

Validating the Spanish Mental Health Support Scale: A school-based approach to enhancing assessment and support for adolescents and future school health educators

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ABSTRACT

Promoting mental health literacy among adolescents is crucial for early prevention and intervention of mental health problems in school settings. This study aimed to develop and validate the Spanish Mental Health Support Scale for Adolescents (MHSSA). This study involved 578 responses (ages 13–52 years, $M = 20.28$, $SD = 6.29$) from both secondary school students in Burgos and future school health education professionals in Burgos and Oviedo, Spain. The questionnaire was composed of the standardised Spanish MHSSA scale and six additional standardised scales. Exploratory and confirmatory factor analyses supported a two-factor structure ($\alpha = 0.88$), comprising helpful and harmful intentions subscales. The Spanish MHSSA also demonstrated good test–retest reliability ($ICC = 0.88$). Initially, adolescents exhibited lower levels of mental health support behaviours compared to future school health educators, while post-intervention results showed significant improvements in support-seeking behaviours. Higher-quality support intentions were observed among women, post-test participants, individuals with prior lived experience of mental health problems, and future health professionals. These results demonstrate reasonable construct validity, further supported by the finding that scores on the Spanish MHSSA are also associated with lower social restrictive attitudes toward mental health problems (measured by the CAMI) and higher mental health literacy (measured by the MHLI). The findings indicate that the Spanish MHSSA is a valid and reliable tool for assessing both adolescents' and school health educators' intentions to engage in mental health-supportive behaviours.

1. Introduction

Mental health is a state of well-being that enables individuals to handle stress, develop skills, work effectively, and integrate into society (WHO, 2025). It is influenced by individual, familial, and environmental factors, and while many are resilient, adversity increases mental health risks (World Health Organization, 2024). Despite the existence of affordable treatments, resource shortages, stigma, discrimination, and rights violations restrict global access to care (WHO, 2025).

Mental health problems constitute a major global challenge, especially among adolescents (Sacco et al., 2024). Poor mental health affects

adolescents' education, employment, physical health, and life expectancy (Lu et al., 2023). The World Health Organization's, 2025 global mental health report estimates that 14% of adolescents worldwide, lived with a mental disorder (WHO, 2025). In Spain, adolescent mental health has deteriorated over the past two decades. Between 2000 and 2021, there were 2,015,589 hospitalisations, of which 5.9% were attributable to mental disorders, and the average age of psychiatric hospitalization decreased from 17 to 15 years (Soriano et al., 2024). Although most mental disorders begin in childhood or adolescence, delays in receiving treatment remain a persistent global concern (Lu et al., 2023). In Spain, the prevalence of mental health diagnoses increased from 3.9% in 2000

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to 9.5% in 2021 (Soriano et al., 2024).

Adolescence is a critical period for mental health development, with 48.4% of mental disorders emerging before age 18, peaking around 14 (Solmi et al., 2022). Notwithstanding this burden, young people have the lowest access to mental health services, underscoring the need for early intervention and the promotion of help-seeking behaviours (Pollard et al., 2025). Major barriers to accessing mental health care include stigma, negative attitudes, and misconceptions, whereas mental health literacy is a facilitating factor (Lozano-Sánchez et al., 2024).

Mental Health Literacy (MHL) refers to the ability to recognise mental problems, understand their causes and risk factors, know how to support someone experiencing difficulties, and foster attitudes that encourage help-seeking (Jorm et al., 1997). Improving MHL empowers young individuals to identify difficulties and seek timely assistance, underscoring the urgent need for comprehensive youth mental health policies (Lu et al., 2023; Lu, Hart, Jorm, Gregg, & Morgan, 2024). Deficits in MHL and mental health stigma remain major barriers to professional help-seeking across the general population (Amaechi, Nwani, & Akadieze, 2023; García-Sastre et al., 2024). Measuring MHL and stigma continues to be challenging due to limitations in existing tools, highlighting the necessity of validating culturally relevant scales (Lu et al., 2023; Nogueira et al., 2025).

Addressing the mental health challenges among adolescents and young adults, as in our sample, requires a coordinated approach to MHL involving future healthcare professionals and educators. Future healthcare providers are pivotal in shaping the mental health support systems for forthcoming generation (Braquehais et al., 2024; Díez-Gómez et al., 2024; García-Sastre et al., 2025; Giménez-Díez et al., 2024). Incorporating mental health education into university curricula enhances outcomes by equipping students with knowledge and skills to support peers and promote mental well-being (Fortes, 2024; Pastore et al., 2024). Early interventions are essential in response to the increasing incidence of anxiety and depression among young people (Lozano-Sánchez et al., 2024). Promoting MHL within the academic settings cultivates resilient professionals capable of addressing mental health concerns and reducing stigma (Fortes, 2024; Pastore et al., 2024). Addressing this gap requires specialised programmes in mental health education that provide them with evidence-based, non-judgemental, and culturally sensitive approaches (Banwell et al., 2021; Gorczynski & Sims-Schouten, 2024; Pastore et al., 2024). Educators are well-positioned for mental health promotion through direct student engagement, while healthcare professionals provide clinical support and intervention (Banwell et al., 2021; Gunawardena et al., 2024). Training pathways influence their competencies, with health students generally showing greater confidence in mental health concerns (Alonso-Martínez et al., 2024; Banwell et al., 2021). Standardised evaluation tools are crucial for enhancing professional preparedness for adolescent mental well-being (Lu et al., 2023).

Several studies have highlighted schools' pivotal role in adolescents' development, including psychological and social well-being (Allen et al., 2024). Schools are essential environments for identity formation, relationship-building, and socio-emotional skills development, which influence students' mental health (Söderqvist et al., 2025). School belonging is associated with higher self-esteem, well-being, and academic motivation, while its absence may increase vulnerability to depression, anxiety, and risky behaviours (Camacho-Rubio et al., 2024). The importance of joint interventions in MHL is underscored by adolescents' need for specialised support (Pollard et al., 2025; Söderqvist et al., 2025). Research suggests that integrating mental health services within educational settings promotes early detection and intervention, reduces untreated disorders and establishes sustainable support systems (Braquehais et al., 2024; Camacho-Rubio et al., 2024).

Interventions targeting adolescents and university students within health and education disciplines are essential to address mental health challenges. Peer involvement is crucial, as young individuals often seek support first from peers during emotional crisis (Díez-Gómez et al.,

2024; Freeman et al., 2024). Research suggests that long-term effectiveness requires consistent follow-up to ensure that these intentions lead to help-seeking behaviours (Hart et al., 2018). Peer-led interventions are valuable in schools and university, where pressures around independence, academic performance, and social relationships can heighten mental health challenges (Díez-Gómez et al., 2024; Lucas-Molina et al., 2025). Interventions' success depends on translating intentions into real-world behaviours (Freeman et al., 2024). Therefore, interventions must be expanded to increase mental health knowledge, develop practical peer-support skills and foster a generation that is aware of mental health issues, improving mental health outcomes (Schwartz et al., 2025).

One of the most established approaches to enhance MHL is the Mental Health First Aid (MHFA) programme, developed in Australia by Kitchener and Jorm (2002). MHFA provides initial support to individuals experiencing emerging mental health problems or crises, until professional help becomes available (Hart et al., 2016). The programme has expanded internationally and includes tailored versions. These include Youth MHFA for adults supporting adolescents (Kitchener et al., 2017) and Teen Mental Health First Aid (tMHFA; Hart et al., 2018) which trains adolescents to identify distress in peers and provide safe first responses. These programmes are delivered through structured sessions led by accredited instructors, focusing on recognising mental health problems, developing communication skills, responding to crises, and understanding referral pathways to professional care (Hart et al., 2012; Kitchener et al., 2017). Together, these initiatives highlight the critical role of structured peer support for adolescents experiencing mental health problems. By training adolescents to recognise warning signs, listen effectively, and connect peers with adult support, the tMHFA programme has enhanced MHL, reduced stigma, and strengthened readiness to assist peers in crisis (Lu et al., 2023). The effectiveness of these programmes is commonly assessed using validated measures of MHL, stigma, confidence, and first-aid intentions, including the frequently used Mental Health Support Scale for Adolescents (MHSSA; Lu et al., 2023).

In Spain, MHFA programmes are gradually being implemented, mainly through workplace and community training initiatives (Spanish Ministry of Health, 2025). The PositivaMente programme (Díez-Gómez et al., 2024), for example, has shown improvements in emotional well-being and reductions in difficulties, particularly among adolescent girls. Spanish organisations have also started incorporating Mental Health First Aiders as early-support figures to recognise warning signs and facilitate referrals (Spanish Ministry of Health, 2025). Nevertheless, unlike Australia, Spain lacks standardised and culturally validated evaluation instruments, relying instead on internal assessments (Díez-Gómez et al., 2024; Spanish Ministry of Health, 2025). This gap reinforces the need for validated tools such as the Spanish adaptation of the MHSSA (Lu et al., 2023).

There remains a significant gap in the literature regarding culturally adapted tools for assessing mental health support among adolescents and young adults in Spanish-speaking regions (Lucas-Molina et al., 2025). While mental health programmes have been implemented in educational settings, existing measurement tools often prioritise general attitudes toward mental health, overlooking peer-driven support (Díez-Gómez et al., 2024; Lu et al., 2023; Schwartz et al., 2025). As peer-based mental health approaches expand, assessment tools must be both culturally relevant and methodologically rigorous (Díez-Gómez et al., 2024; Lucas-Molina et al., 2025). To address this gap, this study aims to validate the MHSSA (Lu et al., 2023) in Spanish, offering a framework to assess how Spanish-speaking adolescents and young adults engage in peer mental health support. The scale measures adolescents' intentions to assist peers, which aligns with the Theory of Planned Behaviour (Ajzen, 1991) to predict supportive behaviours. By targeting mental health first aid intentions, the Spanish MHSSA enables evaluation of peer-based intervention in school and university settings.

Validating the Spanish MHSSA within a mental health intervention

ensures that adolescents and young adults in health and education fields across Spanish-speaking regions are accurately assessed for peer support engagement. Building on the English MHSSA validation conducted by Lu et al. (2023), this study aims to validate the Spanish MHSSA by examining its psychometric properties and its applicability for evaluating peer support initiatives in Spanish-speaking educational contexts. Previous research indicates that higher levels of trust are associated with stronger mental health first aid intentions and greater mental health awareness (Lu et al., 2023, 2024), whereas elevated levels of stigma and social distance correlate with inappropriate helping behaviours (Pollard et al., 2025; Söderqvist et al., 2025). Based on these findings, we hypothesised that mental health first-aid intentions would be positively associated with personal experience of mental health problems, while lower intentions to help would be linked to social restriction and stigmatizing attitudes.

2. Methodology

2.1. The Spanish version of the MHSSA

The Spanish MHSSA is an adapted version of the original MHSSA developed by Lu et al. (2023). The original MHSSA was designed to measure adolescents' intentions to support peers with mental health problems or crises. It includes 12 items that evaluate the quality and appropriateness of their intended mental health first aid actions. This Spanish version includes 15 items, adding three new elements to the initial 12-item scale to strengthen content validity. Spanish MHSSA evaluates young people's willingness to offer mental health first aid to peers experiencing psychological difficulties. The adaptation followed a rigorous translation and back-translation process from the validated English MHSSA, adhering to the University of Michigan guidelines (University of Michigan, 2025). This methodical adaptation encompassed expert translations and a pilot phase to ensure linguistic and cultural appropriateness, as well as comprehension in the new linguistic context. The questionnaire was further refined through collaborative meetings between researchers and mental health specialists, resulting in revisions that strengthened its relevance. Additional modifications included adapting vignette character names to the Spanish context (see supplementary material) and adding three prosocial intention items (friendship, visiting someone's home, and classmate collaboration) to better reflect culturally relevant supportive behaviours.

As in the original scale, the Spanish MHSSA presents two hypothetical scenarios involving common adolescent mental health challenges. The first vignette features Juan, an adolescent exhibiting suicidal ideation and depressive symptoms, aligning with the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) and International Classification of Diseases and Related Health Problems, 10th revision (ICD-10) criteria. The second scenario introduces Rosa, an adolescent meeting the criteria for social anxiety disorder. These scenarios were selected due to their high prevalence in adolescence and the likelihood that peers may encounter such situations. Based on findings from Lu et al. (2023), responses to both vignettes are evaluated collectively to improve accessibility and ease of completion. These vignettes have been validated in previous national surveys on adolescent mental health literacy (Lu et al., 2023). For each scenario, participants respond to the prompt, "If [Juan/Rosa] were a friend, I would..." rating their likelihood of engaging in supportive actions on a 5-point Likert scale (1 = "Never do this" to 5 = "Definitely do this"). The three additional items were developed through consultations with research experts and adolescents to ensure developmental appropriateness and relevance to peer mental health support.

The Spanish MHSSA maintains the original structure of two domains: Helpful Intentions (recommended first-aid actions) and Harmful Intentions (responses that may be inappropriate or counterproductive). To mitigate social desirability bias, helpful and harmful items were alternated throughout the questionnaire. While some items are labelled

"harmful" due to their potential negative impact, their endorsement may not indicate intentional harm but may reflect limited knowledge or awareness about mental health. The version of the Spanish MHSSA administered to participants is presented in Table 1.

2.2. Other measures

Other measures were included to provide a comprehensive assessment of the psychometric properties of the Spanish MHSSA and to offer complementary information on related constructs.

2.2.1. The community attitudes toward mental illness questionnaire

The community attitudes toward mental illness questionnaire (CAMI; Ochoa et al., 2016) is a 40-item instrument designed to assess social stigma toward mental illness. Responses are recorded on a 5-point Likert scale, ranging from "1-Strongly disagree" to "5-Strongly agree". It includes four 10-item subscales: authoritarianism, benevolence, social restriction, and community mental health ideology. This study employs the social restriction subscale, which assesses societal perceptions of danger associated with mental illness and mental health conditions, both before and after hospitalization. The subscale consists of 10 items (with reverse-scored items indicated) and shows good internal

Table 1
Mental Health Support Scale for adolescents (Spanish MHSSA).

Nº	Spanish Items ^a	English Items	Measured property
1	Entablaría una estrecha amistad con Juan/Rosa ^a .	Develop a close friendship with Juan/Rosa ^a .	Helpful intentions
2	Iría a casa de Juan/Rosa ^a .	Go to Juan/Rosa's house ^a .	
3	Trabajaría en un proyecto con Juan/Rosa ^a .	Work on a project with Juan/Rosa ^a .	
4	Invitaría a Juan/Rosa a pasar el rato y hacer algo divertido conmigo.	Invite Juan/Rosa to hang out and do something fun with me.	
5	Escucharía a Juan/Rosa hablar sobre sus problemas.	Listen to Juan/Rosa talk about his/her problems.	
6	Preguntaría a Juan/Rosa si están pensando en suicidarse.	Ask Juan/Rosa if s/he is thinking of suicide.	
7	Les diría a Juan/Rosa que he notado que algo va mal y quiero asegurarme de que están bien.	Tell Juan/Rosa I have noticed something seems wrong and I want to make sure s/he is okay.	
8	Sugeriría a Juan/Rosa que hablasen de estos problemas con un familiar o docente.	Suggest Juan/Rosa tell an adult (other than a health professional) about his/her problems (e.g., parent or teacher).	
9	Sugeriría a Juan/Rosa que hablen con un profesional de la salud (por ejemplo, un orientador escolar, médico, enfermero o psicólogo).	Suggest Juan/Rosa tell a health professional about his/her problems (e.g. a counsellor, GP or psychologist).	
10	Ignoraría a Juan/Rosa porque buscan llamar la atención.	Ignore Juan/Rosa because s/he is being attention-seeking.	
11	Les haría saber a Juan/Rosa que dejaré de ser su amigo/a si se comportan así todo el tiempo.	Let Juan/Rosa know I won't want to be friends with him/her anymore if s/he's like this all the time.	Harmful intentions
12	Les diría a Juan/Rosa lo que necesitan hacer para solucionar sus problemas.	Tell Juan/Rosa what s/he needs to do to fix his/her problems.	
13	No haría nada.	Not do anything.	
14	Animaría a Juan/Rosa a asumir la responsabilidad y lidiar con sus problemas por su cuenta.	Encourage Juan/Rosa to take responsibility and deal with his/her problems on their own.	
15	Evitaría hablar sobre el suicidio, ya que podría influir en los pensamientos de Juan/Rosa.	Avoid talking about suicide because it might put the idea in Juan/Rosa's head.	

^a Note: These items were not included in the original MHSSA-English version.

consistency, Cronbach's alpha (α) = 0.76. Scores range from 10 to 50 and higher scores indicate less social restriction to individuals with mental health problems.

2.2.2. The body dissatisfaction brief scale

The body dissatisfaction brief scale (EBIC, [Baile Ayensa et al., 2012](#)), is an instrument designed to assess body dissatisfaction in children and young populations. The EBIC exhibited satisfactory internal consistency, with an α of 0.74. Responses are given on a short 3-item Likert 3- and 4-point scale and scores range from 0 to 11. Higher scores indicate less body satisfaction.

2.2.3. The SCOFF

The SCOFF (Sick, Control, One, Fat, Food, [Rueda Jaimes et al., 2005](#)) survey is a concise and efficient instrument that has demonstrated adequate sensitivity and specificity for screening for eating disorders. It comprises 5 questions that require binary (yes/no) responses. The questionnaire is considered positive when an individual responds affirmatively to 2 or more questions. Scores range from 0 to 5.

2.2.4. The short problem pornography use scale

The short problem pornography use scale (PPCS-6, [Villena-Moya et al., 2024](#)) assesses six dimensions of pornography consumption: prominence, emotional regulation, conflict, tolerance, relapse, and abstinence. The scale exhibits high internal consistency with a reliability coefficient of $\alpha = 0.94$. It comprises 6 items rated on a 5-point Likert scale, with total scores ranging from 1 to 30. Lower scores indicate reduced pornography use.

2.2.5. The health protective sexual communication scale

The health protective sexual communication scale (HPSC, [Alonso-Martínez et al., 2024](#)) assessed individuals' perceptions of verbal exchanges regarding safe sex practices and sexual history with a new intimate partner. This assessment employed an 8-item questionnaire with responses rated on a 4-point Likert scale, demonstrating internal consistency ($\alpha = 0.80$). Responses are given on a 5-point Likert scale, and scores range from 8 to 40. Lower scores indicate less concern for conversations related to health protection issues.

2.2.6. The mental health literacy assessment of the intervention

The mental health literacy assessment of the intervention (MHLI) developed for this project and pending validation, is a self-report instrument comprising nine questions on key aspects of mental health literacy, each with four answer options, only one of which is correct. Scores range from 0 to 9, with higher scores indicating greater knowledge.

2.3. Study design

This research is a validation study of the Spanish MHSSA based on a quasi-experimental study with a pretest–post-test for the quasi-experimental group (intervention) and a post-test-only for the control group. These Spanish participants were selected based on their enrolment in university health education programmes and high school programmes, and those who did not provide informed consent were excluded from the study.

Sociodemographic variables were considered predictor variables, and validated scales were used as outcome variables. The predictor variables included were gender, age, prior experience with mental health support, educational level and field of study (health or education disciplines). Outcome variables included scores from the Spanish MHSSA and the six established validated scales. Content validity was assessed through experts and the review of the literature to ensure that MHSSA items adequately encompass mental health supportive behaviours and align with the theoretical framework of mental health first aid ([Lu et al., 2023](#)). Criterion validity was examined using predictive and

concurrent validity measures. Predictive validity was assessed using the pretest–post-test design. Participants' mental health status and diagnoses were also explored to examine the MHSSA's concurrent validity in relation to future supportive behaviours. Construct validity, including convergent and discriminant validity, was assessed using the six previously validated measures. Some of these scales assessed constructs theoretically related to the MHSSA, such as mental health literacy, stigma, and social distance, to establish convergent validity. Other scales measured constructs unrelated to mental health support, including sexual risk behaviour and pornography consumption, to assess discriminant validity. These comparisons aimed to confirm that the MHSSA specifically measures mental health support intentions rather than unrelated behavioural tendencies. The study validated the MHSSA as a reliable and valid measure of adolescents' and young adults' intentions to provide mental health first aid toward peers, supporting its applicability to Spanish-speaking populations. Furthermore, [Fig. 1](#) has been added to illustrate the process of Spanish MHSSA validation.

2.4. Procedure

The study was conducted in both schools and universities for 1 year, from June 2024 to May 2025. To validate the Spanish MHSSA, permission was obtained from the author of the original English versions. Following approval from the Ethics Committee (de-identified here), the survey was developed using Microsoft Forms to ensure secure data storage on university servers. Although the questionnaire was completed via Microsoft Forms, responses were provided in person under the supervision of researchers, teachers, and counsellors. Informed consent was obtained from all participants and from the legal guardians of minors.

The questionnaire included personal and sociodemographic items, the standardised Spanish MHSSA scale, six additional validated scales, a self-report instrument to assess the intervention content, and open-ended questions for supplementary comments. Spanish-validated versions were used for the six previously standardised scales, and all items were designated as mandatory to prevent missing data.

The questionnaire was initially administered to the experimental group to establish baseline measurements. The intervention was then delivered to students in the first year of the Nursing Degree, the Master's Degree in Teaching, and the fourth year of Secondary Education, consisting of presentations and gamified activities conducted over three two-hour sessions. The educational program used in this intervention was designed in alignment with the guidelines provided by the Spanish National Program of Emotional Wellbeing in Education from the Spanish Government ([Spanish Ministry of Health, 2025](#)) and the World Health Organization ([World Health Organization, 2021](#)). Further details about this program intervention will be published in a separate study. Following the intervention, the post-test questionnaire was administered to both the experimental and control groups.

The questionnaires were completed during tutoring hours at schools and during university classes, using links sent to institutional emails or posted on the subjects' online platforms. Participants took approximately 20–30 min to complete each questionnaire in person. To ensure access to mental health support, both experimental and control group participants were informed about available psychological support resources.

2.5. Data analysis

The validation of the Spanish MHSSA involved descriptive and inferential statistical analyses carried out in IBM SPSS Statistics v.29.0.1.0, with confirmatory factor analysis (CFA) executed using AMOS v.28. For all analyses, statistical significance was set at $p < 0.05$. Results that reached highly significant ($p < 0.001$) are reported accordingly ([Field, 2018](#)). Prior to analysis, the assumptions of normality and homogeneity of means were assessed and found to be

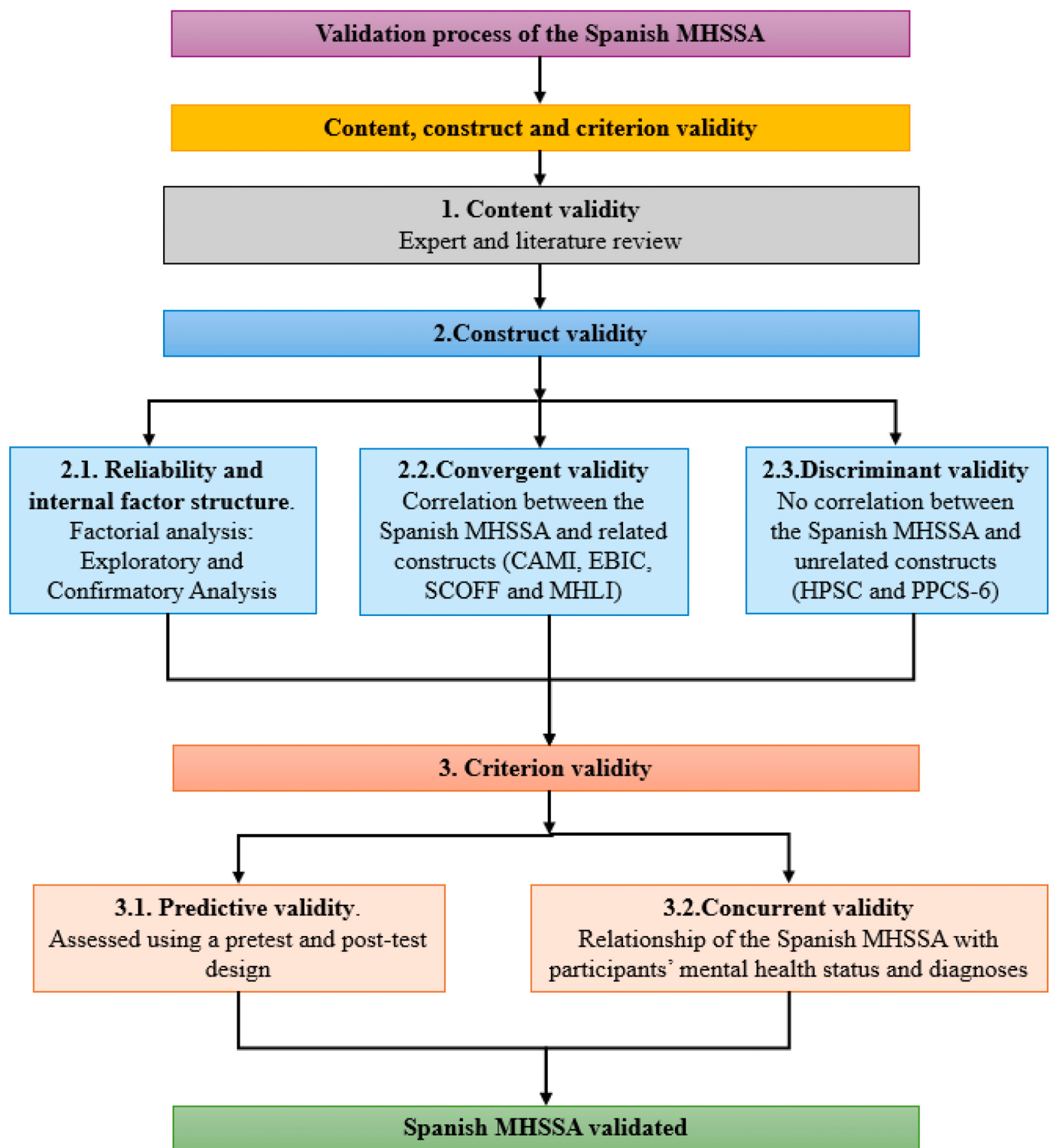


Fig. 1. Diagram of Spanish MHSSA validation.

satisfied for the tests, supported by the large sample size.

2.5.1. Validation analysis

Reliability assessment utilised Cronbach's alpha (α), while validity analysis encompassed criterion and construct (Acuña et al., 2017; Anselmi et al., 2019). Internal consistency was assessed through correlations, covariances and α of the deleted items. To examine construct validity, both exploratory factor analysis (EFA) and CFA were conducted to evaluate the internal factorial structure and examine the relationships

among scale items. Factor analysis adequacy was assessed through the Kaiser-Meyer-Olkin (KMO) measure, with values exceeding 0.80, and a significant Bartlett's test of sphericity, indicating appropriate correlations between the items (Costello & Osborne, 2005; Watkins, 2018). These analyses are suitable for establishing differences in the structure of the Spanish MHSSA and the identification of underlying subscales (van Zyl & Ten Klooster, 2022). To conduct this analysis, participants were assigned to two groups using quota sampling to ensure that both high school and university students were represented in the

experimental and control groups. The experimental group was utilised for the EFA, while the control group was employed for the CFA. The sample size for both EFA and CFA exceeded 200 participants, surpassing the minimum recommended criteria for factor analysis (Ferrando Piera et al., 2022; Watkins, 2018) and ensuring adequate statistical power. The sociodemographic characteristics of these groups were comparable to those of the entire sample. It is important to note the adequacy of the sample size for this analysis, since the number of responses was 20 times greater than the number of items (Marsh et al., 2020). A minimum factor loading of 0.30 was set as the threshold for item retention, and items with higher loadings were selected (Alonso-Martínez et al., 2024).

Furthermore, criterion validity was examined by relating sociodemographic variables to Spanish MHSSA (Field, 2018). Independent samples were compared using Student's *t*-tests and ANOVA followed by Bonferroni's post hoc test where appropriate. For the *t*-tests, effect sizes were calculated using Cohen's *d* statistic, considering *d* = 0.20 (small), *d* = 0.50 (medium) and *d* = 0.80 (large). To calculate the effect size of the ANOVA test, the partial eta squared statistic (η_p^2) was used, with η_p^2 = 0.01 (small), η_p^2 = 0.06 (medium) and η_p^2 = 0.14 (large).

Finally, convergent validity was examined by investigating the correlation between the Spanish MHSSA and established scales measuring related constructs, such as the CAMI (Ochoa et al., 2016), the EBIC (Baile Ayensa et al., 2012), and the SCOFF (Rueda Jaimes et al., 2005). Discriminant validity was assessed by testing for a lack of correlation with unrelated constructs such as the HPSC (Alonso-Martínez et al., 2024) and the PPCS-6 (Villena-Moya et al., 2024). Pearson's correlation was used to analyse these relationships between Spanish MHSSA scores, another validated scales and age. Effect sizes were considered small/medium/strong with *r* of 0.10/0.30/0.50, respectively.

2.5.2. Calculation of the Spanish MHSSA score

The calculation of the scores consists of a summation of the items after having assigned a value of responses were classified as aligned (scored 1) if participants selected "Probably do this" or "Definitely do this" for helpful actions, or "Never do this" or "Unlikely to do this" for harmful actions (note: harmful items were reverse-scored). All other responses were classified as non-aligned (scored 0). The proportion of aligned responses was calculated for each item to determine the extent to which participants' intentions. Given the 15-item composition of the Spanish MHSSA, three distinct scale scores could be generated: 1. Combined total score incorporating both helpful and harmful items, 2. Total Helpful Intentions Score (Aggregate of scores for all helpful items across both scenarios), 3. Total Harmful Intentions Score (Aggregate of scores for all harmful items across both scenarios, reverse-scored). Values ranged from 0 to 15, which higher scores on the Spanish MHSSA indicate greater mental health first aid intentions. For each subscale score, values ranged from 0 to 6, with higher scores indicating stronger alignment with superior quality mental health first aid intentions. However, Spanish experts have advised against evaluating the scale using an index due to the heterogeneity of its response options. As in other studies (Alonso-Martínez et al., 2024), they consider that the direct sum of the scores better reflects the variability than the calculation based on binary choices used in the original version by Lu et al. (2023). Instead, for the Spanish MHSSA, it is recommended to add up the options on the 5-response Likert scale. The items on the harmful intentions scale must be reversed before summing. The Spanish MHSSA ranges from 15 to 75, with higher scores indicating stronger intentions to provide mental health first aid. Calculating the Spanish MHSSA in this way allows for differentiation between supportive and counterproductive actions in adolescent mental health first aid. This distinction is important, as previous research suggests that helpful and harmful subscales could constitute independent constructs and are not necessarily correlated (Lu et al., 2023).

3. Results

3.1. Descriptive results

A total of 578 questionnaire responses were collected from both the experimental and control groups, with participants ranging in age from 13 to 52 years (*M* = 20.28, *SD* = 6.29), 430 identifying as women and 166 as men. The exploratory group, consisting of 301 responses, was used to examine the underlying factor structure of the Spanish MHSSA items. The confirmatory group, comprising 277 responses, was employed to confirm the factor structure identified during the exploratory analysis. Additional sociodemographic information analysed in the study is presented in Table 2.

Regarding the measures used in the study, the Spanish MHSSA demonstrated high reliability (α = 0.81), with participants attaining a mean score of 57.99 (*N* = 578, *Min* = 23, *Max* = 75 and *SD* = 7.94). The CAMI exhibited acceptable reliability (α = 0.73), with a mean score of 24.64 (*Min* = 15.29, *Max* = 49, *SD* = 6.13). The EBIC-6 also showed acceptable reliability (α = 0.77), with a mean score of 2.76 (*Min* = 0, *Max* = 8, *SD* = 1.88). For the SCOFF, participants achieved a mean score of 1.27 (*Min* = 0, *Max* = 5, *SD* = 1.28). The PPCS-6 demonstrated excellent reliability (α = 0.91), with a mean score of 7.78 (*Min* = 6, *Max* = 42, *SD* = 4.71). The HPSC exhibited high reliability (α = 0.84), with a mean score of 19.67 (*Min* = 8, *Max* = 32, *SD* = 6.38). Finally, the MHLI showed acceptable reliability (α = 0.79), with participants attaining a mean score of 5.06 (*Min* = 0, *Max* = 9, *SD* = 2.61). Overall, these results indicate that all instruments demonstrated adequate to excellent internal consistency, reinforcing their suitability for use alongside the Spanish MHSSA validation.

3.2. Validation of the psychometric properties of the Spanish MHSSA

3.2.1. Spanish MHSSA reliability analysis

The test-retest reliability of the scale for individual vignettes across the intervention subsample, as assessed by the Intraclass Correlation Coefficient (ICC), exhibited high reliability of 0.83 (95% CI 0.74–0.88, *p* < 0.001, *n* = 103).

Table 3 presents the internal consistency metrics for the exploratory subsample where we conduct the EFA. Items 12, 14, and 15 were excluded from the analysis due to insufficient correlation and lack of variability, as they did not provide meaningful data for scale validation. However, following Boateng et al. (2018), no additional items were removed, as all remaining items showed significant correlations with the overall scale, consistently exceeding 0.30.

3.2.2. Exploratory factor analysis in the exploratory subsample

A KMO value of 0.89 suggested adequate value for factor analysis, supported by a significant Bartlett's test of sphericity (χ^2 = 4110.30, *gl* = 105, *p* < 0.001). The EFA was conducted using a promax oblique rotation to accommodate potential correlations between the extracted factors (Marsh et al., 2020). This rotation method is suitable when factors are anticipated to be interrelated, thereby enabling a more realistic and interpretable factor structure (Ferrando Piera et al., 2022). Parameter estimation was conducted using the maximum likelihood (ML) method (Marsh et al., 2020). The ML method estimates parameters by maximizing the likelihood of the observed data given the model, ensuring that the estimates align with the data to render the observed outcomes most probable under the specified model (Ferrando Piera et al., 2022). The EFA conducted on the exploratory subsample resulted in a two-factor solution, with values exceeding 0.30. The first factor accounts for 38.35% of the variance, while the second accounts for 13.97%. Collectively, these factors explain 52.33% of the variance. The first factor demonstrates high reliability, whereas the second exhibits acceptable reliability, as shown in Table 3.

The reliability of the Spanish MHSSA in the exploratory sample was high, with an α of 0.88 and an average inter-item correlation of 0.41.

Table 2
Sociodemographic characteristics of the study population.

Variables	Total
Gender	
Woman	415 (71.8%)
Man	157 (27.2%)
Fluid gender	6 (1%)
Experimental groups	
Quasi-experimental group	306 (52.9%)
Control group	272 (47.1%)
Intervention groups	
Pretest group	181 (31.3%)
Post-test group	397 (68.7%)
Education	
3rd Secondary Education	34 (5.9%)
4th Secondary Education	154 (26.6%)
2nd Sixth Form	12 (2.1%)
1st Degree in Nursing	70 (12.1%)
2nd Degree in Nursing	72 (12.5%)
3rd Degree in Nursing	36 (6.2%)
4th Grade in Nursing	19 (3.3%)
1st Degree in Educator	33 (5.7%)
2nd Degree in Educator	21 (3.6%)
Other Educator Degree	8 (1.4%)
Master's of Education	110 (19%)
Master of Health Science (MHS) Degree	4 (0.7%)
Other training	5 (0.9%)
Total	578 (100%)
Specialty of the Master's Degree in Teaching	
Geography and History	18 (3%)
Language	8 (1.3%)
English	16 (2.7%)
Biology and Geology	12 (2%)
Physics and Chemistry	16 (2.7%)
Mathematics	5 (0.8%)
Technology	8 (1.3%)
Job training	9 (1.5%)
Educational guidance	3 (0.5%)
Socio-community intervention	2 (0.3%)
Classic languages: Latin and Greek	4 (0.7%)
Economy	4 (0.7%)
Philosophy	4 (0.7%)
Another specialty	1 (0.2%)
Total	110 (100%)
Political ideology^a	
Right	49 (8.5%)
Centre Right	40 (6.9%)
Centre Left	50 (8.7%)
Left	151 (26.1%)
None of the above	88 (15.2%)
Total	378 (100%)
Mental Health problem experienced	
Yes	447 (77.3%)
No	131 (22.7%)
Total	578 (100%)
Mental Health problem diagnosed	
Yes	105 (18.29%)
No	473 (81.8%)
Total	578 (100%)
Mental Health treatment if you have diagnosed	
Drug medication	13 (2.2%)
Psychology therapy	22 (3.8%)
Psychology therapy with leisure activity	31 (5.4%)
Mixed treatment: Psychological therapy and drug medication.	28 (4.8%)
Other treatment not mentioned.	2 (0.3%)
Did not receive treatment	9 (1.6%)
Total	105 (100%)

^a **Note:** The political ideology variables were asked exclusively of adults and not of minors. This can be attributed to ethical restrictions imposed by the ethics committee, which advised against collecting data on these variables from underage students.

The mean scale score was 48.57 ($SD = 7.81$).

3.2.3. Confirmatory factor analysis in the confirmatory subsample

To validate the factors identified in the EFA, a CFA was subsequently

conducted. Table 4 presents the CFA indices for the two models within the confirmatory subsample. The fit of the F2 (Two-factor) model was superior to that of the F1 (single-factor, see supplementary materials Fig. S1) model. The F2 model fit indices indicated acceptable performance. Specifically, the Comparative Fit Index (CFI), Incremental Fit Index (IFI), Goodness of Fit Index (GFI), Normed Fit Index (NFI), and Tucker-Lewis Index (TLI) all achieved values of 0.80, surpassing the recommended minimum threshold of 0.80 (Líbano-Miralles et al., 2019).

Maximum likelihood estimation ensured the robustness of standardised and covariance estimates within the subsamples. The fit indices for the F2 model indicated acceptable performance. In the case of the F2 model, the CFA indicated satisfactory reliability, with an overall α of 0.88 in the confirmatory subsample. Specifically, Factor 1 (Helpful Intentions) demonstrated strong internal consistency ($\alpha = 0.90$), while Factor 2 (Harmful Intentions) showed acceptable reliability ($\alpha = 0.73$). The Standardised Root Mean Square Residual (SRMR) was 0.07, which is below the maximum threshold of 0.08. However, the Root Mean Square Error of Approximation (RMSEA) was 0.14, exceeding its upper limit of 0.08, and the minimum discrepancy per degree of freedom (CMIN/DF) was 6.53, surpassing its limit of 6 (Líbano-Miralles et al., 2019). These values indicate specific areas of model misfit that warrant consideration. Nevertheless, given that all other fit indices met recommended thresholds and the two-factor solution showed theoretical coherence and empirical consistency, the model was retained as an adequate (Líbano-Miralles et al., 2019; Marsh et al., 2020). The item loadings were statistically significant and fell within an acceptable range, from 0.30 to 0.83. Further details are provided in Fig. 2.

The MHSSA exhibits a two-factor structure, retaining the twelve items selected in the exploratory subsample. The MHSSA indicated satisfactory reliability, with an overall α of 0.88 in the sample with participants ($N = 578$) attaining a mean score of 48.9 (Min = 13, Max = 60, $SD = 7.66$). Specifically, Factor 1 (Helpful Intentions) demonstrated high internal consistency ($\alpha = 0.89$) attaining a mean score of 35.71 (range 9–45, $SD = 6.38$), while Factor 2 (Harmful Intentions) showed acceptable reliability ($\alpha = 0.76$) attaining a mean score of 13.19 (range 3–15, $SD = 2.32$).

3.3. Analysis of the Spanish MHSSA scores in relation to the criterion variables: criterion, convergent and discriminant validation

The Spanish MHSSA scores reported by respondents indicated an average supportive behaviour score of 58 out of a maximum of 75 points. This suggests that most students (343 participants) demonstrated positive intentions toward providing first aid for mental health.

3.3.1. Comparison of the means of the scale with the criterion variables

Table 5 presents a comparative analysis of the average Spanish MHSSA in scores across various factors, including the experimental group, pre-test and post-test conditions, gender, experienced and diagnosed mental health issues, academic discipline, selected specialty in the Master's Degree of Education, ideology, and mental health treatments. The results indicate that women, individuals in control group and in the post-test phase, those who have experienced mental health issues and university students exhibited higher levels of positive intentions toward providing mental health first aid (MHSSA) compared to the other groups. Furthermore, significant differences in effect sizes were observed, with medium to large variations among the groups studied.

3.3.2. Correlations between scales and age variables

The Spanish MHSSA demonstrated a strong correlation with the subscales score of the CAMI, suggesting that more favourable intentions toward providing mental health first aid were associated with reduced social restrictions for individuals. Moderate correlations were identified between the MHSSA and its subscales with the MHLI, suggesting that more favourable intentions toward providing mental health first aid are

Table 3
Internal consistency of the MHSSA-Spain.

Item	M	DT	M ¹	Var. ²	CI-T ³	α ⁴	Factor 1: Helpful intentions	Factor 2: Harmful intentions	α
MHSSA1	3.77	0.94	53.73	53.86	0.66	0.79	0.79		
MHSSA2	3.64	1.04	53.86	53.85	0.58	0.79	0.70		
MHSSA3	4.03	0.92	53.47	55.28	0.57	0.79	0.67		
MHSSA4	3.98	0.94	53.52	53.15	0.71	0.78	0.82		
MHSSA5	4.48	0.85	53.03	54.39	0.70	0.79	0.82		0.88
MHSSA6	2.89	1.18	54.62	56.91	0.31	0.81	0.37		
MHSSA7	4.12	1.01	53.38	52.73	0.69	0.78	0.80		
MHSSA8	4.23	0.97	53.28	55.30	0.53	0.79	0.65		
MHSSA9	4.28	0.97	53.22	55.66	0.50	0.80	0.59		
MHSSA10	4.41	0.92	53.09	55.44	0.55	0.79		0.95	
MHSSA11	4.46	0.90	53.04	56.65	0.47	0.80		0.62	0.79
^a MHSSA12	2.54	1.13	54.97	65.98	-0.19	0.85			
MHSSA13	4.28	0.98	53.23	54.74	0.57	0.79		0.69	
^a MHSSA14	3.61	1.22	53.89	58.83	0.19	0.82			
^a MHSSA15	2.79	1.17	54.72	62.71	-0.01	0.84			

¹ M = mean of the scale (if the item is removed).

² Var. = variance of the scale (if the item is removed).

³ CI-T = Item-total correlation.

⁴ α = Cronbach's Alpha (if item is removed).

^a **Note:** Items 12, 14 and 15 in grey were excluded from further analysis due to insufficient correlation and lack of variability.

Table 4
CFAs fit indices in the confirmatory subsample.

Model	χ^2	df	CMIN/DF	GFI	RMSEA	IFI	TLI	CFI	$\Delta\chi^2$	Δdf
Factor 1	503.34	54	9.32	0.75	0.17	0.76	0.71	0.76		
Factor 2	345.97	53	6.53	0.80	0.14	0.84	0.80	0.84	F1-F2 = 157.37**	1

** $p \leq 0.001$.

associated with greater knowledge in mental health literacy. A weak to minor correlation with the EBEIC was anticipated, given its conceptual similarities to the MHSSA and subscales, which was related to having more favourable intentions toward providing mental health first aid and lower body satisfaction. Conversely, the small correlation with the PPC-6 and HPSC was unexpected, as these constructs are not similar to the MHSSA and subscales, and was associated with having more favourable intentions toward providing mental health first aid, increased communication about sexual risk, and lower addiction to pornography. Furthermore, no correlation was unexpectedly observed between MHSSA and subscales with the SCOFF, and age. For further details, refer to Table 6.

4. Discussion

The study adapted and validated the Spanish MHSSA, an instrument designed to measure youth' mental health first aid intentions toward peers experiencing mental health problems. Results show the adapted Spanish MHSSA differentiate the mental health first aid intentions between respondents with and without mental health support expertise. The scale demonstrated high reliability, with agreement coefficients exceeding 0.80 for all subscales, and good test-retest reliability over a four-week period (ICC was 0.88). The study confirmed the hypotheses, demonstrating convergent validity through correlations between helping intentions, confidence, and levels of social distance and stigma. These findings align with the hypotheses and are consistent with previous research (Lu et al., 2023). These results also support the validity and reliability of the adapted Spanish MHSSA for adolescents and young people. This study differs from the original English MHSSA in methodology and cultural adaptations, providing a tool tailored for Spanish-speaking youth. A key distinction lies in employing both EFA and CFA to assess the psychometric properties of the Spanish MHSSA. Spanish experts advised against evaluating it as an index due to the diverse response options beyond binary choice calculation. These statistical

methods validated the scale's structure and its ability to capture the construct of intentions. Unlike the original study, which did not report on EFA and CFA, this approach enhances the scale's validity and applicability within the Spanish context, as the construct was evaluated in a different sample, considering its subscales. The EFA and CFA supported the scale's two-factor structure (helpful and harmful subscales), consistent with the English MHSSA's theoretical framework (Lu et al., 2023). This methodological approach reinforces the reliability of the Spanish MHSSA, establishing it as a valid tool for assessing mental health first aid intentions in young people.

The Spanish MHSSA evaluates helpful and harmful intentions on separate subscales, demonstrating a moderate correlation akin to the findings of Lu et al. (2023, 2024). Consistent with the original study, the average scores for harmful intentions of the items were lower than helpful intentions, suggesting mental health support training may be essential for modifying misaligned intentions. Lu et al. (2023) advised removing MHSSA4 (Inviting people to hang out) and MHSSA5 (Listening to the person) due to limited discriminability, suggesting the items might be overly easy. However, the Spanish factor analyses confirmed their relevance to the underlying structure, so both items were retained. Consistent with Lu et al. (2023), several items, particularly those related to suicide, displayed low concordance, likely due to students' limited understanding of suicide-prevention practices. Consequently, MHSSA 12 (What they need to do to fix their problems), MHSSA 14 (Encourage them to take responsibility and deal with their problems on their own), and MHSSA 15 (Avoiding talking about suicide) were excluded due to poor variability and low correlations with the overall scale, in alignment with best practices in scale development (Boateng et al., 2018). Retaining these items warrants re-evaluation, given evidence from adult suicide-literacy surveys that widespread misconceptions about discussing suicide may hinder their accurate validation (Nicholas et al., 2020). The Spanish MHSSA reduces the original 15 items to 12 while preserving the two subscales, which assess helpful and harmful mental health first aid intentions.

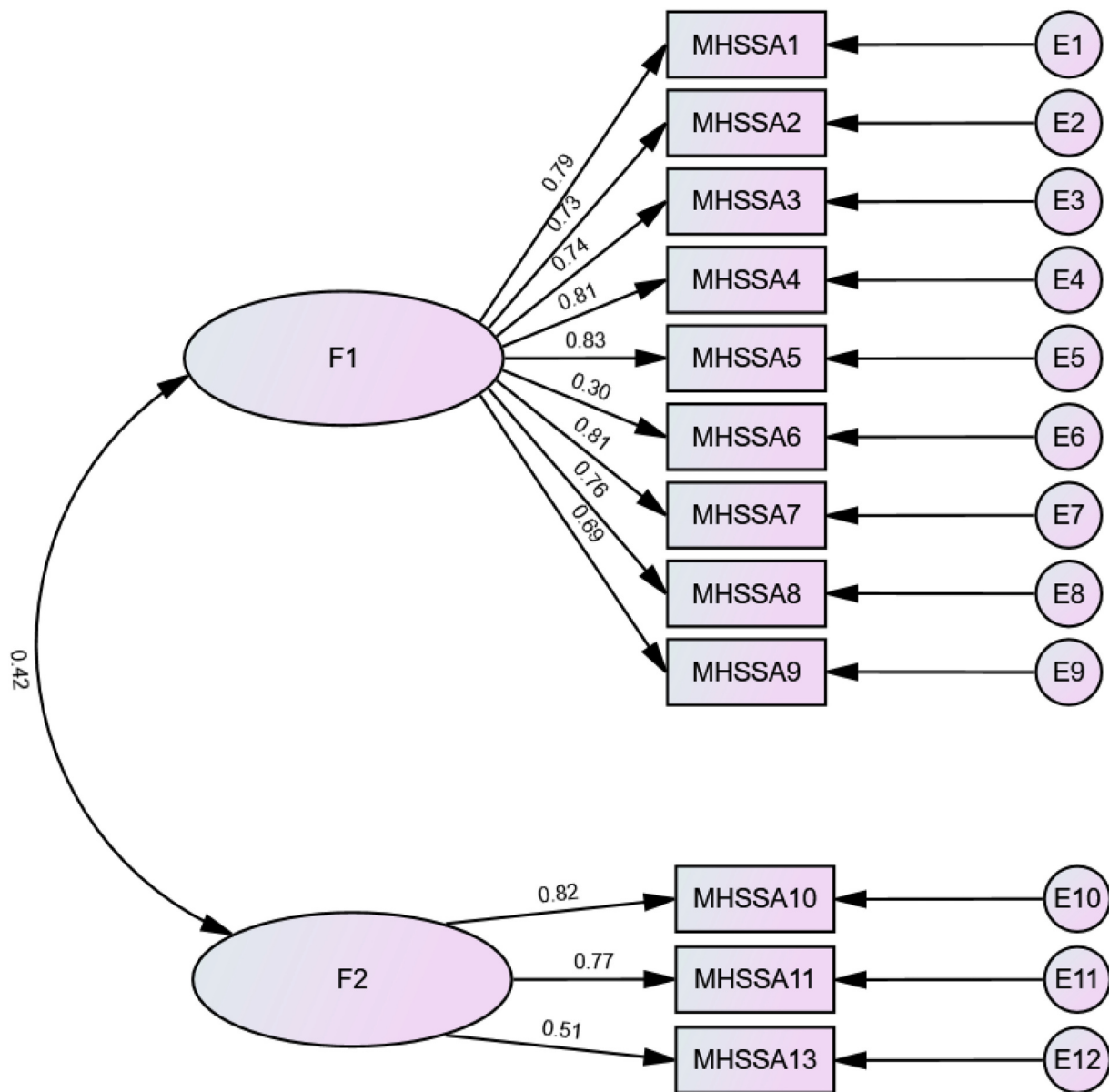


Fig. 2. Two-factor CFA of MHSSA in the confirmatory subsample.

The vignettes in this scale version were adapted from the original by presenting them together rather than separately, based on Lu et al. (2023)'s findings, highlighting similarity of measured constructs. By assessing the vignettes jointly, this study aimed to capture broader mental health first aid intentions rather than specific conditions, addressing a key limitation from the original research (Lu et al., 2023). This vignette incorporated culturally relevant scenarios adapted to Spain's sociocultural context and experiences.

The Spanish MHSSA validated in our study differs from Lu et al.'s (2023) original validation in design, items, and scoring, therefore, direct score comparisons are not feasible. Lu's study found no significant differences but noted lower helping intentions toward those with social anxiety versus depression. This study did not examine these constructs separately, instead, it analysed them collectively to provide a broader understanding of motivations for helping individuals with mental health issues (Söderqvist et al., 2025). Findings show higher mental health first aids among women, post-test participants, those with mental health problems, university students, and people with left-wing or non-ideological political views. Specifically, the adolescents of this study with firsthand experience of mental health problems showed stronger

intentions to offer support. This finding aligns with previous research (Lu et al., 2023; Morcillo et al., 2025) and emphasizes the value of mental health programmes engaging young people to enhance their willingness to assist others.

This result aligns with the research of Miles et al. (2020), who identified that individuals with personal mental health problems, as well as psychology students, showed greater knowledge of mental health, which was subsequently linked to higher helping intentions. Miles et al. (2020) attributed this to these individuals' experiences with psychological problems and their families' openness to such issues. These results are consistent with Gorczynski and Sims-Schouten (2024), who found that women outperformed men in mental health first aid measures, a pattern also observed in Schouten's (2024) study. Evidence suggests that left-wing political ideologies may be associated with increased prosocial behaviours in mental health contexts (Salmela & von Scheve, 2018).

The Spanish MHSSA study confirmed the hypotheses, revealing strong correlations between lower social restrictions (CAMI) and moderate correlations with higher mental health literacy (MHLI). Similarly, Ochoa et al. (2016) and Lu et al. (2023) found that personal experiences

Table 5
Differences in MHSSA scores based on criterion variables.

Variables		<i>t</i>	<i>df</i>	<i>Sig.</i>	Cohen's <i>d</i>								
					<i>d</i>	95% CI							
Experimental Group <i>M(SD)</i>													
Quasi-experimental Group 48.28 (8.18) <i>n</i> = 306	Control Group 49.6 (6.97) <i>n</i> = 272	−2.08	575	0.04*	0.17	−0.34, −0.01							
Pre/posttest Group, <i>M(SD)</i>													
Pretest Group 47.86 (7.99) <i>n</i> = 181	Posttest Group 49.37 (7.91) <i>n</i> = 396	−2.15	575	0.03*	0.19	−0.37, −0.02							
Gender, <i>M(SD)</i>													
Woman 50.47(6.26) <i>n</i> = 414	Man 45.45 (8.82) <i>n</i> = 157	7.60	569	0.001**	0.66	0.52, 0.90							
Mental health problems experienced, <i>M(SD)</i>													
Yes 49.52 (7.41) <i>n</i> = 446	No 46.77 (8.14) <i>n</i> = 131	3.47	575	0.001**	0.35	0.17, 0.56							
Mental health problem diagnosed, <i>M(SD)</i>													
Yes 49.32 (7.98) <i>n</i> = 105	No 48.81 (7.59) <i>n</i> = 472	0.61	575	0.53	0.06	−0.14, 0.28							
Study course, <i>M(SD)</i> .					<i>F</i>	<i>Df.</i>							
3° SE ^a	4° SE ^b	2° SF ^c	1°ND ^d	2° ND ^e	3°ND ^f	4°ND ^g	1°ED ^h	2°ED ⁱ	MEd ^j	M.H.Sc ^k	Other ^l	<i>Sig.</i>	<i>η</i> _p ²
43.97 (9.35) ^{d,e,f, h,i,j}	45.40 (9.58) ^{d,e,f, h,i,j}	48.25 (4.97)	51.56 (4.81) ^{a,b}	51.1 (5.42) ^{a,b}	51.25 (5.47) ^{a,b}	48.39 (7.52)	51.63 (4.81) _{a,b}	51.62 (7.84) _{a,b}	50.38 (5.50) _{a,b}	50.50 (6.76)	47.77 (9.71)	0.001*	0.13
<i>n</i> = 34	<i>n</i> = 154	<i>n</i> = 12	<i>n</i> = 70	<i>n</i> = 72	<i>n</i> = 36	<i>n</i> = 18	<i>n</i> = 33	<i>n</i> = 21	<i>n</i> = 110	<i>n</i> = 4	<i>n</i> = 13		
Master of Education (MED) Specializations, <i>M(SD)</i>													
Humanities ^a	Science ^b					Social Science ^g							
51.1 (5.66) <i>n</i> = 50	49.59 (4.86) <i>n</i> = 41					50.39 (6.52) <i>n</i> = 18						0.86	2, 109
Ideology, <i>M(SD)</i> .													
Right ^a	Centre Right ^b		Centre Left ^c			Left ^d				None one of above ^e			
49.29 (6.90) <i>n</i> = 48	50.33 (5.59) <i>n</i> = 40		50.3 (5.35) <i>n</i> = 50			51.05 (5.63) <i>n</i> = 151				51.66 (5.61) <i>n</i> = 88		1.55	4, 377
Mental health treatment, <i>M(SD)</i> .													
Drug medication ^a	Psychology therapy ^b		Psychology therapy with leisure activity ^c			Mixed treatment ^d				Other treatment ^e			
45.62 (11.88) ^d <i>n</i> = 13	48.32 (9.12) ^d <i>n</i> = 22		51.58 (5.44) <i>n</i> = 31			49.93 (6.75) <i>n</i> = 28				55 (5.65) <i>n</i> = 2		1.69	5, 104
												0.14	0.08

Note: SE = Secondary Education. SF = Sixth Form. ND = Nursing Degree. ED = Educator Degree. MEd = Master of Education. M.H.Sc = Master of Health Sciences.

* $p < 0.05$.

** $p < 0.001$.

Table 6

Correlations between MHSSA, standardised scales, and age.

	MHSSA	F1(MHSSA)	F2(MHSSA)	CAMI	MHLI	EBIC	SCOFF	PPCS-6	HPSC	Age
MHSSA	1									
F1(MHSSA)	0.96**	1								
F2(MHSSA)	0.66**	0.42**	1							
CAMI	0.53**	0.48**	0.42*	1						
MHLI	0.37**	0.33**	0.31**	0.41**	1					
EBIC	0.09*	0.08	0.08*	0.23	−0.01	1				
SCOFF	0.03	0.01	0.10**	0.38	−0.04	0.65**	1			
PPCS-6	−0.27**	−0.22**	−0.29**	−0.23**	−0.07	0.13*	0.06	1		
HPSC	0.23**	0.23**	0.11**	−0.06	0.04	−0.04	−0.03	−0.12**	1	
Age	−0.03	−0.05	0.03	0.05	0.05	0.09*	0.08	0.11*	−0.07	1

* $p < 0.05$.** $p < 0.001$.

with mental health issues, stigma, and social distance were associated with intentions to provide mental health first aid. Consistent with our study, higher levels of stigma and social distance were negatively correlated with mental health first aid intentions, supporting Lu et al.'s (2023) findings that stigma is a barrier to helping behaviours. These results underscore the importance of mental health initiatives targeting adolescents and future professionals to address stigma and improve support behaviours. Unexpectedly, weak or no correlations were observed between body satisfaction (EBEIC) and eating disorders (SCOFF), despite the expectation that individuals experiencing these mental health problems would demonstrate greater intentions to help (Lu et al., 2023). Furthermore, small correlations were found between Spanish MHSSA and sexual risk communication (HPSC) and pornography (PPCS-6), although prior literature has indicated no significant connection with these constructs (Lu et al., 2023, 2024).

This study presents several strengths. The Spanish MHSSA represents the first comprehensive adaptation and validation in Spanish, designed to evaluate mental health first aid behaviours. This study overcomes limitations of the original research by using EFA and CFA to establish the scale's factor structure, while also supporting future research to validate the instrument in another intervention and country, as well as across different mental health problems, such as eating disorders. It was compared to pornography addiction and sexual behaviour to incorporate an understanding of their relationship with sexuality. The scale provides a valuable measure of potential changes in helping behaviours, which are often difficult to assess in mental health interventions, and supports ongoing research for student mental health intention programmes (Jorm, 2020; Morgan et al., 2023; Söderqvist et al., 2025). The validation study, conducted with a large sample, demonstrates that the Spanish MHSSA has a good reliability and validity, establishing it as an adapted tool for future evaluations of mental health first aid intentions among Spanish adolescents and young people.

The findings should be interpreted considering the study limitations. First, this study focused on two prevalent mental health problems in young people, limiting the scale's applicability to other conditions or to vignettes featuring different genders. Further research is needed to assess the scale's applicability to other common conditions, such as attention-deficit/hyperactivity disorder and substance use disorders. Second, test-retest reliability was assessed only in the intervention group, not the control group. Third, although most fit indices were acceptable, RMSEA and CMIN/DF exceeded thresholds, indicating some model misfit; thus, the two-factor structure requires further validation. Finally, the lack of random sampling may limit the generalizability of the findings. Future research should employ probabilistic sampling and broaden the sample to improve generalizability, as well as consider adapting the scale for application across diverse Spanish-speaking countries. Its application enables educators, psychologists, and policy-makers to design and assess targeted mental health first aid intentions in educational settings. Through facilitating early detection and peer-based support, the scale contributes to enhanced mental health outcomes and

the development of a supportive environment.

5. Conclusions

Findings from this study suggest that the Spanish MHSSA is a valid and reliable instrument for assessing mental health first aid intentions of young people in Spain. Factors such as lived experience of mental health problems, trusted relationships, and de-stigmatizing attitudes may foster supportive behaviours toward peers among young Spaniards. The findings suggest that by addressing stigma and promoting empathy, it is possible to improve mental health first aid intentions and create more supportive environments. The Spanish MHSSA offers a valuable tool for assessing and enhancing the impact of intervention programmes, supporting evidence-based strategies to improve young people's mental health within educational settings.

CRedit authorship contribution statement

Laura Alonso Martínez: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **María José Sierra Medina:** Writing – review & editing, Writing – original draft, Visualization, Validation, Software, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Laura Armas Junco:** Writing – review & editing, Writing – original draft, Visualization, Validation, Software, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Raúl Soto Cámara:** Writing – review & editing, Writing – original draft, Visualization, Validation, Software, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **María Fernández Hawrylak:** Writing – review & editing, Writing – original draft, Visualization, Validation, Software, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Shurong Lu:** Writing – review & editing, Writing – original draft, Visualization, Validation, Software, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Ethical approval and consent to participate

All procedures were performed according to the ethical standards of the Declaration of Helsinki and the National Research Committee. This study was approved on 24 July 2023 by the Bioethics Commission of the University of Burgos (ID: IR29/2023). Informed consent was obtained from all participants prior to the research, guaranteeing their voluntary participation. In addition, consent was secured from parent/guardian, school management, and the relevant university authorities.

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Declaration of competing interest

The authors declared no potential conflicts of interest.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.actpsy.2026.107317>.

Data availability

I have shared the link to my data/code in the Attach File Step [Validating the Spanish Mental Health Support Scale \(Original data\)](#) (Zenodo)

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