JIDR Journal of Intellectual Disability Research
Published on behalf of mencap and in association with IASSID

Journal of Intellectual Disability Research doi: 10.1111/jir.13122

VOLUME 68 PART 5 pp 477–490 MAY 2024

The stigma of intellectual disability in Spain: a nationally representative survey

S. Zamorano,[1,3] A. B. Santos-Olmo,[1,3] I. Sánchez-Iglesias,[2,3] I. Muñoz-Lara[3] & M. Muñoz[2]

1 *Department of Personality, Assessment and Clinical Psychology, School of Psychology, Complutense University of Madrid, Madrid, Spain*

2 *Department of Psychobiology and Behavioral Sciences Methods, School of Psychology, Complutense University of Madrid, Madrid, Spain*

3 *Chair Against Stigma Grupo 5-Complutense University of Madrid, Madrid, Spain*

Abstract

Background Stigma towards people with intellectual disability affects various aspects of their lives, including access to employment, housing, health and social care services. Furthermore, this stigma reduces their social opportunities and is even reflected in laws that diminish their autonomy. Due to the practical significance of this issue, the aim of this research is to explore for the first time the social stigma associated with intellectual disability in a representative sample of the Spanish population.

Method A cross-sectional quantitative descriptive study was conducted, involving a representative sample of the population (N = 2746). The study includes descriptive analyses and hierarchical regressions to examine various dimensions of stigma, such as attitudes, attributions, and intentions of social distance.

Results Medium levels of stigma are found regarding attitudes and attributions towards people with intellectual disability, while levels are medium-low concerning the intention of social distance. The most reliable indicators of stigma across its various dimensions encompass attitudes, attributions, and the intention of social distance. Factors that contribute to lower stigma include knowing someone with an intellectual disability, being willing to discuss intellectual disability with an acquaintance who has it and having a progressive political ideology. People with intellectual disability show more negative attributions towards themselves. Living with a person with an intellectual disability is another predictor of more stigmatising attitudes, but less intention of social distance. Results are mixed regarding age, gender, and educational level.

Conclusion Combating the stigmatisation of people with intellectual disabilities must include comprehensive actions to address attitudes, attributions and behavioural intentions. Public policies, such as national campaigns and programmes, should include contact with and open conversations about intellectual disability, and sensitivity to sociodemographic variables.

Keywords attitudes, attributions, general population, intellectual disability, social distance, stigma

Correspondence: Dr Ana Belén Santos-Olmo, Department of Personality, Assessment and Clinical Psychology, School of Psychology, Complutense University of Madrid, Campus de Somosaguas, Ctra. de Húmera, s/n, 28223, Pozuelo, Madrid, Spain (e-mail: anabsant@ucm.es).

Introduction

People with intellectual disability face social exclusion, stereotyping, prejudice and barriers that

restrict, violate and deny their human rights (Varughese *et al.*, 2011). The discrimination associated with living with intellectual disability is a process of intersecting structural, internalised and social stigmatisation. Contrary to most conventions on human rights, the structural stigma faced by this group is clear. It is manifested in wages that are far below those of the rest of the population, difficulties in accessing employment, housing and health resources, and legislation that restricts their autonomy (Werner & Scior, 2022). Moreover, people with intellectual disability are aware that they are perceived as 'different' by society, and internalised stigma leads them to hide their disability in order to be treated equally to the rest of the population (Werner & Scior, 2022). Eventually, the family of a person with an intellectual disability may also internalise the stigma suffered by this family member, thus giving rise to affiliation stigma (Recio *et al.*, 2020). This stigma is compounded as a stressor that worsens family relationships and generates conflict (Molero *et al.*, 2023).

Social stigma, which is the focus of this study, is composed of three complementary dimensions: cognitive (attitudes and stereotypes), emotional (negative attributions and prejudices) and behavioural (social distancing and acts of discrimination) (Corrigan & Watson, 2002). These dimensions have different characteristics and constantly interact with each other, and it is important to understand how these interactions work (Ottati *et al.*, 2005). It has been observed that people with intellectual disability are among the least desirable groups in terms of social interactions compared to other stigmatised groups (Nagata, 2007) and that there are more negative attitudes towards this group than towards people with physical disabilities (Brown *et al.*, 2011). Intellectual disability has frequently been linked to a number of stigmatising beliefs, where people are often perceived as aggressive, childish, dependent and with limited abilities and skills, both socially and academically (Werner & Scior, 2022). Furthermore, the idea persists that people with intellectual disability must study, work and live in segregated contexts (Pace *et al.*, 2010). As a consequence of misinformation and lack of knowledge about this topic, people with intellectual disability experience behaviours ranging from overprotection and pity to outright abuse and discrimination (Beart *et al.*, 2005; Ditchman *et al.*, 2013; Werner & Scior, 2022). In this sense, social stigma tends to function differentially depending on the stigmatised characteristic, its origin, its course, its visibility and its disruptiveness (Pachankis *et al.*, 2018). These authors find that, in the case of people with intellectual disabilities, they are often perceived as harmless, but awkward. In contrast, people with mental disorders tend to be perceived as dangerous. In fact, stigma may also be differential depending on the type of intellectual disability the person has: for example, affiliation stigma is higher in families with children with autism spectrum disorders than with other disabilities (Werner & Shulman, 2015).

These kinds of disabilities continue to be perceived very negatively among the general population and across various countries (Scior, 2011). The literature suggests that there are variations in the stigma attached to people with intellectual disability across countries and cultures (Zeilinger *et al.*, 2020). Western societies seem to be broadly in agreement with the right of people with intellectual disability to be included in society (Jansen-van Vuuren & Aldersey, 2020). In Spanish-speaking countries, where the culture is family and community-based, there are more benevolent and compassionate attitudes towards people with mental disorders (de Toledo Piza Peluso & Blay, 2004; Mascayano *et al.*, 2016). This culture has special characteristics that influence stigma, such as the strong emphasis on religious values, the impact of gender roles (sexism) and the importance of family. In Spain, there are more negative stereotypes and greater social distancing intentions compared to other countries (Gallego *et al.*, 2020). In addition, two recent reviews on the effectiveness of measures to counteract the stigma against intellectual disability conclude that these actions are rare and not specifically targeted towards reducing stigma, nor adapted culturally (Saran *et al.*, 2023; Smythe *et al.*, 2020). It is therefore important to conduct studies in representative samples from different countries that describe and analyse stigma in different cultural realities.

Despite the profound consequences of stigma for people with intellectual disability, there are very few studies of nationally representative samples. At global

level, one recent study (McConkey *et al.*, 2021) assessed stigma towards people with intellectual disability using a representative survey conducted in 17 countries. The findings indicate that individuals who have more frequent interactions (contact) with people with intellectual disability tend to exhibit more comfortable interactions and reduced feelings of prejudice, anxiety and discomfort when dealing with this population. In Europe, a nationally representative survey was conducted in the Netherlands (Pelleboer-Gunnink *et al.*, 2021). The data indicate that the most salient stereotypes of people with intellectual disability are that they are 'friendly', 'in need of help' and 'unintelligent'. In Ireland, the National Survey of Public Attitudes to Disability (National Disability Authority, 2017) reports that 44% of the population consider it appropriate to segregate children with intellectual disability in separate schools. At national level, representative studies in Canada (Morin *et al.*, 2013) and Israel (Werner, 2015) reveal the importance of certain sociodemographic variables in the representation of stigma towards people with intellectual disability, such as age, gender, socioeconomic status and level of education. Furthermore, some authors argue that there are certain blind spots when researching the concept of stigma, such as values and political ideology (Schomerus & Angermeyer, 2021). Another study in England, conducted on a non-representative sample, highlights how the word 'retarded' continues to be used to describe people with intellectual disability (Wilson & Scior, 2015). In Spain, no nationally representative survey has been conducted to address the stigma experienced by people with intellectual disability.

The desirability of conducting representative studies on stigma in different countries and cultures has already been established (Scior, 2011; Zeilinger *et al.*, 2020). Therefore, the purpose of this study is to explore for the first time the social stigma linked to people with intellectual disability in a representative sample of Spain. An assessment of the dimensions (attitudes, attributions and social distance) of this stigma was conducted, taking into account sociodemographic factors, frequency of contact with people with intellectual disability and willingness to talk about the topic. The study then analyses the main predictors of stigma in Spain.

Methods

Procedure

First, a comprehensive review of the literature was conducted to identify assessment instruments employed in other surveys on stigma towards people with intellectual disability (McConkey *et al.*, 2021; Pelleboer-Gunnink *et al.*, 2021). Once the assessment instruments and key variables were defined, we conducted a CAWI (Computer Assisted Web Interviewing) survey through the company 'Grupo Análisis e Investigación'. Random invitations to participate were sent via email, in proportion to the sample according to gender, age and Autonomous Community. All participants were informed about the study, ensuring anonymity and requesting informed consent. The final survey included self-administered scales and ad hoc questions, with a response time of 20 minutes. Assessments were conducted from 19 January to 8 February 2022.

The study was approved by the Deontological Commission of the Faculty of Psychology of the Complutense University of Madrid (Ref. 2020/21–026) and is registered in Clinical Trials (NCT05174962). The data were processed in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of personal data. This study is part of a broader research project conducted by the Chair Against Stigma UCM-Grupo 5 to assess the stigma associated with different vulnerable populations (Zamorano *et al.*, 2022).

Sample

The study was carried out on a representative sample of the Spanish population of $N = 2746$ people, consisting of adults over the age of 18. To ensure a representative sample, a consumer panel methodology was applied using random sampling with matched replacement. The Spanish panel is composed of 105 002 people (It is constructed according to the ISO20252 standard by people who have responded to at least one survey in the last 12 months). The sampling criteria guaranteed a 95.5% confidence level with $P = q = 50\%$. The margin of error was ±1.88% for the overall sample, ±10% for communities with 100 cases, ±8.16% for 150 cases, and ±5.76% for 300 cases. To compose the sample, it

was stratified according to sex, age and Autonomous Community of residence, with sex and age group quotas applied. Data were collected from all 17 Spanish Autonomous Communities (ACs) using simple allocation, ensuring a minimum of 100 surveys per AC.

The total sample consisted of N = 2746, with the majority between 25 and 64 years (75.7%) and a mean age of 46 years (SD = 15.5). The female proportion was higher (54.3%), and there was a predominance of secondary (46%) and university education (47.4%). The majority of the sample lived in urban areas with more than 100 000 inhabitants (48.9%) and the most of them considered themselves to have progressive (47.2%) or centrist (37.9%) political beliefs and were employed (57.4%). Detailed information can be found in Table 1.

Table 1 Sociodemographic characteristics of the sample (N = 2746)

Variable	*N*	%
Age		
18–24	257	9.4
25–44	1052	38.3
45–64	1027	37.4
≥65	410	14.9
Gender		
Male	1256	45.7
Female	1490	54.3
Education attainment		
No education	20	0.7
Primary education	161	5.9
Secondary education/professional training	1264	46
University education	1301	47.4
Size of place of residence (number of inhabitants)		
≥500 000	510	18.6
100 000–500 000	833	30.3
20 000–100 000	754	27.5
<20 000	649	23.6
Political beliefs		
Conservative	407	14.8
Centre	1042	37.9
Progressive	1297	47.2
Employment status		
Unemployed	282	10.3
Unpaid housework	126	4.6
Student	199	7.2
Retired	482	17.6
Employee	1411	57.4
Self-employed or entrepreneur	156	5.7
Permanent disability	70	2.5
Others	20	0.7

Variables and instruments

Sociodemographics

Sociodemographic information from the participants included their age, gender (male, female, non-binary, prefer not to answer), educational attainment (no education, primary education, secondary education, university education), size of their place of residence (city) (number of inhabitants: ≥500 000, 100 000–500 000, 20 000–100 000, <20 000), political beliefs (conservative, centre, progressive), and employment status (unemployed, unpaid housework, student, retired, employee, self-employed or entrepreneur, permanent disability, others).

Contact with people with intellectual disability

To collect the level of familiarity of the participants with people with intellectual disability, three ad hoc questions with yes/no answers were asked: 'Do you currently have, or have you ever had in your life, any type of intellectual disability?'; 'Do you currently know or have you ever known a person with an intellectual disability?'; 'Do you currently live with or have you ever lived with a person with an intellectual disability?'

Willingness to talk about intellectual disability

To analyse the willingness to talk about the intellectual disability of a close person in that situation, we asked: 'If a close person (family member, friend, colleague) had an intellectual disability … '. The alternatives were: 'I would certainly talk about it with that person'; 'I would like to talk about it with that person'; 'I wouldn't mind talking about it with that person'; 'I wouldn't like to talk about it with that person'; 'I would avoid talking about it with that person'.

Attitudes towards people with intellectual disability (cognitive dimension)

The Attitudes to Disability Scale (ADS, Power & Green, 2010) was used to assess attitudes towards people with intellectual disability. It is one of the most comprehensive scales for assessing stigma in this field. It was developed within the framework of an international study by the World Health Organisation, Spain being one of the participating

countries. It is a Likert-type scale (1 = Strongly Disagree to 5 = Strongly Agree) consisting of 16 items, with a total score of 80 points. The scale was corrected so that a higher score reflected greater stigma. Cronbach's alpha for this sample was 0.617.

Attributions towards people with intellectual disability (emotional dimension)

Stigmatising attributions towards people with intellectual disability were assessed using the Attribution Questionnaire (AQ-9, Corrigan *et al.*, 2014), in its Spanish version (Muñoz *et al.*, 2015). The scale was designed to assess stigma towards people with mental disorders, so we adapted it to assess the stigma associated with having intellectual disability. The following vignette was presented: 'García is a 30-year-old single person with an intellectual disability. Works in a large law firm. García has received care from a variety of services throughout the course of life because of this disability.' Nine stigmatising attributions (responsibility, anger, danger, fear, need for help, coercion, segregation, avoidance and pity) were assessed. The scale is Likert-type (1–9), with a minimum score of 9 and a maximum score of 81. Cronbach's alpha for this sample was 0.803.

Social distance intention towards people with intellectual disability (behavioural dimension)

The Reported and Intended Behaviour Scale (RIBS, Evans-Lacko *et al.*, 2011) was used to analyse the intention to maintain contact with people with intellectual disability. This scale was adapted for this study to this population, using 3 of the 4 original items. People were asked about their future intentions to live with, be friends with or allow children to interact with people with intellectual disability. It is a 3-item Likert-type scale (1–5) with a minimum score of 5 and a maximum score of 15. Scores were corrected so that a higher score indicated greater stigma. Cronbach's alpha for this sample was 0.897.

Data analysis

Sociodemographic data and variables related to contact with people with intellectual disability and willingness to talk about it were subjected to descriptive statistical analyses. Concerning gender, only eight respondents did not reply either male or female due to their limited number, statistical analysis was not feasible, and their information was analysed separately from this study.

Descriptive statistics were reported for the sociodemographic variables and the variables assessing stigma. Statistical correlation analyses were conducted between the scales, revealing no relevant overlap. Indeed, statistically significant coefficients were to be expected, as the three measures target theoretically related constructs. Three hierarchical regression models were fitted, with each measure of stigma dimensions (ADS, RIBS, and AQ-9) as the dependent variable respectively. Theory-related predictors were selected as described in the introduction and introduced using a block-wise selection approach, utilising the forward method. In the first block, the two additional measures of the dimensions of stigma were introduced as independent variables (e.g., RIBS and AQ-9 when ADS was the dependent variable). In the second block, sociodemographic predictors were introduced. The third block consisted of variables regarding contact with people with intellectual disability, and the fourth block included variables related to willingness to talk. All three models satisfied the assumptions of the regression tests, including linearity (a statistical or theoretical relationship between predictors and dependent variables), independence of residuals (Durbin-Watson statistic ranging between 1.5 and 2.5), multivariate normality (residuals exhibiting a normal distribution), non-multicollinearity (Variance Inflation Factor values below 10) and homoscedasticity (uniform distribution of points in plots displaying standardised residuals versus predicted values). The data analysis was conducted using SPSS 25. A significance level of 0.05 was established for all analyses.

Results

Contact with people with intellectual disability and willingness to talk about it

In terms of contact with the situation under study, 0.5% of respondents reported having an intellectual disability, 11.1% lived or had lived with a person with an intellectual disability, and 60.1% knew a person with an intellectual disability. Regarding the

willingness to talk about the intellectual disability of someone close to them, 95.2% of the total said that they would have no problem talking about it. These data are detailed in Table 2.

Attitudes, attributions, and intention of social distance towards people with intellectual disability

Scores obtained on the ADS, ranging from 6 to 80 points, revealed medium levels of negative attitudes towards people with intellectual disability (M = 46.47, SD = 6.35). For stigmatising attributions, assessed using the AQ-9 (range of scores from 9 to 81), the population also showed medium levels of stigma, with the presence of negative emotions towards people with intellectual disability (M = 31.39, SD = 11.20). Lastly, the intention of social distance towards this group was medium-low (M = 6.51, SD = 3.12, range 3 to 15). Men have higher stigmatising scores on the three dimensions assessed (attitudes M = 46.97, SD = 6.38; attributions M = 32.04, SD = 11.38; social distance M = 6.73, SD = 3.17), and so do retired people (M = 48.08, SD = 6.47; M = 32.49, SD = 10.74; M = 7.26, SD = 3.31). The highest scores on the three stigma dimensions assessed are also found in those who do not know anyone with intellectual disability (M = 46.93, SD = 6.10; M = 34.33, SD = 12.19; M = 7.49, SD = 3.18) and in those who are less willing to talk about the topic (M = 50.79, SD = 6.46; M = 40.08, SD = 12.63; M = 9.33, SD = 4.63). Detailed information can be found in Table 3.

Regression models

Table 4 displays the correlation coefficients between the three stigma measures used in this study. The shared variances of the correlations are not high, ranging between 4.3% and 11.1%. The relationship between the scores is significant, as would be expected in a large sample and with related constructs, which is why they are used as relevant predictors in the regression models.

Below are the final models (the last step) in the hierarchical regression tests for each of the three psychometric instruments. The categories of the variable related to discussing the situation always refer to the category 'I would certainly talk about it with that person'. The employment categories have 'Unemployed' as the reference category. The educational categories have 'No education' as the reference and gender has 'Male' as the reference category.

The final step of the regression model for ADS total scores (Table 5) included 11 predictors. The variables introduced in the first block, in this case the stigma assessment scales, explained 8.5% of the variance in the ADS scores. In the second block, the introduction of sociodemographic variables increased the variance accounted for to 10.1%. The third block, which introduced contact with people with intellectual disability, increased the explained variance to 10.3%. The fourth block, including the willingness to talk about the intellectual disability of an acquaintance with that person, increased the explained variance to

Table 2 Contact with people with intellectual disability and willingness to talk about it (N = 2746)

Variable	*N*	%
Contact with people with intellectual disability		
I have an intellectual disability	15	0.5
I currently live with or I have lived with a person who has an intellectual disability	306	11.1
I currently know or I have known a person (friend, neighbour, partner, etc.) who has an intellectual disability	1649	60.1
Willingness to talk about the intellectual disability		
If a close person (family member, friend, colleague) had an intellectual disability …		
I would certainly talk about it with that person	885	32.2
I would like to talk about it with that person	859	31.3
I would not mind talking about it with that person	870	31.7
I would not like to talk about it with that person	92	3.4
I would avoid talking about it with that person	40	1.5

Table 3 Attitudes (ADS), attributions (AQ-9), and intention of social distance (RIBS) towards people with intellectual disability, by sociodemographic characteristics, contact with people with intellectual disability and willingness to talk about it

Variable	Total ADS (range 6–80) M (SD)	Total AQ-9 (range 9–81) M (SD)	Total RIBS (range 3–15) M (SD)
Total sample	46.47 (6.35)	31.39 (11.20)	6.51 (3.12)
Age			
18–24	45.61 (5.82)	31.48 (12.82)	6.24 (3.21)
25–44	46.13 (6.08)	32.17 (11.85)	6.29 (3.01)
45–64	46.41 (6.62)	30.32 (10.14)	6.54 (3.12)
≥65	48.05 (6.38)	32.01 (10.73)	7.18 (3.27)
Gender			
Male	46.97 (6.38)	32.04 (11.38)	6.73 (3.17)
Female	46.05 (6.29)	30.84 (11.02)	6.33 (3.07)
Educational attainment			
No education	46.00 (6.90)	41.60 (16.47)	8.00 (3.78)
Primary education	45.52 (6.29)	32.22 (11.78)	7.31 (3.28)
Secondary education/professional training	46.44 (6.34)	32.08 (11.35)	6.77 (3.17)
University education	46.64 (6.34)	30.46 (10.75)	6.14 (3.00)
Size of place of residence (number of inhabitants)			
≥500 000	47.04 (6.11)	31.00 (11.01)	6.69 (3.19)
100 000–500 000	46.58 (6.50)	31.54 (10.80)	6.47 (3.13)
20 000–100 000	46.23 (6.36)	31.19 (11.83)	6.53 (3.12)
<20 000	46.17 (6.29)	31.73 (11.11)	6.40 (3.06)
Political beliefs			
Conservative	47.81 (6.52)	32.79 (11.08)	7.07 (3.47)
Centre	46.47 (5.96)	33.04 (11.27)	7.00 (3.08)
Progressive	46.06 (6.53)	29.62 (10.92)	5.95 (2.94)
Employment status			
Unemployed	45.83 (6.23)	31.54 (11.60)	6.53 (3.00)
Unpaid housework	45.71 (6.24)	32.05 (11.88)	6.81 (3.02)
Student	45.84 (6.14)	30.36 (12.24)	6.45 (3.53)
Retired	48.08 (6.47)	32.49 (10.74)	7.26 (3.31)
Employee	46.30 (6.29)	31.38 (11.11)	6.26 (2.97)
Self-employed or entrepreneur	46.08 (6.27)	30.23 (10.93)	6.58 (3.40)
Permanent disability	45.57 (6.27)	28.60 (10.19)	6.00 (2.80)
Others	46.30 (6.67)	28.05 (10.58)	6.20 (3.25)
Contact with intellectual disability			
I have an intellectual disability			
No	46.48 (6.33)	31.35 (11.17)	6.50 (3.12)
Yes	45.73 (8.42)	39.27 (14.18)	8.13 (3.50)
I currently know or I have known a person (friend, neighbour, partner, etc.) who has an intellectual disability			
No	46.93 (6.10)	34.33 (12.19)	7.49 (3.18)
Yes	46.17 (6.48)	29.43 (10.02)	5.86 (2.91)
I currently live with or I have lived with a person who has an intellectual disability			
No	46.41 (6.35)	31.51 (11.15)	6.61 (3.12)
Yes	46.96 (6.25)	30.44 (11.57)	5.76 (3.01)
Willingness to talk about the intellectual disability			
If a close person (family member, friend, colleague) had an intellectual disability …			
I would certainly talk about it with that person	45.03 (6.78)	28.05 (9.58)	5.26 (2.84)
I would like to talk about it with that person	46.65 (6.09)	30.89 (10.47)	6.41 (2.91)

Table 3. *(Continued)*

Variable	Total ADS (range 6–80) M (SD)	Total AQ-9 (range 9–81) M (SD)	Total RIBS (range 3–15) M (SD)
I would not mind talking about it with that person	47.27 (5.46)	34.09 (11.39)	7.51 (2.89)
I would not like to talk about it with that person	50.79 (6.46)	40.08 (12.63)	8.91 (3.56)
I would avoid talking about it with that person	47.18 (10.29)	37.33 (20.86)	9.33 (4.63)

Table 4 Correlation coefficients between attitudes (ADS), attributions (AQ-9), and intention of social distance (RIBS) scores

	Total ADS	Total AQ-9	Total RIBS
Total ADS	1	0.263	0.208
Total AQ-9		1	0.333
Total RIBS			1

$N = 2746$. All coefficients were statistically significant, $P < 0.001$.

11.3%. Negative attitudes towards people with intellectual disability were related to the existence of negative emotions associated with this group, as well as to a greater intention to keep a certain distance from them. Higher levels of stigma, as measured by the ADS, were associated with being older, having a higher education, being retired and living with a person with intellectual disability. Conversely, being open to talk about the intellectual disability of a person close to oneself was associated with lower levels of stigma.

For the AQ-9 total scores, the final step of the regression model (Table 6) included a total of 14 predictors. In the first block, the two stigma-related variables accounted for 15% of the variance. After the inclusion of the second block (sociodemographic variables), the explained variance rose to 17.1%, and the third block (contact with people with intellectual disability) increased the explained variance to 18.6%. Finally, the last block increased this variance to 20.2%. The existence of negative emotions towards people with intellectual disability was positively related to poorer attitudes and greater intention of social distance. Lower levels of stigma were associated with having progressive political beliefs, being older, having a university education, being a student and being a woman. Knowing a person with intellectual disability and the willingness to discuss the topic with someone with a disability is also associated with less stigma. In contrast, being retired and having intellectual disability oneself are associated with worse attitudes.

For the RIBS total scores (Table 7), the regression model included 11 predictors in the final step. In the first block, variables related to stigma scales accounted for 12.6% of the variance. The sociodemographic variables from the second block increased the explained variance to 15.3%, and the third block (contact predictors) increased the explained variance to 18.4%. The last block, related to willingness to talk about intellectual disability, increased the variance to 23.4%. In this case, social distance intention was positively related with negative attributions and emotions. Lower levels of stigma were related to having progressive political beliefs, having a university education, knowing someone with intellectual disability, living with someone with intellectual disability, and being willing to talk about intellectual disability. Being retired is again associated with higher levels of stigma.

The last step of the regression model for the ADS, AQ9 and RIBS can be found in Tables 5, 6 and 7, respectively. All successive steps can be found in Data S1.

Discussion

This study is the first to address stigma towards people with intellectual disability in a representative sample in Spain. Regarding the prevalence of

Table 5 Hierarchical regression model for ADS total scores

Variable	*B*	95% CI for *B*		SE *B*	β	R^2	ΔR^2
		LL	*UL*				
Final step						0.113	0.012
Constant	37.2	35.7	38.7	0.77			
AQ-9 Total	0.12	0.10	0.14	0.01	0.21		
RIBS total	0.22	0.14	0.30	0.04	0.11		
Age	0.03	0.01	0.05	0.01	0.07		
University education	2.17	1.23	3.12	0.48	0.17		
Secondary education/professional training	1.49	0.55	2.43	0.48	0.12		
Retired	0.85	0.05	1.65	0.41	0.05		
I currently live with or I have lived with a person who has an intellectual disability	0.89	0.18	1.61	0.36	0.04		
I would like to talk about it with that person	1.04	0.47	1.61	0.29	0.08		
I would not mind talking about it with that person	1.06	0.47	1.65	0.30	0.08		
I would not like to talk about it with that person	3.64	2.31	4.96	0.68	0.10		
I would avoid talking about it with that person	0.16	−1.77	2.08	0.98	0.00		

Forward regression method. All variables were significant. $P < .05$. Dependent variable: RIBS total score.
CI, confidence interval; *LL*, lower limit; *UL*, upper limit.

Table 6 Hierarchical regression model for AQ9 total scores

Variable	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	*UL*				
Final step						0.202	0.016
Constant	20.25	16.35	24.16	1.99	0.00		
RIBS total	0.72	0.59	0.86	0.07	0.20		
ADS total	0.33	0.27	0.39	0.03	0.19		
Political beliefs	−0.38	−0.55	−0.20	0.09	−0.07		
Age	−0.11	−0.15	−0.07	0.02	−0.15		
University education	−1.08	−1.85	−0.32	0.39	−0.05		
Student	−2.97	−4.59	−1.35	0.83	−0.07		
Retired	2.06	0.69	3.44	0.70	0.07		
Gender	−0.67	−1.47	0.13	0.41	−0.03		
I currently know or I have known a person who has an intellectual disability	−2.76	−3.56	−1.97	0.41	−0.12		
I have an intellectual disability	6.37	1.28	11.46	2.60	0.04		
I would like to talk about it with that person	1.18	0.23	2.13	0.49	0.05		
I would not mind talking about it with that person	2.98	1.99	3.97	0.50	0.12		
I would not like to talk about it with that person	6.39	4.17	8.62	1.13	0.10		
I would avoid talking about it with that person	4.38	1.16	7.60	1.64	0.05		

Forward regression method; all variables were significant. $P < .05$. Dependent variable: AQ9 total score.
CI, confidence interval; *LL*, lower limit; *UL*, upper limit.

intellectual disability in our sample (0.5%), it is aligned with previous literature. Although the prevalence of this type of disability worldwide is difficult to determine due to the complexity of its measurement (García-López *et al.*, 2018), it is estimated at between 0.05 and 1.55% (McKenzie *et al.*, 2016). In Spain,

Table 7 Hierarchical regression model for RIBS total scores

Variable	*B*	95% CI for *B*		*SE*			
		LL	*UL*	*B*	β	R^2	ΔR^2
Final step						0.234	0.051
Constant	3.38	2.51	4.26	0.45			
AQ-9 total	0.05	0.04	0.06	0.01	0.19		
ADS total	0.05	0.03	0.06	0.01	0.09		
Political beliefs	−0.13	−0.18	−0.08	0.02	−0.09		
University education	−0.42	−0.63	−0.21	0.11	−0.07		
Retired	0.57	0.29	0.84	0.14	0.07		
I currently know or I have known a person who has an intellectual disability	−0.97	−1.19	−0.75	0.11	−0.15		
I currently live with or I have lived with a person who has an intellectual disability	−0.35	−0.69	−0.01	0.17	−0.04		
I would like to talk about it with that person	0.79	0.53	1.05	0.13	0.12		
I would not mind talking about it with that person	1.55	1.29	1.82	0.14	0.23		
I would not like to talk about it with that person	2.42	1.82	3.03	0.31	0.14		
I would avoid talking about it with that person	3.11	2.24	3.99	0.44	0.12		

Forward regression method; all variables were significant. $p < .05$. Dependent variable: RIBS total score.
CI, confidence interval; *LL*, lower limit; *UL*, upper limit.

according to the IMSERSO (2022), the rate is 0.6%. In relation to contact with people with intellectual disability, our data are also in line with those obtained in European and Spanish-speaking countries, where the percentages of contact with people with intellectual disability vary between 51% and 67% (McConkey *et al.*, 2021). Intellectual disability remains a taboo subject in many cultures (McConkey *et al.*, 2021). The fact that 60% of our sample report knowing someone with intellectual disability and 95.2% are willing to talk about it points to a certain awareness of the subject in our country. This is a good sign of a willingness to improve understanding of intellectual disability and its impact on people.

In terms of attitudes and attributions, the results show medium levels of stigma towards people with intellectual disability in the Spanish population. It is hard to compare the results with other national surveys, given that they are scarce and the measures of stigma are heterogeneous. Nevertheless, the data point to the findings of Werner and Scior (2022) in a recent literature review, which describe the presence of stigma at multiple levels of society. The intention of our sample to distance themselves socially from people with intellectual disability is at medium-low levels, which is in line with previous studies (Ouellette-Kuntz *et al.*, 2010; Wilson & Scior, 2015). It is important to add that the literature suggests that stigma towards people with intellectual disability is different from the stigma associated with mental health problems (Werner & Roth, 2014; Werner & Scior, 2022). While people with mental disorders are seen as dangerous and unpredictable and generate more fear and avoidance (Aznar-Lou *et al.*, 2016), the stereotypes attached to people with intellectual disability are related to their childishness and generate a feeling of pity and paternalism (Ditchman *et al.*, 2013; Werner & Scior, 2022). The levels of stigma identified in this study indicate the need to continue working to counteract it. The mere presence of stigmatising attitudes towards people with intellectual disability is, in itself, negative, even at low or medium levels (Thornicroft *et al.*, 2022).

In the regression models, considering the three dimensions of the stigma construct, each dimension finds its best predictors in the other two. This is consistently the case for attitudes (cognitive dimension), attributions (emotional dimension) and social distance intention (behavioural dimension). This structure of interactions is also found in other vulnerable populations such as people with mental disorders (González Sanguino *et al.*, 2023). In this regard, those with more negative beliefs towards people with intellectual disability are more likely to develop negative emotions towards them, as well as a

greater desire to distance themselves socially (Pelleboer-Gunnink *et al.*, 2021; Werner, 2015). In other populations that suffer stigma, emphasis has been placed on the need to address these dimensions when developing actions focused on reducing stigma, rather than only on sociodemographic variables (Gronholm *et al.*, 2017).

In reference to sociodemographic variables, previous literature found that being female and younger is sometimes related to lower levels of stigma, while other studies do not find conclusive associations (Werner, 2015). In our case, it appears that women demonstrate better attributions, while younger people show better attitudes but more negative emotions towards people with intellectual disability. In this sense, being retired appears to be a predictor of poorer attributions and greater desire to distance oneself from people with intellectual disability, which could be more influenced by age than work status. Moreover, the results show that having higher levels of education protects against stigma in the case of negative attributions and social distancing intention, but is a risk factor in the case of stigmatising attitudes. This is consistent with previous research, which finds that those with higher levels of education exhibit less prejudice and less discrimination towards people with intellectual disability (Morin *et al.*, 2013; Werner, 2015). However, the emergence of higher education and being younger as risk factors for poorer attitudes should be further studied, since some other studies have also found results in agreement with ours (Werner, 2015). Finally, having a progressive political ideology also appears to protect against stigmatising attributions and intention of social distancing. Other studies have also found this relationship in other populations, such as people with mental health problems (DeLuca *et al.*, 2018; Schomerus & Angermeyer, 2021), however this variable does require further study in the specific field of intellectual disability. These predictor variables can help to identify target populations for campaigns and policies to reduce stigma.

As for the variables of contact with and willingness to talk about intellectual disability, both show relationships with lower levels of stigma in all dimensions (cognitive, emotional and behavioural). This is consistent with existing evidence, which concludes that people who are familiar with the reality of people with intellectual disability show better attitudes, attributions and behaviour (McConkey *et al.*, 2021; Pelleboer-Gunnink *et al.*, 2021; Werner, 2015). Talking openly about such a topic has been shown to be an effective strategy to reduce stigma in populations such as people with mental disorders (González-Domínguez *et al.*, 2019; Rüsch *et al.*, 2019). However, living with a person with intellectual disability is shown to be a risk factor for worse attitudes. One plausible explanation is that it is related to affiliation stigma, insofar as family members of the person with intellectual disability become aware of the social stigma suffered by their relatives and acquire attitudes concomitant with affiliation stigma (Mitter *et al.*, 2019; Molero *et al.*, 2023). These negative attitudes may also be due to caregiver distress (Hoare *et al.*, 1998). In addition, having an intellectual disability yourself is also associated with higher levels of stigma in our sample. As in other populations, such as people experiencing homelessness, this could be caused by internalised stigma, insofar as people with intellectual disability could be aware of the negative attributes associated with them, then take them on as part of their identity (Ali *et al.*, 2012), leading to lower self-esteem (Paterson *et al.*, 2012).

This study has several limitations. First, although the sample is representative of the Spanish population, it may not guarantee the geographical representativeness of all the Autonomous Communities. Moreover, the scales used in this study, despite being widely used measures and with good psychometric quality, are adapted from the mental health context to address the stigma of people with an intellectual disability. In addition, these scales are not validated in the Spanish population, since there is currently no scale to measure intellectual disability stigma in Spain. Also, the stigma among the Spanish population has not been analysed differentially depending on the different types of intellectual disability. Moreover, because it was beyond the scope of the study, no data on stigma by affiliation were collected. In addition, comparison with other studies was very difficult, since research on stigma towards people with intellectual disability in representative samples is practically non-existent, and the existing surveys use heterogeneous measurements. Moreover, there are no specific normative percentile ranks to compare subjects from the same population with each other.

Conclusions

This study is the first comprehensive analysis of stigma towards people with intellectual disability among a representative sample in Spain. Medium levels of stigma in the cognitive and emotional dimensions, and medium-low levels in the behavioural dimension were found. These results emphasise the ongoing need for efforts to reduce stigma in this area. Interventions to address this stigma should focus on counteracting negative attitudes, attributions and social distancing intention and must also be adapted to the diverse sociodemographic characteristics of the target audience. There are some promising predictors, such as contact and willingness to talk about intellectual disability, which should be taken into account in anti-stigma policies and campaigns. Therefore, it is essential to develop anti-stigma interventions that prioritise engaging in open conversations with individuals with intellectual disability and understanding their experiences. Incorporating these strategies into anti-stigma initiatives within the intellectual disability field is crucial to promote social inclusion, improve positive public attitudes, and increase knowledge about the topic in Spain.

Acknowledgements

This work is a part of the Study on Stigma towards individuals with mental health problems, homelessness, and intellectual disabilities conducted by the Chair Against Stigma Grupo 5-UCM. It represents the pioneering study to examine social stigma directed at people with mental disorders, homeless individuals, and those with intellectual disabilities in Spain. The research methodology employed prioritised giving a voice to those impacted by these conditions, achieved through the utilisation of focus groups* and in-depth interviews, alongside surveying a representative sample of the Spanish population ($N = 2746$). *The groups and interviews were conducted in Aranjuez day center and labor rehabilitation center, Community of Madrid, Group 5; Psychosocial rehabilitation center Latina, Community of Madrid, Group 5; Latina Day Center, Community of Madrid, Group 5; Puerta Abierta Shelter, Madrid City Council, Group 5; El Hayedo Supported Housing, Government of Castilla la Mancha, Group 5; CADIG San Clemente, Government of Castilla la Mancha, Group 5; El Molino Occupational Center, Alcalá de Henares City Council, Aldaba Foundation.

Source of funding

This work was supported by Chair Against Stigma UCM-Grupo 5 (CE222103G5).

Conflict of interest

The Authors declare that there is no conflict of interest.

Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

Ali A., Hassiotis A., Strydom A. & King M. (2012) Self stigma in people with intellectual disabilities and courtesy stigma in family carers: a systematic review. *Research in Developmental Disabilities* **33**, 2122–40.

Aznar-Lou I., Serrano-Blanco A., Fernández A., Luciano J. V. & Rubio-Valera M. (2016) Attitudes and intended behaviour to mental disorders and associated factors in catalan population, Spain: cross-sectional population-based survey. *BMC Public Health* **16**, 1–12.

Beart S., Hardy G. & Buchan L. (2005) How people with intellectual disabilities view their social identity: a review of the literature. *Journal of Applied Research in Intellectual Disabilities* **18**, 47–56.

Brown H. K., Ouellette-Kuntz H., Lysaght R. & Burge P. (2011) Students' behavioural intentions towards peers with disability. *Journal of Applied Research in Intellectual Disabilities* **24**, 322–32.

Corrigan P. W., Powell K. J. & Michaels P. J. (2014) Brief battery for measurement of stigmatising versus affirming attitudes about mental illness. *Psychiatry Research* **215**, 466–70.

Corrigan P. W. & Watson A. C. (2002) Understanding the impact of stigma on people with mental illness. *World Psychiatry: Official Journal of the World Psychiatric Association (WPA)* **1**, 16–20.

de Toledo Piza Peluso E. & Blay S. L. (2004) Community perception of mental disorders - a systematic review of Latin American and Caribbean studies. *Social Psychiatry and Psychiatric Epidemiology* **39**, 955–61.

DeLuca J. S., Vaccaro J., Seda J. & Yanos P. T. (2018) Political attitudes as predictors of the multiple dimensions

of mental health stigma. *The International Journal of Social Psychiatry* **64**, 459–69.

Ditchman N., Werner S., Kosyluk K., Jones N., Elg B. & Corrigan P. W. (2013) Stigma and intellectual disability: potential application of mental illness research. *Rehabilitation Psychology* **58**, 206–16.

Evans-Lacko S., Rose D., Little K., Flach C., Rhydderch D., Henderson C. *et al.* (2011) Development and psychometric properties of the Reported and Intended Behaviour Scale (RIBS): a stigma-related behaviour measure. *Epidemiology and Psychiatric Sciences* **20**, 263–71.

Gallego J., Cangas A. J., Aguilar J. M., Trigueros R., Navarro N., Galván B. *et al.* (2020) Education students' stigma toward mental health problems: a cross-cultural comparison. *Frontiers in Psychiatry* **11**, 587321.

García-López L. M., Gutiérrez D., Carlos Pastor J. & Romo V. (2018) Validity and reliability of a questionnaire on primary and secondary school teachers' perception of teaching a competence-based curriculum model. *NAER Journal of New Approaches in Educational Research* **7**, 2254–7339.

González Sanguino, C., Santos-Olmo, A. B., Zamorano, S., Sánchez-Iglesias, I., & Muñoz López, M. (2023). The stigma of mental health problems: a cross-sectional study in a representative sample of Spain. *The International Journal of Social Psychiatry*, 207640231180124. Advance online publication. 8, 1928–37.

González-Domínguez S., González-Sanguino C. & Muñoz M. (2019) Efficacy of a combined intervention program for the reduction of internalised stigma in people with severe mental illness. *Schizophrenia Research* **211**, 56–62.

Gronholm P. C., Henderson C., Deb T. & Thornicroft G. (2017) Interventions to reduce discrimination and stigma: the state of the art. *Social Psychiatry and Psychiatric Epidemiology* **52**, 249–58.

Hoare P., Harris M., Jackson P. & Kerley S. (1998) A community survey of children with severe intellectual disability and their families: psychological adjustment, carer distress and the effect of respite care. *Journal of Intellectual Disability Research: JIDR* **42**, 218–27.

IMSERSO. (2022). Instituto de Mayores y Servicios Sociales: Base Estatal de datos de personas con valoración del grado de discapacidad. Available at: https://imserso.es/el-imserso/documentacion/estadisticas/base-estatal-datos-personas-con-discapacidad (retrieved 10 December 2023).

Jansen-van Vuuren J. & Aldersey, H. M. (2020). Stigma, acceptance and belonging for people with IDD across cultures. *Current Developmental Disorders Reports*, **7**, 163–72.

Mascayano F., Tapia T., Schilling S., Alvarado R., Tapia E., Lips W. *et al.* (2016) Stigma toward mental illness in Latin America and the Caribbean: a systematic review. *Revista brasileira de psiquiatria (Sao Paulo, Brazil: 1999)* **38**, 73–85.

McConkey R., Slater P., Dubois L., Shellard A. & Smith A. (2021) An international study of public contact with people who have an intellectual disability. *Journal of Intellectual Disability Research* **65**, 272–82.

McKenzie K., Milton M., Smith G. & Ouellette-Kuntz H. (2016) Systematic review of the prevalence and incidence of intellectual disabilities: current trends and issues. *Current Developmental Disorders Reports* **3**, 104–15.

Mitter N., Ali A. & Scior K. (2019) Stigma experienced by families of individuals with intellectual disabilities and autism: a systematic review. *Research in Developmental Disabilities* **89**, 10–21.

Molero F., Recio P. & Sarriá E. (2023) Affiliate stigma and marital satisfaction in Spanish parents of children with intellectual disabilities. *Stigma and Health Advance*. https://doi.org/10.1037/sah0000478

Morin D., Rivard M., Crocker A. G., Boursier C. P. & Caron J. (2013) Public attitudes towards intellectual disability: a multidimensional perspective. *Journal of Intellectual Disability Research: JIDR* **57**, 279–92.

Muñoz M., Guillén A. I., Pérez-Santos E. & Corrigan P. W. (2015) A structural equation modeling study of the Spanish mental illness stigma attribution questionnaire (AQ-27-E). *American Journal of Orthopsychiatry* **85**, 243–9.

Nagata K. K. (2007) The measurement of the Hong Kong-based 'Baseline Survey of Students' attitudes toward 'people with a disability': cross-cultural validation in Lebanon. *International Journal of Rehabilitation Research* **30**, 239–41.

National Disability Authority. (2017). A national survey of public attitudes to disability in Ireland. Available at: https://nda.ie/awareness-raising-and-attitudes/public-attitudes-to-disability-in-ireland

Ottati V., Bodenhausen G. V. & Newman L. S. (2005) Social psychological models of mental illness stigma. In: *On the Stigma of Mental Illness: Practical Strategies for Research and Social Change* (ed. P. W. Corrigan), pp. 99–128. American Psychological Association.

Ouellette-Kuntz H., Burge P., Brown H. K. & Arsenault E. (2010) Public attitudes towards individuals with intellectual disabilities as measured by the concept of social distance. *Journal of Applied Research in Intellectual Disabilities* **23**, 132–42.

Pace J. E., Shin M. & Rasmussen S. A. (2010) Understanding attitudes toward people with Down syndrome. *American Journal of Medical Genetics Part A* **152A**, 2185–92.

Pachankis J. E., Hatzenbuehler M. L., Wang K., Burton C. L., Crawford F. W., Phelan J. C. *et al.* (2018) The burden of stigma on health and well-being: a taxonomy of concealment, course, disruptiveness, aesthetics, origin, and peril across 93 stigmas. *Personality and Social Psychology Bulletin* **44**, 451–74.

Paterson L., McKenzie K. & Lindsay B. (2012) Stigma, social comparison and self-esteem in adults with an intellectual disability. *Journal of Applied Research in Intellectual Disabilities* **25**, 166–76.

Pelleboer-Gunnink H. A., van Weeghel J. & Embregts P. J. C. M. (2021) Public stigmatisation of people with intellectual disabilities: a mixed-method population survey into stereotypes and their relationship with familiarity and discrimination. *Disability and Rehabilitation* **43**, 489–97.

Power M. J., Green A. M. & THE WHOQOL-DIS Group (2010) The Attitudes to Disability Scale (ADS): development and psychometric properties. *Journal of Intellectual Disability Research* **54**, 860–74.

Recio P., Molero F., García-Ael C. & Pérez-Garín D. (2020) Perceived discrimination and self-esteem among family caregivers of children with autism spectrum disorders (ASD) and children with intellectual disabilities (ID) in Spain: the mediational role of affiliate stigma and social support. *Research in Developmental Disabilities* **105**, 103737.

Rüsch N., Oexle N., Reichhardt L. & Ventling S. (2019) Honest, open, proud: concept and efficacy of a peer-led program to provide support with disclosure decisions and coping with stigma. *Psychiatrische Praxis* **46**, 97–102.

Saran A., Hunt X., White H. & Kuper H. (2023) Effectiveness of interventions for improving social inclusion outcomes for people with disabilities in low- and middle-income countries: a systematic review. *Campbell Systematic Reviews* **19**, e1316.

Schomerus G. & Angermeyer M. C. (2021) Blind spots in stigma research? Broadening our perspective on mental illness stigma by exploring 'what matters most' in modern Western societies. *Epidemiology and Psychiatric Sciences* **30**, e26.

Scior K. (2011) Public awareness, attitudes and beliefs regarding intellectual disability: a systematic review. *Research in Developmental Disabilities* **32**, 2164–82.

Smythe T., Adelson J. D. & Polack S. (2020) Systematic review of interventions for reducing stigma experienced by children with disabilities and their families in low- and middle-income countries: state of the evidence. *Tropical Medicine and International Health* **25**, 508–24.

Thornicroft G., Sunkel C., Alikhon Aliev A., Baker S., Brohan E., El Chammay R. *et al.* (2022) The Lancet Commission on ending stigma and discrimination in mental health. *Lancet* **400**, 1438–80.

Varughese S. J., Mendes V. & Luty J. (2011) Impact of positive images of a person with intellectual disability on attitudes: randomised controlled trial. *The Psychiatrist* **35**, 404–8.

Werner S. (2015) Stigma in the area of intellectual disabilities: examining a conceptual model of public stigma. *American Journal on Intellectual and Developmental Disabilities* **120**, 460–75.

Werner, S., & Roth, D. (2014). Stigma in the field of intellectual disabilities: impact and initiatives for change. In P. W. Corrigan (Ed.), *The Stigma of Disease and Disability: Understanding Causes and Overcoming Injustices* (pp. 73–92). American Psychological Association. Available at: http://www.jstor.org/stable/j.ctv1chrz90.9

Werner S. & Scior K. (2022) Intellectual disability stigma: the state of the evidence. In: *The Cambridge Handbook of Stigma and Mental Health* (eds D. L. Vogel & N. G. Wade), pp. 158–84. Cambridge University Press, Cambridge.

Werner S. & Shulman C. (2015) Does type of disability make a difference in affiliate stigma among family caregivers of individuals with autism, intellectual disability or physical disability? *Journal of Intellectual Disability Research: JIDR* **59**, 272–83.

Wilson M. C. & Scior K. (2015) Implicit attitudes towards people with intellectual disabilities: their relationship with explicit attitudes, social distance, emotions and contact. *PLOS ONE* **10**, e0137902.

Zamorano S., González-Sanguino C., Sánchez-Iglesias I., Sáiz J., Salazar M., Vaquero C. *et al.* (2022) The stigma of mental health, homelessness and intellectual disability, development of a national stigma survey with an intersectional gender perspective. *International Journal of Clinical Trials* **9**, 286.

Zeilinger E. L., Stiehl K. A. M., Bagnall H. & Scior K. (2020) Intellectual disability literacy and its connection to stigma: a multinational comparison study in three European countries. *PLoS ONE* **15**, e0239936.

Accepted 21 December 2023

Supporting Information

Additional Supporting Information may be found online in the supporting information tab for this article.

Data S1. Supporting Information.