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Final dissertation

**Cultural Variations in Mental Health Literacy: A Survey Study on Awareness and
Perceptions of Personality Disorders**

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Dedication

Thank you for believing in me, and encouraging me to tread the unbeaten path no matter how long it takes.

I know you're always with me, even if you're not '*here*'.

This is for you.

Table of contents

Introduction	5
Methods	7
<i>Study design and procedures</i>	7
<i>Participants</i>	7
<i>Measures</i>	10
<i>Survey questions</i>	11
<i>Statistical analysis</i>	12
Results	12
<i>Labelling personality disorders</i>	12
<i>Cross cultural variations in recognition</i>	15
<i>Other predictors of mental health literacy: age</i>	16
<i>Other predictors of mental health literacy: gender</i>	17
<i>Other predictors of mental health literacy: education</i>	17
<i>Other predictors of mental health literacy: personal experience & exposure</i>	17
<i>Cross cultural variations in ratings of characters</i>	19
<i>Multiple regression analysis</i>	19
Discussion	20
Limitations	24
Conclusion	25
Acknowledgements	26
References	27

Abstract

Aims: While mental health literacy has seemingly grown over recent years regarding mental illnesses such as depression and anxiety, research and awareness for personality disorders is still lacking, particularly from a cross-cultural standpoint. This study aims to assess literacy on personality disorders (i.e., avoidant, borderline, obsessive-compulsive, narcissistic, antisocial, schizotypal, and paranoid) and cultural differences across three countries (i.e., Kenya, Mexico and Portugal), also investigating whether age, gender, education, and personal experience and exposure to mental illness affect recognition and labelling accuracy.

Methods: 233 participants from the aforementioned countries responded to an online survey created through Qualtrics, which included a vignette identification task. Participants had to label and rate hypothetical people with seven personality disorders, and answering questions about hypothetical individuals and their lives.

Results: Participants across all countries showed high recognition of psychological problems (72.3%–92.6% – with borderline personality disorder (BPD) the most recognised as a problem), but correct labelling of personality disorders was limited (0.9%–23.3%). Obsessive compulsive personality disorder (OCPD) was the most correctly labelled (23.3%), followed by narcissistic personality disorder (NPD) (21.5%), while avoidant personality disorder (AVPD) had the lowest correct labelling rate (0.9%). Mexican participants consistently demonstrated higher ‘problem recognition’ for most disorders, whereas Kenyan participants were least likely to identify psychological problems. Antisocial personality disorder (ASPD) recognition peaked in Portugal (16.7%) and was lowest in Mexico (1.9%). Correct labelling for OCPD was highest in Mexico (31%), though differences between countries were not statistically significant. Age, gender, education, and personal experience did not significantly influence appraisals of happiness, success, or relationship satisfaction in vignette characters.

Conclusion: Overall, while most participants were able to recognise the presence of a psychological problems, their ability to correctly label personality disorders was very low. Few cultural differences were observed, the only evident and statistically significant ones being in Mexico’s outperformance of Portugal and Kenya when it came to *problem recognition*. These results could be utilised in future education, awareness and de-stigmatising efforts, as a means of bridging the gaps in personality disorder literacy.

Keywords: *mental health literacy, personality disorders, problem recognition, general recognition, PD recognition*

Introduction

Mental health literacy (MHL) can be defined as knowledge and beliefs about mental illnesses, that allow for their recognition, treatment, and prevention. It involves an understanding of the symptoms, causes and treatments of mental disorders. More specifically, it is comprised of an ability to recognise specific disorders, knowledge concerning how to seek mental health information, risk factors and causes, self-treatments, and of professional help available and attitudes that promote recognition and appropriate help-seeking (Jorm, 1997).

The term ‘mental health literacy’ emerged in Australia, in the mid 1990’s and was coined by Anthony Jorm and his colleagues. He noticed an alarming lack of research and public awareness concerning mental disorders. During this time, in the field of mental health, focus was placed primarily on healthcare workers to better diagnose and treat mental illness, with little to no emphasis on public education and awareness of psychological health issues. Consequently, Jorm and his team coined the term, in an attempt to address and combat the shortage of understanding and awareness of mental health (Jorm, 2012).

On a global level, the WHO (2022) estimates that about 1 in 8 people are currently living with a mental health condition. Recent research suggests this may even be an underestimate, as personality disorders are often excluded from disease burden calculations, among other reasons, such as the underestimation of the impact of severe mental illness on mortality (Vigo, Daniel et al., 2016). This further highlights the need for not only general mental health literacy, but more specifically that of personality disorder literacy (Vigo, Daniel et al., 2016).

The prevalence of personality disorders vary, albeit slightly, across studies. Winsper et al., (2019) reported that worldwide, pooled prevalence of personality disorders was 7.8%, while the National Institute of Mental Health (2003) found a past-year prevalence of 9.1% in the USA. Moreover, a study by Lenzenweger (2017) demonstrated that the median prevalence of having any personality disorder is 10.6%, a value that remained fairly consistent in six major studies across three countries. Studies suggest that personality disorders vary in terms of their prevalence, with OCPD and BPD being the most prevalent, especially in high income countries (Gawda, 2018).

While understanding and awareness of mental illnesses has grown in the past few decades (Kutcher et al., 2016), the distribution of mental health literacy seems to be unequal. In fact, a study by Bragg et al. (2017) revealed that participants had higher literacy of levels for depression than they did for personality disorders, correctly identifying the former in 60% of cases, in contrast to a correct identification rate of 34% when it came to recognising personality disorders. In addition, a study by Furnham et al., (2015) that employed a vignette identification task in order to assess

people's literacy concerning borderline personality disorder, found very low rates of recognition of BPD. These findings exemplify the need to address and assess such inequalities in mental health literacy and stigma with regards to personality disorders in contrast with other disorders, which is precisely what this study aims to do.

The concept of mental health literacy has yielded a plethora of visible benefits. More specifically, it has resulted in the development of interventions, along with policy changes that would otherwise not have emerged (Jorm, 2015). Increased mental health literacy has also been linked to early help seeking, benefiting both young people and adults (Kelly, Jorm, & Wright, 2007). Kelly and his colleagues also found that mental health campaigns such as *Beyondblue* that involved community interventions such as public awareness activities, including the distribution of pamphlets, posters and websites with information resulted in better knowledge and attitudes of the general public in Australia. Furthermore, it was found that interventions aimed at young people, such as advertising through newspaper, radio and cinema, resulted in a myriad of improvements, such as better identification of depression in oneself, improved help-seeking for depression, increased awareness of suicide risk, correct estimating the prevalence of mental health problems and a '*reduction in perceived barriers to health seeking*' (Kelly, Jorm, & Wright, 2007). The benefits of improved mental health literacy were further illuminated in this study by Kelly et al. (2007), as shown by the finding that mere information and awareness sessions implemented in schools resulted in modest improvements in stigmatising attitudes; the majority of the interventions used by Kelly et al (2007) in the aforementioned study led to improvements in MHL. On the other side of the coin, Tambling, D'Aniello, and Russell (2023) explain that poor mental health literacy is associated with higher rates of depression, stress and anxiety; suggesting that low MHL levels have a direct impact on mental health outcomes. The researchers additionally found that poor MHL was connected to internalised stigma and caregiver burden, emphasising the fact that low mental health literacy levels not only affect individuals suffering from mental illness, but also those around them (Tambling, D'Aniello, & Russell, 2023).

Variability with respect to mental health literacy is not limited to type of disorder; levels of mental health literacy have been shown to vary as a function of culture. Altuncu and colleagues, (2023). revealed that Italian and Turkish respondents displayed differences in their abilities to correctly label narcissistic personality disorder, for example. However, research in this field has thus far focused predominantly on North America, Europe and other high-income countries (Razzouk et al., 2010). Studies in low-income countries remain limited.

This thesis aims to assess mental health literacy on personality disorders of people from African, South American and European cultures, specifically focusing on Kenya, Mexico and Portugal. That is, how people from the aforementioned countries perceive individuals with personality disorders and how they appraise various aspects of these individuals' lives, and to what extent they are able to correctly identify and recognise if a mental illness is present. Secondary aims were to investigate whether age, gender, education, and personal experience and exposure to mental illness affect recognition and labelling accuracy.

Methods

Study design and procedures

An online survey designed in Qualtrics, collecting sociodemographic information and including a vignette recognition task, was administered using snowball sampling techniques. The survey was available in English, Portuguese and Mexican Spanish. Participants were recruited through contacts such as university professors, found on ResearchGate. These contacts then distributed the survey in their given countries, as well as social media. Data was collected from March 1st to October 30th, 2024. Participation in the research was voluntary, with no incentives provided.

The survey was translated into both Portuguese and Mexican Spanish, and names in the vignettes were altered according to culture. For example, in the Mexican Spanish version of the survey, *Jessica* was changed to *Cecilia*.

All participants provided informed consent by agreeing to the data protection declaration prior to starting the survey. The principles outlined in the Declaration of Helsinki were followed, ensuring anonymous participation through the administration of the informed consent format of the ethics committee of the University of Padua (GDPR EU 2016, pd. 196/03).

Participants

The sample consisted of 233 respondents with a mean age of 29.78 ($SD = 11.87$) with a nearly balanced gender distribution: 45.5% male, 53.2% female, and a minority identifying as non binary (0.9%) or preferring not to disclose their gender (0.4%). The ethnic composition included primarily African (41.6%), Mexican (26.6%), and Portuguese (23.2%) backgrounds, with smaller representations from Asian, African Caribbean, British, Caucasian, USA, and Spanish ethnicities. Participants were predominantly from Kenya (46.8%), with equal proportions from Mexico and Portugal (26.6% each). Educational attainment varied, with 3.9% having less than a high school

education, 23.6% high school, 36.1% bachelor’s degree, 18.0% master’s degree, and 14.2% holding a PhD or higher. Regarding profession, the majority were students (54.1%), followed by those in health related fields (29.2%) and education or social sciences (12.3%). Among students, 7.9% studied in health related fields, 20.6% in education or social sciences, 12.7% in business, finance and communication, and 9.5% in engineering, technical professions or architecture, with 46.8% not specifying their field of study. Mental health treatment experience was reported by 37.3% of participants, and 51.1% of the sample reported having known someone who had received mental health treatment.

Table 1. Characteristics of the sample

	Frequency	Percentage
Gender		
Female	124	53.2
Male	106	45.5
Nonbinary	2	0.9
Prefer not to say	1	0.4
Ethnicity		
African	97	41.6
Mexican	62	26.6
Portuguese	54	23.2
Asian	7	3.0
African Caribbean	2	0.9
British	2	0.9
Caucasian	2	0.9
USA	1	0.4
Spanish	1	0.4
Prefer not to say	5	2.1
Country		
Kenya	109	46.8
Mexico	62	26.6
Portugal	62	26.6
Education		

	Frequency	Percentage
Less than high school	9	3.9
High school	55	23.6
Bachelor's degree	84	36.1
Master's degree	42	18.0
PhD or higher	33	14.2
Prefer not to say	10	4.3
Profession		
Business, finance and communication	10	9.4
Education and social sciences	13	12.3
Engineering/architecture	8	7.5
Health related	31	29.2
Skilled labourer	9	8.5
Student	126	54.1
Other	26	24.5
If student, department of study		
Health related	10	7.9
Education and social sciences	26	20.6
Business, finance and communication	16	12.7
Engineering/architecture	12	9.5
Other	3	2.4
Not indicated	59	46.8
Mental treatment		
Yes	87	37.3
No	145	62.2
Prefer not to say	1	0.4

	Frequency	Percentage
Having known someone who had treatment		
Yes	119	51.1
No	110	47.2
Prefer not to say	4	1.7

Measures

The questionnaire used for this study was obtained from Adrian Furnham (Furnham & Wineslaus, 2011). Three personality disorders were excluded from the survey in this particular study so as to make it more accessible to lay people, namely histrionic, dependent and schizoid personality disorders, the latter being removed due to its overlapping symptoms with schizotypal personality disorder (STPD). As for histrionic and dependent personality disorders being removed, this was done because they are less prevalent than other personality disorders in their cluster. Additionally, it was necessary for some disorders to be removed for the sake of time; with 10 vignettes, the survey took 20 minutes to complete, but with 7 it took 15 minutes to complete. The final version, however, was still over the suggested completion time as recommended by Qualtrics, the surveying platform that was used for this study. In addition, vignettes were modified slightly to ensure a better fit with the more recent DSM-5-TR criteria. The vignettes were translated into both Portuguese and Mexican Spanish and translated back into English for data analysis. Translation into Swahili was deemed as unnecessary since English is one of Kenya's official languages.

Before the vignettes were presented in the survey, participants were asked a series of questions, as follows; *a) what gender do you identify as?, b) what is your age?, c) what is your ethnicity?, d) in which country do you live?, e) what is the highest degree or level of education you have completed?, f) are you a student? g) are you a psychology or psychiatry student?, h) please specify your department of study, i) have you ever had treatment for a mental illness?, j) if so, can you describe the illness? k) have you ever known someone who had treatment for a mental illness, l) if so, can you describe the illness?.*

Following this, the 7 vignettes were presented, followed by a series of likert scale questions;. A vignette example (this one pertaining to paranoid personality disorder) is presented below, along with the following survey questions;

Philip is a 70-year-old retired businessman and appears to be in good health and mentally alert. He and his wife have been married for 50 years, and she is the only person he had ever trusted. Philip has always been suspicious of others. He never confides in anyone but his wife. He is careful about revealing personal information to others assuming that they are out to take advantage of him. He had refused sincere offers of help from his acquaintances because he suspected their motives. Philip has always involved himself in work and claims to have no time for play, even after his retirement. He spends most of his time monitoring his stock market investments and has changed brokers several times because he suspected that minor errors on his statements were evidence of attempts made by them to cover up fraud.

Survey questions

In general, how happy do you think Philip is?

Not at all 1 2 3 4 5 a great deal

In general, how successful at his work do you think Philip is?

Not at all 1 2 3 4 5 a great deal

In general, how satisfying do you think Philip's personal relationships are?

Not at all 1 2 3 4 5 a great deal

Do you think that, in any sense they have a psychological problem?

If so, what is it?

(open ended question)

At the end of the questionnaire, there were two further questions, these being a) *have you ever heard the term "personality disorder"?* and b) *do you understand the meaning of this term?*

Completing at least all questions to one vignette had to be answered to be considered valid for data analysis.

Statistical analysis

SPSS was used to run all tests used to obtain results of this study. To begin with, Chi-square tests were employed to examine the distribution of correct and incorrect responses among Kenyan, Mexican, and Portuguese participants. For all of the disorders, the mere name of the personality disorder was enough to be accepted as a correct label, such as ‘narcissistic’, ‘borderline’, and ‘obsessive-compulsive’, without adding the term ‘personality disorder’. Additionally, for narcissistic personality disorder, answers such as ‘narcissistic’ and ‘narcissism’ were accepted as correct labels. For obsessive-compulsive personality disorder, the labels ‘obsessed’, ‘obsessive’, ‘OCD’ and ‘obsessive-compulsive’ were accepted as correct. In addition, a global accuracy index, computed as means across the vignettes, was obtained for each of the three levels of recognition: recognition of a psychological problem, recognition of a personality disorder, the correct labelling of personality disorder. Different correlational techniques were employed to examine the relationship between participants' characteristics and the three global accuracy indices computed: Spearman's rho coefficient for correlation between participants' age and education with global accuracy; independent samples Mann-Whitney U test to assess the influence of gender and personal and indirect exposure to mental health treatment on global accuracy. Moreover, one way ANOVA was used to test for differences in mean likert scale ratings across countries. Lastly, a multiple regression model was used to evaluate the specific influence of each variable on participants' likelihood of correct recognition as well as their responses to the likert scale questions.

Results

Labelling personality disorders

Analyses of survey responses found that although the majority (72.3% to 92.6%) of participants recognised the presence of a psychological problem, most people did not label personality disorders correctly. More specifically, correct labelling of vignette characters ranged from 0.9% to 23.3%, regardless of country. The most correctly labelled PD was OCPD, with 23.3% of respondents providing the correct label. Interestingly, AVPD was the least correctly labeled, but it was the second most recognised as a psychological problem; albeit most participants still recognised it as a problem (84.5%). NPD had the second highest correct labelling rate, with 21.5% of participants identifying it correctly, followed by PPD, which was correctly labelled by 15.1% of

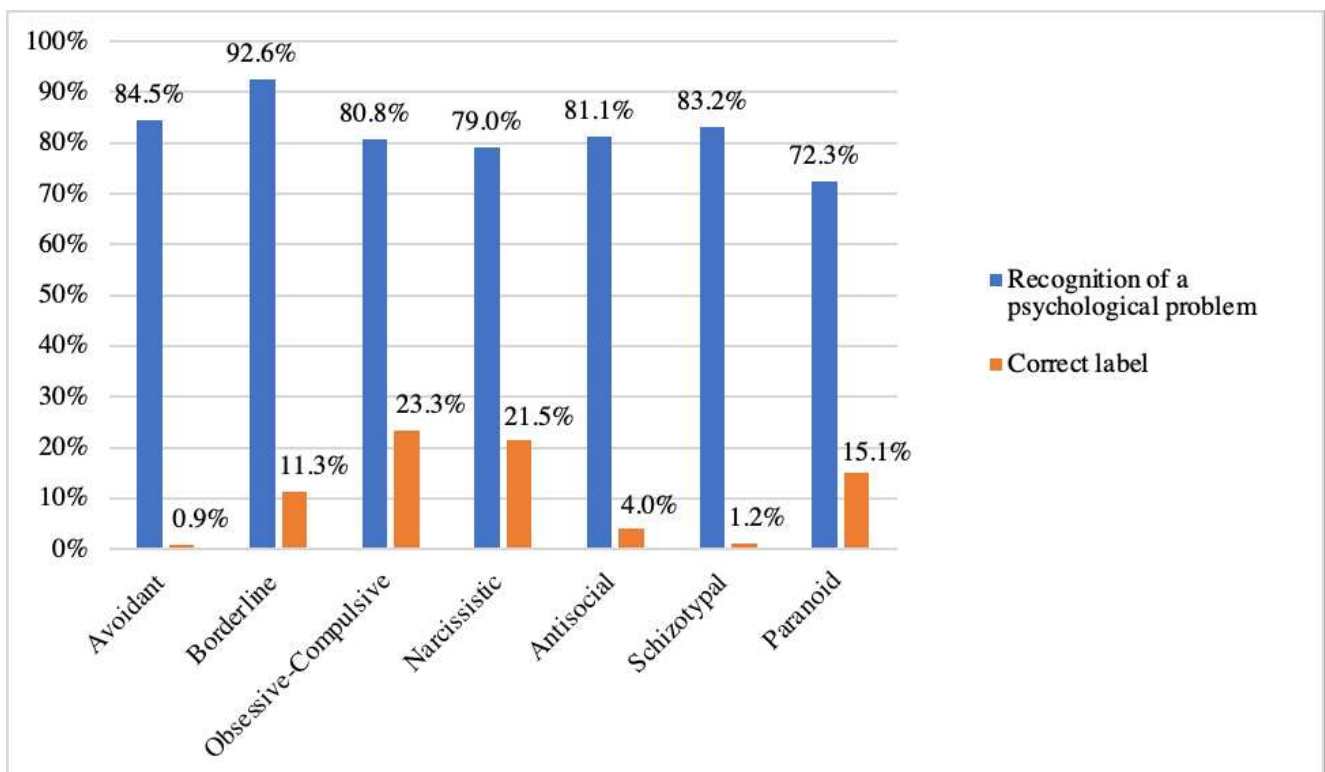
respondents. This finding was also noteworthy, due to the fact that both NPD and PPD were among the lowest ranked (6th and 7th respectively) when it came to the percentage of participants who identified these disorders as a psychological problem. Additional details concerning labelling rates and ranking can be found below in **table 2**.

In terms of what mental illness respondents believed the vignette characters to have, it was found that 2.6% of all respondents included the response ‘personality disorder’ in their answers. The majority of incorrect responses to vignette 1 (AVPD) was ‘lack of self esteem’, with a significant portion (35.6%) of participants giving this response to answer the question ‘if so, [what mental illness] is it?’. Other responses included ‘shyness’ (3.4%) and social anxiety (9%), ‘sociopath’ and ‘autism’ (1.7%). In addition, 3.4% of participants’ responses were ‘personality disorder’ to the AVPD vignette. Secondly, the BPD vignette saw a majority of responses stating that the problem was ‘depression [and/or] bipolar’ (37.6%), followed by just ‘bipolar’ and just ‘depression’ (26% and 5.8% respectively). Other responses included and ‘fear of abandonment’ (4.6%) ‘childhood unfinished business’ (0.6%). For the OCPD vignette, the largest number of incorrect responses included ‘perfectionist’ in their answer (13.4%), with other responses being ‘workaholic’ (3.2%) and ‘burnout’ (3.2%). NPD was often labelled as ‘egocentrism’ (13%), with other labels such as ‘self centred’, ‘attention seeker’ and ‘misanthrope’ in 6.1%, 6.1% and 0.9% of participants, respectively. ASPD was notably labelled as ‘depression’ by 8.3% of respondents; this response was the most common incorrect answer for this vignette. Other notable labels included ‘compulsive liar’, with 4.2% of respondents providing this label, and ‘conduct disorder’, ASPD being labeled as such by 3.3% of respondents. STPD was labeled as ‘schizophrenia’ by 11.4% of respondents, with other labels, such as ‘frozen grief’ and ‘schizoid crisis’. Finally, 13% of respondents labelled PPD as ‘trust issues’ with other labels such as ‘anxiety’ (3.5%) , and ‘just taking precautions’ (1.8%).

Table 2. Rankings of the personality disorders by the rate of correct labelling and participants' recognition of a psychological problem in vignettes

Correct Response Ranking	Personality Disorder	Correct Response (specific recognition) %	Recognition of a Psychological Problem Ranking	Recognition of a Psychological Problem %
1	Obsessive - compulsive	23.3	5	80.8
2	Narcissistic	21.5	6	79
3	Paranoid	15.1	7	72.3
4	Borderline	11.3	1	92.6
5	Antisocial	4.0	4	81.1
6	Schizotypal	1.2	3	83.2
7	Avoidant	0.9	2	84.5

Figure 1. Graphical representation of lay correct labelling rates of personality disorders and participants' recognition of a psychological problem in vignettes



Cross cultural variations in recognition

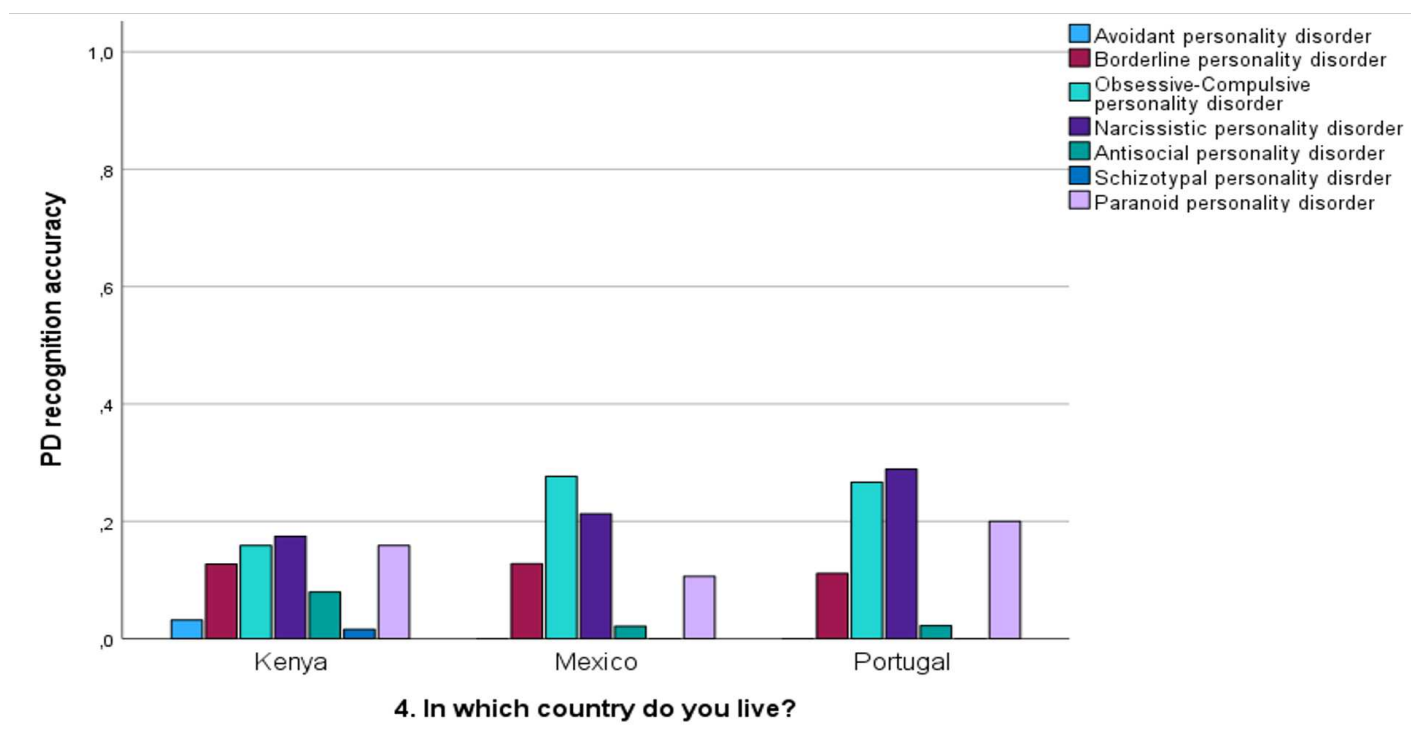
Problem recognition rates were compared between participants from Kenya, Mexico and Portugal. In responses to the question, ‘do you think this person has a psychological problem?’ for the AVPD vignette, Mexican respondents were more likely to view the vignette character's behaviour as a problem, with 95.1% answering ‘yes’, followed by 87.1% in Portugal and 77.1% in Kenya, with a statistically significant result ($\chi^2 = 10.13$, $df = 2$, $p = 0.006$). In the vignette depicting BPD, Portuguese respondents were the most likely to identify the behavior as a problem, with 100% answering ‘yes’, compared to 94.8% in Mexico and 86.2% in Kenya ($\chi^2 = 10.26$, $df = 2$, $p = 0.006$). When evaluating OCPD, Mexican respondents were once again more likely to recognise it as a psychological issue, with 94.8% answering ‘yes’, followed by Portugal (81.4%) and Kenya (69.7%), with a statistically significant difference ($\chi^2 = 13.38$, $df = 2$, $p = 0.001$). For NPD, 96.4% of Mexican respondents were more likely to recognise a problem, which was the highest rate among the three countries; compared to 74.5% in Portugal and 68.6% in Kenya ($\chi^2 = 15.50$, $df = 2$, $p < 0.001$). With regards to ASPD, Mexican respondents were more likely to recognise the disorder as a psychological problem, with 92.3% responding ‘yes’, compared to 81.5% in Portugal and 72.5% in Kenya, also yielding a statistically significant result ($\chi^2 = 7.64$, $df = 2$, $p = 0.022$). Responses regarding STPD showed that Mexican and Portuguese respondents viewed the character's behavior as a problem, with 88.2% and 87.8% answering ‘yes’, respectively, compared to 76.1% in Kenya. However, these differences were not statistically significant ($\chi^2 = 4.06$, $df = 2$, $p = 0.131$). Lastly, for PPD, Mexican respondents were more likely to identify the behavior as problematic, with 91.7% answering ‘yes’, followed by 67.4% in Portugal and 61.5% in Kenya, with a statistically significant difference ($\chi^2 = 13.31$, $df = 2$, $p = 0.001$).

For general recognition, i.e. responses that either included ‘personality disorder’ in their answer but did not label it specifically, or that correctly labelled the disorder, a few differences were found. Firstly, Mexican (3.3%) and Kenyan (3.7%) respondents were less likely to recognise AVPD as a personality disorder compared to those in Portugal (12.9%) ($\chi^2 = 7.05$, $df = 2$, $p = 0.029$). For OCPD, respondents in Kenya showed lower recognition rates (18.4%) compared to Mexico (36.2%) and Portugal (30.5%), with a near-significant result ($\chi^2 = 5.62$, $df = 2$, $p = 0.060$). Additionally, recognition of ASPD as a personality disorder was lowest in Mexico (1.9%), preceded by Kenya (7.2%) and highest in Portugal (16.7%), with a statistically significant difference ($\chi^2 = 7.60$, $df = 2$, $p = 0.022$).

Regarding multicultural differences in the final and strictest level of recognition, ‘*personality disorder recognition*’, that is respondents who specifically provided the correct label in their

answer, recognition rates were consistently low across all three countries, across all seven vignettes. Recognition rates were slightly higher for OCPD, with Mexico showing the highest rate (31%), followed by Portugal (23.7%) and Kenya (17.1%), though these differences were not statistically significant.

Figure 2. Graphical representation of correct labelling rates of personality disorders across Kenya, Mexico and Portugal as per each vignette



Other predictors of mental health literacy

Age

The analysis of age and recognition accuracy yielded various results across the three levels of recognition. In the first, ‘*problem recognition*’ level, there was no significant correlation between age and participants’ identification of a psychological issue in the vignette characters ($r = 0.07, p = 0.311$). However, a significant positive correlation was observed in respondents’ ‘*general recognition*’, where older participants demonstrated greater success in recognising the presence of a personality disorder and/or provide the correct label ($r = 0.20, p = 0.003$). Regarding the highest

level of recognition, 'PD recognition', age also showed a positive, albeit weak correlation with specific disorder labelling ($r = 0.15, p = 0.024$).

The only statistically significant finding when it came to the link between age and ratings of certain aspects of the characters' lives, was found in ratings of success. More specifically, a negative correlation between age and ratings of success was found; that is, the younger the participants' age, the more successful they rated the character's work to be ($r = -0.14, p = 0.033$). No significant correlations were found between age and ratings of happiness or relationship satisfaction.

Gender

Interestingly, gender did not significantly impact accuracy on any level of recognition. Mann-Whitney U tests revealed no statistically significant differences across all variables. More specifically, p-values for each variable exceeded the cut-off point of 0.05; ($p = 0.486$ for problem recognition, $p = 0.544$ for general recognition, and $p = 0.769$ for PD recognition). That being said, one marginally significant finding was revealed; for schizotypal personality disorder exclusively, females met the criteria for 'general recognition' more so than did males (4.6% versus 0.0%, respectively). This rang true for 'PD recognition' as well, with 2.3% of females correctly labelling it, and 0.0% males doing so ($\chi^2 = 1.81, df = 1, p = 0.178$). Similarly, no statistically significant differences were found when it came to gender and its link with mean ratings of characters' ratings of happiness, success at work and satisfying relationships.

Education

Education was found to be positively associated with both general and PD recognition as revealed by Spearman's r, with coefficient values of $r = 0.17, p = 0.011$ and $r = 0.15, p = 0.022$, respectively. Conversely, the correlation between education and problem recognition was $r = 0.11$, which was not significant.

Personal experience and exposure

Mann-Whitney U tests found a positive link between having received treatment for a mental illness and improved accuracy on all three levels of recognition, that is problem recognition ($U = 7525.5, z = 2.79, p = 0.005$) with 75.8% for those who answered no ($M = 0.76, SD = 0.34$) versus 88.6% for those who answered yes ($M = 0.89, SD = 0.23$), general recognition ($U = 7546, z = 2.86, p = 0.004$) with 10.7% for those who answered no versus 17.0% for those who answered yes and

PD recognition ($U = 7592, z = 3.09, p = 0.002$) with 7.1% for those who answered no versus 12.9% for those who answered yes.

On the other hand, having known someone who received mental health treatment had no impact on problem recognition ($U = 6946, z = 0.91, p = 0.363$) with 75.8% for those who answered no and 85.7% for those who answered yes, but an impact was evident on other levels of recognition. Specifically, participants who reported knowing someone who received treatment performed better at both generally recognising PD's ($U = 8600.5, z = 4.67, p < 0.001$) with 7.5% for those who answered no versus 18.5% for those who answered yes, as well as correctly labelling them ($U = 8022, z = 3.50, p < 0.001$) with 6.4% for those who answered no versus 12.1% for those who answered yes.

More specifically, problem recognition for AVPD was more frequently recognised as a problem in participants who had received mental health treatment (94.2%) than those who had not (78.6%), which was statistically significant ($\chi^2 = 9.84, df = 1, p = 0.002$). Additionally, those who had received past mental health treatment had higher general recognition scores (24.1%) than those who had not (12.2%) for BPD, with a significant p value reported ($\chi^2 = 4.83, df = 1, p = 0.028$). Past mental health treatment also resulted in higher problem recognition rates for OCPD, with 89.7% of the latter recognising it as a problem, as opposed to 74.6% of the former recognising it as such ($\chi^2 = 6.86, df = 1, p = 0.009$). Problem recognition was also higher in NPD for those who had received treatment (88.0%) when compared to those who hadn't (72.4%) ($\chi^2 = 6.41, df = 1, p = 0.011$). PPD was also more frequently recognised as a problem by participants who had received mental health treatment (85.9%) versus those who had not (62.8%), yielding a noteworthy p value ($\chi^2 = 10.17, df = 1, p = 0.001$).

Knowing someone who had received mental health treatment increased participants' likelihood of recognising AVPD as a problem, with 89.9% of those with this experience recognizing it, compared to 78.9% of those without it ($\chi^2 = 5.31, df = 1, p = 0.021$). This pattern held for general recognition of AVPD, with a higher rate among those who knew someone with treatment (10.1% vs. 1.8%, $\chi^2 = 6.72, df = 1, p = 0.010$). For BPD, 96.4% of participants with indirect treatment experience identified it as an issue, compared to 87.8% of those without this experience ($\chi^2 = 5.35, df = 1, p = 0.021$). This variable also affected general recognition of OCPD (35.5% vs. 17.3%, $\chi^2 = 7.68, df = 1, p = 0.006$) and NPD (34.6% vs. 18.7%, $\chi^2 = 5.51, df = 1, p = 0.019$).

Additionally, general recognition of NPD was higher among those with mental health familiarity (12.9% vs. 2.8%, $\chi^2 = 5.41$, $df = 1$, $p = 0.020$). For PPD, 24.4% of those who knew someone who had treatment showed greater general recognition compared to 7.5% among those without ($\chi^2 = 7.78$, $df = 1$, $p = 0.005$). PD recognition of PPD followed this trend, with 21.1% of those with indirect treatment experience correctly labelling it, versus 7.5% of those without ($\chi^2 = 5.52$, $df = 1$, $p = 0.019$).

Cross cultural variations in ratings of characters' happiness, success at work and satisfying relationships

Intriguingly, although there were slight variations in mean happiness ratings of vignette characters, with Kenya having the highest ($M = 2.53$ $SD = 0.83$), followed by Mexico ($M = 2.50$ $SD = 0.52$) and Portugal ($M = 2.45$ $SD = 0.58$), these variations were not found to be statistically significant ($F = 0.27$, $df = 2$; 230, $p = 0.761$). A similar trend was found for both the following likert questions; while Mexico's mean ratings of success at work was higher than Kenya ($M = 2.98$ $SD = 0.70$) and Portugal's ($M = 2.89$ $SD = 0.58$), analyses showed that there were no significant differences between countries, with $F = 0.60$, $df = 2$; 230 and $p = 0.550$. As for ratings of vignette characters' satisfying relationships, Kenya had the highest mean ($M = 2.51$ $SD = 0.83$), followed by Mexico ($M = 2.28$ $SD = 0.43$), and Portugal ($M = 2.33$ $SD = 0.58$); however, these differences were once again, not statistically significant ($F = 2.64$, $df = 2$; 230, $p = 0.074$).

Multiple regression analysis

Multiple regression analyses revealed that country was a significant predictor for problem recognition, with lower levels found in both Kenya ($\beta = -0.39$, $p < .001$) and Portugal ($\beta = -0.34$, $p = .006$) as compared to Mexico. Additionally, knowing someone with a mental illness was consistently found to be a positive predictor for both general ($\beta = 0.18$, $p = 0.024$) and PD recognition ($\beta = 0.17$, $p = 0.045$). Lastly, none of the variables included in the models were found to be significant predictors of appraisals of the vignette characters' lives ($p > 0.05$).

Discussion

This study set out to examine mental health literacy, and more specifically that of personality disorders (PD's). Results revealed that correct labelling across all seven personality disorders ranged from just 1.9% to 23.3%. This was interesting, due to the fact that most participants were actually able to recognise the presence of a psychological problem, with figures ranging from 72.3% - 92.6%; this seems to suggest that while personality literacy is markedly low, there is an overarching perception that personality disorders are a problem, even though participants may not necessarily know how to label them. As for future implications of these findings, we could draw upon the results to initiate education programs that are catered to understanding personality disorders, with more focus on those that were least recognised by participants in the study, such as avoidant, schizotypal and antisocial personality disorders. Moreover, we could utilise the discrepancy between problem recognition of certain personality disorders versus correct labelling rates; for example, although OCPD was the most correctly labeled of the disorders, it was the third lowest ranked in terms of problem recognition, meaning that respondents were less likely to view this disorder as a problem. We could possibly make use of these findings in personality disorder education programs, emphasising the fact that behaviours expressed by individuals with OCPD should not be normalised or taken lightly, and are in fact a problem for those experiencing them; the central argument here is that maybe, by emphasising that these disorders do represent psychological problems, early help seeking behaviour could be promoted - in fact, stigma has been associated with reluctance to seek help (Barney et al., 2006). Consequently, based on these findings one might hypothesise that normalisation of such behaviours could potentially be hindering help seeking behaviours, while inadvertently promoting stigma and lack of awareness when it comes to personality disorders.

This study also aimed to assess cultural differences in respondents' accuracy regarding recognition and labelling of personality disorders. To begin with, participants from Mexico demonstrated consistently higher problem recognition rates for six of the seven PD's, five of which were statistically significant (AVPD, OCPD, NPD, ASPD and PPD). Secondly, Portuguese respondents had the highest performance when it came to recognising BPD as a problem, with respondents from Kenya exhibiting the lowest problem recognition for six of the seven personality disorders, five of which were statistically significant. Mexico's consistent higher problem recognition could possibly be explained by the way in which social behaviour is viewed in the

country; Mexican culture seems to place high emphasis on values such as love, respect and interdependent relationships (Diaz-Loving & Draguns, 1999, p. 1998) as well as family and community harmony, which could make behaviours that are contrary to such values more noticeable, such as the disregard for other people seen in ASPD. As was that of Portugal when it came to BPD. This, could potentially be explained by the country's high prevalence of mental illness, as reported by Simões de Almeida et al., 2023. Another explanation might be the considerably high mental health literacy demonstrated by Portuguese individuals (Loureiro et al., 2013), particularly women and those with higher education levels (Trigueiro et al., 2022). It could also be due to the fact that BPD is often perceived as the most 'severe' personality disorder, with the highest dysfunctionality, that makes individuals perceive it as a problem to a further extent than other personality disorders (Hill et al., 2008). However, more research is needed to broaden our understanding as to why Portuguese participants recognised BPD in particular as a problem more so than other personality disorders. In addition, Kenya's consistently low scoring when it came to problem recognition of all of the personality disorders presented in the vignettes. I would argue that this is a noteworthy cultural difference, that is consistent with the literature. More specifically, numerous studies have attested to low levels of mental health literacy in Kenya (Marangu et al., 2021). Additionally, these findings might be explained by the fact that 70.48% of Kenya's population is rural, and such populations have been found to have higher levels of stigma towards mental illness (Mutiso et al. 2018). These findings are arguably a reflection of Kenya's attitude towards mental illness, that is one of stigma and repression. In fact, attempting suicide in Kenya is a criminal offence, punishable by up to two years in prison (Adinkrah, 2016); it could be argued that it is possible that low problem recognition rates in Kenya might not reflect a lack of literacy, but rather a symptom of societal and legal pressures that discourage individuals from acknowledging mental health issues, reflecting a deeper cultural reluctance to address them openly. These results have important implications relating to mental health and personality disorder literacy. More specifically, they could be utilised to contribute to anti-stigma and decriminalisation efforts on the regional level, especially since high stigma levels has been positively linked to suicide (Pompili, Mancinelli & Tatarelli, 2003).

In terms of labelling accuracy as a function of one's cultural background, limited differences were found. In particular, Portuguese participants were more likely to label both AVPD and ASPD as personality disorders, as well as to provide the correct label for them ($p = 0.029$ and $p = 0.022$, respectively). It is possible that this could, once again, be explained by Portugal's high prevalence

of mental illnesses (Simões de Almeida et al., 2023), or perhaps by the country's collectivist orientation and its tendency to prioritise strong interpersonal bonds. In turn, this could make interpersonal and social disruptions more noticeable, enhancing awareness of disorders like AVPD and ASPD (Delle Fave et al., 2016).

Lastly, when it came to strictly providing the correct label for personality disorders presented in the vignettes, no statistically significant results were found, demonstrating low personality disorder literacy regardless of culture. This suggests the need for global, widespread efforts to de-stigmatise and educate the population about personality disorders. According to the literature mentioned in this thesis, one might expect higher performances from Portugal and Mexico when it came to labelling personality disorders as compared to Kenya, but this was unsubstantiated by results. The implication here, is that personality disorder literacy may be similarly insufficient worldwide, demonstrating the importance of universal education efforts, even in countries with demonstrably higher mental health literacy rates.

Aside from culture, other variables were examined, and were found to have links with recognition and labelling accuracy. More specifically, a negative correlation between both general and personality disorder recognition; that is, older participants were not only more likely to label the vignette characters as having a personality disorders, but also to provide the correct label to said disorders. These correlations were significant ($r = 0.20$, $p = 0.003$ and $r = 0.15$, $p = 0.024$, respectively). This result was also contrary to previous research by Altuncu and colleagues, (2023), that found a negative correlation between age and labelling accuracy. As for future implications of this finding, one might argue the importance of age specific mental health education, tailoring content to ensure that it resonates with specific age groups. In addition, it calls into question an intuitive assumption one might make regarding mental health literacy of the youth; one might expect that due to recent movements and emphasis of 'Gen Z' individuals to advocate for the awareness of mental health, along with the importance of self care, seemingly due to exposure to such topics in popular television series and social media. Following our research finding, however, one might hypothesise that digital engagement with mental health content may not be completely effective in fostering deep, conceptual understanding of mental health literacy. On the other hand, it also calls in the potential of personality disorder education efforts in the form of peer-mentoring programs, perhaps delivered from older individuals to younger ones. In fact, programs of this sort

have yielded positive links with enhanced mental health literacy, according to a study by Muro (2023).

Another variable that was shown to be associated with mental health literacy was analysed, namely; a. *having received mental health treatment in the past* and b. *knowing someone who had*. This association was seen through the statistically significant positive correlations found between having received treatment for a mental illness and higher levels of problem recognition ($U = 7525.5$, $z = 2.79$, $p = 0.005$), along with general recognition ($U = 7546$, $z = 2.86$, $p = 0.004$) and correct labelling ($U = 7592$, $z = 3.09$, $p = 0.002$). A similar correlation was found between indirect exposure and recognition, with participants who reported having known someone who received treatment for mental health being positively associated with better recognition of personality disorders, as well as correct labelling ($U = 8600.5$, $z = 4.67$, $p < 0.001$ and $U = 8022$, $z = 3.50$, $p < 0.001$, respectively). These results could have promising implications, possibly implying that mere exposure to treatment, even indirect, has positive effects on personality disorder literacy. With this information, one could argue for the utility of informal literacy; it might be possible that formal education is not a be-all-end-all prerequisite to mental health literacy, and perhaps this could put forward a case for the advantages of informal dissemination of information, such as peer-to-peer transmission.

Finally, possible connections between culture and appraisals of vignette characters lives were assessed, potentially reflecting differing perceptions in how personality disorders impact certain aspect of one's life. This was considered because research has found varying levels of mental health and personality disorder literacy across the cultures included in this study. For example, in Kenya, mental illnesses are often attributed to curses or hunger pangs in rural areas, with treatment sought through community support rather than medical interventions (Wadende & Sodi, 2023). This communal approach might influence appraisals of individuals' functioning, prioritising social harmony over individual impairment. In Mexico, stigma toward individuals with mental illnesses, including borderline personality disorder, has been observed even among psychiatric trainees, who exhibited judgmental attitudes and poor empathy (Lagunes-Cordoba et al., 2022). These attitudes could shape appraisals, potentially leading to more negative views of happiness or work success in individuals with personality disorders. Conversely, Portugal demonstrates relatively higher mental health literacy, particularly among younger and more educated populations (Loureiro et al., 2013); based on the literature, one might infer that individuals

from these countries could show varied appraisals of vignette characters' happiness, work success and relationship satisfaction. However, there were no statistically significant differences in appraisals of these dimensions. This seems to suggest similar levels of a particular facet of personality disorder literacy; that is, how these disorders impact one's life. Ratings of these aspects were universally on the lower side, implying a cross cultural understanding of the effects of personality disorders. One could use these findings to argue that there is in fact an understanding of a key aspect of PD's, namely impaired functioning. Additionally, it calls in to question if we should change the way we conceptualise mental health and personality disorder literacy; is it enough to deem someone, or a whole culture, as 'illiterate' when it comes to mental illness, solely based on one's ability to correctly label it? Or could it be equally important that individuals understand the impact of these disorders on people's daily lives? And perhaps equally important to foster a sense of understanding, empathy and awareness in each sector that is affected by these disorders? In any case, the findings urge us to implement initiatives be it in the public, organisational or personal spheres, aiming for a holistic approach to understanding, raising awareness, and counteracting stigma towards personality disorders.

Limitations

This study is, naturally, not without its shortcomings. First and foremost, one might argue that certain cultural variables were not taken into consideration to a large enough extent, such as religious beliefs and socioeconomic status. Further studies of this kind could benefit from more rigorous exploration of such factors and the extent to which they influence literacy. Secondly, the inclusion criteria that was opted for may present an issue, due to the fact that for both OCPD and NPD, labels such as 'narcissistic' and 'obsessed' were conceived as correct answers, respectively. As a result, the validity of certain variables may be compromised due to the fact that *PD recognition* (i.e. correct labelling) percentages of these disorders may, in reality be lower than the results indicated, simply due to an inclusion criteria that was less strict.

Conclusion

In closing, this study demonstrated that while most individuals have an understanding of the presence of a psychological problems, most are not able to correctly identify personality disorders, regardless of culture. While Mexico demonstrated a greater ability to identify the presence of a psychological problem, such cultural variations did not present in labelling accuracy, suggesting a widespread, global lack of personality disorder literacy. However, the study did demonstrate promising results, in that respondents universally rated characters' overall happiness, work success and relationship satisfaction towards lower ends of the scale, suggesting at least some degree of understanding of how personality disorders impact one's functioning and daily life. I believe that with both targeted and broader educational efforts, alongside de-stigmatisation initiatives, we can bridge the gaps in personality disorder literacy, improving outcomes for both those affected and those around them.

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