Jurors' Decision-making in a Mock Criminal Trial: The Role of Mental Health

Information and Mental Health Literacy.

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Abstract

Background: The decision-making of jurors relies on a number of factors, including their understanding of mental health information provided to them in court. Both mental health literacy (MHL) and the type of information provided may influence this decision-making and are under-researched areas within this field.

Aims: The thesis aims to contribute to the understanding of MHL as measured by the Mental Health Literacy Scale (MHLS) and to explore the impact of MHL and the presentation of mental health information on juror decision-making in a mock criminal trial.

Method: A systematic review of 16 studies using the MHLS explored definitions of MHL used, psychometric properties, populations studied, mean scores, and variables related to the MHLS. An empirical study used an experimental design in which three groups were provided with either no mental health information, a symptomatic description, or a symptomatic description and a diagnostic label of paranoid schizophrenia, to explore the effects of MHL and the information provided on guilt ratings.

Results: The MHLS has been widely used in a variety of populations, alongside a number of additional variables and shows reasonable psychometric performance. Higher scores are commonly associated with being female and having prior experience of mental health difficulties. Higher MHL was associated with lower ratings of guilt in a mock criminal trial. Participants who were given a symptomatic description and diagnostic label gave the lowest guilt ratings, while those who received no mental health information gave the highest.

Conclusions: MHL is an ambiguous concept with a literature base that lacks consistency of measurement. Both MHL and the type of information presented

affected the guilt ratings of participants. This suggests that clinicians may have a role in the education of jurors with regards to mental health and should consider carefully the information they provide in court.

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Chapter One

Systematic Review

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Author guidelines can be found in Appendix A

Word count: 8,098

Abstract

Background: The nature and measurement of Mental Health Literacy (MHL) has been researched widely since the term was first coined in 1997. The Mental Health Literacy Scale (MHLS) was developed to produce a single score, making the concept easier to compare across studies.

Aims: This systematic review explored how the MHLS has been used since its development. The definition of MHL used in the studies, psychometric properties, mean scores, and additional variables related to the scale, were extracted and reported.

Method: Nine databases were searched for studies using the MHLS. A narrative synthesis of 16 studies was conducted.

Results: Despite only reviewing studies that used the MHLS, the definitions of MHL used varied, and included both the original definition and those expanded within the literature more recently. The studies indicated the scale had satisfactory internal consistency. Half of the studies used university students and a wide variety of other demographic and non-demographic variables were explored. The review suggests that being female and having previous direct or indirect experience of mental health difficulties are associated with higher MHL.

Conclusions: Further research is needed into the definitions of MHL used within the field, the psychometrics of the scale, and comparison between other variables and the MHLS in order to promote consistency and generalisability.

The Mental Health Literacy scale: A Systematic Review of Use Since

Development

Mental Health Literacy (MHL) is a term that was first coined by Jorm and colleagues (1997). The initial concept was developed from research into health literacy more broadly, which refers to a number of individual capacities that allow individuals to interact with the health system in order to make appropriate health decisions (Baker, 2006). MHL was defined by Jorm and colleagues as "knowledge and beliefs about mental disorders which aid in their recognition, management or prevention" (Jorm et al., 1997, p.182). Seven factors were identified as components of MHL including knowledge of how to seek information; risk factors; causes of mental illness; self-treatment and professional help available; the ability to recognise mental illnesses; and attitudes that promote recognition or appropriate help-seeking (Jorm et al., 1997). Jorm (2012) further refined the concept of MHL, describing it as knowledge that is linked to the ability to act in order to benefit one's own or another's mental health. As well as the ability to recognise a mental disorder and knowledge of treatment and self-help, this definition included knowledge of how to prevent a mental disorder and proposed 'first aid skills' to support those suffering from one (Jorm, 2012).

Over the years it has been suggested that MHL should also include concepts such as stigma, attitudes towards mental health difficulties, positive mental health and help-seeking efficacy (Spiker & Hammer 2019). While some propose that the original concept of MHL should be expanded to include these components, others maintain that MHL should be conceptualised as a multi-construct theory rather than as a multidimensional concept in itself (Spiker and Hammer, 2019). Spiker and Hammer (2019) argue that this would allow for concepts such as stigma and help-

seeking to be kept separate but be understood in terms of their relationships with each other under a broader theory of MHL.

Given the variability in the definition of MHL, it follows that there is significant variation in how it is measured. The first measure of MHL was the vignette based measure developed by Jorm et al. (1997). This measure asked individuals to identify a mental health difficulty described in a vignette, determine whether professional support would be warranted and rate the possible usefulness of a number of treatment options. It did not allow for total or subscale scores to be calculated and instead produced individual scores on each item, making measurement of an individual's overall MHL or comparison between individuals on more than one item impossible. The vignette based measure was designed to allow an ecologically valid measure of an individual's ability to recognise disorders and determine the utility of professional help and treatment. This was useful for early research into MHL when the ability of the general population to recognise common disorders was unknown, however it does not allow for more robust measurement of the breath of the concept of MHL or for useful comparisons between groups.

A review of all measures that included total or subscale scores was conducted by O'Connor and colleagues (2014). This review identified 13 measures that provided scale based scores. Of these studies however, none measured all seven domains of MHL laid out in the Jorm et al. (1997) definition. In addition, this review found that 12 of the 13 studies included items on concepts not included in this definition of MHL. Another, much broader, review included any papers which had utilised measures that addressed any one of the three components of MHL which they identified (knowledge of mental illness and positive mental health, attitudes towards mental health, and help-seeking efficacy) (Wei et al., 2015). This study

identified 401 studies including 215 measures of these concepts. This review thus highlighted that whilst there are many measures looking at individual components of what might be considered MHL, the agreement within the research field as to the grouping of these components under a unified concept of MHL is limited.

In addition to being measured in a variety of ways, MHL has also been linked to a wide variety of other related factors. Significant differences in MHL in relation to gender have been found using single item scores on vignette based measures (Cotton et al., 2006), and in a study specific to anxiety disorders (Hadjimina & Furnham, 2017). Higher MHL has been positively linked to attitudes towards mental health when measured using 13 items from the Mental Health Literacy Scale (MHLS) developed by O'Connor and Casey (2015) (Lee et al., 2020). Lee and colleagues (2020) also note significant differences based on age, with younger participants showing higher MHL than older participants. A review of the effects of MHL on help-seeking in athletes appraised five studies, four of which evaluated MHL using five measures of mental health knowledge (Bu et al., 2020). The review found that none of the studies used reliable and valid measures so results were not generalisable, however, they tentatively suggested links between MHL and help-seeking attitudes, mental health knowledge and stigma, but not help-seeking behaviours.

O'Connor et al. (2014) set out the limitations of using measures that do not produce a single score such as the Jorm et al. (1997) vignette measure which was the most widely used at the time of the study. There are also limitations when a number of distinct concepts believed to be part of MHL (such as stigma and help seeking) are considered separately. This can lead to a number of concepts being linked to MHL which has been defined and measured in different ways (Spiker & Hammer,

2019). As a result research can drift away from developing and critiquing a consensus definition of MHL or even exploring whether a consensus definition can be reached. As can be seen from the links described above, this makes comparison between studies challenging, leading to literature that is difficult to draw robust conclusions from.

Given the potential value of a measure that considered MHL as a unitary concept, O'Connor and Casey (2015) set out to develop a scale which covered the seven domains of MHL and provided a total score. The researchers aimed to produce a robust scale with a single score which would aid researchers in efficiently measuring and comparing individuals' MHL. This would make comparisons between studies easier, as well as effectively supporting research into relationships between MHL and other psychological constructs. The study suggested that future research evaluating the psychometric properties of the scale in other samples in order to test the generalisability of the findings could be useful (O'Connor & Casey, 2015). A review by Fulcher and Pote (2021) also recommended further exploration of the psychometric properties of the measure.

This study thus aimed to conduct a systematic review of the use of the O'Connor and Casey (2015) MHLS. The review aimed to:

1.   Explore the definitions of MHL used within the studies.

2.   Evaluate the psychometric properties reported for the MHLS.

3.   Report the means and standard deviations of the MHLS across different samples.

4.   Identify additional variables found to be related to the scale.

Method

A protocol for this review was developed in line with the PRISMA checklist (Moher et al., 2009). Data extraction forms (Appendix B) were developed using both PRISMA and Cochrane Developmental, Psychosocial and Learning Problems (2014) data collection guidance.

Search Strategy

Systematic searches were conducted in the following databases: Psychinfo, Medline complete EBSCO, CINAHL complete, ASSIA, AMED, PUBMED PMC, and EMBASE. SCOPUS was used to review studies that had cited O'Connor and Casey (2015). The full text of articles in all databases was searched using the single search term "mental health literacy scale". This simple search strategy was designed to capture all research that had used the relevant scale only. As the scope of the review was specific to this scale it was deemed appropriate to search only for this. All searches were completed on 8th June 2020 including all papers published up to that date, with data extraction occurring after the review was registered with PROSPERO International prospective register of systematic reviews on 20th September 2020 (registration number CRD42020193872).

Eligibility Criteria

Studies using any study design were included if they used the MHLS as developed by O'Connor and Casey (2015) and were published in a peer reviewed journal, in English, at any point prior to the last search. Studies were excluded if they had removed any questions from the original scale. This was because these amended scales would be difficult to compare with data extracted from the full scale. Small adaptations to the scale such as translation of the scale or changing questions specific to one country to make the scale more culturally appropriate were accepted.

Systematic review and protocol papers were also excluded as these studies did not themselves use the measure and therefore did not provide any original data for analysis.

Study Selection

The database searches produced 151 papers. Of these, 70 were removed as they were duplicates. The abstracts and methods sections of the 81 remaining studies were screened by the first author. Based on the inclusion and exclusion criteria described above 51 papers were excluded. The full texts of the remaining 30 studies were reviewed in full by the first author. At this point, a further 10 studies were excluded as they had used an amended version of the MHLS which involved the removal of questions. In addition, one study was removed as it did not provide data in a manner that could be reliably compared with the other studies, and a further three studies were excluded as the full papers could not be accessed. The authors of these four studies were contacted to rectify these issues but did not respond. The remaining 16 studies were included in the review. A second rater checked the included studies to ensure they met the inclusion criteria. See Figure 1 for a PRISMA flow chart of study selection.

Data Extraction and Analysis

The first author extracted the data from the 16 included studies. Data extraction forms were modelled on those developed by Cochrane Developmental, Psychosocial and Learning Problems (2014) and included data such as demographic information regarding the study sample, research questions and aims of the study, study design, mean MHLS scores, and additional variables measured within the studies. Given the variety of methodologies adopted in the selected studies, the data were analysed using a narrative synthesis approach (Siddaway et al., 2019).

The review aimed to use this methodology to answer a number of questions related to the use of the MHLS. Mean scores on the MHLS were extracted from the studies in order to summarise scores across different populations. The breadth of populations the scale has been used with was also examined in order to explore the generalisability and acceptability of the scale across cultures. The psychometric properties reported in the studies were extracted and compared in order to examine the validity and reliability of the scale. In order to explore the interrelations between MHL and other variables of interest, the variables measured alongside the MHLS in the reviewed studies and found to be related, were extracted and reported upon. Narrative synthesis was used to summarise the data generated from the reviewed studies in order to present a detailed understanding of how the scale has been used since its development. Two tables as well as effect direction plots were used to visually represent this information.

The risk of bias was examined for each selected study using the Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies by the National Heart Lung and Blood Institute (2016) (Appendix C). This approach was chosen due to the heterogeneity of research designs used in the reviewed studies. The tool focuses on observational cohort and cross-sectional studies which represented the majority of studies included, while also allowing flexibility for use in studies employing different methodologies. The tool contains 14 items rated on a *yes, no, other,* scale. The 14 items broadly assess the studies for potential selection bias, information bias, measurement bias, and possible confounding. The tool was used by the first author to examine the reliability, validity and generalisability of study data. A second rater completed the tool for 25% of the included studies and

inter-rater reliability was calculated (Kappa = 0.67, $p < .001$), showing substantial agreement between raters (Landis & Koch, 1977).

Given the range of items considered in the quality assessment tool, not all items were relevant for all papers. For instance, questions six to ten assess the quality of an exposure of interest which was not relevant to measure development studies in which an exposure or manipulation was not present. The focus of the tool is to support professional judgement of the extent to which the highlighted items might contribute towards bias. With this in mind a consensus discussion was had between the first and second authors in order to conclude whether the identified potential for bias may have resulted in actual bias within the study. The guidance provided with the tool was used to guide these discussions (Appendix C). A rating of *poor*, *fair* or *good* was given to each study. A rating of *poor* was given to studies perceived to have a large risk of bias, *fair* to those with some probable bias and *good* to those deemed to have only a small risk of bias.

Figure 1

PRISMA Flow Chart of Study Selection


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┌────────────────────────────┐
│ Studies identified through │
│ database searches          │
│ N = 151                    │
└────────────────────────────┘
              │
              │────────────────────────►┌──────────────────────┐
              │                         │ Duplicates removed    │
              │                         │ n = 70                │
              ▼                         └──────────────────────┘
┌────────────────────────────┐
│ Abstracts and method       │
│ sections reviewed          │
│ n = 81                     │
└────────────────────────────┘
              │
              │                         ┌──────────────────────────────────┐
              │                         │ Studies removed n = 51            │
              │                         │ • Did not use the scale n = 34    │
              │────────────────────────►│ • Only used two subscales n = 1   │
              │                         │ • Not published in peer reviewed  │
              │                         │   journal n = 4                   │
              │                         │ • Not published in English n = 1  │
              ▼                         │ • Systematic review or protocol   │
┌────────────────────────────┐         │   papers n = 11                   │
│ Full text reviewed n = 30  │         └──────────────────────────────────┘
└────────────────────────────┘
              │
              │                         ┌──────────────────────────────────┐
              │                         │ Studies removed n = 14            │
              │                         │ • Used amended version of         │
              │────────────────────────►│   MHLS n = 10                     │
              │                         │ • Did not provide comparable      │
              │                         │   data n = 1                      │
              ▼                         │ • Full text not accessible n = 3  │
┌────────────────────────────┐         └──────────────────────────────────┘
│ Studies included in the    │
│ review n = 16              │
└────────────────────────────┘
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Studies identified through database searches $N = 151$

Duplicates removed $n = 70$

Abstracts and method sections reviewed $n = 81$

Studies removed $n = 51$
- Did not use the scale $n = 34$
- Only used two subscales $n = 1$
- Not published in peer reviewed journal $n = 4$
- Not published in English $n = 1$
- Systematic review or protocol papers $n = 11$

Full text reviewed $n = 30$

Studies removed $n = 14$
- Used amended version of MHLS $n = 10$
- Did not provide comparable data $n = 1$
- Full text not accessible $n = 3$

Studies included in the review $n = 16$

Results

All 16 studies included in the review were quantitative, with the majority using a cross-sectional survey design (75%). One study used a cross-sectional experimental design, one was a measure development study and two studies evaluated interventions.

Exploration of the Definitions of MHL Used Within the Studies

The definition of MHL used in the reviewed studies varied. Eight of the studies used either Jorm's 1997 definition of "knowledge and beliefs about mental disorders which aid in their recognition, management or prevention" (Jorm et al., 1997, p.182) or his 2012 definition including the seven attributes of MHL (Jorm, 2012) (Clough et al. 2019; Gorczynski et al., 2020; White & Casey, 2017; Clough et al., 2020; Digal & Gagnon, 2020; Vermaas et al., 2017; Noroozi et al., 2018; O'Connor & Casey, 2015). The seven attributes comprise of the ability to recognise specific disorders, knowledge of how to seek information, knowledge of risk factors, knowledge of cause of mental illness, knowledge of self-treatment, knowledge of professional help available, and attitudes that promote recognition or appropriate help seeking behaviour. As suggested by Kutcher et al. (2016) five studies expanded these original definitions to include positive mental health promotion and stigma reduction (Marwood & Hearn, 2019; Gorczynski et al. 2017; Kim et al., 2020; Sullivan et al., 2019; Siti et al., 2020). Gorczynski and colleagues (2017) referred to the three domains of MHL outlined by Wei et al. (2013). These domains were knowledge of mental health problems, promotion of positive mental health, and knowledge of help-seeking behaviours (Wei et al., 2013). These domains were further broken down into the six attributes described by Jorm and colleagues (2005).

The three remaining studies did not provide a definition of MHL (Egan et al., 2019; Thai et al., 2020; Reupert et al., 2020).

Evaluation of the Psychometric Properties Reported for the MHLS

Satisfactory Cronbach's alpha coefficients were reported in all studies where this information was provided ($n = 13$). O'Connor and Casey (2015) reported good test-retest reliability of the measure and good construct validity with the General Help Seeking Questionnaire. Noroozi and colleagues (2018) also reported a content validity ratio of .90. The Cronbach's alpha coefficients for each study can be found in Table 1.

Reporting the Means and Standard Deviations of the MHLS Across Different Samples

Since its development in 2015 the MHLS has been used widely. The studies included in this review were completed in Australia, the United Kingdom (UK), the United States (US), Vietnam, Iran, Korea, Malaysia, Persia and Canada. The populations used in the studies also varied widely and included students, community populations, sports coaches and therapists, Christian clergy, housewives, teachers, mental health professionals, and youth with parents with mental health difficulties. However, half of the included studies used university student samples and students are thus over-represented within the findings.

Mean MHLS scores across the studies ranged from 102.75 ($SD = 10.17$) to 145.49 ($SD = 7.19$) and can be found in Figure 2. As can be seen from the figure, the means do not appear to vary based on any grouping variables. While formal significance testing was not completed, the mean scores do, however, appear to be lowest in samples from non-Western, non-English speaking countries.

Figure 2

Mean MHLS Scores with Standard Deviation Error Bars for Each Group Included

in the Reviewed Studies
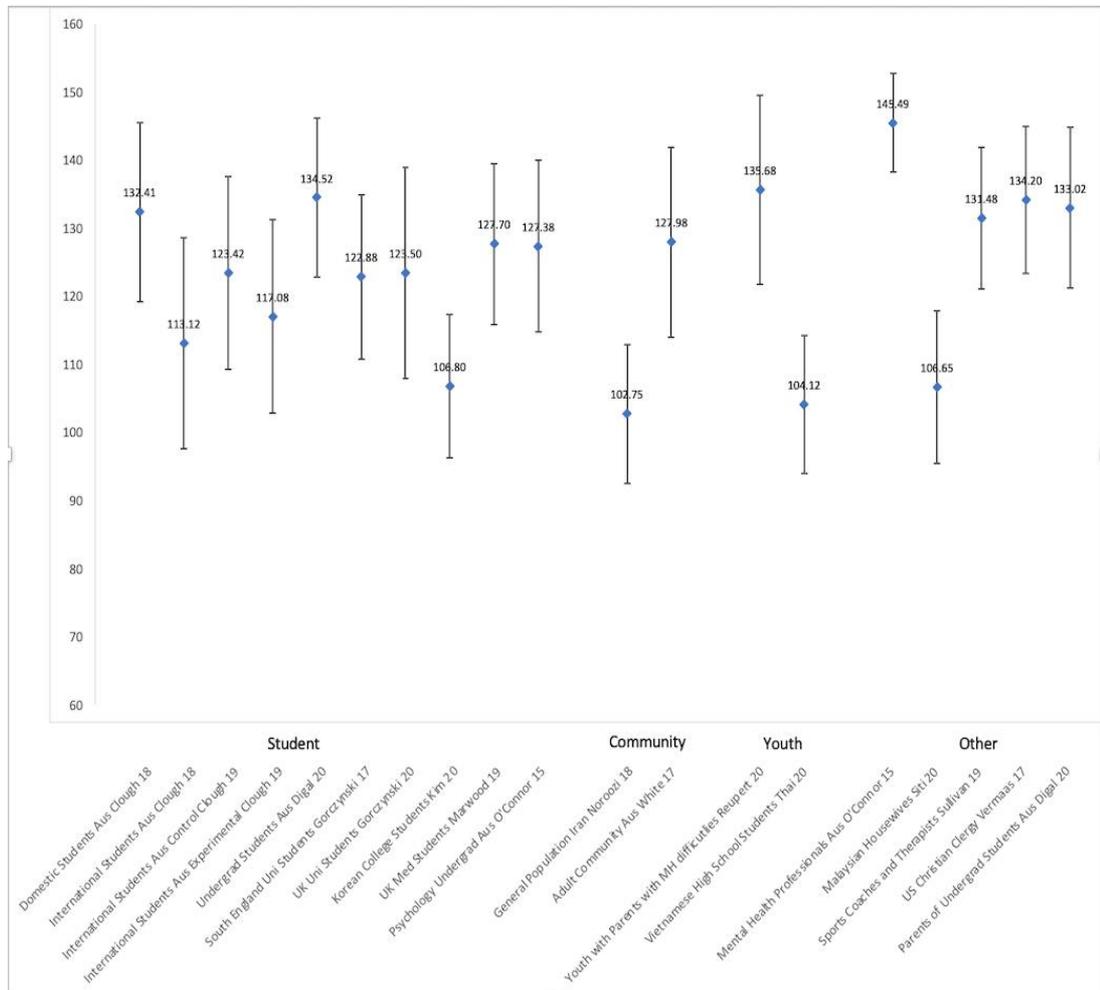
Note. Egan 2019 not included as no overall mean reported.

Identification of Additional Variables Found to be Related to the Scale

Demographic Information

A number of demographic factors were studied alongside MHL in the

included studies. Gender information was collected in all studies (although it is noted

that Siti 2020 had a sample restricted to housewives, implying exclusive female

gender). In seven studies females were found to have statistically significantly higher

levels of MHL than males (Clough et al., 2019; Digal & Gagnon, 2020; Gorczynski et al., 2017; Gorczynski et al., 2020; Marwood & Hearn, 2019; Sullivan et al., 2019; Vermaas et al., 2017). Noroozi et al. (2018) found no difference between the MHL scores of female and male participants. Examination of differences between males and females in MHLS scores was not reported in the remaining seven studies with gender information available (Clough et al., 2020; Egan et al., 2019; Kim et al., 2020; O'Connor & Casey, 2015; Reupert et al., 2020; Thai et al., 2020; White & Casey, 2017).

Having had previous personal, professional or familial experience of mental health difficulties or with mental health services was also explored in 11 out of 16 studies. Of these, six found that those with previous experiences had significantly higher MHL scores than those without (Clough et al., 2019; Gorczynski et al., 2017; Gorczynski et al., 2020; Marwood & Hearn, 2019; Noroozi et al., 2018; O'Connor & Casey, 2015). The remaining five studies did not report on differences in MHLS scores based on previous experiences of mental health (Clough et al., 2020; Digal & Gagnon, 2020; Kim et al., 2020; Thai et al., 2020; White & Casey, 2017).

Ethnicity information was collected in eight studies. MHLS scores were found to differ significantly among those of different ethnicities in two studies. In Marwood and Hearn (2019) medical students who identified as Black/ Black British were found to have lower MHL scores while those who identified as White/ White British and Asian/ Asian British were found to have the highest levels of MHL. Siti et al. (2020) also found differences between Malay and non-Malay participants. Six studies collected information on the ethnicity of the participants but did not report on differences between these groups with regards to MHLS scores (Clough et al., 2020;

Digal & Gagnon, 2020; Egan et al., 2019; O'Connor & Casey, 2015; Reupert et al., 2020; Thai et al., 2020).

Religious affiliation was measured in three studies. Siti et al., (2020) found that Muslim participants had higher MHL than non-Muslim participants. Vermaas and colleagues (2017) found no differences in clergy members of different Christian denominations. Thai et al. (2020) did not report on differences in MHL by religion.

With regards to education, two studies found that students in later years of their university studies had significantly higher scores on the MHLS (Gorczynski et al., 2017; Marwood & Hearn, 2019). Three studies found that higher levels of education in non-student populations was associated with higher MHLS scores (Noroozi et al., 2018; Siti et al., 2020; Vermaas et al., 2017). Table 1 contains complete demographic information by study. Table 2 shows an effect direction plot detailing significant associations between the MHLS and demographic variables.

Table 1

Demographic Information by Study

Study	Research question/ aim	Design	Population	*N*	MHLS Cronbach alpha	Age (M: Mean; R: Range)	Gender	Ethnicity	Study Quality
Clough 2019	To examine potential differences in mental health and related constructs of MHL and help-seeking attitudes between domestic and international students in Australia.	Cross-sectional survey study, convenience sample	Domestic and international students in Australia	357	.92	Domestic M = 25.34 SD = 9.32 R = 17-59 International M = 23.02 SD = 5.41 R = 17-52	Domestic F = 127 M = 30 International F = 125 M = 75	Not reported	Fair
Clough 2020	To construct and evaluate a brief online educational intervention designed to increase MHL and help-seeking attitudes among international tertiary students in Australia	Mixed factorial design with participants randomly allocated to control and experimental group	International students undertaking tertiary education in Australia	45	.92	M = 25.80 SD = 6.68 R = 17-52	F = 27 M = 18	Control: Asian 6 (32%), Middle Eastern 1 (5%), African 1 (5%), European 10 (53%), Indian 1 (5%) Experimental: Asian 8 (31%), Middle Eastern 2 (8%), African 3 (12%), European 4 (15%), Indian 3 (12%), South American 2 (8%), Canadian 1 (4%), Multiracial 2 (8%)	Fair

Study	Research question/ aim	Design	Population	N	MHLS Cronbach alpha	Age (M: Mean; R: Range)	Gender	Ethnicity	Study Quality
Digal 2020	Do student-parent relationships and contextual variables influence formal and informal help-seeking patterns? Is student and parent MHL, perceived stigma, and attitudes towards seeking professional help associated with students help-seeking intentions?	Cross sectional survey study, convenience sample	Dyads of undergraduate students and their parents living in Australia	236, 118 dyads	.85 students .86 parents	Students M = 19.93 SD = 1.82 R = 18 - 25 Parents M = 50.29 SD = 6.14 R = 34 - 64	Student F = 94 Parent F = 102	Student Caucasian 101, Asian/Pacific Islander 9, aboriginal/First Nations/Inuit/Métis 6, not disclosed 2 Parents not reported	Fair
Egan 2019	Examined the attributes of school-based interventions that are most preferred by teachers (aim 1), teachers' relative preference for three intervention packages with experimentally manipulated characteristics (aim 2), teacher characteristics that are most related to the above preference profiles (aim 3)	Discrete choice experimental design	Elementary school teachers working in a general education classroom in the US.	230	.89	32.4	F = 104 M = 122	White 171 (75.2%), Black 36 (16.1%), Asian 17 (7.8%), American Indian/ Alaskan Native 2 (0.9%)	Fair
Gorczynski 2017	To ascertain levels of MHL in UK university students and examine whether MHL is associated with better mental health outcomes and intentions to seek professional care.	Cross sectional survey design	University students in the south of England	380	.84	M = 20.94 SD = 2.59 R = 18 - 64	F = 146 M = 233 Not reported = 1	Not reported	Poor
Gorczynski 2020	To gain a UK wide perspective of MHL amongst University students and examine the relationship between MHL and mental	Cross-sectional survey design	UK university students	300	.90	M = 20.2 SD = 1.9 R = 18 - 25	F = 131 (43.7%) M = 162 (54.0%)	Not reported	Poor

Study	Research question/ aim	Design	Population	N	MHLS Cronbach alpha	Age (M: Mean; R: Range)	Gender	Ethnicity	Study Quality
	health help-seeking behaviours. To examine the relationship between MHL and mental health help seeking behaviours with distress, mental well-being and self-compassion.						Trans = 3 (1.0%) Other = 4 (1.3%)		
Kim 2020	Examine the hypothetical relationships and direct and indirect pathways between multiple study variables in order to understand the process of mental health help-seeking among Korean college students.	Cross sectional structured equation modelling design, convenience sample	College students enrolled in a major or elective class at one of four universities	200	.76	Not reported	F = 107 (53.8%) M = 92 (46.2%)	Not reported	Poor
Marwood 2019	To evaluate MHL in medical students in the UK and validate the MHLS in medical students	Cross sectional survey study	UK medical students from eight Universities	251	.84	M = 21.52 SD = 3.18 R = 18-39	F = 168 (66.9%) M = 83 (33.1%),	White/White British 92 (55.8%), Asian/Asian British 51 (30.9%) Black/Black British 8 (4.8%) Mixed Race 7 (4.2%) 7 Other (4.2%)	Fair
Noroozi 2018	To examine the relationships between MHL and health-promoting behaviours and to assess the contributions of MHL through mediation to demographic characteristics	Cross sectional survey study, convenience sample	General public Bushehr city Iran	378	.74	M = 32.3 SD = 7.9	F = 196 (51.9%)	Not reported	Fair

Study	Research question/ aim	Design	Population	N	MHLS Cronbach alpha	Age (M: Mean; R: Range)	Gender	Ethnicity	Study Quality
	in health-promoting behaviours.								
O'Connor 2015	To use a comprehensive methodological approach to develop a new scale-based measure of MHL to provide a methodologically robust and time-efficient means to assess an individual's MHL. To develop a psychometrically and methodologically strong measure that would enable assessment of all attributes of MHL.	Measure development study	Community sample – first year undergrad psychology students Mental health professionals sample - psychologists	415	.87	Community M = 21.10 SD = 6.27 R = 17 - 55 Mental Health Professionals M = 33.09 SD = 8.01	Community F = 278 M = 94 Mental Health Professionals F = 37 M = 6	Community Caucasian 73.7% Mental Health Professionals Caucasian 86.0%	Fair
Reupert 2020	To conduct an initial evaluation of mi.spot regarding its acceptability, safety, and potential to improve the mental health and well-being of young people who have parents with a mental illness and/or substance use issues.	Uncontrolled single group design to determine preliminary effectiveness of the intervention	Youth with a parent with mental illness and/or substance use issue	31	Not reported	M = 21.83 SD = 2.18	F = 29 (93.5%) Nonbinary = 1 (3.2%) Not specified = 1 (3.2%)	Australian 18 (58.1%) White European 5 (16.1%) Asian 3 (9.7%) Indian 1 (3.2%) Middle eastern 1 (3.2%) American 1 (3.2%) Other 1 (3.2%) Not Specified 1 (3.2%)	Poor
Siti 2020	Explored MHL and the sociodemographic factors associated with it, in a group of housewives living in low-cost apartments in Puchong,	Cross sectional survey study	Housewives in two low-cost apartment blocks in	103	.76	30 – 64yrs = 64 (62.1%) 17 -29yrs = 39 (37.8%)	All female	Malay 80 (77.7%) Chinese 9 (8.7%) Indian 9 (8.7%) Others 5 (4.9%)	Fair

Study	Research question/ aim	Design	Population	N	MHLS Cronbach alpha	Age (M: Mean; R: Range)	Gender	Ethnicity	Study Quality
	a district in Selangor, Malaysia.		Selangor Malaysia						
Sullivan 2019	To investigate the levels of MHL in coaches and athletic therapists in the intercollegiate sporting system	Cross sectional survey study	Coaches and athletic therapists from 19 universities in Canada	80	.85	M = 43.86 SD = 11.03	F = 24 (30%) M = 54 (67.5%)	Not reported	Poor
Thai 2020	To evaluate MHL level and help-seeking preferences in high school students in Ho Chi Minh City Vietnam.	Cross-sectional survey study	High school students from three schools in Ho Chi Mihn City Vietnam	1075	Not reported	Not reported	F = 604 (56.2%) M = 471 (43.8%)	Kinh 831 (77.3%) Hoa 238 (22.1%) Other 6 (0.6%)	Good
Vermaas 2017	To examine the MHL of Christian Clergy in the US and to evaluate denominational affiliation, educational variables, and demographic characteristics as potential predictors of this.	Cross-sectional survey design	US Christian Clergy	238	Not reported	35 – 64yrs = 83.6%, 55 - 64yrs = 83 45 - 54yrs = 66, 35 - 44yrs = 50.	F = 76 (31.9%) M = 162 (69.1%)	Not reported	Fair
White 2017	To investigate whether MHL is associated with adults' likelihood of supporting an older relative to seek professional help for mental health concerns.	Cross-sectional survey study	Adults from a community sample	263	.89	17 – 24yrs = 65, 25 – 64yrs = 102, 65 and over = 96	F = 187 (71.1%) M = 74 (28.1%)	Not reported	Poor

Table 2

Effect Direction Plot for Demographic Variables by Study

Study	Female	Older age	Higher Education	Experience of MH	International Student	Later year of study	Non Heterosexual	Mental Health Training	Higher Income
Clough 2019	▲	↔	–	▲	▼	▲	–	–	–
Clough 2020	●	●	–	●	–	●	–	–	–
Digal 2020	▲ *	●	–	●	–	●	–	–	●
Egan 2019	●	●	●	–	–	–	–	–	–
Gorczynski 2017	▲	●	–	▲	–	▲	↔	–	–
Gorczynski 2020	▲	●	–	▲	–	↔	▲	–	–
Kim 2020	●	–	–	●	–	●	–	–	–
Marwood 2019	▲	●	↔	▲	–	▲	↔	–	–
Noroozi 2018	↔	●	▲	▲	–	–	–	–	↔

Study	Female	Older age	Higher Education	Experience of MH	International Student	Later year of study	Non Heterosexual	Mental Health Training	Higher Income
O'Connor 2015	●	●	●	▲	-	-	-	▲	-
Reupert 2020	●	●	●	-	-	-	-	-	-
Siti 2020	-	↔	▲	-	-	-	-	-	▲
Sullivan 2019	▲	▼	-	-	-	-	-	-	-
Thai 2020	●	-	-	●	-	●	-	-	●
Vermaas 2017	▲	↔	↔	-	-	-	-	▲	-
White 2017	●	▼	●	●	-	-	-	-	-

Note. ▲▲▲ positively correlated with MHL ▼▼▼ negatively correlated with MHL ↔↔↔ not significantly correlated with MHL ●●● variables measured but not analysed with regards to MHL ▬ variable not measured. Size of symbols based on quality of study, small = poor, medium = fair, large = good. *Direction of correlation not specified.

Additional Measures

All but three of the 16 studies used additional measures alongside the MHLS. The measures used explored help seeking behaviour, the mental health of participants and their friends and family, stigma, social support, health behaviours, self-efficacy and teacher beliefs. Help-seeking was measured in 10 of the 16 studies. The most common measure of this was the General Help Seeking Questionnaire (GHSQ) (Wilson et al., 2005) which was used in eight studies. Three of these studies found that scores on the GHSQ were positively correlated with scores on the MHLS (Gorczynski et al., 2017; O'Connor & Casey, 2015; White & Casey, 2017). The second most frequently used measure of help-seeking was the Attitudes Towards Seeking Professional Psychological Help scale (Fischer & Farina, 1995). This measure was used by Kim et al. (2020) who found that higher MHLS scores were associated with more positive attitudes towards seeking help, and Digal and Gagnon (2020) who did not test the relationship between the scales. Digal and Gagnon (2020) did however, find that higher scores on the MHLS were associated with higher scores on the Mental Help-Seeking Intentions scale (Hammer & Spiker, 2018) but only for the students in their sample, not for the parents. A total of seven measures of help-seeking were used across nine studies. No relationship was reported between MHL and help-seeking in four of the studies that measured it (Clough et al., 2019; Clough et al., 2020; Gorczynski et al., 2020; Thai et al., 2020).

Measures relating to the mental health and well-being of the participants were used in seven of the 16 studies. The most commonly used measure of mental health was the Kessler Psychological Distress Scale (K-10) (Kessler et al., 2003). This measure was used in five studies and was not reported to be related to MHLS scores in any (Clough et al., 2019; Digal & Gagnon, 2020; Gorczynski et al., 2017;

Gorczynski et al., 2020; O'Connor & Casey, 2015). The second most commonly

used measure was the Depression and Anxiety Stress Scale (DASS-21) (Antony et

al., 1998) which was used in three studies (Egan et al., 2019; Reupert et al., 2020;

Thai et al., 2020). Thai et al. (2020) found that MHLS scores were lower in students

who reported symptoms of depression in their sample. No relationship was reported

with scores on the anxiety or stress subscales. No other studies reported a

relationship between scores on the DASS-21 and the MHLS. Seven other measures

related to the mental health and well-being of participants were used across the

studies, none of which were found to be related to MHLS scores.

Stigma was explored in two studies (Digal & Gagnon, 2020; Kim et al.,

2020) and found to be related to MHL in only one. Kim et al. (2020) found that

MHL had a significant direct effect on stigma and an indirect effect on help-seeking.

The study concluded that stigma mediated the effect of MHL on help-seeking, with

higher MHLS scores being associated with lower stigma scores which in turn were

associated with higher help-seeking attitudes.

Noroozi et al. (2018) explored the links between MHL and health promoting

behaviours and found that MHLS scores were positively correlated with scores on

the Health-Promoting Lifestyle Profile II (Walker et al., 1987). None of the other

measures explored across the studies were reported to be related to MHLS scores.

Table 3 contains MHLS scores, additional measures used and conclusions reached

by the reviewed studies. Table 4 contains an effect direction plot which depicts the

nature of the relationship between MHL and additional measures used in the studies.

Only studies in which other measures were used were included. Measures that were

not analysed in terms of their relationship with MHL in at least one study were

excluded from the table. A full list of measures and their references can be found in

Appendix D.

Table 3

MHLS Scores, Additional Measures Used and Conclusions by Reviewed Study

Study	MHLS score	Other measures and CA	Conclusions drawn	MHL associated with	MHL group contrasts
Clough 2019	Domestic M = 132.41 SD = 13.12 International M = 113.12 SD = 15.54	K-10 (.91) Inventory of Attitudes towards Mental Health Services (.86) GHSQ (.72, .77)	International students reported lower help-seeking intentions for suicidal thoughts, and greater barriers to help-seeking including lower MHL and less favourable attitudes towards seeking help. MHL was lower among males, students who had been studying for less time and students who had not previously had contact with mental health services. Student group was the strongest predictor of MHL.	None reported	*Lower MHL* Male International student Shorter time at university No previous contact with mental health services
Clough 2020	Pre Intervention Control M = 123.44 SD = 14.56 Experimental M = 117.52 SD = 15.06 Post Intervention Control M = 121.39 SD = 19.00 Experimental M = 117.71 SD = 16.71	Inventory of Attitudes toward Mental Health Services (IAMHS) (.86), GHSQ	The intervention led to increased overall help-seeking attitudes, and specifically reduced stigma, at post-intervention relative to pre-intervention. The intervention did not significantly impact upon MHL or help-seeking intentions.	No measures correlated	None reported

Study	MHLS score	Other measures and CA	Conclusions drawn	MHL associated with	MHL group contrasts
Digal 2020	Student M = 134.52 SD = 11.63 Parent M = 133.02 SD = 11.77	Mental Health Information Questionnaire (developed for this study) Inventory of Parent and Peer Attachment (.94) K-10 (.93) students, (.90) parents Mental Illness Stigma Scale (.80) students and parents Attitudes Toward Seeking Professional Psychological Help Short Form (.77) student, (.78) parents GHSQ (.74) students, (.70) parents Mental Help-Seeking Intention Scale (.93) students (.89) parents.	Student MHL and attitudes toward seeking psychological help are predictive of student's help-seeking intentions. Students with greater MHL and more positive attitudes toward help-seeking reported higher help-seeking intentions. Parent variables had an influence on students' help-seeking intentions.	High MHL associated with higher Mental Health Seeking Intentions for students only	None reported
Egan 2019	SEL Group M = 123.82 SD = 15.09 SBC Group M = 121.91 SD = 15.45 SP Group M = 103.69 SD = 8.55	Teacher Beliefs Inventory (.69) The Need for Cognition Scale (.91) Teacher Concerns Inventory (.94) DASS-21 (.93, .92) The ADHD Self-Report Scale Screener (.80)	Teacher level factors specifically stress, mental health symptoms, MHL and need for cognition, are associated with teachers' preferences for types of interventions. Techers who preferred the support programme (less intensity) endorsed lower levels of intervention-supportive beliefs, need for cognition, and MHL and higher levels of stress and symptoms of anxiety, depression and ADHD than other groups.	None reported	*Lower MHL* associated with teachers' preferences for lower intensity intervention for children with emotional and behavioural problems

Study	MHLS score	Other measures and CA	Conclusions drawn	MHL associated with	MHL group contrasts
Gorczynski 2017	M = 122.88 SD = 12.06 R = 87 - 160	GHSQ K10 (.92) WEMWEBS (.92)	MHLS was significantly positively correlated with GHSQ indicating that individuals with higher MHLS scores were more likely to seek help for their mental health problems. MHL scores increased with year of study. No significant relationship found between MHLS and K10 or WEMWEBS. Overall MHL in UK students was below that of previous findings in Australian sample (M = 127.38). Women and those who indicated a previous mental health difficulty had significantly higher levels of MHL.	MHLS positively correlated with GHSQ	*Higher MHLS* Women Those with previous mental health difficulty Those in later years of study
Gorczynski 2020	M = 123.5 SD = 15.5 R = 83 - 154	GHSQ K-10 (.92) WEMWEBS (.94) Self-Compassion Scale-Short Form (.85)	UK students report lower MHL than students in Australia (M = 127.38) Women, bisexuals, and those with a history of mental disorders indicated significantly higher levels of MHL. No significant correlations found between MHL and help-seeking behaviours, distress, mental well-being or self-compassion.	None reported	*Higher MHL* Women Bisexual History of mental disorder
Kim 2020	M 106.80 SD = 10.54 R = 35 - 175	Intentions to Seek Counselling Inventory (.90) Attitudes Toward Seeking Professional Psychological Help (.71) Stigma Scale for Receiving Psychological Help (.84)	MHL had a direct effect on attitudes toward help-seeking and an indirect effect through stigma. Attitudes toward help-seeking had a direct effect on help-seeking intentions. This implies that students with higher MHL are likely to have better attitudes towards help-seeking which enhances their intentions to seek help.	The higher the MHL the lower the stigma Higher MHL higher attitudes towards help-seeking Stigma mediated the positive effects of higher MHL on help seeking-attitudes	None reported

Study	MHLS score	Other measures and CA	Conclusions drawn	MHL associated with	MHL group contrasts
		Self-stigma of Seeking Help Scale (.72) Perceived Barriers to Care Scale (.84; .71) Social Support Scale (.97)	MHL had significant direct effects on stigma and stigma directly impacted attitudes toward help-seeking. MHL leads to a reduction in stigma which eventually enhances attitudes toward help-seeking.		
Marwood 2019	M = 127.69 SD = 11.82 R = 90 - 153	The mental health experience questionnaire (five items made for this study)	Mean MHL score for medical students comparable to non-medical students. MHL scores increase with years of training. Students in later years had significantly higher scores on overall attitudes towards mental health. Females better knowledge of disorders and help available as well as more positive attitudes than their male peers. Individuals who have greater direct or indirect experience of mental illness have significantly higher levels of MHL. Medical students demonstrated high recognition of disorders.	None reported	*Higher MHL* Increased years of study Female Previous experience of MH difficulties White/White British and Asian/Asian British *Lower MHL* Black/ Black British
Noroozi 2018	M = 102.75 SD = 10.17 R = 59 - 136	Health-Promoting Lifestyle Profile II (.92)	Participants with low education as well as those without personal or family experience of mental disorder had lower MHL scores. Significant association between MHLS and HPLP on all its subscales. Individuals who reported higher MHL had higher health promoting behaviours. In a regression MHL was predicted by education level and personal/family history of mental disorder.	Higher MHL associated with higher HPLP	*Lower MHL* Lower education Without personal or familial experience of mental disorder

Study	MHLS score	Other measures and CA	Conclusions drawn	MHL associated with	MHL group contrasts
			MHL presented a significant contribution in predicting health-promoting behaviours and functioned as a mediator between education level and health-promoting behaviours. Not a mediator for personal/family history.		
O'Connor 2015	Community M = 127.38 SD = 12.63 R = 92 - 155 Mental Health Professionals M = 145.49 SD = 7.19	GHSQ K-10	Mental Health Professionals significantly higher MHL than community. Individuals with greater indirect or direct experience with mental illness have higher MHL. Scores significantly correlated with help-seeking. Not significantly correlated with psychological distress.	Positively correlated with GHSQ	*Higher MHL* Mental health professionals Greater direct or indirection experience with mental illness
Reupert 2020	Pre M = 135.68 SD = 13.91 Post M = 135.77 SD = 20.83 6 wk. post M = 135.19 SD = 22.22	The Mental Health Continuum Short Form DASS-21 Coping Orientation to Problems Experienced GHSQ Social Connectedness Scale General Self-Efficacy Scale	mi.spot was found to be safe, acceptable, and having impact, with significant reductions in participants depression and stress at 6-week post-intervention. There was no change in general help seeking, social connectedness, MHL, self-efficacy, or attribution. Could be no change in MHL as scores were already above the 80th percentile.	None reported	None reported
Siti 2020	M = 106.65 SD = 11.21	NA	MHL significantly higher among Malay and Muslim participants. MHL higher among those with tertiary education and higher monthly income. MHL is low and is associated with ethnicity, religion, educational background and monthly family income.	NA	*MHL Higher* Malay Muslim Tertiary education Higher monthly household income
Sullivan 2019	M = 131.48 SD = 10.34	NA	Females higher MHL than males.	NA	*MHL Higher* Female

Study	MHLS score	Other measures and CA	Conclusions drawn	MHL associated with	MHL group contrasts
			MHL significantly negatively correlated with age and total experience, age and total experience extremely highly correlation. No difference in MHL between Coaches and Athletic Therapists		Younger Less experience
Thai 2020	M = 104.12 SD = 10.09	DASS-21 GHSQ	Students had moderate levels of MHL, scores lower compared to other studies of university students in UK and Australia. Students demonstrated good ability to recognize some common mental health disorders but lacked knowledge of sources of professional support. MHL lower in students with symptoms of depression.	Not reported	*MHL Lower* Students with symptoms of depression
Vermaas 2017	M = 134.20 SD = 10.83	NA	No significant difference among MHL scores from four different denominations. MHL score significantly higher than community sample and significantly lower than mental health professionals from O'Connor and Casey 2015. Female gender and number of clinical mental health training courses significantly positively predicted MHL scores. Catholic clergy demonstrated above average MHL with higher scores than general population. No differences based on denomination.	NA	*MHL Higher* Female Higher number of clinical mental health training courses
White 2017	M = 127.98 SD = 13.92	GHSQ-Kin (.68) (adapted version)	There was a significant positive association between MHLS and GHSQ-Kin indicating that participants with higher MHL scores reported stronger intentions to support elderly kin with help-seeking.	MHLS significantly positively correlated with GHSQ-Kin	Not reported

Table 4

Effect Direction Plot Displaying Relationships Between Additional Measures Used and MHLS

	Clough 2019	Clough 2020	Digal 2020	Egan 2019	Gorczynski 2017	Gorczynski 2020	Kim 2020	Noroozi 2018	O'Connor 2015	Reupert 2020	Thai 2020	White 2017
Help-Seeking												
General Help-Seeking Questionnaire	●	●	●	–	▲	↔	–	–	▲	–	●	▲ *
Attitudes Towards Seeking Professional Psychological Help	–	–	●	–	–	–	▲	–	–	–	–	–
Mental Help Seeking Intentions Scale	–	–	▲ **	–	–	–	–	–	–	–	–	–
Intentions to Seek Counselling Inventory	–	–	–	–	–	–	↔ ***	–	–	–	–	–
Perceived Barriers to Care Scale	–	–	–	–	–	–	↔	–	–	–	–	–
Mental Health												

	Clough 2019	Clough 2020	Digal 2020	Egan 2019	Gorczynski 2017	Gorczynski 2020	Kim 2020	Noroozi 2018	O'Connor 2015	Reupert 2020	Thai 2020	White 2017
K-10	●	▬	●	▬	↔	↔	▬	▬	⬌	▬	▬	▬
DASS-21	▬	▬	▬	●	▬	▬	▬	▬	▬	●	▼****	▬
WEMWEBS	▬	▬	▬	▬	↔	↔	▬	▬	▬	▬	▬	▬
The Self-Compassion Scale Short-Form	▬	▬	▬	▬	▬	↔	▬	▬	▬	▬	▬	▬
Stigma												
Stigma Scale for Receiving Psychological Help	▬	▬	▬	▬	▬	▬	▼	▬	▬	▬	▬	▬
Self-Stigma of Seeking Help	▬	▬	▬	▬	▬	▬	▼	▬	▬	▬	▬	▬
Physical Health												
Health-Promoting Lifestyle Profile II	▬	▬	▬	▬	▬	▬	▬	▲	▬	▬	▬	▬

Note. ▲▲▲ positively correlated with MHL ▼▼▼ negatively correlated with MHL ↔⬌⬌ not significantly correlated with MHL ●●● variables measured but not analysed with regards to MHL ▬ variable not measured. Size of

symbols based on quality of study, small = poor, medium = fair, large = good. *GHSQ-Kin modification of GHSQ **Significant association for students only not parents ***Mediator effect found but no direct effect ****Significant association for depression subscale only.

Discussion

A total of sixteen studies using the MHLS (O'Connor and Casey, 2015) were reviewed to examine how the measure has been used since its development. The psychometric properties, mean scores, variables found to be related to the scale, populations studied, and the definition of MHL used in the studies were extracted and reported. The measure has been used in a wide variety of countries and a range of different samples, though students were notably over-represented. The definitions of MHL used were mainly based around Jorm and colleagues' (1997; 2012) conceptualisations. Some did, however, expand their definitions based on more recent ideas. The psychometric properties reported in the studies generally suggested positive reliability of the scale, although these were largely limited to Cronbach's alpha coefficients. In terms of the demographic variables related to MHL a wide range of variables overall have been considered in the literature, but few were included in more than a small number of studies. Similarly, other variables linked to MHL were not measured consistently across studies. Replication is thus needed in order to be able to make robust conclusions regarding these relationships, and a positive contribution of this review is to identify the factors and questions that should be considered next through research.

As discussed in the introduction, there has been much debate around the definition of MHL and whether it is in fact a single concept. The majority of studies referred, at least in part, to one of Jorm's conceptualisations (Jorm et al., 1997; Jorm, 2012). Given that the MHLS was based around Jorm and colleagues (1997) definition this is not surprising. It is, perhaps, more surprising given the link between this definition and the measure, that not all studies employed it. More recent additions to the definition were considered by five studies which suggests some

acceptance in the field that concepts such as the promotion of positive mental health, stigma, attitudes towards mental health difficulties and help-seeking efficacy are a part of MHL (Spiker and Hammer, 2019). The differences in views regarding the conceptualisation itself means that much of the validity of the research considered in this review does depend, in turn, on the validity of the underlying concept of MHL. If, as has been suggested, MHL should be conceptualised as a multidimensional construct rather than a single concept, then data gleaned from studies using narrower conceptualisations of MHL may be less valid. An obvious gap in the literature seems to be the more fundamental consideration of the assumptions behind the wider understanding and definition of MHL.

The psychometric properties of the MHLS have been criticised by Spiker and Hammer (2019). The present review suggests good internal consistency with Cronbach's alpha coefficients ranging from .74 to .92 in the studies for which this was reported. There was, however, evidence of a lack of consideration of other psychometric properties of the scale. O'Connor and Casey (2015) reported good test-retest reliability and good construct validity with the General Help Seeking Questionnaire (Wilson et al., 2005). Noroozi (2018) reported a content validity ratio of .90. While the figures reported do suggest good psychometric performance, more robust interrogation of the scale in this manner would be useful. A review of the psychometric properties of MHL measures by Fulcher and Pote (2021) also recommended further investigation of this.

The mean scores for the MHLS were reported for each study and can be found in Figure 2 and Table 3. Half of the included studies used university student populations and this group are therefore over-represented. This population are the only group who have been sampled more than once using the MHLS and thus

replication in other samples is needed. While formal significance testing was not carried out, the mean scores between groups appear broadly similar. It was noted, however, that what appeared to be the lowest mean scores were recorded in studies with populations from non-English speaking countries. As the measure was developed in English in Australia this could suggest some differences related to the translation of the measure, or that cross-cultural differences exist, suggesting the understanding of mental health adopted by the MHLS may not be shared in all populations. Furnham and Hamid (2014) have noted differences in findings from Western and non-Western populations in relation to MHL. Further research with a focus on cross-cultural understanding and measurement of MHL is needed.

A wide range of demographic variables was measured in the included studies. As can be seen from the effect direction plots (Tables 2 and 4) these variables were not measured consistently across studies and even those that were consistently measured were not routinely compared to MHLS scores. Replication is needed with regards to these factors, as robust conclusions cannot be drawn from results based on a small number of studies.

Some tentative conclusions, however, might be drawn. Being female and having previous experience of mental health difficulties, either direct or indirect, appeared to be commonly related to higher MHLS scores. Similar findings have been reported in numerous populations using a number of different measures of MHL (Cotton et al., 2006; Cutler et al., 2018; Furnham & Hamid, 2014). Both lower age and higher educational attainment were found to be related to higher MHL in two studies and found not to be related in a further two studies. These variables in particular warrant further investigation. Younger age has been found to be associated with higher MHL in a number of other studies (Furnham & Hamid, 2014). Ethnicity

is also a variable of considerable interest. This was found to be related to MHLS

scores in both of the studies in which it was analysed. This taken with the suggestion

that populations from non-Western countries may display lower MHLS scores could

suggest that cultural or ethnic differences in the understanding of mental health may

not be taken into account by the measure. It is also possible that social or cultural

factors such as education or stigma surrounding mental health difficulties in different

countries may contribute to lower scores rather than being related to a problem with

the measure.

Similarly, other non-demographic variables studied were varied and

inconsistent. The variable that produced the most robust findings was help seeking.

The GHSQ in particular showed a positive relationship with MHL in three studies,

however one study reported no relationship. Five measures of help seeking were

used and a total of five positive relationships were found, including those using the

GHSQ. Three studies reported no relationship.

Perhaps the most frequently occurring finding relating to other variables

measured was the lack of a relationship between the MHLS and the K-10 measure of

psychological distress. This was measured in five studies and significance tests were

conducted in three, all of which found no relationship. Measures relating to the

mental health and well-being of the participant were tested in seven studies using

four measures. The DASS-21 was the only measure of mental health that was found

to be related in any study (a negative relationship between the depression subscale

and MHLS scores in Thai et al. (2020)). While replication is needed, this suggests

broadly that the mental health of the participant at the time of the study is not related

to their MHL.

The relationship between stigma and MHL has been explored with mixed findings. Some studies suggest that, in line with Allport's (1954) intergroup contact theory, contact with individuals with mental health difficulties can reduce stigma towards them. The data related to previous experience with mental health difficulties previously described could suggest that this concept holds true for MHL. Some researchers have proposed a knowledge-contact approach to reducing stigma which consists of increasing the public's MHL and contact with those with mental health difficulties. Interventions based around this theory have been shown to reduce stigma (Corrigan et al., 2007). Other studies have, however, found that increasing MHL could have negative consequences for desired social distance (Lauber et al., 2005). The relationship between stigma and MHL was only tested in one of the reviewed studies. Kim et al. (2020) used two measures of stigma and found both to be negatively associated with MHL. Further research into the relationship between stigma and the MHLS is needed given the mixed findings from previous studies and the lack of investigation within the reviewed studies.

The quality of the studies included in the review were evaluated using the National Heart, Lung, and Blood Institute (2016) Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies. Using this tool six studies were deemed to be of poor quality, nine of fair quality and one of good quality. This suggests that there was some level of risk of bias in most of the studies included in the review. Further studies of good quality should be undertaken in order to increase the level of confidence with which conclusions can be drawn from the literature. Conclusions drawn from the current literature base and this review should be interpreted with caution.

Limitations

This review focused solely on the use of the MHLS as developed by O'Connor and Casey (2015). As has been discussed, this scale focuses on the measurement of MHL as conceptualised by Jorm and colleagues (1997). In light of recent adaptations and additions to the concept of MHL within the field, this systematic review has thus focused on a measure with a relatively narrow view of the concept of MHL. Jorm's conceptualisation has also been criticised for being largely based on the Diagnostic and Statistical Manual of Mental Disorder (DSM IV) (American Psychiatric Association, 1994) which presents a predominantly medical model of mental health difficulties (Yu et al., 2015). While it was not the aim of this review to look at conceptualisations of MHL beyond that of the MHLS, this could be viewed as a limitation.

Focusing solely on the MHLS means that any conclusions made regarding MHL and its relationships with other variables are generalisable only to the MHLS. This review has focused on how the scale has been used since it was developed, it has therefore not looked at studies in which the MHLS was not used. As was described in the introduction, there are a large number of other measures of MHL available and used within the field. When the MHLS was developed, the Jorm (1997) vignette measure was the most widely used. A recent systematic review of the psychometric properties of global MHL measures by Fulcher and Pote (2021) identified seven measures of MHL, five of which were questionnaires. The Mental Health Promoting Knowledge-10 (Bjørnsen et al., 2017) and the Multicomponent Mental Health Literacy Measure (Jung et al., 2016) were deemed the most psychometrically robust of those reviewed, including the MHLS. While the Mental Health Promoting Knowledge-10 was designed to measure the MHL of adolescents,

the Multicomponent Mental health Literacy Measure was developed to assess the

MHL of lay people and measures similar attributes of MHL to the MHLS. This

measure in particular warrants further investigation and comparison with the MHLS.

In understanding how the MHLS was used it would be interesting to look at

when and why it was not used. To the knowledge of the researcher no review has for

example, explored the percentage of studies of MHL that have used each of the

available measures. Similar information could be gleaned from a review of studies

that modified or used only some of the questions from the MHLS, which were

excluded from the current review (11 studies excluded for this reason). While this

was necessary in order to be able to compare results from different studies it risked

omitting some potentially valuable data. Analysis of why researchers have chosen

one measure over another or chosen to modify the MHLS could shed some light on

the acceptability of the MHLS as well as giving an indication as to which

components of MHL researchers deem most important. These data could also

provide some insight into the acceptability of the recently expanded definitions of

MHL.

Research Implications

This review provides some useful insights for researchers who are

considering using the MHLS. The review shows that although the scrutiny of the

psychometric properties of the measure was limited mainly to that of internal

consistency, the reliability of the scale appears to be satisfactory based on results

from a number of studies. The MHLS has been used in a relatively large number of

studies with varying samples and appears to produce broadly similar mean scores.

As it is a self-report measure it is simple to administer and can produce a single

score which can be easily calculated and compared between groups. The review

suggests some tentative relationships between variables such as gender and experience of mental health difficulties and the MHLS which are commonly found and perhaps need less replication. The review also highlights some areas which need further investigation such as age, ethnicity and cross-cultural influences.

Research has been conducted comparing various measures of MHL however comparison of measures was not within the remit of this review. Previously, reviews have been completed exploring the psychometric properties of measures (Fulcher & Pote, 2021), single score measures (O'Connor et al., 2014) and the breath of measures of three domains of MHL (Wei et al., 2015) and can offer recommendations on which measures to choose.

The current review has however discussed the broader issue of the definition and scope of the concept of MHL itself. As any measure of a concept fundamentally relies on the validity of that concept, the use of any measure of MHL needs to be undertaken with caution. Further exploration of MHL in order to reach a consensus understanding and definition is needed before any measure can be used with complete confidence in conclusions drawn.

Conclusion

This systematic review sought to understand how the MHLS has been used since it was developed by O'Connor and Casey (2015). Its psychometric properties and mean scores along with the definitions of MHL, populations studied and related variables measured in the studies were explored. The definitions used in the included studies varied and highlights the lack of consensus definition in the literature. The results suggest that the scale shows good psychometric properties but that this needs further, more rigorous evaluation in future studies. The mean scores of the studies did not suggest variation based on any sample grouping variable with the exception

that studies taking place in non-Western countries appeared to produce lower mean scores. The review shows that other variables measured in studies using the MHLS vary widely and are not measured in a consistent manner. The results suggest that being female and having previous experience of mental health, either direct or indirect, are associated with higher MHL. Age, educational attainment and ethnicity warrant further investigation as to their relationships with MHL. There appears to be a relationship between the MHLS and the GHSQ but this needs further investigation. The mental health or wellbeing of an individual does not appear to be related to their MHL.

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Chapter Two

Bridging Chapter

Bridging Chapter

A systematic review has been presented which has suggested that further research into MHL using the MHLS is needed. It has also suggested that MHL has links with a wide variety of variables but these links have not been sufficiently replicated. The debate regarding the conceptualisation of MHL has been discussed and shows that while there is no one definition agreed on by all, there are certain elements that seem commonly accepted across definitions. Knowledge of and beliefs about mental health difficulties are mentioned in the earlier definitions of MHL (Jorm et al., 1997; Jorm, 2012) as well as the more recent ones (Wei et al., 2015). The ability to recognise a mental health difficulty is also commonplace. These abilities could be relevant to a range of situations in which people may form judgements about others presenting with a mental health problem. People with limited knowledge or previous experience with mental health difficulties or who do not recognise or accept mental health difficulties as 'real', may resort to limited and potentially unhelpful 'internal models' of what mental health problems are, how they are caused, and how they are treated. A number of elements of MHL could, therefore, impact upon the judgements people make about an individual presenting with a mental health difficulty, across a range of potential situations. This needs to be considered alongside other factors that could potentially influence decision-making, such as the way a mental health difficulty is described. With this in mind, the body of research pertaining to the effect of the presentation of a diagnostic label will be discussed in Chapter Three.

The empirical research study that follows considers the relevance of MHL to one specific but quite unique decision-making scenario, that of a jury member faced with a defendant with a mental health difficulty. The process by which jurors make

decisions is complex. Broadly, jurors are required to weigh up two types of criminal information, the 'actus rea' of an offence, which relates to the criminal act itself, and whether the defendant actually physically committed the act, and the 'mens rea', which relates to the 'mental element' components of a criminal act. For example, the 'mens rea' elements may include concepts such as intent, as in the offence of burglary in the Theft Act 1968 s.9(1)(b), or recklessness as in the Criminal Damage Act 1971 s.1(1). The process of weighing up these complicated questions especially alongside complex and sometimes poorly explained or understood mental health difficulties would be a challenging task even for trained mental health professionals. So, how does a juror determine if a person who hears voices is *reckless* in starting a fire that burns down a building if they had a delusional belief that the act would prevent some greater human tragedy? These are fundamentally extraordinarily difficult questions to answer.

Yet, jurors, who are by definition 'lay' members of the public, are untrained and their existing knowledge and beliefs about mental health difficulties are not considered as part of the process. Further, the clinicians who might have the opportunity to present evidence to these jurors as expert witnesses will rarely (if ever) have the opportunity for any reciprocal feedback to correct misunderstandings or challenge unhelpful beliefs. As members of the public, jurors will vary in their understanding of, attitudes towards, beliefs about, prior experience with and ability to recognise mental health difficulties presented to them in court. Such differences are critical to the decision-making of jurors and, therefore, could lead to a fundamental unfairness in the process. However, research into the links between MHL and the decision-making process of jurors is virtually non-existent.

The empirical study that follows is an effort to begin to build a literature around this important topic. Chapter Three, therefore, describes an empirical study investigating the effects of the presentation of a symptomatic description or symptomatic description and diagnostic label of paranoid schizophrenia, as well as a participant's MHL on attributions of guilt by jurors in a mock criminal trial.

Chapter Three
Empirical Paper

Prepared for submission to Criminal Justice and Behaviour

Author guidelines can be found in Appendix E

This project was jointly carried out with another Trainee who completed a project

using the same sample, recruitment process, and data, but with a different

research question.

Word count: 8,177

Abstract

Background: The decision-making of juries is known to be biased in a number of ways, partly due to an individual's prior knowledge and beliefs about personal attributes of the defendant. Very little research has however been undertaken in relation to the presentation and understanding of mental health information in the court room.

Aims: This study aims to investigate the effects the mental health information presented in a mock criminal trial and participant's understanding of this information have on attributions of guilt.

Method: An experimental design was used in which 243 participants were each randomised to one of three groups. The groups received either no mental health information about the defendant, a symptomatic description of paranoid schizophrenia or a symptomatic description and a diagnostic label of paranoid schizophrenia. Participants viewed a mock criminal trial video, gave a rating of guilt, and completed demographic questions and the Mental Health Literacy Scale.

Results: An ANOVA showed that those who viewed the symptomatic description as well as the diagnostic label gave the lowest guilt ratings and those who received no mental health information gave the highest guilt ratings. Those with high MHL also rated the defendant as less guilty than those with low MHL.

Conclusions: The study suggests that the presentation of a symptomatic description and diagnostic label of paranoid schizophrenia as well as participants having higher MHL is associated with lower ratings of guilt in a mock criminal trial. This highlights the importance of the role of mental health clinicians in providing adequate mental health education and information to juries.

Jurors Decision-making in a Mock Criminal Trial: The role of mental

health information and mental health literacy

Mental health problems in offenders in the UK are common; the Prison Reform

Trust (2019) concluded that 26% of women and 16% of men in prison reported

having received treatment for a mental health problem in the year before custody.

With a prison population of just over 78,000, mental health difficulties are clearly

present in a large number of those entering the justice system. However, research

into the presentation of mental health information in a court room setting, where the

decision to send an offender to prison or to a specialist hospital is made, is

significantly under-developed.

Much research has been conducted into the decision-making of juries and the

biases within this process. A meta-analysis by Mitchell et al. (2005) for example,

showed that the race of a defendant impacts whether or not they are convicted and

how they are sentenced. Physical attractiveness has also been found to have an effect

on an individual's determination of someone's guilt or innocence (Rice et al., 2020).

An abundance of research shows that a juror's decision-making is subject to multiple

biases and not solely based on legal arguments and the evidence presented. This is

perhaps to be expected; decision-making in general has been found to be largely

reliant on heuristics and biases around the probability that a judgment will be

correct, such as the ease of bringing to mind relevant experiences and evidence, the

representativeness of a case to a given stereotype or the accuracy of estimations

based on the information given (Tversky & Kahneman, 1974). One recent study has,

however, found that in some areas of jury decision-making where biases are

assumed, they are not always found in real jury samples (Thomas, 2020).

While the decision-making processes of juries has been the subject of much research, the impact of the presentation of evidence relating to mental health difficulties has not. The research conducted in this area has mostly consisted of studies of psychopathy and its effects on juror opinions and decision-making (Rendell et al., 2010; Mowle et al., 2016). Stereotypes and biases impact upon jury decision-making and thus it could be argued that biases relating to the mental health of the defendant could also have an effect. A review of attitudes towards individuals with mental health difficulties concluded that although a large proportion of the public show pro-social reactions, a substantial group perceived them as dangerous, unpredictable and frightening (Angermeyer & Dietrich, 2006). This review also found that the public have difficulty in recognising mental health difficulties in others and that labels such as schizophrenia tend to produce more negative attitudes than labels of depression. Such biases could, therefore, have a negative impact on jury members making judgements about people with mental health problems.

Limited research has considered this issue, with mixed outcomes. The effects of different diagnostic labels on a jury's verdict were explored in two studies which found that the presentation of labels of depression, schizophrenia, or bipolar disorder are more easily recognizable by juries and are more likely to elicit leniency in verdict than diagnoses of substance misuse or psychopathy (Mossière & Maeder, 2016; Mowle et al., 2016). Outside of the criminal justice sphere, a study by Lam and colleagues (2016) found that the presentation of a label of Borderline Personality Disorder (BPD) can lead to more negative attitudes in mental health staff. Some research suggests that a label of a mental health diagnosis can increase stigma and discrimination by marking the individual as different from others (Corrigan, 2007), while other studies such as the ones described above suggest that the nature of the

label may mediate this in the court room. The available research thus paints a mixed picture of the effects of the presentation of mental health information and its interaction with the population it is presented to.

Multiple studies of jury decision-making have found that jurors interpret evidence provided based on their own experiences, beliefs and attitudes (Bornstein & Greene, 2011). It has been demonstrated that jurors will attend to information that fits with their already held beliefs and dismiss information that does not fit with this (Carlson & Russo, 2001). Attitudes and beliefs about individuals with mental health difficulties could, therefore, impact upon a juror's decision in a criminal trial if information about a defendant's mental health is presented. A juror's prior knowledge and beliefs about mental health difficulties are thus relevant to the psychological research of juries.

Mental health literacy (MHL) is described by Jorm and colleagues, who coined the term in 1997, as the "knowledge and beliefs about mental disorders which aid in their recognition, management or prevention" (Jorm et al., 1997, p.182). The concept of MHL is thought to include a number of components such as the ability to recognise mental health difficulties, knowledge of; how to prevent mental health difficulties; how to seek help and treatment for mental health difficulties; and self-help strategies and skills to help others with mental health difficulties (Jorm, 2012). Research has shown that difficulty in recognising mental health disorders among the general population is common, and that certain disorders such as schizophrenia and anxiety disorders are harder for people to recognise (Jorm et al., 2005; Klineberg et al., 2011). This could be problematic in the judicial system if a lack of MHL prevents individuals on a jury from understanding and considering relevant mental health information presented in court, or if a lack of MHL means that a juror holds

negative attitudes towards those with mental health difficulties. It has been suggested that increasing MHL could indeed be one way of countering such negative beliefs and attitudes (Jorm, 2012). High levels of MHL could thus act as a buffer between negative attitudes towards those with mental health difficulties and juror's decision-making. It could be argued that there may be an interaction between the MHL of a juror and the type of mental health information presented to them in a mock criminal trial. Should this interaction occur, it would likely impact the decision-making of the juror. Conceptually, if MHL were to be shown to be important to juror judgements, increasing a juror's MHL before a trial begins might be one way of standardising juror knowledge in this area and reducing the impact of stigma towards offenders with mental health problems.

As a result of the lack of research around the mental health information presented in court and the MHL of those making decisions in court, there is no theoretical framework on which to base hypotheses around how this interaction may occur. Based on the prior research described above and the mixed findings in relation to the presentation of certain diagnostic labels, it is not clear in what direction this interaction may influence decision-making if it exerts an influence at all. For this reason, an exploratory position is adopted.

The juror's oath states that a juror will try to come to a "true verdict according to the evidence" (Criminal Practice Directions, 2019, p.20). Interpreting evidence and information provided in a court room in order to come to a verdict is therefore the main role of a juror. As such, information presented about a defendant's mental health can have an impact on their journey through the justice system. In the case of criminal damage, which was chosen as the locus for the present study, a defendant's mental health is particularly relevant, as the House of

Lords decision in R v G [2004] 1 A.C. 1034, states that in order for criminal damage to occur "A person acts recklessly within the meaning of section 1 of the Criminal Damage Act 1971 with respect to:

1. A circumstance when he is aware of a risk that it exists or will exist.

2. A result when he/she is aware of a risk that will occur; and

3. It is, in the circumstances known to him, unreasonable to take the risk."

A person's state of mind at the time of an alleged crime is relevant to the question of whether the defendant had the requisite 'mens rae' to be convicted of criminal damage, namely whether they appreciated the risk that property would be damaged as a result of their actions (Crown Prosecution Service, 2019). In order to be able to judge whether mental health information presented is relevant to the decision to be made by a juror, the juror must first recognize that a mental health difficulty is present and then be able to understand how this difficulty comes to bear on the defendant's understanding of the consequences of their actions. A juror, therefore, requires a certain level of MHL and is likely to employ their prior knowledge and attitudes towards those with mental health difficulties when making a decision.

Approaches to recruitment in mock jury trials have been criticised for a number of reasons (Sommers & Ellsworth, 2003; Thomas, 2020). One of the criticisms relates to the lack of group decision-making in single juror experiments. Research into real and mock juries has, however, shown that in a high proportion of cases, the final verdict given by the group is likely to be the one held by the most individual jurors prior to deliberation (Devine, 2012). The appropriateness of the involvement of university student populations has also been debated. A review by

Bornstein (1999) analysed 26 studies and found that only 5 showed reliable differences between the verdicts given by student and community samples. Since the publishing of this review a number of other studies have found students more likely to convict and more likely to hold the defendant criminally responsible (Martin et al., 2007; Warling & Peterson-Badali, 2003). The impact of using video evidence on jury decision-making has also been researched, with a number of studies suggesting that the use of video evidence in court does not affect the verdict given by the jury (Ellison & Munro, 2014). Many studies in this area have, however, described a preference of jurors for live, in person evidence (Goodman et al., 2006; Landstrom et al., 2007).

The current study hoped to overcome these limitations while also using a relatively accessible and representative mock juror sample. The study used a video mock criminal trial in which single participants viewed testimony from the defence, the prosecution and received a summary and instructions from a judge, in order to decide upon the level of guilt of a defendant accused of an act of criminal damage. The study involved two recruitment methods to recruit both students and non-students in order to investigate three primary and one secondary research questions.

Primary Research Questions

1. Does the presentation of a symptomatic description of paranoid schizophrenia, or a symptomatic description as well as a diagnostic label of paranoid schizophrenia affect the guilt ratings of a juror in a mock criminal trial?

2. Does jurors' level of MHL affect their guilt ratings in a mock criminal trial?

3. Is there an interaction between MHL and the mental health information presented in a mock criminal trial?

Secondary Research Questions

4. Do a student and a non-student sample differ in MHL or guilt ratings in a mock criminal trial?

Method

Design

The study used a between subjects experimental design to explore the effects of two categorical independent variables on the continuous dependent variable, how guilty the participants deemed the defendant to be. The two independent factors were the mental health information given in the mock trial video (Group one: control – no mental health information, Group two: symptomatic description, and Group three: diagnostic label and symptomatic description) and MHL (low MHL, medium MHL and high MHL).

The online questionnaire was hosted on Qualtrics (Qualtrics.com).

Participants

A power analysis was completed using Cohen's (1992) sample size tables. This suggested that a sample of 215 would yield .8 power to detect a small effect size at an alpha level of .05.

The present study used the inclusion/ exclusion criteria for jury selection in England and Wales, as identified in section 1 of the Juries Act 1974. Participants were required to be between the ages of 18 and 75 with no criminal convictions in the past 10 years resulting in prison or a community order, not on bail, currently a UK resident and have lived in the UK for at least five years since they were thirteen years old.

Overall, 330 participants consented to take part. Of these, 76 withdrew without completing the study and thus were removed. Of those who did complete the study, 11 failed a knowledge check and were also removed. The final sample thus consisted of 243 participants. These participants were recruited through two recruitment methods.

The first group of 91 participants were recruited through Prolific (Prolific.co), which is an online crowd working platform designed specifically for online research studies (Palan & Schitter, 2018). It has been found to produce reliable data and has been used successfully in a number of online research studies (Palan & Schitter, 2018). The study was open to those registered with the platform using a UK residential address in order to emulate a UK jury sample. Participants entered the study through their profile and were taken to an information sheet (Appendix F). 18.7% of this sample were students.

The second group of 152 participants were recruited through a UK university using email bulletins circulated to staff and students across a range of faculties, as well as a separate university research participation mailing list which sends communications to members of the public, staff and students. A short description of the study (Appendix G) as well as a link to the online information sheet (Appendix H) was provided. The link to the study was also shared on the social media platform Twitter. 40.8% of the University sample were students.

The final sample recruited via the two recruitment methods was two-thirds female, predominantly white and more than half had a degree. Ethnicity was measured using the Office for National Statistics (ONS) top-level categories. The university sample had a higher proportion of females, students and those with Postgraduate or Doctorate level degrees. The Prolific sample had a higher proportion

of those from the 'White' ethnic groups. Full demographic information for the sample as a whole, as well as by recruitment method, is provided in Table 5. For the purpose of analysis, participants from both the prolific and university samples were combined.

Table 5

Participant Demographics by Recruitment Method

	Prolific Sample (*n* = 91)	University sample (*n* = 152)	Total Sample (*n* = 243)
Mean Age (years)	33.73 (SE = 1.38)	35.25 (SE = 1.27)	34.68 (SE = .95)
Gender			
Female	42 (46.2%)	122 (80.3%)	164 (67.5%)
Male	47 (51.6%)	28 (18.4%)	75 (30.9%)
Prefer not to say	1 (1.1%)	1 (0.7%)	2 (0.8%)
Other	1 (1.1%)	1 (0.7%)	2 (0.8%)
Student	17 (18.7%)	62 (40.8%)	79 (32.5%)
Experienced MH Condition	23 (25.3%)	53 (34.9%)	76 (31.3%)
Friend or Family MH Condition	38 (41.8%)	101 (66.4%)	139 (57.2%)
Mean MHLS Score	131.78 (SE = 1.27)	134.99 (SE = .98)	133.79 (SE = .78)
Highest Level of Educational Attainment			
GCSE (16 years) or below	6 (6.6%)	8 (5.3%)	14 (5.8%)
A Level (18 years)	31 (34.1%)	42 (27.6%)	73 (30.0%)
Foundation or Undergraduate Degree	42 (46.2%)	63 (41.5%)	105 (43.2%)

	Prolific Sample (*n* = 91)	University sample (*n* = 152)	Total Sample (*n* = 243)
Post-Graduate or Doctorate Level	12 (13.2%)	39 (25.7%)	51 (21.0%)
Ethnicity			
White	84 (92.3%)	131 (86.2%)	215 (88.5%)
Mixed / Multiple Ethnic Groups	3 (3.3%)	7 (4.6%)	10 (4.0%)
Asian / Asian British	2 (2.2%)	7 (4.6%)	9 (3.6%)
Black / African / Caribbean / Black British	1 (1.1%)	5 (3.3%)	6 (2.4%)
Arab	0 (0.0%)	1 (0.7%)	1 (0.4%)
Prefer Not to Say	1 (1.1%)	1 (0.7%)	2 (0.8%)

Participants who completed the study through Prolific were given a token payment for their time in line with Prolific payment guidance (Moodie, 2018). The first 100 participants recruited through the university were entered into a prize draw to win one of 20 £5 vouchers.

Materials and Measures

Each participant completed a questionnaire including demographic questions (Appendix I) relating to information on age, ethnicity, employment/ study, gender, highest educational attainment and previous experience of mental health difficulties.

The questionnaire also included the Mental Health Literacy Scale (MHLS; O'Connor & Casey, 2015) (Appendix J) which contains 35 items measuring different aspects of MHL. The scale uses four- and five-point Likert scale questions to produce a single MHL score. The scale includes items assessing ability to

recognise disorders; knowledge of where to seek information, risk factors and causes of mental health difficulties; methods of self-treatment, professional help available and attitudes that promote help seeking and recognition (O'Connor & Casey, 2015). A higher score on this scale represents higher MHL. Items nine and ten were altered to refer to the UK rather than Australia. The measure has been shown to have good psychometric properties with a Cronbach's alpha of .87 (O'Connor & Casey, 2015). The Cronbach's alpha coefficient in the current study was .86.

Data were collected as part of a two-part project, where a different set of research questions were being examined by another Trainee Clinical Psychologist within the same sample. As part of this study, participants completed the AQ-27, a stigma questionnaire (Corrigan et al., 2004). This measure is not discussed or analysed in the present study. A description of this study can be found in Appendix K.

Videos of a mock criminal trial were created for use in this study. The videos captured a barrister for the prosecution, a barrister for the defence, and a judge giving information about a crime committed by a defendant. All videos intended to portray an act of criminal damage, defined by section 1 of the Criminal Damage Act 1971. In the videos the barristers described a defendant who had used a hammer to hit water pipes in a hospital, leading to significant damage. Three versions of the video were created to be shown to the three experimental groups. The video shown to Group one (control) contained no information relating to the mental health of the defendant. The videos created for Group two and Group three were designed to include elements relating to the mental health of the defendant which were directly relevant to the juror's decision-making on the legal question, relating to the mental (mens rea) component of criminal damage described in the introduction. The video

shown to Group two was the same as that for Group one, except it included a description of the defendant experiencing typical symptoms of paranoid schizophrenia. Reported symptoms included delusional beliefs, auditory hallucinations and paranoia. The following is an example of such a description, "Mr Greene can have beliefs that others do not share, and frequently his paranoia is focussed on the Government, whom he believes is trying to hurt people." The video for Group three was identical to the video for Group two, except that the diagnostic label of paranoid schizophrenia was added ten times. Because of the additional content provided, the videos varied in length with Group one watching a video approximately five minutes long and Group three watching a nine minute video. Each video included clear instructions to the participant given by the judge as to the legal decision required. The full scripts for the videos can be found in (Appendix L).

Finally, a three question knowledge check (Appendix M) was also completed to ensure that participants had paid attention to the mock trial video.

Procedure

Following reading the respective information sheets participants completed the online consent form (Appendix N) and were randomised by Qualtrics to one of the three experimental groups. All participants then completed the demographic questions, the stigma questionnaire and the MHLS. Following this they were informed that they were going to watch a simulation of professionals giving evidence in court. Having watched the video, participants rated how guilty they thought the defendant was from 0 to 100, gave a binary decision of guilty or not guilty and completed the knowledge check. The study was counterbalanced with half of the sample completing the questionnaires before watching the mock trial video and half completing it afterwards.

Participants read an online debrief sheet (Appendix O) once they had completed the study. An information sheet (Appendix P) for relevant organisations was given in order to signpost people to appropriate support should any of the study information cause distress.

Ethical Issues

The study was approved by the university Faculty of Medicine and Health Sciences Research Ethics Committee (Appendix Q). Before completing the study, participants read an information sheet containing all the information related to taking part in the study. Participants were required to agree that they had read and understood this information before completing the online consent form.

Analysis

The data were entered into IBM SPSS Statistics version 25.

Primary Research Questions

A two-way between groups ANOVA was conducted using the continuous measure of guilt as the dependent variable. This analysis was chosen as the research questions related both to the main effects and the interaction effect of Group and MHL. The use of the continuous measure of guilt was deemed most appropriate for the primary analysis as a continuous variable would afford the most power. The independent variable of MHL was split into three groups of low MHL ($n = 76$), medium MHL ($n = 89$) and high MHL ($n = 78$). Although there are limitations to collapsing a continuous variable into categories, such as losing some of the variance in the data and power (Altman & Royston, 2006), it was decided that this analysis was the best fit to answer the primary research questions. The variable was split using mean scores derived from the measure development study by O'Connor and Casey (2015) intended to be representative of populations with low, medium and

high MHL. See Appendix R for the complete procedure. The second categorical

variable used in the analysis was Group. The data were checked to see if the Prolific

and university samples differed significantly on MHLS scores or guilt in order to

assess the suitability of the two samples being combined for analysis. A chi-squared

test for independence was performed which showed that the two samples did not

differ significantly on levels of MHL, $x^2(2, 243) = 3.21$, $p = .20$, $phi = .12$. A Mann-

Whitney U test showed no significant difference in the guilt rating of the Prolific

sample ($Md = 56.00$, $n = 91$) and the university sample ($Md = 50.00$, $n = 152$) $U =$

6809, $z = -.20$, $p = .84$, $r = 0.1$. The samples from both recruitment methods were

therefore combined in all analyses.

Sensitivity Analysis

A sensitivity analysis was performed in order to determine if the results of

the primary analysis would be affected by the use of a binary variable of guilt. This

was explored in order to increase the ecological validity of the study, as in real life,

the decision in a criminal trial would be given in a binary manner. The continuous

variable of MHL was also used in this analysis to test the primary analysis results

without trichotomizing this variable. This speaks to the limitations discussed above

when collapsing a continuous variable. The data were analysed in order to determine

whether the Prolific and university samples differed on these two variables. A chi-

squared test for independence was performed which showed that the two samples did

not differ significantly on the categorical variable of guilty/ not guilty, $x^2(1, n = 243)$

$= .26$, $p = .61$, $phi = .04$. A Mann-Whitney U test was completed to check if the

samples differed on the continuous measure of MHL. A significant difference was

found in the MHLS scores of the Prolific sample ($Md = 132.00$, $n = 91$) and the

university sample ($Md = 136.00$, $n = 152$) $U = 5719$, $z = -2.26$, $p = .02$, $r = 0.14$ however the difference was small, and they were thus combined for analysis.

A logistic regression was used for the sensitivity analysis with the binary variable of guilt as the dependent variable and Group and the continuous measure of MHL as predictor variables.

As the data were explored using two different analyses a Bonferroni correction was applied in order to reduce the likelihood of a Type I error. A significance value of .025 was therefore used in both the primary and the sensitivity analyses.

Secondary Research Questions

Two analyses were performed in order to address the secondary research questions of whether a student and a non-student sample differ on guilt ratings and MHLS scores in a mock criminal trial. The binary variable of student or non-student was used as the independent variable for both tests. Student status was based on participant's response to the question 'are you a student?' in the demographic questions. Both students and non-students were therefore recruited from both the Prolific and the university samples as this was dependent on student status rather than recruitment method. The first analysis used level of guilt as a dependent variable and the second used the original continuous variable of MHL. Both the continuous variables of guilt and MHL were non-normally distributed and thus the non-parametric Mann-Whitney U tests were used for analysis.

Results

Descriptive Statistics by Group

The descriptive statistics of the variables used in the analysis can be found in Table 6.

Table 6

Means, Standard Deviations, Range and Frequencies by Group

	Mean (SD)				Range			
	Control	Symptomatic	Diagnostic	Total Sample	Control	Symptomatic	Diagnostic	Total Sample
MHLS	134.84 (12.43)	134.08 (11.05)	132.48 (12.97)	133.79 (12.18)	96 - 154	106 - 153	92 - 155	92 - 155
How Guilty	67.01 (27.75)	49.41 (32.13)	43.42 (31.17)	53.23 (31.90)	0 - 100	0 - 100	0 - 100	0 - 100
	Frequency (Percentage)							
	Control		Symptomatic		Diagnostic		Total Sample	
Guilty	55 (67.9%)		36 (45.6%)		28 (33.7%)		119 (49.0%)	
Not Guilty	26 (32.1%)		43 (54.4%)		55 (66.3%)		124 (51.0%)	

Primary Research Questions

A two-way between groups ANOVA was used to answer the primary research questions. The dependent variable used was the continuous measure of how guilty the defendant was deemed to be ($M = 53.23$, $SD = 31.9$). The independent variables were the experimental group (Group one: control; Group two: symptomatic description; Group three: diagnostic label and symptomatic description) and MHL (low MHL, medium MHL, high MHL).

The assumptions of the ANOVA (including level of measurement of the dependent variable, random sampling, independence of observations, normality and homogeneity of variance) were checked. All assumptions were met apart from the normality of guilt. The variable was not normally distributed with a statistically

significant Kolmogorov-Smirnov test $D(243) = .12$, $p < .001$. As there is no non-parametric alternative for an ANOVA and the test is deemed relatively robust to violations of this assumption with sample sizes of above 30 the test was considered appropriate (Pallant, 2010).

Does the Presentation of a Symptomatic Description or a Diagnostic Label and Symptomatic Description Affect the Ratings of Guilt of Jurors in a Mock Criminal Trial?

There was a statistically significant main effect for group, $F(2, 234) = 14.98$, $p < .001$; $\eta_p^2 = .11$. Post-hoc comparisons using the Tukey HSD test indicated that the mean guilt score for the control group ($M = 67.01$, SD 27.75) was statistically significantly higher than the mean for the symptomatic description group ($M = 49.41$, $SD = 32.13$) $p = .001$, and the symptomatic description and diagnostic label group ($M = 43.42$, $SD = 31.17$) $p = .001$. The guilt ratings for both the symptomatic description group (Group 2) and the diagnostic label and symptomatic description (Group 3) were not significantly different from each other $p = .408$. Mean guilt ratings for each experimental group by MHL level can be found in Figure 3.

Figure 3

Mean Guilt Ratings By Group and MHL Level With SD Error Bars
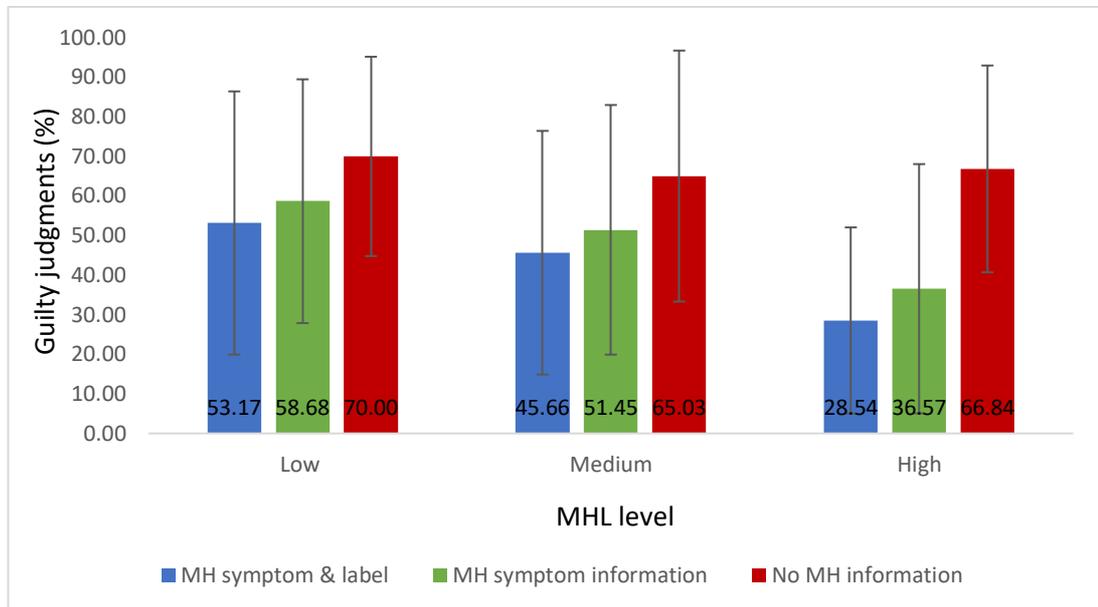
Does Jurors' Level of MHL Affect Their Ratings of Guilt in a Mock Criminal Trial?

There was a statistically significant main effect for MHL, $F(2, 234) = 6.01$, $p = .003$ $\eta_p^2 = .05$). Post-hoc comparisons using the Tukey HSD test indicated that the mean guilt score for the low MHL group ($M = 59.63$, $SD = 30.78$) was significantly higher than the high MHL group ($M = 46.13$, $SD = 31.80$) $p = .015$. The medium MHL group's mean rating ($M = 53.99$, $SD = 32.04$) was not statistically significantly different from the low MHL group $p = .446$ or the high MHL group $p = .206$. Mean guilt ratings for each level of MHL by group can be found in Figure 3.

Is There an Interaction Between MHL and the Mental Health Information Presented in a Mock Criminal Trial?

Results of the ANOVA showed that the interaction effect between group and MHL was not statistically significant $F(4, 234) = 1.25$, $p = .29$, $\eta_p^2 = .02$.

This analysis answered the primary research questions showing that both higher MHLS scores and the presentation of more mental health information decreased the guilt ratings of jurors in a mock criminal trial. There was, however, no interaction effect between these two variables.

Sensitivity Analysis

A direct logistic regression was performed in order to explore the robustness of the results indicated by the ANOVA, using a categorical instead of dimensional measure of guilt as the primary dependent variable. As with the ANOVA analysis, the model contained two independent variables: the continuous measure of MHL and categorical variable of experimental group. The full model containing the two predictors was statistically significant, x^2 (3, N = 243) = 31.35, $p < .001$ indicating that the model was able to distinguish between respondents who gave guilty and not guilty verdicts. The results showed that both predictor variables made a unique statistically significant contribution to the model. The results of the logistic regression can be found in Table 8.

Belonging to the diagnostic label and symptomatic description group was a strong predictor of finding the defendant not guilty, recording an odds ratio of 4.90 (95% CI = 2.48 – 9.7). This indicated that respondents in this group were 4.90 times more likely to judge the defendant as not guilty than those in the control group. Respondents in the symptomatic description group were 2.73 times more likely to find the defendant not guilty than those in the control group. MHL had an odds ratio of 1.04 (95% CI = 1.06 – 1.02). This indicates that an increase of one standard deviation in MHLS score makes a participant 48.7% more likely to judge the defendant not guilty.

The sensitivity analysis indicates that similar results are obtained using both categorical and continuous measures of guilt and MHL and when the data is analysed using associated alternative analytical processes.

Table 7

SPSS Statistical Output for Logistic Regression

	Unadjusted Beta	Standard Error	Wald	df	p	Odds Ratio	95% CI for EXP(B) Lower	Upper
Total MHL	-.039	.012	10.471	1	.001	1.039	1.064	1.015
Control Group			21.335	2	.000			
Symptomatic	-1.005	.337	8.880	1	.003	2.732	5.291	1.410
Diagnostic Label and Symptomatic	-1.591	.348	20.875	1	.000	4.902	9.709	2.484

Note. Exp(B) and the 95% confidence intervals have been inverted as the original values were below 1. A significance level of $p < .025$ was used.

Secondary Research Questions

Do a Student and a Non-Student Sample Differ in Guilt Rating or MHL in a Mock Criminal Trial?

This research question was addressed using a Mann Whitney U test which revealed no significant difference in the guilt rating of students ($Md = 55$, $n = 79$) and non-students ($Md = 53$, $n = 164$), $U = 6369.5$, $z = -.21$, $p = 0.83$, $r = 0.01$.

A second Mann Whitney U test was performed using the original continuous measure of MHL as the independent variable and student/ non-student as the

dependent variable. This revealed no significant difference in the MHL of students ($Md = 136$, $n = 79$) and non-students ($Md = 134$, $n = 164$), $U = 5837.5$, $z = -1.25$, $p = .212$, $r = 0.08$. This analysis suggests that a student and community sample do not differ on guilt ratings or MHLS scores. The similar responses from the two samples are reassuring for the potential generalisability of the findings.

Discussion

The study sought to investigate the influences of two factors on the decision-making of participants in a mock criminal trial; first, the mental health information with which they were presented (no mental health information, a symptomatic description, or a symptomatic description and a diagnostic label); and second, MHLS scores. The study also investigated whether there was an interaction between these two factors. Results showed that there were main effects for both variables, but no interaction between the two. Lower guilt ratings were given when more mental health information was provided, with those who heard both the symptomatic description and the diagnostic label giving, overall, the lowest ratings of guilt and those who received no mental health information the highest. Having higher MHL was also associated with lower guilt ratings.

As discussed in the introduction, previous research into the effects of diagnostic labels has been mixed. The findings of the present study appear inconsistent with other studies which have found an unhelpful impact of a mental health diagnosis, such as Lam et al. (2016), where analysis suggested the presentation of a diagnosis of BPD produced more negative views of individuals described to mental health professionals. A review by Read et al. (2006) also found that a diagnostic label of schizophrenia can be positively related to public fear and prejudice. Studies such as these led to an expectation that the addition of a diagnostic

label of paranoid schizophrenia would, overall, be associated with more negative attitudes and hence higher attributions of guilt.

On the other hand, the data relating to the MHLS scores appear to be in line with those studies by Mossière and Maeder (2016), and Mowle et al. (2016) in that those with higher MHLS scores, who are more likely to recognize mental health difficulties, rated the defendant as less guilty than those with low MHL. This is in line with the expectation that those participants who may have been less able to recognize and understand the nature of the mental health difficulties described, would be less likely to use this information. These studies also suggested that schizophrenia was one of the labels that was more easily recognized and tended to elicit leniency from jurors which could explain some of the differences between the reactions to the BPD label in the Lam study and the label given in the current study.

The instructions given by the judge to the symptomatic description, and diagnostic label and symptomatic description groups stated that the jurors pass a verdict of not guilty if they believe the defendant did not 'appreciate that damage would follow from his actions or if the defendant thought that the risk of damage occurring was reasonable given the circumstances known to him at the time'. While it is impossible to know if a jury reaches the 'right' decision in a trial, jury research must consider whether the decision reached was reasonable in light of the information presented (Bornstein & Greene, 2011). Thus, what may be concluded is that it was, therefore, appropriate for participants to consider the mental health information given in the symptomatic description, and symptomatic description and diagnostic label groups. This could suggest that, when given legally relevant information about the mental health difficulties of the defendant, jurors are able to evaluate it appropriately. Similarly, jurors with higher MHL may be able to make

more appropriate legal decisions when mental health information is involved in a criminal trial.

The study also sought to answer two secondary research questions, whether a student and community sample differed on guilt ratings and MHLS scores. The analysis showed that the student and community samples in this study did not differ on either. Previous research described in the introduction showed mixed findings in relation to this, with some studies suggesting there was little difference between student and community samples used in juror research (Bornstein, 1999) and others suggesting there were substantial differences between the two groups (Martin et al., 2007; Warling & Peterson-Badali, 2003). These findings, along with the use of the inclusion and exclusion criteria for jury selection in England and Wales, suggests that both sampling approaches may be reasonably used as proxies for research with real juries, which may be of significant practical advantage given the difficulties involved in conducting research with real jury samples (Bornstein et al., 2017). These difficulties are particularly relevant in England and Wales given the prohibition of jurors from speaking about deliberations. While it has been argued that it is inappropriate to involve any proxies for juries in research (Thomas, 2020), the results of this study could suggest that the current sample could be representative of a jury sample in England and Wales.

Clinical Implications

The findings of this study have implications for mental health clinicians working outside of as well as within forensic services. As was described in the introduction, large proportions of those who commit crimes and enter the judicial system in Britain have had a mental health difficulty in the year before they are convicted (Prison Reform Trust, 2019). It is therefore possible that mental health

services and clinicians may be asked to prepare reports for, or give evidence in,

criminal trials. The current study suggests that the type of information presented

within this evidence could make a difference to the decision jurors make. The

current findings suggest this could occur even with relatively small differences in

content (i.e., the decision to include or not include a particular diagnostic label).

Similarly, the results also suggest that psychological differences between jurors, and

in particular their underlying MHL, may also be important in determining how this

information is understood and processed. This may suggest a potential educative role

for clinicians working in court settings which could be important to ensure that

juror's negative attitudes or assumptions about mental health difficulties are

addressed. This task is also one of public health, in that raising the MHL of the

nation as a whole would increase the amount of knowledge and understanding of

mental health that a jury presents with in the first place.

Limitations

The conclusions that can be drawn from the data obtained in this study are

limited by the lack of understanding of how participants decided upon their verdict.

While the results of the analysis suggest that those participants who receive

information regarding the mental health of the defendant deemed him to be less

guilty, the nature of the participants decision-making process was not assessed. The

study, therefore, cannot conclude that the participants used this information directly

in order to make their decision, although the analysis would suggest this is the case.

Another limitation of the current study lies in the use of a single participant

decision following watching a mock criminal trial video. This limits the ecological

validity of the findings in two ways; the participants did not discuss their opinions

and decision with other jurors which they would do in a real jury situation and

watching the information provided in video format is likely to be different to seeing information presented in person in a courtroom. The research discussed in the introduction suggests that although deliberation would likely influence some decisions in a real life jury, the majority group are likely to win out and thus verdicts in a real criminal trial could be similar to the decisions made by participants in the current study (Devine, 2012). Additionally, it could be argued that the deliberation process is a separate process, subject to a different set of potential influences than the decision-making of the individual juror, and thus it makes sense to consider both stages of the process separately.

In terms of the video presentation of information to the participants, there are currently situations, under the Youth Justice and Criminal Evidence Act 1999 (sections 24, 27, and 28), in which evidence would be given via video in a criminal trial in England and Wales. While research in this area suggests a preference for live, in person evidence among jurors, there is no conclusive evidence that the use of video evidence in court has an effect on verdict (Ellison & Munro, 2014; Goodman et al., 2006; Landstrom et al., 2007).

The hospital setting in the vignette was chosen as a hospital is likely to be an environment of social and personal importance for most. This may, however, have given rise to idiosyncratic interpretations as to the significance of the setting to an individual with mental health difficulties. For example, assumptions may have been made that the defendant had received treatment at the hospital, and it may therefore have been of particular significance to him. While this could be a limitation, given that the analysis was investigating group differences, it would be expected that any differences elicited due to assumptions about the setting would have varied relatively equally across groups due to randomisation.

As the analysis plan was developed a priori the results of the systematic review were not available when identifying variables of interest. With the results of the systematic review in mind, the current study could be improved upon by controlling for gender and previous mental health experience, given that being female and having more experience of mental health difficulties are associated with higher MHL.

The results of the systematic review also highlighted the debate within the literature around the definition and conceptualisation of MHL and whether it should be considered as a single construct, as it is by the MHLS, or a multidimensional construct (Spiker & Hammer, 2019). While the psychometric properties of the MHLS were deemed sufficient by the systematic review, investigation of this was largely restricted to Cronbach's alpha coefficients and a recent review by Fulcher and Pote (2021) has called for more rigorous investigation into this. The systematic review thus concluded that the MHLS and the concept of MHL warrants further research and its use, therefor, could be considered a limitation of the current study.

Future Research

Further research in the area would be useful to explore the effects of different diagnostic labels on juror's verdicts. As has been discussed above, different mental health difficulties can have differing impacts on individuals' opinions. Future research may also want to test the same hypotheses in a group decision design where a group of jurors have the opportunity to discuss the information provided and come to a verdict together.

Qualitative research in this area may also be useful to further understand how jurors make sense of, and discuss the mental health information provided, which could lead to a better understanding of how this information is used to reach a

decision in a mock criminal trial. Future studies may also want to vary the delivery of the court room evidence given the different models of witness testimony delivery in court such as via live video link or pre-recorded examination and cross-examination.

Conclusion

The study suggests that the inclusion of mental health information in a mock criminal trial has an effect on the decision-making of jurors. Participants who were given either a symptomatic description or a diagnostic label and a symptomatic description of the defendant's mental health difficulties rated him as less guilty than those who received no mental health information, with those that received both the description and the label giving the lowest ratings of guilt. The study also suggests that individuals with high MHLS scores perceive the defendant as less guilty than those with low scores. No interaction effect was found between the two variables of interest. The study also demonstrates that there are no differences between the community and student samples in MHLS scores or how guilty they deem the defendant to be.

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Chapter Four

Discussion and Critical Evaluation

Discussion and Critical Evaluation

The thesis has aimed to contribute to the expanding field of mental health literacy (MHL) research as well as the smaller research base of the presentation of mental health information in criminal trials. Through a systematic review the project has added to the understanding of how the Mental Health Literacy Scale (MHLS) (O'Connor & Casey 2015) has been used to measure MHL as well as providing insight into wider questions about the nature and scope of MHL as a concept. The role of MHL as well as the type of mental health information presented was then investigated in an empirical paper using an experimental design to explore guilt ratings of participants in a mock criminal trial. This chapter will provide a discussion and critical evaluation of the thesis portfolio. The principal findings, strengths and weaknesses of the work, implications for clinicians and recommendations for future research will be outlined. While these areas have already been discussed individually for the systematic review and the empirical paper, this chapter will focus on the wider implications of the thesis as a whole.

Principal Findings

The systematic review found that the MHLS has been used in a wide range of studies since its development. The psychometric properties of the measure appear to be satisfactory across a variety of samples. Higher scores were commonly associated with being female and having prior experience of mental health difficulties. The review did however identify difficulties in drawing conclusions about the relationships between MHL and other variables studied as measurement was not consistent across studies and, perhaps more importantly, there was a fundamental lack of clarity within the field as to a consensus definition and understanding of the concept of MHL.

The empirical paper found that both higher MHLS scores and the provision of more mental health information were associated with lower guilt ratings of the defendant in a mock criminal trial. This suggests that, at least in the context of the current vignette and study, a symptomatic description and diagnosis of paranoid schizophrenia is associated with more sympathetic than punitive judgements. The study also found that there were no differences between student and community samples in terms of MHLS scores or guilt ratings.

Strengths and Weaknesses

One of the strengths of the relatively narrow focus of the systematic review (i.e., looking only at the use of a single scale) was that it allowed a consequently broader focus on the actual use of the scale. The systematic review was, thus, able to comment on populations that have been studied, mean scores, related variables and the conceptualisation and definition of MHL itself. The review, therefore, brings together much of what is known about the use of this scale.

A positive contribution of this narrower approach is the visual representation of relationships between the MHLS and other variables found in Tables 2 and 4 in Chapter 1. The review makes clear that the MHLS has been investigated in relation to a vast number of other variables across studies, however, a number of variables were only considered in single studies. A strength of the review is that it brings this all together to show that there are some questions for which the answer may already be established, namely that being female and previous experience of mental health difficulties are commonly associated with higher MHL scores. These findings echo those of previous studies which have found similar relationships in numerous samples, using various measures of MHL (Cotton et al., 2006; Cutler et al., 2018; Furnham & Hamid, 2014). The review has also highlighted areas in which a lack of

consistency of measurement or a lack of replication has led to a literature from which very few conclusions can be drawn. Areas highlighted for this reason warrant further research and will be discussed below.

This strength could, however, also be framed in terms of a weakness. The breadth of aspects of the scale explored lead to a number of tentative conclusions being drawn rather than any one area of the measure or its use being interrogated in fine detail. This means that while the review offers a good starting platform for further research or for those thinking of using the scale, other reviews or studies may provide more detailed conclusions about specific elements. Studies that have taken a narrower focus have been able to consider more specific questions across a range of instruments and measures. For instance, a recent review, published after the PROSPERO registration of the current study, performed a detailed examination of the psychometric properties of global measures of MHL including the MHLS (Fulcher & Pote, 2021). So, while the current review provides a breadth of information relating to the measure, it lacks in depth examination of any one element or comparisons with other available measures.

Discussion of the lack of clarity and consensus around the definitions and conceptualisation of MHL has been provided in Chapter One. This does however form a limitation of the thesis as a whole, as the variation in the literature is one of the main gaps highlighted by the review and is thus also a limitation for the empirical paper. Conclusions drawn about MHL in either paper are fundamentally reliant on the reliability of the underlying concept, which has been questioned widely in the literature (Spiker & Hammer, 2019). As was previously discussed, the MHLS was developed based on Jorm and colleagues' (1997) definition which is relatively narrow in scope given more recent expansions (Wei et al., 2013; Kutcher et al.,

2016). There has been debate within the literature as to whether the concept should be broadened to include, for example, stigma and attitudes towards mental health difficulties (Wei et al., 2013; Kutcher et al., 2016), or whether the broadening of the concept in this manner would produce further ambiguity and spread in an already unclear definition (Spiker & Hammer, 2019). A further criticism of the concept is that it relies upon the acceptance of the medical model of mental health and in particular DSM IV definitions of mental health difficulties (American Psychological Association, 2013) (Yu et al., 2015). This criticism plays into a wider question of how mental health in general is understood and defined. The medical model for example may presume that biological factors, and therefore treatments, are at the heart of mental health difficulties. Measures of MHL must in some way be based around an understanding of mental health and score answers accordingly, presumably seeking a correct answer as to the causes or treatment for certain disorders, as in the MHLS. This is problematic given that there are not necessarily correct answers available, either because research has not given us definitive answers as to what causes certain mental health difficulties or which treatments are best, or because these questions are best considered at an individual level rather than a diagnosis or group level. Despite these difficulties in understanding of MHL and mental health more generally, numerous measures of MHL are available, some of which have been found to be more psychometrically robust than the MHLS (Fulcher & Pote, 2021). Conclusions drawn about the effects of MHL on guilt ratings of participants in the empirical study must be interpreted with caution and viewed in light of its relatively ambiguous conceptualisation. Any research undertaken into MHL however, will face this problem. The importance of exploration of the

possibility of reaching a more precise understanding of MHL is, therefore, paramount.

The thesis contains one of the first studies into the effects of the presentation of mental health information in criminal trials in the UK. The study shows the importance of the type of mental health information shared with a jury and highlights the potential for relatively small changes within this to have a meaningful impact on juror decision-making. Despite the comments above about the wider concept of MHL, the study also highlights that the actual understanding and/ or beliefs that a juror has about mental health problems will likely influence how they react to a defendant who presents with mental health difficulties. These two findings are of significant potential importance for the wider need to ensure that justice is fair and unbiased and not influenced by factors that are not central to the legal question at hand. This is discussed in more detail below. The thesis investigates the effects of diagnostic labelling and understanding of mental health difficulties in a field in which they can have a huge impact on an individual's life, but in some cases have been relatively under-studied in the UK. One of its main strengths therefore is its novel nature and hopefully its ability to promote more research of this kind in the UK.

Jury research has been fraught with difficulties since psychological research within the field began (Weiten & Seidman Diamond, 1979). One of the main areas of contention is based on who can be studied as proxies for jurors. Research is mixed in this area and some argue that community or student populations cannot replicate the decision-making of actual jurors (Thomas, 2020). Research involving real jurors is particularly difficult within England and Wales however, due to the prohibition in the Juries Act 1974 on enquiring about or disclosing details of deliberations. A

strength of the empirical study, therefore, lies in its recruitment of both student and community samples and comparisons between the two finding no differences in guilt ratings or MHLS scores.

The large sample size is also a significant strength of the empirical study. Using an online design can be seen as a weakness in terms of ecological validity and the use of single participant decision-making and video evidence has been discussed in Chapter 3. The online design, however, produced a large sample size which allows relatively robust conclusions to be made from the analysis. Given the current global climate and the shift to online means for not only research, but work and social life more generally, it is possible that more and more research will be conducted in this way going forward. Some strengths of the online method in this study include the use of a knowledge check to remove any participants who did not pay attention to the video and the involvement of both paid research volunteers (Prolific sample) and non-paid volunteers (university sample). The paid and non-paid samples did not differ significantly in their data which suggests that the inclusion of both samples in research of this kind is acceptable.

Implications for Clinicians or Policy Makers

The thesis has unearthed a number of important insights useful for clinicians and policy makers. The systematic review highlights to clinicians or researchers thinking of studying MHL the importance of caution due to the ambiguous nature of the concept and lack of consensus definition. MHL training packages and interventions are being produced and trialled in a number of countries and populations (Brijnath et al., 2016; Jorm et al., 2005). While some of these show positive effects on MHL and could appear to be an attractive venture to policy makers, governmental bodies or schools for example, caution must be taken in

rolling out interventions based on research that is fraught with disagreement, differing definitions and inconsistent measurement.

For clinicians or researchers thinking of using the MHLS the systematic review provides information relating to psychometrics properties, mean scores and relationships between MHL and other variables. It concluded that much research is needed into the relationships between MHL and ethnicity, age, and help-seeking, for example. It can also be concluded that the relationships between MHL and gender and experience of mental health difficulties are relatively well established. These results may provide a platform for researchers in thinking about what additional variables to include in studies of MHL.

The findings of the thesis may have implications for mental health clinicians giving evidence in criminal trials as well as the criminal justice system more broadly. The fundamental goal of the justice system and a jury is to reach a fair and just decision based on the information provided during a criminal trial. In the empirical study the presentation of both a symptomatic description and a diagnostic label was associated with the lowest guilt ratings. Thus, it may be useful for those clinicians giving evidence to provide both. Furthermore, having higher MHL was associated with lower guilt ratings across groups. This suggests that regardless of the information presented to the jury, those with higher MHL rated the defendant as less guilty. This finding could suggest that not only is the information about mental health important, but also the juror's prior understanding of and attitudes towards mental health difficulties. This is something that is not currently considered in the selection of jury members and could be impacting upon their decision-making. It may therefore be reasonable for clinicians or judges to provide standardised

information about what a mental health difficulty is and the causes and treatments available in any trial where mental health difficulties are indicated.

Future Research

Further research that critically considers the definition and concept of MHL is paramount for the continuation of its study. Continuing research using multiple definitions and measures will produce an evidence base which is confusing and difficult to draw conclusions from. The spread of the definition of the concept and the dangers this poses has been discussed in detail by Spiker and Hammer (2019). MHL is an exciting concept for psychological research and has been shown through this thesis to have potentially wide reaching implications and utility, however this cannot be realised until a more harmonious understanding of the concept is reached.

Should the state of the concept itself be improved, the thesis highlights a vast number of interesting future research opportunities. The systematic review showed that there are a number of relationships between MHL and other variables to be fruitfully explored and replicated. Its relationship with ethnicity and age are particularly precarious and would benefit from further scrutiny.

The review also highlighted some tentative questions around the cross-cultural usefulness of the concept of MHL. Given that the original definitions of MHL were heavily based around DSM IV definitions (American Psychiatric Association, 1994) it is hardly surprising that this understanding of mental health may not be universally held across or within cultures. The medical model of mental health has been widely criticised for its utility in all parts of the world. Further research into the concept of MHL cross-culturally is needed.

Jury research in England and Wales could be furthered in a number of ways. Research has shown that different mental health difficulties can elicit different

attitudes and levels of leniency. The current study could therefore be replicated using different mental health difficulties in order to see if the label provided has an impact on guilt ratings. One of the limitations of the empirical study was that it was not possible to definitively conclude that the mental health information provided causally impacted on the changes in guilt rating across groups. A qualitative study focusing on how the mental health information was discussed by participants in a group decision-making paradigm could shed some light on this. Replication of the empirical study with a group decision-making paradigm would also be warranted given that, in practice, juries come to a decision between the 12 members, not based on the judgement of one. It is not known whether the process of group decision-making would act to exacerbate or mitigate the effects of the mental health information provided or individual jurors' MHL. This of course, may vary from jury to jury based on the individuals included but would nonetheless be an interesting area for future research to explore. Another interesting question would be whether the mental health information provided by the barristers or jurors being directed to this by the judge's summary had differing impacts on guilt ratings. Research manipulating whether or not the judge's summary asked the participants to consider the mental health information could provide crucial insights into the importance of a judge's role in alerting participants to mental health information and its relevance in their decision-making.

The thesis may also provide some insights into other areas where MHL or the information provided about an individual's mental health may impact upon judgements made about them. Job interviews or assessments performed by health or mental health clinicians for example may be impacted upon by similar changes in the information provided and MHL of the individual.

Conclusion

The thesis provides interesting insights into both MHL and jury research in England and Wales. The findings suggest that MHL is a concept with far reaching implications but further exploration of its components and definition is needed in order to be able to consistently explore them. Despite this, the thesis indicates that the MHL of jurors could be an important factor in their decision-making. The type of mental health information provided was also found to be associated with decision-making, with the lowest guilt ratings being provided when both a symptomatic description and a diagnostic label of paranoid schizophrenia were given. These findings have implications both for those giving evidence in criminal trials in which a defendant's mental health is relevant, and for the criminal justice system and jury selection more broadly.

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Appendix A

Author Guidelines for Journal of Mental Health

Thank you for choosing to submit your paper to us. These instructions will ensure we have everything required so your paper can move through peer review, production and publication smoothly. Please take the time to read and follow them as closely as possible, as doing so will ensure your paper matches the journal's requirements.

About the Journal

Journal of Mental Health is an international, peer-reviewed journal publishing high-quality, original research. Please see the journal's Aims & Scope for information about its focus and peer-review policy.

Please note that this journal only publishes manuscripts in English.

Journal of Mental Health accepts the following types of article:

Original Articles; Research and Evaluation Articles

Review article

Book and Web Reviews

Open Access

You have the option to publish open access in this journal via our Open Select publishing program. Publishing open access means that your article will be free to access online immediately on publication, increasing the visibility, readership and impact of your research. Articles published Open Select with Taylor & Francis typically receive 32% more citations* and over 6 times as many downloads** compared to those that are not published Open Select.

Peer Review and Ethics

Taylor & Francis is committed to peer-review integrity and upholding the highest standards of review. Once your paper has been assessed for suitability by the editor, it will then be double blind peer reviewed by independent, anonymous expert referees. Find out more about what to expect during peer review and read our guidance on publishing ethics.

Preparing Your Paper

Review Article

Should be written with the following elements in the following order: Title page (to be uploaded separately and must not appear on the Main Document); Abstract (Background, Aims, Methods, Results, Conclusions); Keywords; Main text introduction; Materials and methods; Results; Discussion; Acknowledgments; Declaration of interest statement; References (in the correct format); Appendices (where appropriate - to be uploaded separately); Table(s) and caption(s) (on individual pages) - to be uploaded separately; Figures and figure captions (as a list) - to be uploaded separately.

Should be no more than 6000 words

Should contain an unstructured abstract of 200 words.

Should contain between 3 and 7 keywords. Read making your article more discoverable, including information on choosing a title and search engine optimization.

When submitting a Review, please confirm that your manuscript is a systematic review and include a statement that researchers have followed the PRISMA guidance – if this is not the case, please say why.

Please confirm whether the review protocol has been published on Prospero and provide a date of registration – if this is not the case, please say why.

Manuscripts are limited to a maximum of 4 tables and 2 figures to be uploaded

separately – please advise where in your manuscript these are to be located.

Please ensure that author details are not on the Main Document.

Please ensure that author details are not included in the file name.

Participants: language must be in the style of the APA. Our policy therefore is to

refer to study participants as opposed to patients or subjects.

Please note we do not accept pdf's. Please save your documents in the .doc format.

in the .doc format.

Style Guidelines

Please refer to these quick style guidelines when preparing your paper, rather than

any published articles or a sample copy.

Any spelling style is acceptable so long as it is consistent within the manuscript.

Please use double quotation marks, except where "a quotation is 'within' a

quotation".

Please note that long quotations should be indented without quotation marks.

Formatting and Templates

Papers may be submitted in Word format. Figures should be saved separately from

the text. To assist you in preparing your paper, we provide formatting template(s).

Word templates are available for this journal. Please save the template to your hard

drive, ready for use.

If you are not able to use the template via the links (or if you have any other template

queries) please contact us here.

References

Please use this reference guide when preparing your paper. An EndNote output style

is also available to assist you.

Appendix B

Data Extraction Form

General Information

Study ID (Surname of first author plus year)	
Date form completed	
Reference	
Notes	
Authors	
Publication type	
Published where	

Study Eligibility

Study characterisitcs	Eligibility criteria	Eligible?	Location in text
Measures	Uses entire MHLS		
Language	Written in English		
Publishing	Published in peer reviewed journal		

Included   Excluded

Reason for exclusion:

Characterisitcs of included studies

Method

	Descriptions as stated in report	Location in text
Aim of study		
Design		
Start date		
End date		
Duration of participation		
Notes		

Participants

Population		
Setting		
Inclusion criteria		
Exclusion criteria		
Recruitment method		

Informaed consent obtained		
Total number		
Withdrawala and exclusions		
Age		
Sex		
Race/ethnicity		
Diagnoses		
Other relevant sociodemographics		
Subgroup measures		
Subgroups reported		
Notes		

Intervention groups

Group 1

Group name		
Number in group		
Description		
Duration of treatment		
Timing		
Delivery (mechanims, medium, intensity, fidelity)		
Providers		
Economic information		
Resource requirements		
Integrity of delivery		
Compliance		
Notes		

Outcomes

Outcome 1

Outcome name		
Time points measured		
Outcome definition		
Unit of measurement		
Scales: upper and lower limits		
Validated?		
Imputation of missing data (ITT analysis?)		
Power		
Notes		

Mental Health Literacy

Definition used		
Research question		

Single score used		
Scale deemed useful?		
Notes		

Risk of bias assessment
Find one

Data and analysis
For RCT/CCT
Dichotomous outcome

	Description as stated in report/paper				Location in text or source *(pg & ¶/fig/table/other)*
Comparison					
Outcome					
Subgroup					
Time point *(specify from start or end of intervention)*					
Results	Intervention		Comparison		
	No. with event	Total in group	No. with event	Total in group	
Any other results reported *(e.g. odds ratio, risk difference, CI or P value)*					
No. missing participants					
Reasons missing					
No. participants moved from other group					
Reasons moved					
Unit of analysis *(by individuals, cluster/groups or body parts)*					
Statistical methods used and appropriateness of these *(e.g. adjustment for correlation)*					

Reanalysis required? *(specify, e.g. correlation adjustment)*	☐ Yes ☐ No ☐ Unclear	
Reanalysis possible?	☐ Yes ☐ No ☐ Unclear	
Reanalysed results		
Notes:		

For RCT/CCT
Continuous outcome

	Description as stated in report/paper						Location in text or source *(pg & ¶/fig/table/other)*
Comparison							
Outcome							
Subgroup							
Time point *(specify from start or end of intervention)*							
Post-intervention or change from baseline?							
Results	Intervention			Comparison			
	Mean	SD *(or other variance, specify)*	No. participants	Mean	SD *(or other variance, specify)*	No. participants	
Any other results reported *(e.g. mean difference, CI, P value)*							
No. missing participants							
Reasons missing							
No. participants moved from other group							

Reasons moved			
Unit of analysis *(individuals, cluster/ groups or body parts)*			
Statistical methods used and appropriateness of these *(e.g. adjustment for correlation)*			
Reanalysis required? *(specify)*	☐ ☐ ☐ Yes No Unclear		
Reanalysis possible?	☐ ☐ ☐ Yes No Unclear		
Reanalysed results			
Notes:			

For RCT/CCT
Other outcome

	Description as stated in report/paper		Location in text or source *(pg & ¶/fig/table/other)*
Comparison			
Outcome			
Subgroup			
Time point *(specify from start or end of intervention)*			
No. participant	Intervention	Control	

Results	Intervention result	SE (or other variance)	Control result	SE (or other variance)	
	Overall results		SE (or other variance)		
Any other results reported					
No. missing participants					
Reasons missing					
No. participants moved from other group					
Reasons moved					
Unit of analysis *(by individuals, cluster/groups or body parts)*					
Statistical methods used and appropriateness of these					
Reanalysis required? *(specify)*	☐ ☐ ☐ Yes No Unclear				
Reanalysis possible?	☐ ☐ ☐ Yes No Unclear				
Reanalysed results					
Notes:					

For Controlled Before-and-After study (CBA)

	Description as stated in report/paper				Location in text or source *(pg & ¶/fig/table/other)*
Comparison					
Outcome					
Subgroup					
Time point *(specify from start or end of intervention)*					
Post-intervention or change from baseline?					
No. participants	Intervention		Control		
Results	Intervention result	SE *(or other variance, specify)*	Control result	SE *(or other variance, specify)*	
	Overall results		SE *(or other variance, specify)*		
Any other results reported					
No. missing participants					
Reasons missing					
No. participants moved from other group					
Reasons moved					
Unit of analysis *(individuals, cluster/ groups or body parts)*					
Statistical methods used and appropriateness of these					

Reanalysis required? *(specify)*	☐ Yes ☐ No ☐ Unclear	
Reanalysis possible?	☐ Yes ☐ No ☐ Unclear	
Reanalysed results		
Notes:		

For Interrupted Time Series study (ITS)

	Description as stated in report/paper		Location in text or source *(pg & ¶/fig/table/ other)*
Comparison			
Outcome			
Subgroup			
Length of time points measured *(e.g. days, months)*			
Total period measured			
No. participants measured			
No. missing participants			
Reasons missing			
	Pre-intervention	Post-intervention	
No. time points measured			
Mean value *(with variance measure)*			
Any other results reported			
Unit of analysis *(individuals or cluster/ groups)*			
Statistical methods used and appropriateness of these			
Reanalysis required? *(specify)*	☐ Yes ☐ No ☐ Unclear		

Reanalysis possible?	☐ Yes ☐ No ☐ Unclear				
Individual time point results					
Read from figure?	☐ Yes ☐ No				
Reanalysed results	Change in level	SE	Change in slope	S E	

Notes:

Other information

	Description as stated in report/paper	Location in text or source *(pg & ¶/fig/table/other)*
Key conclusions of study authors		
References to other relevant studies		
Correspondence required for further study information *(from whom, what and when)*		

Notes:

Appendix C

Quality Assessment Tool for Observational Cohort and Cross Sectional Studies

by the National Heart Lung and Blood Institute

	Yes	No	Other
1. Was the research question or objective in this paper clearly stated?			
2. Was the study population clearly specified and defined?			
3. Was the participation rate of eligible persons at least 50%?			
4. Were all the subjects selected or recruited from the same or similar populations (including the same time period)?			
5. Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants?			
5. Was a sample size justification, power description, or variance and effect estimates provided?			
6. For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?			
7. Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?			
8. For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)?			
9. Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all participants?			
10. Was the exposure(s) assessed more than once over time?			
11. Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?			
12. Were the outcome assessors blinded to the exposure status of participants?			
13. Was loss to follow up after baseline 20% or less?			
14. Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?			
Quality Rating (Good, Fair, or Poor) (see guidance)			
Rater #1 initials:			
Rater #2 initials:			
Additional Comments (If POOR, please state why):			

Appendix D

List of Measures and References for the Systematic Review

The Kessler Psychological Distress Scale (K-10)

Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., &

Zaslavsky, A. M. (2003). Screening for serious mental illness in the general

population. *Archives of General Psychiatry, 60*(2), 184–189.

doi:10.1017/S0033291702006074

The Inventory of Attitudes Towards Mental Health Services

Mackenzie, C. S., Knox, V., Gekoski, W., & Macaulay, H. (2004). An adaptation

and extension of the attitudes toward seeking professional psychological help scale.

Journal of Applied Social Psychology, 34, 2410–2433.

https://doi.org/10.1111/j.1559-1816.2004.tb01984.x

The General Help Seeking Questionnaire (GHSQ)

Wilson, G., Deane, F. P., & Ciarrochi, J. (2005). Measuring help-seeking intentions:

Properties of the general help-seeking questionnaire. *Canadian Journal of*

Counselling, 39(1), 15–28. Retrieved from http://cjc-

rcc.ucalgary.ca/cjc/index.php/rcc

The Mental Health Literacy Scale (MHLS)

O'Connor, M., & Casey, L.M. (2015). The Mental Health Literacy Scale (MHLS): A

new scale-based measure of mental health literacy. *Psychiatry Research, 229*(1-2),

511-516. https://doi.org/10.1016/j.psychres.2015.05.064

The Inventory of Parent and Peer Attachment

Armsden, G. C., & Greenberg, M. T. (1987). The Inventory of Parent and Peer

Attachment: Individual differences and their relationship to psychological well-being

in adolescence. *Journal of Youth and Adolescence, 16*, 427–454.

doi:10.1007/BF02202939

The Mental Illness Stigma Scale

Day, E. N., Edgren, K., & Eshleman, A. (2007). Measuring stigma toward mental

illness: Development and application of the Mental Illness Stigma Scale. *Journal of*

Applied Social Psychology, 37, 2191–2219. https://doi.org/10.1037/cou0000256

The Attitudes Toward Seeking Professional Psychological Help Short Form

Fischer, E. H., & Farina, A. (1995). Attitudes Toward Seeking Professional

Psychological Help: A shortened form and considerations for research. *Journal of*

College Student Development, 36, 368–373.

The Mental Help-Seeking Intention Scale

Hammer, J. H., & Spiker, D. A. (2018). Dimensionality, reliability, and predictive

evidence of validity for three help-seeking intention instruments: ISCI, GHSQ, and

MHSIS. *Journal of Counselling Psychology, 65*, 394–401. doi:10.1037/cou0000256

The Teacher Beliefs Inventory

Owens, J. S., Coles, E. K., Evans, S. W., Himawan, L. K., Girio-Herrera, E.,

Holdaway, A. S., … Schulte, A. C. (2017). Using multicomponent consultation to

increase the integrity with which teachers implement behavioral classroom

interventions: A pilot study. *School Mental Health, 9*, 218–234.

https://doi.org/10.1007/s12310-017-9217-4

The Need for Cognition Scale

Cacioppo, J. T., Petty, R. E., & Feng Kao, C. (1984). The efficient assessment of

need for cognition. *Journal of Personality Assessment, 48*, 306–307.

https://doi.org/10.1207/s15327752jpa4803_13

The Teacher Concerns Inventory

Fimian, M. J. (1988). Teacher stress inventory. Brandon, VT: Clinical Psychology

Publishing Company.

Depression Anxiety Stress Scale (DASS-21)

Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson R. P. (1998).

Psychometric properties of the 42-item and 21-item versions of the depression

anxiety stress scales in clinical groups and a community sample. *Psychological*

Assessment 10, 176–181. https://doi.org/10.1037/1040-3590.10.2.176

The ADHD Self-Report Scale Screener

Kessler, R. C., Adler, L., Ames, M., Demler, O., Faraone, S., Hiripi, E., … Walters,

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portfolio. Causal and control beliefs. Windsor, UK.

Appendix E

Author Guidelines for Criminal Justice and Behaviour

Manuscript Submission Guidelines

Criminal Justice and Behavior seeks contributions examining psychological and behavioral aspects of the juvenile and criminal justice systems. The concepts "criminal justice'' and "behavior'' should be interpreted broadly to include analyses of the etiology of delinquent or criminal behavior, the process of law violation, of victimology, offender classification and treatment, deterrence, and incapacitation. The journal will include analyses of both clientele and employees in the justice systems, and it will include analyses of the effects of differing sanctions or programs. The journal emphasizes reports of original empirical research, theoretical contributions, development and testing of innovative programs and practices, and critical reviews of literature or theory on central topics of criminal justice and behavior. Articles dealing with behavioral aspects of juvenile or criminal justice are welcomed from throughout the world.

Submissions must be sent electronically to https://mc.manuscriptcentral.com/cjb. Manuscripts should be typed in Times New Roman 12-pt font. All margins should be set to 1" and text should be double spaced (including references). Tables, charts, and references should be placed on separate pages. The recommended length for manuscripts submitted to *CJB* is up to 35 pages. Authors should provide justification for manuscript length that exceeds 35 pages. Manuscripts over 45 pages will not be accepted for review without extenuating circumstances for which Editor approval is required for submission. Note that pages here include the abstract, body of the manuscript, references, and all tables and figures.

The format described in the *Publication Manual of the American Psychological Association* (most current edition) must be followed. Please note the changes in header formatting from the 5th to the 6th edition. Manuscript header formatting should follow the latest edition. Questions concerning manuscript submission can be directed to cjb.sagepub@gmail.com.

Book reviews must be sent electronically to https://mc.manuscriptcentral.com/cjb. Inquiries regarding book reviews should be sent to Ashley B. Batastini, Ph.D. at University of Memphis, email: ashley.batastini@memphis.edu.

As with typical manuscript submissions, book reviews should be typed and double spaced, with references on separate pages. In addition to summarizing the main thesis and/or arguments presented in the book, book reviews should also offer a balanced and objective critique that addresses (among other aspects deemed appropriate) the novelty or timeliness of the book, the book author's credentials to speak as an authority on the topic, the thoroughness with which the topic area is covered, the strength of the arguments presented, the structure and organization of the book's contents, and its implications for criminal justice practice or research. Book reviews that only provide a general summary of the book with no further analysis of the book's quality will not be considered for publication. Please be advised that *CJB* prioritizes reviews for books that have an academic or research-based focused as opposed to biographical works, fiction, or theoretical texts that have a limited empirical basis. Therefore, unsolicited book reviewers are advised to select books that align with the aims and scope of *CJB*.

Authors who want to refine the use of English in their manuscripts might consider utilizing the services of SPi, a non-affiliated company that offers

Professional Editing Services to authors of journal articles in the areas of science,

technology, medicine or the social sciences. SPi specializes in editing and correcting

English-language manuscripts written by authors with a primary language other than

English. Visit http://www.prof-editing.com for more information about SPi's

Professional Editing Services, pricing, and turn-around times, or to obtain a free

quote or submit a manuscript for language polishing.

Please be aware that SAGE has no affiliation with SPi and makes no

endorsement of the company. An author's use of SPi's services in no way guarantees

that his or her submission will ultimately be accepted. Any arrangement an author

enters into will be exclusively between the author and SPi, and any costs incurred are

the sole responsibility of the author.

SAGE Choice and Open Access

If you or your funder wish your article to be freely available online to

nonsubscribers immediately upon publication (gold open access), you can opt for it

to be included in SAGE Choice, subject to payment of a publication fee. The

manuscript submission and peer review procedure is unchanged. On acceptance of

your article, you will be asked to let SAGE know directly if you are choosing SAGE

Choice. To check journal eligibility and the publication fee, please visit SAGE

Choice. For more information on open access options and compliance at SAGE,

including self author archiving deposits (green open access) visit SAGE Publishing

Policies on our Journal Author Gateway.

ORCID

As part of our commitment to ensuring an ethical, transparent and fair peer

review process SAGE is a supporting member of ORCID, the Open Researcher and

Contributor ID. ORCID provides a unique and persistent digital identifier that

distinguishes researchers from every other researcher, even those who share the same name, and, through integration in key research workflows such as manuscript and grant submission, supports automated linkages between researchers and their professional activities, ensuring that their work is recognized.

The collection of ORCID iDs from corresponding authors is now part of the submission process of this journal. If you already have an ORCID iD you will be asked to associate that to your submission during the online submission process. We also strongly encourage all co-authors to link their ORCID ID to their accounts in our online peer review platforms. It takes seconds to do: click the link when prompted, sign into your ORCID account and our systems are automatically updated. Your ORCID iD will become part of your accepted publication's metadata, making your work attributable to you and only you. Your ORCID iD is published with your article so that fellow researchers reading your work can link to your ORCID profile and from there link to your other publications.

If you do not already have an ORCID iD please follow this link to create one or visit our ORCID homepage to learn more.

Appendix F

Prolific Participant Information Sheet

Prolific Participant Information Sheet (06.12.19 V2)
Investigating juror decision-making in a mock criminal trial
You are invited to take part in this research project which is interested in juror
decision-making. It is important that you understand the nature of this project before
deciding if you wish to participate. Please read this form to support your
understanding of what participating in the study will involve.

Aim of the research
This study is interested in how juries make decisions based on the information they
are provided with during a mock trial. The study hopes to investigate whether certain
factors affect the decisions made. It builds on previous research conducted in various
countries and aims to focus on UK law.

Do I have to take part?
Your involvement in this study is voluntary, this means it is your choice to partake in
the study or to decline. Once you begin the study you can choose to stop at any time
prior to submitting your responses. Once your responses have been submitted it will
not be possible to withdraw as the responses will be anonymous. In order to take
part, you must ensure you do not meet any of the exclusion criteria, as this study is
interested in jury decision-making, these criteria follow those set by the ministry of
justice who enrol jurors in the UK. It is important that people who partake are
representative of those who could be called for jury service.

What will happen if I agree to take part?
This is an online study in which your identity will remain anonymous, you will not
be asked to give your name or any other information by which you could be
identified. You will be asked to complete some optional questions about yourself
such as age and current job. You will then read a short scenario and complete some
questions about your thoughts on this and then you will be asked to complete a short
questionnaire. You will then be asked to watch a 10-minute video of a mock court
case as though you were sitting in the jury. You will hear from the prosecution, the
defence and the judge. A written copy of this information will also be provided so
you do not have to remember it all. Just like a member of a jury, you will then be
asked to give a verdict (guilty or not guilty) for the defendant. Completing the study
should take around 30 minutes.

What are the possible disadvantages to taking part?
This study is not anticipated to cause any disadvantages. Some of the information
may cause some individuals mild distress but this would not be any more distressing
than information encountered in everyday life. *This study involves a description of a
criminal damage law case, if you anticipate this causing you distress it is at your
discretion to participate.*

Confidentiality

All information collected will be kept strictly confidential, and as it is anonymous it will not be possible to identify you from the responses you provide.
As the data is anonymous, once you have submitted your responses and finished the study, we will not be able to remove your data.

Are there benefits to taking part?
Participation in the study is likely to take approximately 30 minutes. Payment will be made in line with Prolific's payment standards and thus you are likely to receive approximately £3.50 for your time.
 You will also be contributing to important research into how juries use information presented to them in order to make a decision or verdict.

What happens if something goes wrong?
If you have any questions, concerns or would like to speak to someone you can contact any member of the research team, who's details can be found at the bottom of the page. If you have concerns, you would not wish to raise with the research team you can contact the ethics teams using the details provided.

What will happen to the results of the study?
Results will be published; however, you will not be identified in any report or publication. If you wish to be given a copy of the published article, please contact one of the researchers.

Who has ethically reviewed the study?
Both the faculty of medicine and health sciences and the faculty of psychology at the University of East Anglia have given ethical approval to this study.

Contacts or further information
Primary researchers: R.tremlin@uea.ac.uk or C.o-leary@uea.ac.uk, University of East Anglia, Norwich Research Park, Norwich NR4 7TJ.
Faculty of Medicine and Health Sciences ethics: fmh.ethics@uea.ac.uk or Faculty of Social Sciences, School of Psychology ethics: ethics.psychology@uea.ac.uk
Director of the Doctorate in Clinical Psychology Dr Niall Broomfield: N.Broomfield@uea.ac.uk

      Thank you for reading this and considering taking part in this research

Appendix G

Recruitment Advertisements

Advertisement One for First 100 Participants from UEA Bulletins

Ever wondered how jurors make decisions in criminal trials?
Help us find out and be in with a chance to win a
£5 Amazon voucher

You are invited to take part in a study researching how juries make decisions based on the information provided during a mock criminal trial.

This online study allows you to be a juror on a mock criminal trial from the comfort of your own home. You will be asked to complete some questionnaires and watch a 5 to 10-minute video of a mock court case as though you were sitting in the jury. Just like a member of a jury, you will then be asked to give a verdict (guilty or not guilty) for the defendant. Completing the study should take around 30 minutes.

One in every five people who take part will receive a £5 Amazon voucher as a thank you for taking part.
For more information or to take part please click here.

Advertisement Two for The Remaining Participants

Ever wondered how jurors make decisions in criminal trials?
Help us find out!

You are invited to take part in a study researching how juries make decisions based on the information provided during a mock criminal trial.

This online study, open to both students and staff, allows you to be a juror on a mock criminal trial from the comfort of your own home. You will be asked to complete some questionnaires and watch a 10-minute video of a mock court case as though you were sitting in the jury. Just like a member of a jury, you will then be asked to give a verdict (guilty or not guilty) for the defendant. Completing the study should take around 30 minutes.

For more information or to take part, please click here.

Appendix H

University Sample Participant Information Sheet

Participant Information Sheet (06.12.19 V2)

Investigating juror decision-making in a mock criminal trial
You are invited to take part in this research project which is interested in juror decision-making. It is important that you understand the nature of this project before deciding if you wish to participate. Please read this form to support your understanding of what participating in the study will involve.

Aim of the research
This study is interested in how juries make decisions based on the information they are provided with during a mock trial. The study hopes to investigate whether certain factors affect the decisions made. It builds on previous research conducted in various countries and aims to focus on UK law.

Do I have to take part?
Your involvement in this study is voluntary, this means it is your choice to partake in the study or to decline. Once you begin the study you can choose to stop at any time prior to submitting your responses. Once your responses have been submitted it will not be possible to withdraw as the responses will be anonymous. In order to take part, you must ensure you do not meet any of the exclusion criteria, as this study is interested in jury decision-making, these criteria follow those set by the ministry of justice who enrol jurors in the UK. It is important that people who partake are representative of those who could be called for jury service.

What will happen if I agree to take part?
This is an online study in which your identity will remain anonymous, you will not be asked to give your name or any other information by which you could be identified. You will be asked to complete some optional questions about yourself such as age and current job. You will then read a short scenario and complete some questions about your thoughts on this and then you will be asked to complete a short questionnaire. You will then be asked to watch a 10-minute video of a mock court case as though you were sitting in the jury. You will hear from the prosecution, the defence and the judge. A written copy of this information will also be provided so you do not have to remember it all. Just like a member of a jury, you will then be asked to give a verdict (guilty or not guilty) for the defendant. Completing the study should take around 30 minutes.

What are the possible disadvantages to taking part?
This study is not anticipated to cause any disadvantages. Some of the information may cause some individuals mild distress but this would not be any more distressing than information encountered in everyday life. *This study involves a description of a criminal damage law case, if you anticipate this causing you distress it is at your discretion to participate.*

Confidentiality

All information collected will be kept strictly confidential, and as it is anonymous it will not be possible to identify you from the responses you provide.
We will ask you to provide your email address separately at the end if you would like to be entered into the draw for a voucher. Email addresses will be accessed on a UEA password protected computer. Once the draw has taken place your email address will be deleted.
As the data is anonymous, once you have submitted your responses and finished the study, we will not be able to remove your data.

Are there benefits to taking part?
One in every five who take part will be emailed a £5 Amazon voucher. At the end of the study you will be asked to input your email if you would like to be entered into the draw. You will also be contributing to important research into how juries use information presented to them in order to make a decision or verdict.

What happens if something goes wrong?
If you have any questions, concerns or would like to speak to someone you can contact any member of the research team, who's details can be found at the bottom of the page. If you have concerns, you would not wish to raise with the research team you can contact the ethics teams using the details provided.

What will happen to the results of the study?
Results will be published; however, you will not be identified in any report or publication. If you wish to be given a copy of the published article, please contact one of the researchers.

Who has ethically reviewed the study?
Both the faculty of medicine and health sciences and the faculty of psychology at the University of East Anglia have given ethical approval to this study.

Contacts or further information
Primary researchers: R.tremlin@uea.ac.uk or C.o-leary@uea.ac.uk, University of East Anglia, Norwich Research Park, Norwich NR4 7TJ.
Faculty of Medicine and Health Sciences ethics: fmh.ethics@uea.ac.uk or Faculty of Social Sciences, School of Psychology ethics: ethics.psychology@uea.ac.uk
Director of the Doctorate in Clinical Psychology Dr Niall Broomfield: N.Broomfield@uea.ac.uk

Thank you for reading this and considering taking part in this research

Appendix I

Demographic Questions

Demographics
Age: _____years

Gender: Male/Female/Prefer not to say/ Other, please specify: _____

Ethnic background: _____

Highest level of education (please check the box that applies):

☐ Primary school

☐ GCSE or equivalent

☐ A-Level or equivalent

☐ Foundation degree

☐ University undergraduate

☐ University post-graduate- Masters level

☐ University Doctoral or PhD level.

Are you currently a student (under-grad or post grad) enrolled at university? Y/N,
If Yes which level are you studying for (please check the appropriate box):

☐ Foundation degree

☐ University undergraduate

☐ University post-graduate- Masters level

☐ University Doctoral/PhD level.

Please specify the name of course you are currently on, e.g. BSc Psychology:
_____

If you are currently in work including a paid or voluntary position, please provide
your current job title: _____

Would you describe yourself as having experienced/are currently experiencing a
mental health condition? Y/N
Do you know someone who has a MH condition? Y/N,
If yes please indicate your relationship to this individual: e.g. (sister, partner, friend,
acquaintance, uncle etc.) _____

Eligibility criteria

In order to participate in this study, you must be eligible to be selected for jury service in the United Kingdom, please see the information provided below:

To be eligible for jury service you are required to:
-be between 18-75 years of age
-have lived in the UK for a period of at least 5 years since you were 13 years old

Individuals would not be eligible for jury service if they are:
-currently a resident in hospital due to mental health difficulties.
-currently on bail in criminal proceedings
-currently in prison or have been in prison in the last 10 years, including a community order.

Please check the box if you agree to the below statement:

☐ I confirm that I meet the eligibility criteria for jury service outlined above.

Appendix J

Mental Health Literacy Scale

The purpose of these questions is to gain an understanding of your knowledge of various aspects to do with mental health. When responding, we are interested in your degree of knowledge. Therefore, when choosing your response, consider that:
Very unlikely = I am certain that it is NOT likely
Unlikely = I think it is unlikely but am not certain
Likely = I think it is likely but am not certain
Very Likely = I am certain that it IS very likely

1

If someone became extremely nervous or anxious in one or more situations with other people (e.g., a party) or performance situations (e.g., presenting at a meeting) in which they were afraid of being evaluated by others and that they would act in a way that was humiliating or feel embarrassed, then to what extent do you think it is likely they have Social Phobia

| Very unlikely | Unlikely | Likely | Very Likely |

2

If someone experienced excessive worry about a number of events or activities where this level of concern was not warranted, had difficulty controlling this worry and had physical symptoms such as having tense muscles and feeling fatigued then to what extent do you think it is likely they have **Generalised Anxiety Disorder**

| Very unlikely | Unlikely | Likely | Very Likely |

3

If someone experienced a low mood for two or more weeks, had a loss of pleasure or interest in their normal activities and experienced changes in their appetite and sleep then to what extent do you think it is likely they have Major Depressive Disorder

| Very unlikely | Unlikely | Likely | Very Likely |

4

To what extent do you think it is likely that Personality Disorders are a category of mental illness

| Very unlikely | Unlikely | Likely | Very Likely |

5

To what extent do you think it is likely that Dysthymia is a disorder

| Very unlikely | Unlikely | Likely | Very Likely |

6

To what extent do you think it is likely that the diagnosis of Agoraphobia includes anxiety about situations where escape may be difficult or embarrassing

| Very unlikely | Unlikely | Likely | Very Likely |

7

To what extent do you think it is likely that the diagnosis of <u>Bipolar Disorder</u> includes experiencing periods of elevated (i.e., high) and periods of depressed (i.e., low) mood

| Very unlikely | Unlikely | Likely | Very Likely |

8

To what extent do you think it is likely that the diagnosis of <u>Drug Dependence</u> includes physical and psychological tolerance of the drug (i.e., require more of the drug to get the same effect)

| Very unlikely | Unlikely | Likely | Very Likely |

9

To what extent do you think it is likely that in general in the United Kingdom, <u>women are MORE likely to experience a mental illness of any kind compared to men</u>

| Very unlikely | Unlikely | Likely | Very Likely |

10

To what extent do you think it is likely that in general, in the United Kingdom**,** <u>men are MORE likely to experience an anxiety disorder compared to women</u>

| Very unlikely | Unlikely | Likely | Very Likely |

When choosing your response, consider that:

- Very Unhelpful = I am certain that it is <u>NOT</u> helpful
- Unhelpful = I think it is unhelpful but am not certain
- Helpful = I think it is helpful but am not certain
- Very Helpful = I am certain that it <u>IS</u> very helpful

11

To what extent do you think it would be helpful for someone to <u>improve their quality of sleep</u> if they were having difficulties managing their emotions (e.g., becoming very anxious or depressed)

| Very unhelpful | Unhelpful | Helpful | Very helpful |

12

To what extent do you think it would be helpful for someone to <u>avoid all activities or situations that made them feel anxious</u> if they were having difficulties managing their emotions

| Very unhelpful | Unhelpful | Helpful | Very Unhelpful |

When choosing your response, consider that:

- Very unlikely = I am certain that it is <u>NOT</u> likely
- Unlikely = I think it is unlikely but am not certain
- Likely = I think it is likely but am not certain
- Very Likely = I am certain that it <u>IS</u> very likely

13

To what extent do you think it is likely that <u>Cognitive Behaviour Therapy (CBT)</u> is a therapy based on challenging negative thoughts and increasing helpful behaviours

| Very unlikely | Unlikely | Likely | Very Likely |

14

Mental health professionals are bound by confidentiality; however, there are certain conditions under which this does not apply.

To what extent do you think it is likely that the following is a condition that would allow a mental health professional to **break confidentiality**:

If you are at immediate risk of harm to yourself or others

| Very unlikely | Unlikely | Likely | Very Likely |

15

Mental health professionals are bound by confidentiality; however, there are certain conditions under which this does not apply.

To what extent do you think it is likely that the following is a condition that would allow a mental health professional to **break confidentiality**:

if your problem is not life-threatening and they want to assist others to better support you

| Very unlikely | Unlikely | Likely | Very Likely |

Please indicate to what extent you agree with the following statements:

	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
16. I am confident that I know where to seek information about mental illness					
17. I am confident using the computer or telephone to seek information about mental illness					
18. I am confident attending face to face appointments to seek information about mental illness (e.g., seeing the GP)					
19. I am confident I have access to resources (e.g., GP, internet, friends) that I can use to seek					

information about mental
illness

Please indicate to what extent you agree with the following statements:

	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
20. People with a mental illness could snap out if it if they wanted					
21. A mental illness is a sign of personal weakness					
22. A mental illness is not a real medical illness					
23. People with a mental illness are dangerous					
24. It is best to avoid people with a mental illness so that you don't develop this problem					
25. If I had a mental illness I would not tell anyone					
26. Seeing a mental health professional means you are not strong enough to manage your own difficulties					
27. If I had a mental illness, I would not seek help from a mental health professional					
28. I believe treatment for a mental illness, provided by a mental health professional, would not be effective					

Please indicate to what extent you agree with the following statements:

	Definitely unwilling	Probably unwilling	Neither unwilling or willing	Probably willing	Definitely willing
29. How willing would you be to move next door to someone with a mental illness?					

30. How willing would you be to spend an evening socialising with someone with a mental illness?

31. How willing would you be to make friends with someone with a mental illness?

	Definitely unwilling	Probably unwilling	Neither unwilling or willing	Probably willing	Definitely willing
32. How willing would you be to have someone with a mental illness start working closely with you on a job?					
33. How willing would you be to have someone with a mental illness marry into your family?					
34. How willing would you be to vote for a politician if you knew they had suffered a mental illness?					
35. How willing would you be to employ someone if you knew they had a mental illness?					

<u>Scoring</u>
Total score is produced by summing all items (see reverse scored items below). Questions with a 4-point scale are rated 1- very unlikely/unhelpful, 4 – very likely/helpful and for 5-point scale 1 – strongly disagree/definitely unwilling, 5 – strongly agree/definitely willing
Reverse scored items: 10, 12, 15, 20-28
Maximum score – 160
Minimum score - 35

Appendix K

Summary of Linked Project

The data for this project was collected jointly with another Trainee who completed a project using the same sample and recruitment process, but with a different research question. This study was interested in the impact of stigma as measured by the AQ-27 (Corrigan et al., 2004) as well as the effects of the experimental groups on the binary variable of guilty and not guilty. The research questions were:

Primary

1. Does stigma towards schizophrenia affect a juror's verdict in a mock trial?

2. Does the presence of a label (group/condition) affect the decision a juror makes in a mock trial?

3. Does belief in dangerousness have an effect on the verdict given in a mock trial?

Secondary

1. Does the sample (student vs community sample) affect the verdict in a mock trial or Is there an association between sample and verdict?

2. Does the sample (student vs community sample) differ in levels of stigma

Sensitivity Analysis

1. Does the scoring of AQ-27 impact the results?

The full project was written up as a Doctoral Thesis and is currently in preparation for publication.

Appendix L

Video Scripts

Group 1 – Control Group – no mental health information

Prosecution

Mr Greene is charged with damaging property contrary to section 1 of the Criminal Damage Act 1971.

The particulars of the offence are that Mr Greene, on the 16th May 2019, without lawful excuse, damaged property belonging to another, namely parts of a hospital building belonging to the Storbridge NHS Trust. The property damaged included water pipes, walls and floors. The prosecution argues that Mr Greene intended to damage such property or was being reckless as to whether such property would be damaged. The cost of the damage to the property is estimated to be approximately £20,000. The facts are as follows.

On the 16th of May 2019 the police were called to the hospital by security staff who reported that a man had locked himself inside an area of the hospital which contains the water mains and the controls for the hospital's electrical systems. A member of maintenance staff had tried to enter the area and had not been able to open the door. The member of staff knocked on the door to try and gain entry. Mr Greene shouted from inside the room for this man to "Go away! The poison is not all gone yet". At this point the member of staff alerted the security staff, who in turn called the police.

Whilst inside the maintenance room Mr Greene turned off the taps controlling the entry of water to the building. He hit the water pipes several times using a sledgehammer that he had brought with him. As a result of his actions the pipes fractured and water escaped.

Once the police arrived, Mr Greene was arrested and taken to the police station. Mr Greene did not resist arrest and appeared calm, being described by the officers as almost euphoric on their arrival.

We, the prosecution argue that Mr Greene was fully aware of what he was doing at the time of the crime and that he caused the damage intentionally or recklessly, being aware of a risk that damage would result from his behaviour. In law, that is enough to convict the defendant of criminal damage.

We argue that this crime was premeditated, as evidenced by his arrival at the hospital with a sledgehammer and that Mr Greene had spent a lot of time planning it. Mr Greene had gone to the hospital on two occasions prior to 16th May 2019, in order to find out where he could access the mains water supply controls within the building.

Water supply to the hospital was cut off completely for two hours and the damage that was done to the pipes meant that an alternative water supply had to be found and set up. This resulted in disruption to every part of the hospital and further disruption for a number of days due to the temporary water supply being less efficient than the mains supply. There was also significant water damage and flooding to the mains room.

The prosecution's case is that Mr Greene either intended to cause the damage to the hospital's building, or was at least reckless about damage resulting. We put it you, members of the jury, that he was at least aware of a risk that the damage to the hospital's property would result from his actions.

Defence

We, the defence, argue that Mr Greene is not guilty of this offence. We argue that he did not intend to cause the damage to the hospital's property. We

argue that he was not aware that the damage would result from his behaviour. Our case is that Mr Greene believed that he was helping everyone within the hospital by preventing them from being harmed by a contaminated water supply.

Mr Greene believed that the water supply had been contaminated as he had heard a story on the news that a sewage plant nearby had leaked into surrounding areas including a river that flowed passed the hospital.

Mr Greene is 35 years old. He attended a further education college and later graduated with a degree. Following this he worked in a local supermarket and has worked there ever since. Mr Greene is currently living alone in a rented flat within the city centre. He has regular contact with his parents and younger brother who lives at their family home.

We put it to you members of the Jury, that Mr Greene was not intending to cause damage but was in fact intending to save people. We argue that he did not consider that his actions would result in damage to the hospital's property.

Trial Judge's Direction To The Jury

Members of the jury, in order to find Mr Greene guilty of the offence of criminal damage, you must be sure, beyond reasonable doubt, of several things.

You must be sure that he did in fact damage property belonging to the hospital.

If you are sure that he did in fact damage property belonging to the hospital, you must also be sure that Mr Greene intended to cause that damage or was reckless about causing that damage. You may be asking what I mean by "intention" or acting "recklessly". In law, a person intends a result if he acts in order to bring it about. If you are sure that Mr Greene acted in order to bring about the damage to the hospital's property, then your verdict will be 'guilty'.

If you are not sure that he intended to cause the damage, you must ask yourselves whether he caused the damage recklessly.

In law, a person has acted recklessly if, when he does the act or acts that cause the damage, he was aware of a risk that the damage would occur, and it was, in the circumstances known to him, unreasonable for him to take that risk. If you are sure that Mr Greene was aware of a risk that the damage would occur when he did the acts that caused the damage, your verdict will be 'guilty'.

If you are not sure that he intended to cause the damage and you are not sure that he was reckless about causing the damage, then you must find Mr Greene not guilty of this charge.

Group 2- Symptomatic description

The prosecution argument is the same as in Group 1 above.

Defence

We, the defence, argue that Mr Greene is not guilty of this offence. We argue that he did not intend to cause the damage to the hospital's property and was not aware that the damage would result from his behaviour. Our case is that due to his delusional beliefs, Mr Greene believed that he was saving everyone within the hospital by preventing them from being killed by the poison in the water. We argue that he did not consider that his actions would result in damage to the hospital's property.

Mr Greene is 35 years old. He attended a further education college and later graduated with a degree. Following this he worked in a local supermarket and has worked there ever since. Mr Greene is currently living alone in a rented flat within the city centre. He has regular contact with his parents and younger brother who lives at their family home. Mr Greene has had difficulties with his mental health for

several years. Mr Greene's symptoms are managed through the use of prescribed medication, although he does not always take his tablets.

Mr Greene has delusional beliefs that he finds very distressing. Mr Greene's behaviour, particularly when he is not taking medication, can be somewhat unusual and unpredictable. Mr Greene can have beliefs that others do not share, and frequently his paranoia is focussed on the Government, whom he believes is trying to hurt people. Mr Greene has previously held beliefs that the government have been hurting people by poisoning the food sold in supermarkets.

In addition, Mr Greene can experience auditory hallucinations where he hears an authoritative voice which he does not recognise telling him that he is being watched.

An expert mental health clinician, who has a background in the assessment of mental health difficulties in a forensic context, met with Mr Greene before today's trial, so that his mental health difficulties could be assessed. The clinician has submitted a report stating that Mr Greene was experiencing delusional beliefs at the time of the alleged offence. Mr Greene believed that the British Government has a plan to poison people in hospitals so that the burden on the health service will be reduced. According to the clinician's report, Mr Greene stated that he thought the Government had added a poisonous substance to the water supply of the hospital in question, in order, in Mr Greene's words, to "get rid of some sick people so that the hospitals and the health system in general would be able to function better once they had fewer patients". Mr Greene believed that by stopping the water supply he would be saving the lives of patients at the hospital. Mr Greene says he became aware of this Government plan by receiving a number of coded messages in newspapers and through gestures made by TV news presenters that were meant especially for him.

He also explained that he had been told of the government's plan by a voice he often hears.

The defence argue that as a result of Mr Greene's mental health difficulties at the time, he did not intend to cause the damage to the hospital and its property and was not aware of the full extent of damage that would result from his behaviour.

Due to his delusional beliefs he thought that he was helping everyone within the hospital by preventing them from being killed by the poison in the water. Mr Greene turned off the water to keep it from reaching patients and then hit the pipes to stop it being switched straight back on by the government. We put it to you members of the jury, that as a result of Mr Greene's delusional beliefs, he did not appreciate the full extent of damage caused by the flood that would occur to the hospital and its property.

Trial Judge's Direction To The Jury

Members of the jury, in order to find Mr Greene guilty of the offence of criminal damage, you must be sure, beyond reasonable doubt, of several things.

You must be sure that he did in fact damage property belonging to the hospital.

If you are sure that he did in fact damage property belonging to the hospital, you must also be sure that Mr Greene intended to cause that damage or was reckless about causing that damage. You may be asking what I mean by "intention" or acting "recklessly". In law, a person intends a result if he acts in order to bring it about. If you are sure that Mr Greene acted in order to bring about the damage to the hospital's property then your verdict will be 'guilty'.

If you are not sure that he intended to cause the damage, you must ask yourselves whether he caused the damage recklessly.

In law, a person has acted recklessly if, when he does the act or acts that cause the damage, he was aware of a risk that the damage would occur, and it was, in the circumstances known to him, unreasonable for him to take that risk. If you are sure that Mr Greene was aware of a risk that the damage would occur when he did the acts that caused the damage, your verdict will be 'guilty'.

You have heard evidence concerning Mr Greene's mental health difficulties. That is a factor you may want to consider when you are deciding whether Mr Greene intended to cause the damage and whether he appreciated a risk of the damage resulting from his actions.

If you are not sure that he intended to cause the damage and you are not sure that he was reckless about causing the damage, then you must find Mr Greene not guilty of this charge.

Group 3- Symptomatic description and diagnostic label

The prosecution argument is the same as in Group 1 above.

Defence

We, the defence, argue that Mr Greene is not guilty of this offence. We argue that he did not intend to cause the damage to the hospital's property and was not aware that the damage would result from his behaviour. Our case is that due to his paranoid schizophrenia, Mr Greene believed that he was saving everyone within the hospital by preventing them from being killed by the poison in the water. We argue that he did not consider that his actions would result in damage to the hospital's property.

Mr Greene is 35 years old. He attended a further education college and later graduated with a degree. Following this he worked in a local supermarket and has worked there ever since. Mr Greene is currently living alone in a rented flat within

the city centre. He has regular contact with his parents and younger brother who lives at their family home. Mr Greene has had difficulties with his mental health for several years and was diagnosed with paranoid schizophrenia as an adolescent. Mr Greene's symptoms are managed through the use of prescribed medication, although he does not always take his tablets.

Mr Greene has delusional beliefs, consistent with his diagnosis of paranoid schizophrenia that he finds very distressing. Mr Greene's behaviour, particularly when he is not taking medication, can be somewhat unusual and unpredictable. Mr Greene's paranoid schizophrenia means that he can have beliefs that others do not share, and frequently his paranoia is focussed on the Government, whom he believes is trying to hurt people. Mr Greene has previously held beliefs that the Government have been hurting people by poisoning the food sold in supermarkets.

In addition, as a further symptom of his paranoid schizophrenia, Mr Greene can experience auditory hallucinations where he hears an authoritative voice which he does not recognise telling him that he is being watched.

An expert mental health clinician, who has a background in the assessment of mental health difficulties in a forensic context, met with Mr Greene before today's trial, so that his mental health difficulties could be assessed. The clinician has submitted a report stating that Mr Greene was experiencing delusional beliefs related to his diagnosis of paranoid schizophrenia at the time of the alleged offence. Mr Greene believed that the British Government has a plan to poison people in hospitals so that the burden on the health service will be reduced. According to the clinician's report, Mr Greene stated that he thought the Government had added a poisonous substance to the water supply of the hospital in question, in order, in Mr Greene's words, to "get rid of some sick people so that the hospitals and the health system in

general would be able to function better once they had fewer patients". Mr Greene believed that by stopping the water supply he would be saving the lives of patients at the hospital. Mr Greene says he became aware of this Government plan by receiving a number of coded messages in newspapers and through gestures made by TV news presenters that were meant especially for him. He also explained that he had been told of the government's plan by a voice he often hears.

The defence argue that as a result of Mr Greene's paranoid schizophrenia at the time, he did not intend to cause the damage to the hospital and its property and was not aware of the full extent of damage that would result from his behaviour.

Due to his paranoid schizophrenia he believed that he was helping everyone within the hospital by preventing them from being killed by the poison in the water. Mr Greene turned off the water to keep it from reaching patients and then hit the pipes to stop it being switched straight back on by the Government. We put it to you members of the jury, that as a result of Mr Greene's delusional beliefs in relation to his paranoid schizophrenia, he did not appreciate the full extent of damage caused by the flood that would occur to the hospital and its property.

Trial Judge's Direction To The Jury

Members of the jury, in order to find Mr Greene guilty of the offence of criminal damage, you must be sure, beyond reasonable doubt, of several things.

You must be sure that he did in fact damage property belonging to the hospital.

If you are sure that he did in fact damage property belonging to the hospital, you must also be sure that Mr Greene intended to cause that damage or was reckless about causing that damage. You may be asking what I mean by "intention" or acting "recklessly". In law, a person intends a result if he acts in order to bring it about. If

you are sure that Mr Greene acted in order to bring about the damage to the hospital's property then your verdict will be 'guilty'.

If you are not sure that he intended to cause the damage, you must ask yourselves whether he caused the damage recklessly.

In law, a person has acted recklessly if, when he does the act or acts that cause the damage, he was aware of a risk that the damage would occur, and it was, in the circumstances known to him, unreasonable for him to take that risk. If you are sure that Mr Greene was aware of a risk that the damage would occur when he did the acts that caused the damage, your verdict will be 'guilty'.

You have heard evidence concerning Mr Greene's paranoid schizophrenia. That is a factor you may want to consider when you are deciding whether Mr Greene intended to cause the damage and whether he appreciated a risk of the damage resulting from his actions.

If you are not sure that he intended to cause the damage and you are not sure that he was reckless about causing the damage, then you must find Mr Greene not guilty of this charge.

Appendix M

Knowledge Check

1. What crime was Mr Greene accused of committing?

A) Murder

B) Criminal Damage

C) Blasphemy

2. Where did the crime take place?

A) Hospital

B) Train Station

C) Doctor's Surgery

3. What was Mr Green accused of damaging?

A) Water Pipes

B) Car

C) Shop Window

Appendix N

Consent Form

Consent Form (06.12.19 V2)
Investigating mock juror decision-making

FMH Ethical Approval Number: 2019/20-040

CONSENT FORM

Title of Project: An Investigation of Juror Decision-making in A Mock Criminal Trial

Name of Researchers: Cliodhna O Leary and Rachel Tremlin

Please check the box if you agree with each statement.

1. I confirm that I have read the information sheet dated 06.12.19 (version 2) for the above study. I have had the opportunity to consider the information and am satisfied that I understand it.

2. I understand that my participation is voluntary and that I am free to withdraw at any time prior to submission of my responses without giving any reason.

3. I understand that the information collected about me will be used to support other research in the future and may be shared anonymously with other researchers.

4. I agree to take part in the above study.

Appendix O

Debrief

Thank you very much for taking part in this study. This information sheet has been designed to explain the reason for undertaking this research. You have taken part in a study that aims to evaluate the effect that stigma, mental health literacy, and the presentation of mental health information has on the verdict of a mock criminal trial.

We asked you to complete a measure of stigma in mental health. This measure looks at people's beliefs about individuals who have mental health difficulties. It aims to measure whether an individual feels negatively or positively about people who have mental health difficulties.

We also asked you to complete a measure of mental health literacy. Mental health literacy is a concept that includes people's knowledge of mental health difficulties, their ability to recognise them and their knowledge of how to help people who experience them.

We would like to evaluate whether people's levels of stigma and mental health literacy effect how they make a decision in a mock criminal trial. We do this by measuring these things and seeing whether people are more likely to vote guilty or not guilty depending on their levels of stigma and mental health literacy.

We were also interested in whether the presentation of mental health information in the mock trial video had an effect on the verdict. We showed some people a trial

video in which no mental health information was given, some people one where the symptoms of the mental health difficulty were described but not labelled and some where it was both described and labelled. We are hoping to analyse this data in order to see whether the way the information is presented effects the decision people make.

This information is helpful for us to learn about how people perceive mental health difficulties, how they understand mental health difficulties, and how we might best present mental health-based information in court rooms in order to give the defendant the fairest trial possible.

We hope that the information from this study will help us to improve people's knowledge and understanding of mental health and the experience of those who have mental health difficulties within the criminal justice system.

If you have any questions about this study, please contact the researchers c.o-leary@uea.ac.uk; r.tremlin@uea.ac.uk or

Director of the Doctorate in Clinical Psychology at the University of East Anglia: N.Broomfield@uea.ac.uk

Appendix P

Helpful Resources

Thank you for participating in this study. Some individuals may have found some of the criminal or mental health related information provided distressing. If you feel you have been negatively affected by the information and would like some support with this, please contact the following organisations.

Samaritans

A UK based organisation that supports individuals who are feeling distressed

Website: https://www.samaritans.org/   Telephone: 116 123

Victim Support

A UK based organisation that support victims of crimes

Website: https://www.victimsupport.org.uk/ Telephone: 08081689111

Mind

A UK based organisation that offer information and support with mental health difficulties

Website: https://www.mind.org.uk/information-support/

Appendix Q

Faculty of Medicine and Health Sciences Ethics Approval

Faculty of Medicine and Health Sciences Research Ethics Committee

University of East Anglia

NORWICH MEDICAL SCHOOL
Bob Champion Research & Educational Building
James Watson Road
University of East Anglia
Norwich Research Park
Norwich NR4 7UQ

Email: fmh.ethics@uea.ac.uk
www.med.uea.ac.uk

Rachel Tremlin and Cliodhna O'Leary
Clin Psy Doctorate
Faculty of Medicine and Health Science
University of East Anglia
NR4 7TJ

29th May 2020

Dear Rachel and Cliodhna

Title: Investigating juror decision making in a mock criminal trial

Reference: 2019/20-040

Thank you for your email of 19th May 2020 notifying us of the amendments you would like to make to your above proposal. These have been considered and I can confirm that your amendments have been approved.

Please can you ensure that any further amendments to either the protocol or documents submitted are notified to us in advance, and that any adverse events which occur during your project are reported to the Committee.

Approval by the FMH Research Ethics Committee should not be taken as evidence that your study is compliant with GDPR and the Data Protection Act 2018. If you need guidance on how to make your study GDPR compliant, please contact your institution's Data Protection Officer.

Please can you arrange to send us a report once your project is completed.

Yours sincerely

Prof Alastair Forbes
Chair
FMH Research Ethics Committee

COVID-19: *The FMH Research Ethics Committee procedures remain as normal. Please note that our decisions as to the ethics of your application take no account of Government measures and UEA guidelines relating to the coronavirus pandemic and all approvals granted are, of course, subject to these. If your research is COVID-19 related it will naturally be expedited. If the current situation means that you will have to alter your study, please submit an application for an amendment in the usual way.*

Appendix R

Procedure for Splitting Mental Health Literacy Scores into Three Groups

In their measure development study O'Connor and Casey (2015) set out mean scores for the MHLS. The means were as follows; the community sample was 127.38, those who had previously experienced a mental health difficulty was 130.97, those who had previously seen a mental health professional was 133.53 and the mental health professional samples was 145.49. The low, medium and high groupings were based on these means and adapted in order to create roughly even groups within the current study sample. The low MHL group contained those who scored lower than or equal to 129, the medium group contained those who scored between 130 and 140 and the high MHL contained those who scored 141 and above. While these groupings mean that those who scored in line with the mean score for the community sample in the O'Connor and Casey (2015) study fall within the low category in the current study, these groupings allowed for relatively even groups for the analysis. These groupings categorise scores similar to those who have experienced mental health difficulties or support in the medium group and professional levels of knowledge being captured in the high MHL.