# American Journal on Intellectual and Developmental Disabilities Public stigmatization of people with intellectual disabilities during the COVID-19 **pandemic**--Manuscript Draft--

Manuscript Number:	AJIDD-D-21-00064R2
•	
Article Type:	Research Report
Keywords:	intellectual disability; stigma; discrimination; stereotypes; COVID-19 pandemic
Corresponding Author:	Petri J.C.M. Embregts, prof. Tilburg University Tilburg, Brabant NETHERLANDS
First Author:	Maria R. Dekker, MSc.
Order of Authors:	Maria R. Dekker, MSc.
	Lex Hendriks, PhD
	Noud Frielink, PhD
	Petri J.C.M. Embregts, prof.
Manuscript Region of Origin:	NETHERLANDS
Abstract:	This study aimed to examine the level of discrimination against people with intellectual disabilities during COVID-19, and assessed stereotypes, levels of familiarity with people with intellectual disabilities, and personal experiences with COVID-19, as potential correlates. A cross-sectional study was conducted using a large sample from the Dutch population ( n = 1,797). Salient stereotype factors of people with intellectual disabilities were 'Friendly' and 'In need of help' but not 'Give nuisance'. Those respondents who were unfamiliar with people with intellectual disabilities in real-life demonstrated higher levels of discrimination, perceiving them as more of a nuisance and as being less in need of help, in comparison to those who were more familiar. People with intellectual disabilities were judged by an ambivalent set of stereotypes during the COVID-19 pandemic that were in line with pre-COVID-19 findings and as such seemed to be fairly persistent and robust. There is a pressing need to both raise awareness of stereotypes towards and discrimination against people with intellectual disabilities via advocacy and education, and to facilitate positive encounters.

Public stigmatization of people with intellectual disabilities  ${\bf during\ the\ COVID\text{-}19\ pandemic}$ 

#### Abstract

This study aimed to examine the level of discrimination against people with intellectual disabilities during COVID-19, and assessed stereotypes, levels of familiarity with people with intellectual disabilities, and personal experiences with COVID-19, as potential correlates. A cross-sectional study was conducted using a large sample from the Dutch population (n = 1,797). Salient stereotype factors of people with intellectual disabilities were 'Friendly' and 'In need of help' but not 'Give nuisance'. Those respondents who were unfamiliar with people with intellectual disabilities in real-life demonstrated higher levels of discrimination, perceiving them as more of a nuisance and as being less in need of help, in comparison to those who were more familiar. People with intellectual disabilities were judged by an ambivalent set of stereotypes during the COVID-19 pandemic that were in line with pre-COVID-19 findings and as such seemed to be fairly persistent and robust. There is a pressing need to both raise awareness of stereotypes towards and discrimination against people with intellectual disabilities via advocacy and education, and to facilitate positive encounters.

#### **Keywords**

Intellectual disability, stigma, discrimination, stereotypes, COVID-19, pandemic

## Introduction

The ongoing COVID-19 pandemic constitutes a severe threat to public health and has a profound impact upon people's lives. Although the pandemic affects everyone, it especially affects people with intellectual disabilities (Lund et al., 2020). For instance, upon contracting the virus, individuals with intellectual disabilities are at a heightened risk of developing more severe symptoms from COVID-19 due to common comorbid underlying physical health problems (Courtenay & Perera, 2020). Moreover, changes to their daily routines and professional care networks, barriers to accessing comprehensive public health information as well as challenges in maintaining employment and education may impact upon their mental health and social lives (Courtenay & Perera, 2020; Embregts et al., 2020).

At the same time, the COVID-19 pandemic may have also exacerbated a long-term pattern of social inequality and stigmatization of people with intellectual disabilities (Goggin & Ellis, 2020). Research has shown that in times of global health crises, minority groups, such as people with intellectual disabilities, are more likely to be discriminated and deemed to be less important (Lund et al., 2020; Saeed et al., 2020). The recurrent portrayal of COVID-19 as a virus that mainly poses a risk to older adults and people with chronic physical health problems, which includes many people with intellectual disabilities, may have served to sharpen the distinction between the 'out-group' (those at risk) and 'in-group' (others), which, in turn, could increase stigmatization (Tajfel & Turner, 1979). Furthermore, within public discourse (e.g., media) around COVID-19, people with intellectual disabilities are being increasingly negatively portrayed (Akerkar, 2020). That is, for example, people with intellectual disabilities are often depicted as a burden to society. According to disability activists, 'health rationing' and advice on those who gets to live in crisis circumstances during the COVID-19 pandemic are biased against

people with intellectual disabilities when concepts of 'social usefulness' predominates (Akerkar, 2020). Indeed, in several countries, it has been debated whether vulnerable people, such as people with intellectual disabilities, should be further isolated from society so that other people can have greater freedom of movement (van Dongen, 2020). The higher mortality rates amongst vulnerable people during COVID-19 are perhaps considered by some to be inevitable (Fraser et al., 2020), while others may deem this group to be a burden on the healthcare system (Bergman et al., 2020). Particularly during crises, when people invariably rely more on media messages to get their information, negative views can become normalized by the general public, which, in turn, can strongly influence their attitudes and behaviors (Ramasubramanian & Murphy, 2014).

On a structural level, negative sociocultural beliefs can also end up driving decision-making processes and manifest themselves within stigmatizing policies (i.e., structural stigma) (Andrews et al., 2021). For instance, during the pandemic, the scarcity of medical resources drove the development of triage guidelines that may automatically disadvantage people with intellectual disabilities (McKinney et al., 2020). Furthermore, in the Netherlands, the context of the current study, individuals with intellectual disabilities have been further isolated from society due to well-intentioned restrictive measures designed to protect the 'vulnerable' (e.g., temporary closure of residential care facilities, day-care activities and work services) (Woittiez et al., 2020). In addition, although positive measures were taken to facilitate disability inclusiveness, critical information has not always been adequately communicated to people with intellectual disabilities, and they were simply left out of the equation when social distancing measures were introduced (i.e., for many of them, social distancing is not an option due to their reliance on assistance) (Blom et al., 2021).

In light of this, one would expect that the ongoing COVID-19 pandemic fosters—and perhaps even strengthens—pre-pandemic stigma towards people with intellectual disabilities.

The aim of the present study was therefore to examine public stigma towards people with intellectual disabilities during COVID-19, referring to the reaction of the general population.

According to a social-psychological conceptual framework, public stigma is a process by which stereotypes (cognitions) and prejudice (affective reactions) held by the general public can lead to discrimination (behavioral responses) (Corrigan, 2014). Studying public stigma during COVID-19 is of paramount importance, insofar as the responses of the public can influence the success of policies geared towards equality and community inclusion. Furthermore, research into public stigmatization towards people with intellectual disabilities as well as its underlying drivers is limited, and, indeed, has only recently begun to gain traction (Pelleboer-Gunnink et al., 2021; Werner, 2015).

Stereotypes are the first component of stigma. People with intellectual disabilities are generally perceived as warm (e.g., friendly, happy), but also as incompetent (e.g., unintelligent, vulnerable, and in need of help) (Pelleboer-Gunnink et al., 2021; Fiske, 2012). These ambivalent stereotypes can evoke different affective and discriminatory behavioral responses. For example, negative stereotypes (e.g., 'nuisance') have been related to both diminished intentions to engage in helping behavior and a greater desire to maintain social distance, whereas the opposite has been found for positive stereotypes (e.g., 'friendly') (Pelleboer-Gunnink et al., 2021). However, stereotypes towards people with intellectual disabilities have thus far not been examined in the context of COVID-19.

As stereotypes and discrimination can negatively affect well-being, it is important to undertake additional efforts to tackle stigma and facilitate change. One potentially important way

to do so is to facilitate positive contact and greater familiarity with out-group members (Corrigan, 2014). Indeed, research has indicated that people who lacked real-life familiarity with people with intellectual disabilities displayed higher levels of stigma (e.g., discrimination) compared to those with familiarity (Pelleboer-Gunnink et al., 2020). During the COVID-19 pandemic, there were less opportunities to foster face-to-face contact. However, familiarity with people with intellectual disabilities could still be facilitated via, for example, mass media. At the time of writing, some countries, including the Netherlands, have lifted the most severe restrictive COVID-19 measures. Repeated convivial encounters with for instance shopkeepers and neighbors are again possible, which could increase familiarity with people with intellectual disabilities (Bigby & Wiesel, 2019).

The goal of the present study was to examine stigma towards people with intellectual disabilities during the COVID-19 pandemic amongst a large sample of the Dutch population. As noted above, people with intellectual disabilities are (unintentionally) stigmatized during COVID-19 on a structural level (e.g., in policies). Furthermore, within contemporary public discourse around COVID-19, people with intellectual disabilities are being increasingly negatively portrayed (Akerkar, 2020). It is vital to gain a deeper understanding of the salience of this stigmatization during the pandemic amongst the general population, as it can have tremendous negative effects on people with intellectual disabilities (e.g., diminished self-esteem, increased vulnerability to psychological problems) (Dagnan & Waring, 2004; Link et al., 2001). Specifically, this study sought to (a) examine the general public's levels of stereotypes and discrimination during COVID-19 towards people with intellectual disabilities (b) study the relation between familiarity, stereotypes and discrimination during the pandemic; (c) assess whether the strength of stereotypes is related to levels of discrimination.

#### Method

# Design and participants

A sample of 1,818 individuals aged 18 years and older was recruited via two different channels. First, a survey was distributed amongst 2,300 individuals by a large online nationally representative panel provider (MultiScope), which produced a response rate of around 70%  $(n=1,568^{1})$ . Alongside this, respondents were also recruited via social media (Facebook, LinkedIn, Twitter), partner organizations of [removed for blind peer review purposes], and announcements in newsletters  $(n=250^{1})$  (with the aim to follow these additional respondents over time). Those respondents who reported having intellectual disabilities themselves were excluded from the analyses (n=21), resulting in a final dataset of 1,797 respondents.

Table 1 demonstrates the sample characteristics. About half of the respondents were female (51.2%) and completed higher education (55.8%), and most were aged between 40 and 84 years (80.1%).

#### Procedure and materials

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008. All procedures involving human subjects/patients were approved by the Ethics Review Board of [removed for blind peer review purposes] (RP226). Online informed consent was obtained from all respondents.

<sup>&</sup>lt;sup>1</sup>This number only includes those individuals who answered content-related questions.

Personal experiences with COVID-19. Respondents were asked the extent to which the COVID-19 pandemic had personally affected them. Items related to being at a higher risk of becoming severely ill from COVID-19, respondents' own and other's (i.e., a loved one) contamination or hospitalization (in the past), the loss of work, and the loss of a loved one. A "yes" and "no" answer format was used, with the exception of those questions related to risk (i.e., "I don't know" was added) and contamination (i.e., "me", "someone close to me", "both" or "neither"). Six groups were created based on the level of severity of respondents' experience with COVID-19 (rank score): (1) "no experience with COVID-19" (rank item 0; i.e., "no" or "neither" on all items), (2) "being at risk" (rank item 1), (3) "contamination" (rank item 2), (4) "hospitalization" (rank items 3-4), (5) "loss of job" (rank item 5), and (6) "loss of a loved one" (rank item 6).

**Familiarity.** The 12-item Level of Contact Report (Holmes et al., 1999) was used to assess respondents' level of familiarity with individuals with intellectual disabilities. The items within this survey (e.g., "I have a relative who has an intellectual disability") were adapted to refer to intellectual disabilities in previous research (Pelleboer-Gunnink et al., 2020). In line with Pelleboer-Gunnink and colleagues (2020), four groups were created: (1) "no familiarity in real life" (rank item 1-4; e.g., watched a movie), (2) "familiarity in passing" (rank item 5; observed on a frequent basis), (3) "familiarity at work" (rank item 6-8; e.g., provided treatment), and (4) "familiarity in their private life" (rank item 9-12; e.g., friend of the family).

**Stereotypes.** A trait-rating scale (Pelleboer-Gunnink et al., 2021) was used to assess the level of agreement with 18 statements describing individuals with intellectual disabilities.

Statements were rated on a scale of one ("completely disagree") to five ("completely agree") (e.g., people with intellectual disabilities... "are happy"). Based on Exploratory Principal Axis

Factoring (oblimin rotation), three factors were extracted with an Eigenvalue of >1. When removing items with a factor loading of <.40, the final model explained 49.97% of the total variance. Factors were interpreted as "Give nuisance", "In need of help" and "Friendly". The inter-correlations between the three factors were .237, -.459 and .034, respectively.

**Discrimination.** The level of discrimination was assessed via the use of seven statements (e.g., "Individuals with intellectual disabilities should not get priority when there is a shortage of IC beds"), which were rated on a scale of one ("completely disagree") to five ("completely agree"). Two items were adapted from previous surveys about ageism during COVID-19: "Doctors spend too much time treating..." (Bergman et al., 2020) and "Individuals with intellectual disabilities should not be allowed to work..." (Apriceno et al., 2021). The five remaining items were developed by the research team, based on contemporary public discourse (e.g., van Dongen, 2020) and previous literature regarding stigmatization of older adults (e.g., Fraser et al., 2020) and individuals with intellectual disabilities during COVID-19 (e.g., Andrews et al., 2021). A mean discrimination score was calculated, with a higher score reflecting greater levels of discrimination. The scale showed sufficient to good internal consistency ( $\alpha$ =.767;  $\omega$ =.773).

## Data analyses

Analyses were performed using SPSS Statistics version 24 for Windows. First, descriptive analyses were conducted regarding the respondents' personal experiences with COVID-19, familiarity with people with intellectual disabilities, stereotypes, and discrimination. Second, analyses of variance were conducted to assess the difference between the four familiarity categories on the stereotype factors (i.e., MANCOVA) and discrimination scores (i.e.,

ANOVA). Post-hoc pairwise comparisons were carried out using Bonferroni correction. Third, a hierarchical linear regression model was used to predict levels of discrimination. In step one, familiarity was included. Step two involved the addition of the stereotype factors mean scores.

Prior to performing the analyses, the data were checked for normality. Given that the kurtosis and skewness of the variables fell within the range of  $\pm 7$  and  $\pm 2$ , respectively, the data was presumed to be normal (Kim, 2013). There were multivariate outliers on the stereotype factors (n=7). For those analyses where removing these outliers did yield significantly different results, both statistics were reported. For all other analyses, the full sample was used. All analyses were also performed using the sample without those respondents recruited via social media (n=248). This did not yield significantly different results.

#### **Results**

# **Descriptive results**

Tables 1 to 3 present the descriptive results. Around half of the sample reported having neither any personal experiences with COVID-19 nor being at risk from the virus (52.0%; categories 1-2). Some respondents were personally affected, either as a result of losing their job (3.3%) (category 5) or via the loss of a loved one (8.2%) (category 6). Regarding the level of familiarity with individuals with intellectual disabilities, almost a third of the respondents had no familiarity in real life (28.2%; category 1). Almost half of the sample can be considered as being familiar with people with intellectual disabilities (44.5%; categories 3-4 at work or in their private life).

Table 2 demonstrates the mean scores and standard deviations concerning stereotypes.

The majority of the participants disagreed with the items "are sad", "give nuisance", and "are

criminal" belonging to the factor "Give nuisance" (59.2%-81.1%; 0.8%-4.3% agreed). Regarding the factor "In need of help", the majority indicated that people with intellectual disabilities are vulnerable, have difficulty functioning in society, are in need of help, and have difficulty learning (51.6%-72.8%), whereas only a small percentage disagreed (4.8%-8.6%). With regard to the factor "Friendly", most of the respondents agreed that individuals with intellectual disabilities are friendly, sociable, and happy (49.2%-67.6%), whereas only a few respondents disagreed (0.8%-3.1%).

Table 3 presents the results for discrimination. Overall, discrimination scores were low (M=2.11; SD=.57), with the majority of respondents not agreeing with most of the statements (50.7%-78.5%). Most individuals agreed with the reverse coded item "Individuals with intellectual disabilities should receive the same medical treatment ..." (86.9%). Only a small number agreed with the other discrimination statements (1.5%-11.9%).

# Relationship between familiarity, stereotypes and discrimination

There was a significant multivariate effect of familiarity on the stereotype factors, F(9,5265)=5.15, p<.001, V=.026,  $\eta$ 2=.009, when correcting for age, education, urbanization level, and personal experiences with COVID-19. Significant between-subject effects were found for Give nuisance, F(3,1755)=8.22, p<.001,  $\eta$ 2=.014 and In need of help, F(3,1755)=4.20, p=.006,  $\eta$ 2=.007. Pairwise post-hoc comparisons (Bonferroni)<sup>2</sup> showed that those reporting no familiarity in real life scored significantly higher on Give nuisance than those reporting

<sup>&</sup>lt;sup>2</sup>Findings were similar when excluding multivariate outliers on the stereotype factors (n=7). However, for Give nuisance, those reporting familiarity in passing by also scored significantly lower than those reporting no familiarity in real life (p=.031) and scored significantly higher than those reporting familiarity at work (p=.032).

familiarity at work (p<.001) or in their private life (p=.001), whereas they scored significantly lower on In need of help compared to those respondents reporting familiarity in their private life (p=.014).

There was a significant between-subjects effects of familiarity on discrimination, F(3,1776)=14.00, p<.001,  $\eta 2=.023$ . Pairwise post-hoc Bonferroni comparisons revealed that those reporting no familiarity in their real life scored significantly higher on discrimination in comparison to the other three familiarity groups (p's<.001).

## Relationship between stereotypes and discrimination

A hierarchical linear regression was conducted to assess if the strength of stereotypes predicted levels of discrimination, after controlling for the influence of familiarity. The variance explained by the full model was 19.6%, F(4,1775)=130.89, p<.001. A higher mean score on Give nuisance was related to higher levels of discrimination,  $\beta=.392$ , t(1775)=15.92, p<.001, whereas a higher score on Friendly was related to lower levels of discrimination,  $\beta=.080$ , t(1775)=-3.38, p=.001.

#### **Discussion**

The findings of this study revealed generally low levels of discrimination among the general public. However, those who were unfamiliar with people with intellectual disabilities reported significantly higher levels of discrimination than those who were familiar. The results also seem to point to the robustness of pre-pandemic ambivalent stereotypes. People with intellectual disabilities were generally perceived as being friendly, but also as being in need of help. Those who had no familiarity scored higher on 'Give nuisance', but lower on 'In need of help' than

those who had more familiarity. Furthermore, perceiving individuals with intellectual disabilities as being more of a nuisance was related to higher levels of discrimination, whereas perceiving them as being more friendly was related to lower levels.

The findings of this study regarding the generally low levels of discrimination are consistent with earlier research in the field of intellectual disabilities conducted prior to the pandemic (Pelleboer-Gunnink et al., 2021; Werner, 2015). However, based on previous global health crises and the recurring negative views towards vulnerable groups expressed in contemporary public discourse, the expectation was that stigmatization would have increased (Akerkar, 2020; Saeed et al., 2020). It could be that people with intellectual disabilities experience more 'subtle' forms of discrimination (i.e., 'benevolent' stigma), rather than overt exclusion (Cary et al., 2017). Although the present study primarily focused on more explicit 'hostile' expressions of stigma (i.e., discriminatory cognitions), respondents scored also slightly higher on statements pertaining to more 'subtle' forms of discrimination (i.e., "People with intellectual disabilities should not be allowed to work during the COVID-19 pandemic..."). Furthermore, on a structural organizational level, the needs of these individuals are still not yet fully considered although positive measures were taken by governments to facilitate disability inclusiveness during the pandemic. To tackle discrimination and facilitate the inclusion of people with intellectual disabilities during the present crisis and beyond, people with intellectual disabilities and representative organizations could be more actively involved in the development of policy measures.

Besides discrimination, stereotypes of people with intellectual disabilities seemed to remain fairly robust during the COVID-19 pandemic. In line with previous research conducted before the pandemic (Pelleboer-Gunnink, 2021), people with intellectual disabilities were also

during COVID-19 generally perceived as friendly and in need of help, but not as a nuisance. This supports the notion that stereotypes are persistent (Cuddy et al., 2005). Interestingly, when examining stereotypes at an item-level, the respondents appeared to become slightly more positive during the pandemic. For example, people scored slightly lower on 'give nuisance' and 'are childlike', but somewhat higher on 'are sociable' and 'are to be trusted', in comparison to the stereotypes before the pandemic (Pelleboer-Gunnink et al., 2021). Based on previous health crises, one would rather have expected that people would become more negative (Saeed et al., 2020). One plausible explanation is that the pandemic increased feelings of empathy towards vulnerable groups, which, in turn, could have led to more favorable attitudes (Stephan & Finlay, 1999).

In accordance with previous research, perceived friendliness was negatively correlated with discrimination, whereas perceived nuisance was positively correlated (albeit with relatively small explained variance) (Pelleboer-Gunnink et al., 2021). People with intellectual disabilities, who are viewed with an ambivalent set of stereotypes, may experience different types of behaviors based on their belonging to this group. The combination of warm and incompetent stereotypes that were found in the present study often result in paternalistic and helping behaviors (i.e., benevolent expressions of stigma) (Fiske, 2012). These compassionate behaviors towards vulnerable groups can also be espied during the COVID-19 pandemic (Fraser et al. 2020). However, stereotypes can also result in discriminatory treatment. For example, the triage policies introduced during COVID-19 that can automatically disadvantage people with intellectual disabilities serve as troubling examples of health-care exclusion (Goggin & Ellis, 2020; Lund et al., 2020).

#### **Limitations and Future Directions**

This study examined stereotypes and varying levels of familiarity as important underlying facets of discrimination. However, it has been indicated that the relationship between stereotypes and discrimination is mediated by affective reactions (prejudice). Although it was beyond the scope of this study, future studies should thus also include the role of affective reactions during the pandemic. Furthermore, to draw firm conclusions regarding changes in stigma, a pre-post pandemic design would have been preferred. However, results of our study have been directly compared to pre-pandemic stereotype research in the field of intellectual disabilities (Pelleboer-Gunnink et al., 2021). Moreover, the focus of this study was specifically on public stigma; however, people with intellectual disabilities have also encountered other forms of stigma during the COVID-19 pandemic. For example they are (un)intentionally stigmatized on a more structural level via governmental policies, as evidenced in the triagepolicies. It is important to further consider structural stigma as well as its consequences during the pandemic. Furthermore, as noted above, the discriminatory cognitions assessed in this study focused primarily on 'hostile' explicit forms of discrimination, such as social exclusion. However, future studies should also focus on more subtle forms of discrimination during the COVID-19 pandemic, as this can also deleteriously affect people with intellectual disabilities (Cary et al., 2017). In addition, it is important to note a well-established limitation of studies that measure explicit attitudes and discrimination, i.e. the role of social desirability bias, as this may have had some role in explaining for example overall low discrimination. Future studies are therefore encouraged to include social desirability scales or use more implicit measures of stigma. Finally, an online panel was used to recruit respondents, which resulted in a large sample that was representative of the general Dutch population in terms of gender, but was skewed

towards higher educated and older people. Consequently, the results should be interpreted with caution when attempting to generalize them to the general population.

#### Conclusion

This study represents, to the best of our knowledge, the first attempt to provide important insights into the level of public stigma towards people with intellectual disabilities during the COVID-19 pandemic. Individuals with intellectual disabilities were judged with an ambivalent set of stereotypes during the pandemic, which seemed to be fairly robust (i.e., consistent with pre-pandemic findings; Pelleboer-Gunnink et al., 2021). Some stereotypes were linked to levels of discrimination, albeit with generally low discrimination scores. These findings have important implications. Even during so-called 'normal' circumstances, people with intellectual disabilities are stigmatized and excluded in different areas of their lives, and this may have been magnified during COVID-19. Given that stereotypes seemed fairly persistent, they are likely to be difficult to change. Therefore, far more needs to be done to raise awareness of stereotypes towards people with intellectual disabilities, via, for example, greater advocacy and education. Furthermore, people with intellectual disabilities should become more known within society, by facilitating more positive encounters. Addressing stigma is of paramount importance to the well-being of people with intellectual disabilities, particularly during periods of crisis in which inequality invariably becomes even more foregrounded.

#### References

- Akerkar, S. (2020). Affirming radical equality in the context of COVID-19: Human rights of older people and people with disabilities. *Journal of Human Rights Practice*, *12*, 276-283.
- Andrews, E. E., Ayers, K. B., Brown, K. S., Dunn, D. S., & Pilarski, C. R. (2021). No body is expendable: Medical rationing and disability justice during the COVID-19 pandemic. *American Psychologist*, 76, 451-461.
- Apriceno, M., Lytle, A., Monahan, C., Macdonald, J., & Levy, S. R. (2021). Prioritizing health care and employment resources during COVID-19: roles of benevolent and hostile ageism. *The Gerontologist*, *61*, 98-102.
- Bergman, Y. S., Cohen-Fridel, S., Shrira, A., Bodner, E., & Palgi, Y. (2020). COVID-19 health worries and anxiety symptoms among older adults: the moderating role of ageism. *International psychogeriatrics*, 32, 1371-1375.
- Bigby, C., & Wiesel, I. (2019). Using the concept of encounter to further the social inclusion of people with intellectual disabilities: what has been learned? *Research and Practice in Intellectual and Developmental Disabilities*, 6, 39–51.
- Blom, M., Reiff, E., Meijer, J., van Gemeren, J., & Swart, L. (2021). COVID-19 strategie voor mensen met een beperking of chronische ziekte derde monitor. Retrieved from <a href="https://www.rijksoverheid.nl/documenten/rapporten/2021/03/18/covid-19-strategie-voor-mensen-met-een-beperking-of-chronische-ziekte-derde-monitor">https://www.rijksoverheid.nl/documenten/rapporten/2021/03/18/covid-19-strategie-voor-mensen-met-een-beperking-of-chronische-ziekte-derde-monitor</a>
- Cary, L. A., Chasteen, A. L., & Remedios, J. (2017). The ambivalent ageism scale: Developing and validating a scale to measure benevolent and hostile ageism. *The Gerontologist*, *57*, e27-e36.

- Corrigan, P. W. (2014). The stigma of disease and disability: Understanding causes and overcoming injustices. American Psychological Association.
- Courtenay, K., & Perera, B. (2020). COVID-19 and people with intellectual disability: impacts of a pandemic. *Irish Journal of Psychological Medicine*, *37*, 231-236.
- Cuddy, A. J., Norton, M. I., & Fiske, S. T. (2005). This old stereotype: The pervasiveness and persistence of the elderly stereotype. *Journal of social issues*, *61*, 267-285.
- Dagnan, D., & Waring, M. (2004). Linking stigma to psychological distress: testing a social—cognitive model of the experience of people with intellectual disabilities. *Clinical Psychology & Psychotherapy*, 11, 247-254.
- Embregts, P. J. C. M., van den Bogaard, K. J. H. M., Frielink, N., Voermans, M. A., Thalen, M., & Jahoda, A. (2020). A thematic analysis into the experiences of people with a mild intellectual disability during the COVID-19 lockdown period. *International Journal of Developmental Disabilities*, 1-5.
- Fiske, S. T. (2012). Warmth and competence: Stereotype content issues for clinicians and researchers. *Canadian Psychology*, *53*, 14-20.
- Fraser, S., Lagacé, M., Bongué, B., Ndeye, N., Guyot, J., Bechard, L., ... & Tougas, F. (2020).

  Ageism and COVID-19: What does our society's response say about us?. *Age and ageing*, 49, 692-695.
- Goggin, G., & Ellis, K. (2020). Disability, communication, and life itself in the COVID-19 pandemic. *Health Sociology Review*, 29, 168-176.
- Holmes, E. P., Corrigan, P. W., Williams, P., Canar, J., & Kubiak, M. A. (1999). Changing attitudes about schizophrenia. *Schizophrenia Bulletin*, 25, 447–56.

- Kim, H. Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative dentistry & endodontics*, *38*, 52-54.
- Link, B. G., Struening, E. L., Neese-Todd, S., Asmussen, S., & Phelan, J. C. (2001). Stigma as a barrier to recovery: The consequences of stigma for the self-esteem of people with mental illnesses. *Psychiatric Services*, *52*, 1621-1626.
- Lund, E. M., Forber-Pratt, A. J., Wilson, C., & Mona, L. R. (2020). The COVID-19 pandemic, stress, and trauma in the disability community: A call to action. *Rehabilitation Psychology*, 65, 313-322.
- McKinney, V., Swartz, L., & McKinney, E. L. (2020). COVID-19, disability and the context of healthcare triage in South Africa: Notes in a time of pandemic. *African Journal of Disability*, 9, 1-9.
- Pelleboer-Gunnink, H. A., van Oorsouw, W., van Weeghel, J., & Embregts, P. (2020).

  Familiarity with people with intellectual disabilities, stigma, and the mediating role of emotions among the Dutch general public. *Stigma and Health*, 6, 173-183.
- Pelleboer-Gunnink, H. A., van Weeghel, J., & Embregts, P. J. (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, 489-497.
- Ramasubramanian, S., & Murphy, C. J. (2014). Experimental studies of media stereotyping effects. In *Laboratory Experiments in the Social Sciences* (pp. 385–402).
- Saeed, F., Mihan, R., Mousavi, S. Z., Reniers, R. L., Bateni, F. S., Alikhani, R., & Mousavi, S. B. (2020). A narrative review of stigma related to infectious disease outbreaks: what can be learned in the face of the Covid-19 pandemic? *Frontiers in Psychiatry*, 11, 565919

.

- Stephan, W. G., & Finlay, K. (1999). The role of empathy in improving intergroup relations. *Journal of Social issues*, 55, 729-743.
- Tajfel, H., & Turner, J.C. (1979). An integrative theory of intergroup conflict. In *The social* psychology of intergroup relations (eds WG Austin, S Worchel). Brooks Cole Publishing.
- van Dongen, A. (2020). OMT: 'Scherm ouderen en kwetsbaren af, zodat jongeren ruimte krijgen'. Parool, August 2020. Available from: https://www.parool.nl/nederland/omt-scherm-ouderen-en-kwetsbaren-af-zodat-jongeren-ruimte krijgen~bf53b36d/?referrer=https%3A%2F%2Fwww.google.com%2F
- 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, 460-475.
- Woittiez, I., Eggink, E., & de Klerk, M. (2020). Beleidssignalement maatschappelijke gevolgen corona maatregelen: mensen met een verstandelijke beperking. Retrieved from <a href="https://www.scp.nl/publicaties/publicaties/2020/06/15/beleidssisgnalement-mensen-met-eenverstandelijke-beperking">https://www.scp.nl/publicaties/publicaties/2020/06/15/beleidssisgnalement-mensen-met-eenverstandelijke-beperking</a>

Table 1. Sample Profile (n = 1,797).

Demographic attribute	n	%
Gender		70
Male	874	48.6
Female	920	51.2
Other	3	0.1
	3	0.1
Age	43	2.4
18-24 years	43 306	2.4 17.0
25-39 years		
40-54 years	538	29.9
55-69 years	532	29.6
70-84 years	371	20.6
85 years or older	7	0.4
Education		
Low	262	14.6
Mid	528	29.4
High	1003	55.8
None	4	0.2
Ethnicity		
Dutch	1606	89.4
Migration background	191	10.6
Urbanization		
Not urbanized	127	7.1
Hardly urbanized	382	21.3
Moderately urbanized	298	16.6
Strongly urbanized	540	30.1
Extremely urbanized	422	23.5
Missing <sup>b</sup>	28	1.6
Familiarity <sup>c</sup>		
No familiarity in real-life	506	28.2
Familiarity in passing by	492	27.4
Familiarity in work	259	14.4
Familiarity in private life	540	30.1
Personal experiences COVID-19 <sup>d</sup>		
None	499	27.8
Being at risk	435	24.2
Contamination	557	31.0
Hospitalization	99	5.5
Loss of job	59	3.3
Loss of loved one	148	8.2
	170	0.2

<sup>&</sup>lt;sup>a</sup>Urbanization based on the surrounding address density of a neighborhood, as per Statistics Netherlands.

<sup>&</sup>lt;sup>b</sup>Treated listwise.

 $<sup>^{</sup>c}$ The n refers to the number of times that respondents rated items within this category as their most intimate contact with individuals with intellectual disabilities.

<sup>d</sup> Based on the respondents' the past) or a loved one.	' most severe experience wit	h corona. Contamination a	nd hospitalization refer to self (in

Table 2. Descriptives of stereotypes towards individuals with intellectual disabilities and structure matrix of principal axis factoring with direct oblimin (n = 1,797).

	Factor		Agree	Neutral	Disagree
Item	loading	M(SD)	(%)	(%)	(%)
Give nuisance ( $\alpha = .715$ ; $\omega = .720$ )					
neglect themselves	.595	2.60 (0.75)	8.8	48.9	42.3
are sad	.587	2.14 (0.78)	4.3	25.1	70.6
give nuisance	.556	2.29 (0.78)	3.7	37.2	59.2
are childlike	.515	3.01 (0.85)	28.9	46.9	24.2
are criminal	.496	1.79 (0.77)	0.8	18.1	81.1
are aggressive	.416	2.74 (0.61)	5.6	65.4	28.9
<i>In need of help</i> ( $\alpha = .662$ ; $\omega = .671$ )					
have difficulty functioning in society	.621	3.56 (0.77)	58.9	32.4	8.6
have difficulty learning	.613	3.49 (0.71)	51.6	42.1	6.3
are in need of help	.537	3.49 (0.74)	53.0	38.9	8.1
are vulnerable	.450	3.79 (0.71)	72.8	22.4	4.8
are intelligent†	414	2.93 (0.74)	18.4	58.0	23.7
<i>Friendly</i> ( $\alpha = .718$ ; $\omega = .719$ )					
are sociable	.709	3.52 (0.64)	50.4	46.5	3.1
are friendly	.625	3.77 (0.63)	67.6	31.6	0.8
are happy	.560	3.52 (0.62)	49.2	49.0	1.8
Remaining items					
are able to work in a paid position	-	3.65 (0.72)	61.9	33.2	4.9
are looking physically different	-	3.17 (0.77)	32.8	52.4	14.8
are affectionate	-	3.41 (0.72)	43.5	50.2	6.3
are to be trusted	-	3.62 (0.71)	56.8	39.5	3.8

Note. Remaining items had a factor loading of < .40. †Scores were reversed for calculation of the mean factor score.

Table 3. Descriptives of discrimination against individuals with intellectual disabilities (n = 1,780).

		Agree	Neutral	Disagree
Item	M(SD)	(%)	(%)	(%)
Individuals with intellectual disabilities should not be given priority when there is a shortage of IC beds	2.12 (1.06)	11.5	19.7	68.8
Individuals with intellectual disabilities should receive the same medical treatment as the rest of the population	4.18 (0.79)	86.9	9.7	3.4
during the COVID-19 pandemic†				
Individuals with intellectual disabilities should not be allowed to work during the COVID-19 pandemic	2.53 (0.86)	11.9	37.4	50.7
because they are vulnerable				
Individuals with intellectual disabilities should stay indoors more often than others during the COVID-19	2.39 (0.89)	11.6	28.3	60.1
pandemic	2.37 (0.07)	11.0	20.5	00.1
Individuals with intellectual disabilities should be shielded during the COVID-19 pandemic so that others have	2.03 (0.86)	5.2	19.2	75.6
greater freedom of movement				
Doctors spend too much time treating individuals with intellectual disabilities during the COVID-19 pandemic	1.95 (0.76)	1.5	20.6	77.9
It is not fair that the entire society should adhere to COVID-19 measures, while the virus mainly poses a threat	1.91 (0.90)	5.4	16.1	78.5
to vulnerable people, such as individuals with intellectual disabilities				

Note. †Scores were reversed for calculation of the mean score.