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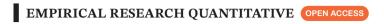
Validation of the Spanish Version of the Nurses' Global Assessment of Suicide Risk Scale (NGAR) in Nonclinical Settings

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ABSTRACT

Aim: To validate the Nurses' Global Assessment of Suicide Risk (NGASR) in Spanish for an early detection identification of the risk of suicide.

Design: A descriptive cross-sectional survey design was used for this work through face-to-face clinical interviews with each participant.

Method: Following EQUATOR TRIPOD checklist, the index was translated and administered to a sample of 30 mental health experts and 151 university students. To examine the psychometric properties of the NGASR, the questionnaires also included other standardised scales such as BDI, SBQ and SEEQ. The research was conducted between 2022 and 2023.

Results: The content validity index-scale (CVI-S) was 81% and the NGASR presented high reliability with a Kuder–Richardson coefficient of 0.83. Exploratory factor analysis (EFA) returned a six-factor structure for the NGASR items. The results showed that 21.7% of the students assessed had an intermediate to very high suicide risk. This study also revealed that people with mental health problems and depression had a higher risk of suicide.

Public Contribution: Beyond the sociolinguistic Spanish validation of the scale, it should be noted that it is carried out on a young population in a nonclinical environment, something that many authors have been requesting in their previous validations. The NGASR is a useful prevention tool in university educational settings.

1 | Introduction

Suicidal acts are a serious global public health problem, and their economic costs amount to billions of euros (Façanha, Santos, and Cutcliffe 2016). Worldwide, a suicide attempt occurs every 3 s (Junus and Yip 2022) and in 2019, more than 700,000 people committed suicide, being twice as many in men as in women (WHO 2023). The male suicide rate is higher in countries with high resources, while the female rate is higher in countries with fewer resources (Oakey-Frost, Tucker, and Buckner 2021). In Spain, 11 people commit suicide every day.

The COVID-19 pandemic and the socioeconomic crisis have negatively impacted the mental health of populations (Veloso, Monteiro, and Santos 2021). Several studies and preliminary evidence suggest that the prevalence of mental health problems and illnesses, such as depression, is likely to continue to increase and that there may also be a significant increase in the suicide rate. In fact, in 2021, suicide was the leading cause of death from external causes, with an increase of 1.6% compared to 2020, being the first external cause of death in men and the third in women. These data highlight the magnitude of the problem and the need to address it (Yang and Shim 2023).

A sign of the concern generated is that the WHO (2023) has set as one of its primary objectives to raise awareness and encourage countries to develop effective strategies for suicide prevention. For this reason, the countries participating in the WHO Mental Health Action Plan 2022–2024, including Spain, committed themselves to the prevention and reduction of national suicide rates.

On the other hand, suicide is a widely present phenomenon among college students globally (Stewart et al. 2020). Changes in the human life cycle, especially the transition from adolescence to early adulthood, can generate stress and trigger mental disorders such as depression and anxiety (Duan et al. 2022; Hong et al. 2022; Ma et al. 2022; Wu et al. 2021).

The annual prevalence of suicidal ideation among university students is notably high at 10.6%, compared to 4.3% in the general adult population (Ivey-Stephenson et al. 2022; Mortier et al. 2018, 2018). This significant difference underscores the vulnerability of university students, making them a critical group for targeted suicide prevention efforts (Chu et al. 2021; Mortier et al. 2018). This academic and work transition causes one-third of young people to develop depressive symptoms and 8% to show suicidal behaviour as shown in the study by Reina-Aguilar, Díaz-Jiménez, and Caravaca-Sánchez (2023) conducted on 2025 Spanish university students where it was reported that 29.2% of the student body had experienced some suicidal ideation during their lifetime.

Nurse assessment is very important in prevention. A good risk assessment of people under the responsibility of these professionals in both clinical and nonclinical settings is essential. This requires diagnostic tools that are easy to apply within a suicide risk screening protocol such as risk scales (Michail et al. 2022).

The Nurses' Global Assessment of Suicide Risk (NGASR) scale (Cutcliffe and Barker 2004) is a tool that serves this purpose. It is regularly used by nurses in different sociolinguistic contexts to assess suicidality. It is quick to apply, low cost and allows inferring associations between variables related to suicide prevention (Veloso, Monteiro, and Santos 2021).

It also has the endorsement of the Nurses' Association of Ontario (RNAO 2009) and has been recommended as an appropriate scale for assessing suicide risk by professional associations and by clinical resource development committees such as the clinical practice guidelines for suicide risk assessment developed by the Emergency Nursing Resources Development Committee (Ferrara, D'Agostino, and Destrebecq 2019).

The NGASR scale has been validated to sociolinguistic realities such as Chinese (Chen et al. 2011), Korean (Shin et al. 2012), Dutch (van Veen et al. 2015), German (Kozel et al. 2016), Portuguese (Façanha, Santos, and Cutcliffe 2016), Italian (Ferrara, D'Agostino, and Destrebecq 2019) and Brazilian (Veloso, Monteiro, and Santos 2021).

The NGASR was originally designed for clinical settings, yet it holds significant potential in nonclinical environments (Ferrara et al. 2019; Veloso, Monteiro, and Santos 2021), especially within university settings where suicide risk is notably high (Ivey-Stephenson et al. 2022; Mortier et al. 2018, 2018). Nurses are crucial in university health care, where they form an integral part of the mental health support team (Talseth and Gilje 2018; Saatchi and Taghavi Larijani 2019). Roles like nurse case managers, community nurses and school nurses are pivotal in connecting students with necessary resources, ensuring continuity of care and collaborating with mental health nurses to assess and manage suicide risk (Armas Junco, Alonso Martínez, and Fernández Hawrylak 2024; Talseth and Gilje 2018; Saatchi and Taghavi Larijani 2019). Validating the NGASR for use in a university population extends its utility beyond traditional clinical settings, making it a valuable tool in educational environments (Ferrara et al. 2019; Veloso, Monteiro, and Santos 2021). However, despite the relevance of this scale, no study has yet adapted and measured the psychometric properties of the NGASR within the Spanish population. Given the elevated suicide risk among university students, this population represents an appropriate sample for validating the NGASR in nonclinical Spanish settings. Therefore, given the overwhelming need to develop suicide prevention instruments, the main objective of this study was to translate, adapt and validate the Nurses' Global Assessment of Suicide Risk (NGASR) Index (Cutcliffe and Barker 2004) into Spanish. Additionally, the need was assumed to analyse the suicide risk of young Spanish university students in relation to personal and sociodemographic data and, to test the relevance of the use of the NGASR by nurses in nonclinical settings.

2 | Methodology

2.1 | Design

Following EQUATOR TRIPOD checklist (Collins et al. 2015), a descriptive and cross-sectional study was carried out, based on questionnaires composed of standardised scales. In the first phase of the study, the content validity index (CVI) of the NGASR was evaluated by means of expert validation, and in the second phase, the rest of its psychometric properties were validated in a young university population. The outcome (dependent) variables of the study will be the NGSAR (Cutcliffe and Barker 2004) adapted to Spanish, the Beck Depression Inventory (BDI, Beck et al. 1961), the Suicide Behaviour Inventory (SBQ, Gómez-Romero et al. 2021) and the Teaching Quality Evaluation Scale (SEEQ, Bol, Sáiz-Manzanares, and Pérez-Mateos 2013). On the other hand, the predictor (independent) variables refer to personal and sociodemographic details such as age, gender, marital status, academic training, job occupation and discipline studied.

2.2 | Participants

The selected sample of mental health experts consisted of 30 health workers, of whom 26 were registered nurses, three were physicians and one was an occupational therapist. The mean age was 46 years (Min = 23, Max = 63, SD = 14.49), of which 25 were women and 5 were men. Regarding professional development in mental health units, 17 participants had more than 10 years of experience, two had between 5 and 10 years of experience, seven had between 1 and 5 years of experience, two had less than

1 year of experience and two joined the unit with no previous experience. In terms of training, 10 nurses and two physicians had a specialist degree in mental health, while the occupational therapist had no specialisation. The inclusion criteria for this study were: to be a graduate health professional or equivalent who was working in the mental health area, with work experience and/or specialised training in that field, regardless of professional category.

The sample of young people consisted of 151 university students with a mean age of 22.83 (Min = 19, Max = 51, SD = 5.03). To participate in the study, eligibility criteria were established as being of legal age and enrolled in undergraduate and graduate academic programmes related to the field of health and education (see Table 1).

2.3 | Instruments

The core instrument was the Global Nurse Assessment of Suicide Risk (NGASR) Index (Cutcliffe and Barker 2004) composed of 15 items that assess various factors related to suicide risk. Each of these items is assigned a specific value based on its level of association with suicide risk. Items 1, 4, 7, 9 and 12 have a weighted score of 3 for their importance as critical factors associated with suicide. The other 10 items have a score of 1. The total scale score ranges from 0 to 25 points, with higher scores indicating a higher risk of suicide (Appendix S1).

TABLE 1 | Characteristics of the sample of young university participants.

Variables	N (%)
Gender	
Female	35 (23.2%)
Male	116 (76.8%)
Civil status	
Married or living with their partner	8 (5.3%)
Single	105 (69.5%)
With partner without living	38 (25.2%)
Working	
Yes	43 (28.5%)
No	108 (71.5%)
Faculty	
Education	112 (74.2%)
Health	39 (25.8%)
Health problem	
Yes	55 (36.4%)
No	96 (63.6%)
Total	151

Cronbach's alpha (α) was 0.58, slightly higher than in other NGASR studies (Façanha, Santos, and Cutcliffe 2016). The NGASR item acceptance ICC of 0.59 reflects moderate reliability, both within and across graders. For dichotomous indices, reliability is better assessed with the Kuder–Richardson formula (KR20), where a KR20 value above 0.8 indicates good reliability. For dichotomous items, those with only two possible responses, such as yes/no options, KR20 is generally preferred over Cronbach's alpha (α) for assessing reliability. KR20 is tailored for binary data, offering a more accurate estimate of internal consistency, while Cronbach's alpha, designed for continuous data, may not reflect binary item nuances as effectively (Anselmi, Colledani, and Robusto 2019). In this study, a KR20 value of 0.83 was achieved, and the mean questionnaire score was 3.12 (N = 150, Min = 0, Max = 17, SD = 3.30).

The professionals were asked to categorise the items of the scale according to their representativeness in suicide risk using a Likert scale from 1 to 4 that will allow us to calculate the CVI. In addition, questions were left with spaces for grammatical or syntactic suggestions to improve the items. This Likert scale was based on the one used in the validation of the Brazilian version of the NGASR (Veloso, Monteiro, and Santos 2021).

In the questionnaire administered to the young people, the SBQ, the BDI and the SEEQ scales were used as a contrast. The SBQ and the BDI were used to measure convergent construct validity, since they measure the same subject matter as the NGASR. The SEEQ was used to measure discriminant construct validity. In addition, personal and sociodemographic data were collected to examine criterion validity (concurrent and predictive), determining the relationship between these variables and the NGASR, allowing us to assess its relevance and applicability in real life.

2.4 | Procedure

To validate the NGASR in Spanish, we obtained permission from the author of the Portuguese and Brazilian versions. The translation of the NGASR scale followed the University of Michigan scale translation guide (Ortiz-Gutiérrez and Cruz-Avelar 2018).

Subsequently, an expert judgement was performed (Kozel et al. 2016) following the criterion of obtaining at least as many opinions as there were items in the instrument (Veloso, Monteiro, and Santos 2021). In this study, there were twice as many experts. Thirty professionals were selected from the healthcare teams of the selected Spanish hospital of both critical and chronic care mental health units. It was considered relevant to also obtain the opinion of other professionals who constituted the interdisciplinary team as was done in the studies by van Veen et al. (2015) and Kozel et al. (2016). The interviews took place from February to May 2022.

The expert phase recommended modifying item 11. It was suggested to include the concept of loss of a partner in the terminology 'widow/widower' and not to limit it only to the context of marriage. Therefore, after translation and expert opinion, the NGASR scale used in the sample collection is the one shown in Appendix S1.

For 1 year, from May 2022 to May 2023, the second phase of sample collection was carried out, with an average duration of 20 min per participant. The study ensured that all participants were thoroughly informed through a detailed consent process that highlighted the voluntary nature of their participation. Privacy was strictly protected, ensuring that no participant was assessed by someone they knew, thereby maintaining confidentiality. Participants were also given ample time to decide whether or not to participate, as they were notified several weeks in advance. They were assured that both participation and non-participation would have no negative academic consequences and that they could withdraw from the interview at any time. The interviewees were informed, both before and after the interview, about the free psychological support resource available at the university, the University Health Care Service (SUAS) in case they needed psychological support.

2.5 | Data Analysis

The following programs were used: Microsoft Excel, IBM SPSS Statistics 29.0.1.0 and JASP 0.16.4 X64. The psychometric properties obtained in this study were reliability (Kuder Richarson and Cronbach's alpha) and validity (Acuña et al. 2017; Rubin and Little 2019). The values obtained in the already adapted versions of this index were taken as a reference. In this study, the validity of the NGSAR was analysed by means of criterion validity (predictive and concurrent), construct validity (convergent and discriminant) and content validity (CVI and factor analysis).

Before conducting the statistical analyses, we assessed the data for normality using the Kolmogorov–Smirnov test. The Kolmogorov–Smirnov test indicated a nonnormal distribution for the mean scores of the scales. Specifically, the test yielded the following results: NGASR showed D (145) = 0.18, $p < 0.001$; BDI showed D (145) = 0.17, $p < 0.001$; SBQ showed D (145) = 0.261, $p < 0.001$ and SEEQ showed D (145) = 0.07, $p = 0.200$. All scales, except for the SEEQ, showed significant nonnormality, necessitating the use of nonparametric tests for their analysis. Nonparametric tests do not require data to follow a normal distribution (Nahm 2016), making them suitable for ensuring methodological consistency in our analysis. Consequently, all criterion variables and their relationships with the NGASR will be analysed using nonparametric methods. Depending on the variables studied, the Mann–Whitney U, Kruskal–Wallis and Spearman Correlation (Rubin and Little 2019) were applied.

CVI was performed using the formula employed by Veloso, Monteiro, and Santos (2021): CVI Number of agreements (number of responses scoring 3 to 4)/total number of responses. To assess the reliability of two different raters in measuring subjects consistently, we utilised intraclass correlation coefficients (ICC). The ICC values range from 0 to 1, where a value below 0.5 indicates poor reliability, values between 0.5 and 0.75 suggest moderate reliability, values between 0.75 and 0.9 represent good reliability and values above 0.9 indicate excellent reliability (Bobak, Barr, and O'Malley 2018).

Before carrying out the exploratory factor analysis (EFA), an evaluation of its appropriateness was performed using two tests: the Kaiser–Meyer–Olkin measure (KMO) and Bartlett's test of sphericity. The results obtained in the KMO show a value of 0.57 and are significant in the sphericity test ($\chi^2 = 417.67$, gL = 91, $p < 0.001$). Watkins (2018) considers KMO values above 0.50 as barely acceptable but still suitable for factor analysis, especially when combined with significant Bartlett's test results. In this case, the KMO value is close to 0.60, indicating sufficient correlations between items, which makes the data appropriate for factor analysis (Dong and Dumas 2020; Kretzschmar and Gignac 2019). In addition, according to Costello and Osborne (2005), the EFA analysis remains sufficiently robust even in the absence of normal distribution. This supports the validity of using factor analysis with dichotomous data in this study. The number of responses was also 10 times greater than the number of items, which meets the accepted standards for adequacy (Ferrando Piera et al. 2022) and surpasses Comrey and Lee's (1992) minimum recommendation of 50 participants for conducting the EFA.

To validate the NGASR, an AFE was carried out using the JASP 0.16.4 X64 program (Kretzschmar and Gignac 2019; Anselmi, Colledani, and Robusto 2019). In this analysis, a promax oblique rotation was applied, and the estimation method based on the unweighted least squares model was employed (Marsh et al. 2020). In this study, tetrachoric correlations were used to validate the indices composed of dichotomous scales (yes or no).

The decision was made to exclude item 15 of the NGASR, due to its lack of variability (variance 0). This decision was since none of the participants had terminal illnesses.

2.6 | Ethical Considerations

The project that gave rise to this study was previously submitted to a Bioethics Committee, which issued its authorisation on 27 January 2022 and was registered under reference number (REDACTED). All the forms completed had the express authorisation of the person interviewed prior to the start of the session.

3 | Results

3.1 | Evaluation of the Content Validity of the NGASR by Mental Health Experts

The overall CVI of the NGASR obtained a score of 0.81, indicating that 81% of the items included are considered acceptable according to the minimum criteria for content validity. However, some items did not reach this proportion and should be eliminated or modified. When analysing the means and standard deviation of the experts' responses in relation to the agreement with the items, it was observed that all scores are between 3 and 4, except for item 11 (Widow/widower). This supports the levels of agreement among the experts.

The use of means and standard deviation made it possible to accurately objectify the actual differences between individual scores in relation to NGASR agreement (Rubin and Little 2019). Items 1, 2, 8 and 12 have been identified as exhibiting a higher mean and lower standard deviation, indicating that they are the items with the least variability in expert opinions. These items

are also considered to be most closely related to predictor variables of suicide risk, as shown in Table 2.

The professional agreement on the NGASR item acceptance has demonstrated an ICC of 0.931, indicating excellent reliability. This high ICC reflects strong intragrader reliability, meaning individual graders consistently apply the same criteria over time, ensuring stable evaluations. It also demonstrates strong intergrader reliability, showing that different professionals agree closely when assessing the items. The NGASR items are both consistent and dependable, minimising variability and bias across different raters and over multiple assessments. This ensures that the evaluations are accurate and trustworthy, contributing to the overall validity of the process.

No significant differences were found in terms of relevance and pertinence of the NGASR items among the experts, regardless of their age, education and work experience. In the next phase, this information was considered, and pilot tests were conducted with experts and students to develop the final version, as shown above when describing the methodology.

3.2 | Exploratory Factor Analysis of the NGASR in Young People

Table 3 shows the indicators of central tendency and the six factors (hexafactor structure) of the NGASR obtained in the EFA. The first factor (F1) explains 35.7% of the total variance, the second factor (F2) explains 12.4%, the third factor (F3) explains 9.4%, the fourth factor (F4) explains 7.8%, the fifth factor (F5) explains 5.5% and the sixth factor (F6) explains 4.6%.

TABLE 2 | Content validity index of the NGASR.

Items	Mean	*SD*	No. agreements	CVI
1	3.50	1.04	24	0.8
2	3.57	0.90	26	0.87
3	3.30	1.15	22	0.73
4	3.40	1.07	23	0.77
5	3.13	1.25	21	0.7
6	3.47	1.07	25	0.83
7	3.47	1.07	25	0.83
8	3.63	0.81	28	0.93
9	3.43	1.10	24	0.8
10	3.47	1.01	25	0.83
11	2.83	1.29	19	0.63
12	3.50	1.08	25	0.83
13	3.23	1.08	24	0.8
14	3.40	1.07	27	0.9
15	3.43	0.93	25	0.83
Total NGASR	3.5	0.42	24.2	0.81

3.3 | Analysis of the NGASR in Relation to the Criterion Variables

When the NGASR, BDI and SBQ were related to the study's criterion variables, it was found that there were no statistical differences with respect to the variables of gender, work performance, marital status and academic training. However, significant differences were found in the mean rank of the NGASR for mental health problems, $U = 1191.00$, $z = -5.31$, $p = 0.001$ (two-tailed), with the rank being higher in university students who have suffered from them ($M_{rank} = 99.60$, Sum of Ranks = 5179, $n = 52$) compared to students who have not suffered from them ($M_{rank} = 60.91$, Sum of Ranks = 5847, $n = 96$). These differences show that there is a higher risk of suicide in those who have had a mental health condition compared to the rest of the student body. Significant differences were also found indicating greater depressive symptomatology (BDI) and suicidal intentions (SBQ) in students who suffered from any of these mental health problems than in the rest of the students.

On the other hand, the existing relationships between the NGASR and the rest of the scales used in this study were analysed and medium to large correlations were found between the NGASR and the SBQ ($r = 0.46$, $p < 0.001$) and the BDI ($r = 0.55$, $p < 0.001$) scales. No correlations were found between the NGASR and the SEEQ ($r = 0.10$, $p = 0.21$) and age ($r = 0.002$, $p = 0.98$). These findings indicate that a higher risk of suicide (NGASR) is related to having greater suicidal behaviours (SBQ) and having more severe depression-related symptoms (BDI) and were not associated with the teaching quality received (SEEQ, Table 4).

4 | Discussion

The proposed objectives were achieved in this study. The NGASR, translated into the Spanish of Spain sociolinguistic context, shows high reliability with a Kuder–Richardson Index of 0.83. It also exhibits robust validity across criterion, content and construct measures, confirming that it fulfils the psychometric properties. Moreover, the parameters obtained are like those found in previous validations of this index in other languages, which further supports its robustness and applicability in youth contexts.

The content validity of the Spanish translation of the NGASR assessed by the expert panel confirmed the presence of the factors most related to risk and therefore most linked to the determination of suicidal behaviours. This is consistent with the findings of previous studies by Cutcliffe and Barker (2004) and Façanha, Santos, and Cutcliffe (2016), in which the expert panels also assessed the presence of omitted variables and concluded that they did not exist in the NGASR. In our study, the findings revealed a CVI of 0.81 higher than the 0.78 obtained in the Brazilian Portuguese version of the NGASR (Veloso, Monteiro, and Santos 2021) and lower than the 0.97 obtained in the Italian version (Ferrara et al. 2019). Nevertheless, in all these studies, the CVI is considered adequate. The differences in these results may be related to the fact that in our study, the pretest application was administered only to expert committee

TABLE 3 | Trend indicators and factorial structure of the NGASR items.

Items	M	SD	M^a	Var^b	F1 suicidal desire	F2 withdrawal	F3 psychosis	F4 relationship breakdown	F5 hopelessness	F6 family history
NGASR1	1.73	0.45	24.50	2.42					0.91	
NGASR 2	1.62	0.47	24.60	2.17				0.73		
NGASR3	1.99	0.12	24.24	2.85	0.60		0.68		0.51	0.46
NGASR4	1.70	0.46	24.53	2.16	0.79		0.59	0.49		
NGASR5	1.98	0.14	24.25	2.86		0.89				
NGASR6	1.95	0.23	24.28	2.64	0.70		0.41	0.41		0.46
NGASR7	1.95	0.21	24.27	2.69	0.90		0.53			0.43
NGASR8	1.74	0.44	24.49	2.51						0.66
NGASR9	1.75	0.43	24.47	2.43				0.62		
NGASR10	1.99	0.08	24.24	2.85	0.61	0.47	0.75			0.55
NGASR11	1.99	0.12	24.24	2.93		0.44	0.72			
NGASR12	1.93	0.25	24.30	2.59	0.59		0.55			0.71
NGASR13	1.91	0.29	24.32	2.57				0.73	0.56	0.59
NGASR14	1.97	0.16	24.26	2.79	0.46	0.88	0.55			
NGASR15	2.00	0.00								

aM = mean of the scale (if the item is removed).
bVar = variance of the scale (if the item is removed).

TABLE 4 | Correlations between the NGASR and the criterion variables.

	NGASR	BDI	SBQ	SEEQ	Age
NGASR	1				
BDI	0.55**	1			
SBQ	0.46**	0.37**	1		
SEEQ	−0.10	−0.10	−0.03	1	
Age	0.002	0.003	0.03	0.15	1

**$p < 0.001$.

personnel and was not applied to users as in the validation of Veloso, Monteiro, and Santos (2021) and Ferrara et al. (2019). These values cannot be compared with other studies as they employed other techniques to perform content validation in their translations.

The results of the factor analyses revealed a six-factor structure, coinciding with the Korean (Shin et al. 2012), Portuguese (Façanha, Santos, and Cutcliffe 2016) and Italian (Ferrara et al. 2019) versions, in contrast to the Dutch version (van Veen et al. 2015) which showed a five-factor structure. In our study, with a nonclinical young population sample, a 14-item version of the NGASR was used. In the other languages, the original 15-item version was used, except for the German version (Kozel et al. 2016) which was expanded and configured into 16 items. However, these results are linked to the study by van Veen et al. (2015), which highlighted that item 15 (presence of terminal illness) received the lowest number of responses. In our study, we were unable to validate that item due to the lack of responses indicating the presence of such diseases. However, this item should be maintained given the importance of terminal diseases such as some cancers among the young population where this factor increases the risk of suicide by 2.5% (Michalek et al. 2023).

Furthermore, these 14 predictor variables explained 75.4% of the total variance, which exceeds the results obtained in the other NGASR validation studies (Façanha, Santos, and Cutcliffe 2016; Ferrara et al. 2019; van Veen et al. 2015; Shin et al. 2012). These findings confer greater scientific rigour and support the obtained results of adequate content validity. As noted in the study by Façanha, Santos, and Cutcliffe (2016), we also believe that the division of the NGASR into dimensions will not provide any clinical benefit and that it is preferable to maintain its unidimensional structure as proposed in its initial creation (Cutcliffe and Barker 2004).

When comparing the results of our study using the NGASR with those obtained in clinical samples of the Portuguese and Italian versions, significant differences were observed in the levels of suicide risk. In the study by Façanha, Santos, and Cutcliffe (2016), 40.4% were found to have an intermediate to very high level of suicidality. In the study by Ferrara et al. (2019), 25.62% had this suicide risk. However, in our study, a lower level of suicide risk was obtained than in these previous investigations, with 21.7% of participants in this category. These results are concerning, as they contradict the widely held belief that the risk of suicide in psychiatric patients is 3–12 times higher than in the general population (Shin et al. 2012), as our findings indicate that the risk of suicide in young people is comparable to that found by Ferrara et al. (2019). These results reveal that the risk of suicide in youth may be as high as in adult psychiatric patients, underscoring the importance of addressing this serious mental health problem in this population (Reina-Aguilar, Díaz-Jiménez, and Caravaca-Sánchez 2023).

In this research, no significant differences were identified between the NGASR, and the personal variables analysed, except for the variable that inquired about the history of previous mental illness. However, in the study by Façanha, Santos, and Cutcliffe (2016) significant differences were found in relation to marital status and living in urban areas indicating that participants living alone or without a partner presented higher mean values in all the instruments used, compared to married participants. On the other hand, as in the studies conducted by van Veen et al. (2015), Façanha, Santos, and Cutcliffe (2016) and Ferrara et al. (2019), in our study, we also found significant differences linking having suffered from some mental health ailment with an increased risk of suicide.

The similarity in suicide risk between the psychiatric clinical population and the general population is due to several interrelated factors. These factors include underlying mental illness (Pelizza et al. 2020), additional risk factors such as substance abuse (Núñez et al. 2023) and stress, as well as stigma and social isolation and barriers to help-seeking (Reina-Aguilar, Díaz-Jiménez, and Caravaca-Sánchez 2023). Therefore, numerous mental health instruments have been validated in the general population that were initially validated in the clinical population. For example, the Spanish version of the BDI (Sanz, Perdigón, and Vázquez 2003) and the SBQ (Gómez-Romero et al. 2021), used in this study, have been used in nonclinical populations after their validation in the psychiatric population. The recent study by Veloso, Monteiro, and Santos (2021) pointed out the need to validate the NGASR in populations attended in health centres without a history of psychiatric illness, supporting the use of this nursing tool to assess suicide risk in the general population.

The NGASR in its translation into Spanish demonstrates solid construct validity, since significant medium to strong correlations were found with the SBQ and the BDI, which shows adequate convergent validity. Convergent validity is confirmed when the NGASR scores correlate strongly with these established measures of depression and suicidal behaviour, indicating that the tool accurately assesses similar constructs (Acuña et al. 2017). These findings indicate a relationship between suicide risk with suicidal ideation and depression. The strongest correlation was found between the NGASR and the BDI, suggesting that depression may be an important risk factor for suicidal behaviours (Chen et al. 2011; van Veen et al. 2015; Veloso, Monteiro, and Santos 2021). These findings are consistent with previous studies conducted in other countries (Façanha, Santos, and Cutcliffe 2016; Ferrara et al. 2019), where strong correlations were also found between the NGASR and the BDI. The results obtained when comparing the NGASR with the SBQ and SEEQ could not be compared with those of other countries as

they used different instruments that were not validated in the Spanish population.

On the other hand, to measure the discriminant validity, the SEEQ was utilised to ensure that the NGASR does not correlate with unrelated constructs, such as teaching quality. Noncorrelation with this scale demonstrates that the NGASR accurately measures suicide risk, distinct from unrelated factors (Acuña et al. 2017). Confirming that NGASR specifically measures what it is intended to. Correlation coefficients were used to evaluate these relationships, ensuring a robust validation of the NGASR.

Overall, the Spanish-NGASR demonstrates validity comparable to its use in other contexts (Façanha, Santos, and Cutcliffe 2016; Ferrara, D'Agostino, and Destrebecq 2019; van Veen et al. 2015; Kozel et al. 2016; Shin et al. 2012; Veloso, Monteiro, and Santos 2021), confirming its reliability for the Spanish population. Notably, this study features the largest sample size among NGASR validation studies (Façanha, Santos, and Cutcliffe 2016; Ferrara et al. 2019; Shin et al. 2012), which enhances its robustness. The translation and cultural adaptation of the NGASR into Spanish were conducted meticulously, with no issues of misunderstanding or ambiguity identified in the final version of the index.

Additionally, this study's application of the scale to a young, nonclinical population highlights its sociolinguistic suitability. This is particularly significant, as previous research has emphasised the need for the NGASR to be tested in nonclinical settings, such as health centres and schools (Ferrara et al. 2019; Veloso, Monteiro, and Santos 2021). To ensure its effectiveness, nonnursing professionals who interact regularly with students should receive appropriate training in the use of the NGASR. This training should encompass techniques for conducting interviews and strategies for managing high-risk cases, with continuous support from university health services to provide ongoing care.

4.1 | Limitations

The study's limitations include a lack of gender equity in the sample and a relatively small sample size, which may impact the generalisability and reliability of the NGASR findings. Future research should focus on expanding the sample size to include diverse populations, thereby enhancing the scale's applicability. Increasing the number of interviews will improve the reliability and validity of the NGASR. Additionally, performing confirmatory factor analysis (CFA) and other statistical analyses on larger, varied samples will further validate the scale. It is suggested to consider samples with a more gender-equitable representativeness and to transfer its use to Spanish hospital and primary care settings. It is recommended to implement specific interventions aimed at the university population with the purpose of preventing and mitigating the risk of suicide.

5 | Conclusion

The present study demonstrates the validity and reliability in Spanish of the Global Nurse Assessment of Suicide Risk (NGASR). This research shows that the NGASR is a reliable nursing tool for the early detection of suicide risk, which is currently increasing in the youth population. It highlights the importance of strengthening the evaluation of nursing interventions aimed at the entire population, to detect early and reduce the levels of depression and risk of suicidal behaviours.

6 | Relevance for Clinical Practice

Our manuscript validates the NGASR in Spanish, making it accessible to Spanish speakers worldwide. Furthermore, our study examines the tool's performance in a nonclinical population for the first time. By validating the tool among a university population, we pave the way for its application in nonclinical settings. In this manner, the NGASR proves to be a valuable preventive tool, even in university educational environments where the risk of suicide is significant and cannot be overlooked. The NGASR's validation in Spanish and its effectiveness in nonclinical university settings allow for its application in educational institutions, Spanish-speaking communities, workplaces and preventive programmes, enhancing early mental health support.

Author Contributions

Laura Alonso-Martínez contributed to conceptualisation, methodology, formal analysis, investigation, resources, data curation and writing – review and editing. **José Carlos Santos** was involved in conceptualisation, formal analysis, resources and writing – review. **Madalena Cunha** contributed to conceptualisation, methodology, investigation and writing – review. **Jesús Puente-Alcaraz** was involved in conceptualisation, methodology, formal analysis, investigation, resources, data curation, writing – review and editing, project administration and supervision.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.