de Substâncias inclua tolerância física e psicológica (ou seja, que é preciso maior quantidade de droga para ter o mesmo efeito)?	○	○	○	○

18. **Subsecção 3.2. - Conhecimento de fatores de risco e causas**

A resposta aos seguintes itens é avaliada numa escala de 1 a 4

- 1 representa "Extremamente Improvável"
- 2 representa "Improvável"
- 3 representa "Provável"
- 4 representa "Extremamente provável"

*

	1) Extremamente Improvável	2) Improvável	3)Provável	4)Extremamente p
Em que medida considera provável que no geral, em Portugal, as mulheres têm MAIOR probabilidade de experienciar uma perturbação de saúde mental de qualquer tipo quando comparadas com os homens?	○	○	○	○
25. Em que medida considera provável que, no geral, em Portugal, os homens têm MAIOR probabilidade de experienciar uma perturbação da ansiedade quando comparados com as mulheres?	○	○	○	○

19. **Subsecção 3.3. - Conhecimento de medidas de auto-ajuda**

A resposta aos seguintes itens é avaliada numa escala de 1 a 4

- 1 representa "Extremamente Improvável"
- 2 representa "Improvável"
- 3 representa "Provável"
- 4 representa "Extremamente provável"

*

	1) Extremamente Improvável	2) Improvável	3)Provável	4)Extremamente p
Em que medida considera que seria útil uma pessoa com dificuldades em gerir as suas emoções (ex., ficando muito ansiosos ou deprimidos) melhorar a qualidade do seu sono?	○	○	○	○
Em que medida considera que seria útil para uma pessoa com dificuldades em gerir as emoções evitar todas as atividades ou situações que a fazem sentir ansiedade?	○	○	○	○

20. **Subsecção 3.4. - Conhecimento de ajuda profissional disponível**

A resposta aos seguintes itens é avaliada numa escala de 1 a 4

- 1 representa "Extremamente Improvável"
- 2 representa "Improvável"
- 3 representa "Provável"
- 4 representa "Extremamente provável"

*

	1) Extremamente Improvável	2) Improvável	3)Provável	4)Extremamente p
Em que medida considera que é provável que a Terapia Cognitivo-Comportamental (TCC) é uma terapia que se baseia em desafiar os pensamentos negativos e a aumentar os comportamentos positivos?	◯	◯	◯	◯
Os profissionais de saúde mental estão sujeitos à confidencialidade, no entanto, existem certas condições nas quais isto não se aplica. Em que medida é que considera provável que a seguinte circunstância permitiria que um profissional de saúde mental quebrasse a confidencialidade: Se você está em risco iminente de magoar-se a si ou aos outros	◯	◯	◯	◯
Os profissionais de saúde mental estão sujeitos à confidencialidade, no entanto, existem certas condições nas quais isto não se aplica. Em que medida é que considera provável que a seguinte circunstância permitiria que um profissional de saúde mental quebrasse a confidencialidade: Se o seu problema não ameaça a sua vida e os profissionais querem ajudar outros a apoiarem-no	◯	◯	◯	◯

21. **Subsecção 3.5. - Conhecimento sobre procura de informação sobre saúde mental**

A resposta aos seguintes itens é avaliada numa escala de 1 a 5

- 1 representa "Discordo totalmente"
- 2 representa "Discordo"
- 3 representa "Não concordo nem discordo"
- 4 representa "Concordo"
- 5 representa "Concordo Totalmente"

*

	1) Discordo totalmente	2) Discordo	3)Não concordo nem discordo	4)Concordo	5)Concordo t
Estou confiante de que sei onde procurar informações sobre perturbação de saúde mental.	◯	◯	◯	◯	◯
Estou confiante que sei usar o computador ou telefone para procurar informação sobre perturbação de saúde mental.	◯	◯	◯	◯	◯
Estou confiante que consigo fazer contactos pessoais para procurar informação sobre perturbação de saúde mental (ex., com o médico de família)	◯	◯	◯	◯	◯
Estou confiante que tenho acesso a recursos (ex., médico/a de família, internet, amigos) para procurar informação sobre perturbação mental.	◯	◯	◯	◯	◯

22. **Subsecção 3.6. - Atitudes que promovem reconhecimento e uma procura de ajuda apropriada**

A resposta aos seguintes itens é avaliada numa escala de 1 a 5

- 1 representa "Discordo totalmente"
- 2 representa "Discordo"
- 3 representa "Não concordo nem discordo"
- 4 representa "Concordo"
- 5 representa "Concordo Totalmente"

*

	1) Discordo totalmente	2) Discordo	3)Não concordo nem discordo	4)Concordo	5)Concordo t
Pessoas com perturbação de saúde mental poderiam "dar a voltar por cima" se quisessem.	○	○	○	○	○
A perturbação de saúde mental é um sinal de fraqueza pessoal.	○	○	○	○	○
A Perturbação de saúde mental não é uma doença médica real.	○	○	○	○	○
Pessoas com perturbação de saúde mental são perigosas	○	○	○	○	○
É melhor evitar pessoas com perturbação de saúde mental de forma a não desenvolver este problema.	○	○	○	○	○
Se eu tivesse uma perturbação de saúde mental, não contaria a ninquém.	○	○	○	○	○
Consultar um profissional de saúde mental significa que não se é forte o suficiente para gerir as próprias dificuldades.	○	○	○	○	○
Se eu tivesse uma perturbação de saúde mental, não procurava ajuda de um profissional de saúde mental.	○	○	○	○	○
Eu acredito que o tratamento para a perturbação de saúde mental, prestado por um profissional de saúde mental, não seria eficaz.	○	○	○	○	○
Estaria disponível para ser amigo de alguém com uma perturbação de saúde mental?	○	○	○	○	○
Estaria disponível para ter alguém com perturbação de saúde mental a trabalhar junto de si?	○	○	○	○	○
Estaria disponível para ter alguém com perturbação de saúde mental casada com um familiar seu?	○	○	○	○	○
Estaria disponível para votar num político que soubesse que tinha sofrido de uma perturbação de saúde mental.	○	○	○	○	○
Estaria disponível para empregar alguém se soubesse que tinha tido uma perturbação de saúde mental.	○	○	○	○	○

Secção 4: Papel das Instituições de Ensino Superior na Literacia em Saúde Mental

23. Tem conhecimento que a sua Unidade Orgânica possui um Gabinete/Técnico responsável pelo apoio ao estudante, nomeadamente no que diz respeito ao acompanhamento psicológico? *

- ◯ Sim
- ◯ Não

24. **Considera que a Universidade do Porto promove adequadamente a literacia em saúde mental?** *

1) Discordo totalmente	2) Discordo	3) Não concordo nem discordo	4) Concordo	5) Concordo totalmente
◯	◯	◯	◯	◯

25. **Que barreiras enfrenta para aceder aos serviços de saúde mental da Universidade do Porto?**
(Selecione todas as opções que se aplicam) *

- ☐ Falta de informação sobre os serviços
- ☐ Estigma associado à procura de ajuda
- ☐ Incompatibilidade de horários
- ☐ Falta de confiança nos profissionais de atendimento psicológico
- ☐ Difícil localização
- ☐ Altos custos associados
- ☐ Other

26. **Em que medida considera que incluir temas de saúde mental no currículo académico é importante?** *

1) Discordo totalmente	2) Discordo	3) Não concordo nem discordo	4) Concordo	5) Concordo totalmente
◯	◯	◯	◯	◯

27. **Como considera que os temas de saúde mental deveriam ser incluídos no currículo e ambiente académico?**
(Selecione todas as opções que se aplicam) *

- ☐ Aulas ou seminários específicos sobre saúde mental
- ☐ Inclusão de tópicos de saúde mental em disciplinas já existentes
- ☐ Workshops práticos para gestão e bem-estar emocional
- ☐ Atividades extracurriculares que abordem saúde mental
- ☐ A existência de um gabinete de apoio ao estudante
- ☐ Divulgação de conteúdos didáticos nas redes sociais
- ☐ Other

Focus Group Discussion Guide

Experiência Pessoal e Perceção da Saúde Mental

Quais são os principais problemas associados a saúde mental que os estudantes do ensino superior mais enfrentam na vossa perceção?

Consideram-se estar bem informados sobre o tema da saúde mental e acham fácil compreender os termos usados quando se fala de saúde mental, como 'ansiedade', 'burnout' ou 'depressão'?"

Acham que existe um estigma associado a falar sobre problemas de saúde mental entre os estudantes ou que é bem aceite entre colegas? Porquê?

Acesso e Uso de Informação sobre Saúde Mental

Onde costumam procurar informação sobre saúde mental? (ex.: internet, redes sociais *online*, serviços universitários, profissionais de saúde, amigos/família)?;

Já mudaram alguma atitude ou decisão com base na informação sobre saúde mental?;

Que fatores influenciam a vossa escolha de fontes de informação e como diferenciam a confiabilidade/nível de confiança das fontes de informação a que recorrem?

Papel da Universidade e dos Serviços de Apoio/Recomendações e Soluções

Conhecem os serviços de apoio psicológico disponíveis na universidade e na vossa Unidade Orgânica e se já recorreram a eles ou conhecem alguém que tenha recorrido que avaliação fazem?

O que acham que a universidade pode fazer para melhorar o acesso, a compreensão e a qualidade da informação sobre saúde mental?

References

1. World Health Organization. Mental health: Strengthening our response: World Health Organization; 2022. Cited july 2025. Available from: https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response.

2. Governo de Portugal. Programa para a Promoção da Saúde Mental no Ensino Superior. [Internet] Governo de Portugal, Direção-Geral do Ensino Superior; 2024. Cited april 2025; Available from https://www.dges.gov.pt/pt/noticia/programa-para-promocao-da-saude-mental-no-ensino-superior

3. Teixeira C, Moreira D. Aplicação de um Inventário de Saúde Mental à População Universitária em Portugal. [Internet] RYSE, Associação Nacional de Estudantes de Psicologia. 2023. Cited march 2025; Available from: https://www.ryse.pt/iniciativas/anteriores/este-ano-n%C3%A3o

4. Rababah JA, Al-Hammouri MM, Drew BL, Aldalaykeh M. Health literacy: exploring disparities among college students. BMC Public Health. 2019;19(1):1401.

5. Universidade do Porto. Programa de promoção da saúde mental – BAMBUP: Universidade do Porto; 2024. Cited july 2025; Available from: https://www.up.pt/portal/pt/viver/saude-e-bem-estar/programa-de-promocao-da-saude-mental-bambup/.

6. Koutra K, Pantelaiou V, Mavroeides G. Breaking Barriers: Unraveling the Connection between Mental Health Literacy, Attitudes towards Mental Illness, and Self-Stigma of Psychological Help-Seeking in University Students. Psychology International. 2024;6(2):590–602.

7. Gorczynski P, Sims-Schouten W, Wilson C. Evaluating mental health literacy and help-seeking behaviours in UK university students: a country wide study. Journal of Public Mental Health. 2020; 19(4):311–9.

8. Jorm AF, Korten AE, Jacomb PA, Christensen H, Rodgers B, Pollitt P. "Mental health literacy": a survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. Med J Aust. 1997;166(4):182-6.

9. Jorm AF. Mental health literacy. Public knowledge and beliefs about mental disorders. Br J Psychiatry. 2000;177:396-401.

10. Kilinc ND, Kendirkiran G. Determining the Mental Health Literacy Level of University Students and Examining Their Attitudes Towards Seeking Psychological Help. Int J Ment Health Nurs. 2025;34(1):e13506.

11. Baklola M, Terra M, Taha A, Elnemr M, Yaseen M, Maher A, et al. Mental health literacy and help-seeking behaviour among Egyptian undergraduates: a cross-sectional national study. BMC Psychiatry. 2024;24(1):202.

12. Wilde N, Foxcroft D, Davies E. Exploring mental health literacy and help-seeking behaviours at university – A survey of UK undergraduate students considering the COM-B model. OSF Preprints. 2024.

13. Gorczynski P, Sims-Schouten W. Evaluating mental health literacy amongst US college students: a cross sectional study. J Am Coll Health. 2024;72(3):676-9.

14. O'Connor M, Casey L. The Mental Health Literacy Scale (MHLS): A new scale-based measure of mental health literacy. Psychiatry Res. 2015;229(1-2):511-6.

15. Neto DD, Rocha I, Figueiras MJ, Silva AN. Measuring mental health literacy: Adaptation and validation of the Portuguese version of the Mental Health Literacy Scale (MHLS). European Journal of Mental Health. 2021;16(1):64–77.

16. Dursun İ, Kabadayi ET, Yürüyen H. The Use of Online Questionnaires in Scientific Research: Opinions, Preferences and Concerns of Academicians. Eskişehir Osmangazi Üniversitesi Sosyal Bilimler Dergisi. 2022;23(1):1–23.

17. Diário de Notícias. Universitários querem menos sobrecarga de avaliações. 40% consomem medicamentos psicotrópicos. [Internet] Diário de Notícias. 2025. Cited july 2025; Available from https://www.dn.pt/sociedade/universit%C3%A1rios-querem-menos-sobrecarga-de-avalia%C3%A7%C3%B5es-40-consomem-medicamentos-psicotr%C3%B3picos

18. Murali R, Avudaiappan V. Unveiling the invisible struggles: Exploring student perspectives on mental health in universities. IEEE Potentials. 2024;43(3):31-5.

19. Dessauvagie ASD, Hoang-Minh; Truong, Tuyet; Nguyen, Thi Anh Thu; Nguyen, Bich Hong; Cao, Huong; Kim, Socheata; Groen, Gunter. Mental Health Literacy of University Students in Vietnam and Cambodia. International Journal of Mental Health Promotion. 2022;24:439–56.

20. Montagni I, Gonzalez Caballero JL. Validation of the Mental Health Literacy Scale in French University Students. Behav Sci (Basel). 2022;12(8).

21. Wendt DS, K. Gender and Attitudes about Mental Health Help Seeking: Results from National Data. Health & Social Work. 2016;41(1).

22. Lee HY, Hwang J, Ball JG, Lee J, Yu Y, Albright DL. Mental Health Literacy Affects Mental Health Attitude: Is There a Gender Difference? Am J Health Behav. 2020;44(3):282-91.

23. Miles RT, Krishnan A, Rabin LA, Brandt SA, Crispino ML. Does major make a difference? Mental health literacy and its relation to college major in a diverse sample of undergraduate students. Discov Ment Health. 2024;4(1):42.

24. Mahmoodi SMH, Ahmadzad-Asl M, Eslami M, Abdi M, Hosseini Kahnamoui Y, Rasoulian M. Mental Health Literacy and Mental Health Information-Seeking Behavior in Iranian University Students. Front Psychiatry. 2022;13:893534.

25. Alshehri E, Alosaimi D, Rufaidi E, Alsomali N, Tumala R. Mental Health Literacy Scale Arabic Version: A Validation Study Among Saudi University Students. Front Psychiatry. 2021;12:741146.

26. Reupert A, Gladstone B, Helena Hine R, Yates S, McGaw V, Charles G, et al. Stigma in relation to families living with parental mental illness: An integrative review. Int J Ment Health Nurs. 2021;30(1):6-26.

27. Adu J, Oudshoorn A, Anderson K, Marshall CA, Stuart H. Experiences of familial stigma among individuals living with mental illnesses: A meta-synthesis of qualitative literature from high-income countries. J Psychiatr Ment Health Nurs. 2023;30(2):208-33.

28. Hopkins L, Kuklych J, Pedwell G, Woods A. Supporting the Support Network: The Value of Family Peer Work in Youth Mental Health Care. Community Ment Health J. 2021;57(5):926-36.

29. Jia MC, Jiuqing; Ju, Ran; Zhu, Jian. Social Media as a Resource for Mental Health Literacy: Information Credibility and Usefulness in Seeking Behaviors Among College Students. SSRN Electronic Journal. 2025.

30. Owolabi BOL, O. U.; Falade, A. J.; Ikeokwu, K. O.; Aderounmu, A. E.; Kelechi, S. C. The Role of Media Influencers in Using their Platforms to Sensitize Nigerian Students on Mental Health. International Journal of Research and Innovation in Social Science. 2024;VIII(VIII):3883–92.

31. Huong XV. Exploring the Impact of Social Media on Mental Health from a Psychological Perspective: A Review of the Contemporary Literature. International Journal of Current Science Research and Review. 2023.

32. Gilmour T. Critical Thinking and Media Literacy in an Age of Misinformation. APSA Preprints. 2024.

33. Alalawi SB, S.; Almeqbaali, M.; Masud, M. M. Social Media Misinformation Propagation and Detection. IEEE; 2023. p. 240–5.

34. Anand NP, L. M.; Alam, T.; Pundir, S.; Thomas, L.; Rakshith, U. R. Artificial Intelligence's Contribution To Mental Health Education. International Conference on Sustainable Computing and Data Communication Systems (ICSCDS)2023. p. 462–7.

35. Islam A, Ali R, Singh G, Islam B, Hossain S. An Evaluation of AI-Enhanced Collaborative Learning Platforms. 2024 International Conference on Communication, Computer Sciences and Engineering (IC3SE); Gautam Buddha Nagar, India: IEEE; 2024. p. 207-11.

36. Adah WA, Ikumapayi NA, Muhammed HB. The Ethical Implications of Advanced Artificial General Intelligence: Ensuring Responsible AI Development and Deployment2023.

37. Aluh DO, Okonta MJ, Odili VU. Cross-sectional survey of mental health literacy among undergraduate students of the University of Nigeria. BMJ Open. 2019;9(9):e028913.

38. Gao T, Gao B, Wang L, Qing Z. Integrating mental health literacy into Chinese college student mental health education in the post-COVID-19 era. Front Public Health. 2024;12:1456579.

39. Zaza CY, R. C. It's Time to Bring Mental Health Literacy Education into the Postsecondary Curriculum. The Canadian Journal for the Scholarship of Teaching and Learning. 2023;14(1).

40. Ahorsu DK, Sanchez Vidana DI, Lipardo D, Shah PB, Cruz Gonzalez P, Shende S, et al. Effect of a peer-led intervention combining mental health promotion with coping-strategy-based workshops on mental health awareness, help-seeking behavior, and wellbeing among university students in Hong Kong. Int J Ment Health Syst. 2021;15(1):6.

41. Reis AEN, V.; Saheb, R.; Rutherford, E.; Sperandei, S. Improving university students' mental health literacy using experiential learning opportunities. Health Education Journal. 2023(82):184-99.

42. Kakembo AA. Promoting Health Literacy through Community Art Workshops. Research Output Journal of Education. 2024;4(2):22-5.

43. Galvão AA, E.; Chumbo, I. Design Thinking to Promote Mental Health Literacy for Higher Education Students. In: Rodrigues SM, J., editor. The Impact of HEIs on Regional Development: Facts and Practices of Collaborative Work With SMEs: IGI Global Scientific Publishing; 2023. p. 130–43.

44. Nazari A, Garmaroudi G, Foroushani AR, Hosseinnia M. The effect of web-based educational interventions on mental health literacy, stigma and help-seeking intentions/attitudes in young people: systematic review and meta-analysis. BMC Psychiatry. 2023;23(1):647.

45. Hassen HM, Behera MR, Jena PK, Dewey RS, Disassa GA. Effectiveness and Implementation Outcome Measures of Mental Health Curriculum Intervention Using Social Media to Improve the Mental Health Literacy of Adolescents. J Multidiscip Healthc. 2022;15:979-97.

46. Lubis EF, Hidayah HF, Adelia N, Nasution AF. The Role of Teachers in Developing Student Character in the Digital Age. Education Achievement: Journal of Science and Research. 2024;5(2):543–52.

47. Farrokhi F, Mahmoudi-Hamidabad A. Rethinking Convenience Sampling: Defining Quality Criteria. Theory and Practice in Language Studies. 2012;2(4):784–92.

48. Gorber SC, Tremblay MS. Self-Report and Direct Measures of Health: Bias and Implications. In: Shephard RJaT-L, Catrine, editor. The Objective Monitoring of Physical Activity: Contributions of Accelerometry to Epidemiology, Exercise Science and Rehabilitation: Springer; 2016. p. 369–76.

49. Wang X, Cheng Z. Cross-sectional studies: strengths, weaknesses, and recommendations. Chest. 2020;158(1, Supplement):S65–S71.

INSTITUTO DE **CIÊNCIAS BIOMÉDICAS ABEL SALAZAR**