Public attitudes and literacy about posttraumatic stress disorder in U.S. adults

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ABSTRACT

There has been little study of public literacy regarding posttraumatic stress disorder (PTSD). Public knowledge and attitudes about PTSD are important for encouraging treatment, prevention, and informing policies. Using a national online survey of 541 adults across 47 U.S. states in November 2016, we assessed attitudes and knowledge about PTSD. Most notably with respect to attitudes, 76–94% of the sample endorsed more federal funding for research, training, and practice for PTSD; and 76% of the sample also believed people with PTSD should have restricted access to firearms. With respect to knowledge, participants demonstrated good general knowledge about PTSD, but tended to overestimate the rate of PTSD and trauma exposure, and demonstrated little knowledge about effective treatments. Sociodemographic characteristics and political affiliation were associated with PTSD knowledge and attitudes, but clinical characteristics did not explain much additional variance. Together, these findings suggest that there is strong public support for research and practice related to PTSD, but little public knowledge about evidence-based treatments for this disorder.

1. Introduction

Health literacy is an important part of health promotion and can be improved through education and public communication (Nutbeam, 2000). It has been estimated that 80 million Americans have limited health literacy, which puts them at greater risk for poor access to care and poorer health outcomes (Berkman, Sheridan, Donahue, Halpern, & Crotty, 2011). In mental health, the concept of health literacy has received much less attention (Jorm, 2000, 2012). Mental health literacy can be defined as knowledge and beliefs about mental illness which aid their recognition, management, or prevention (Jorm, 2012). A review of the literature found that much progress has been made in increasing knowledge and improving attitudes towards people with mental illness internationally, but there is still much to be done (Angermeyer & Dietrich, 2006). In this study, we focus on mental health literacy in the U.S. related to posttraumatic stress disorder (PTSD).

The estimated lifetime prevalence of PTSD in the general U.S. adult population is 6–8% (Goldstein et al., 2016; Kessler et al., 2005;

Pietrzak, Goldstein, Southwick, & Grant, 2011). However, only about 22–53% of people with PTSD seek treatment (Hoge et al., 2004; Hoge, Riviere, Wilk, Herrell, & Weathers, 2014; Roberts, Gilman, Breslau, Breslau, & Koenen, 2011). People who lack understanding of PTSD may not recognize the symptoms, may not know that effective treatments exist, and may be less likely to seek treatment for themselves or advise others to seek treatment.

A recent online survey of 301 adults who screened positive for PTSD (Harik, Matteo, Hermann, & Hamblen, 2017) found that 72% accurately recognized traumatic events and 62% correctly identified PTSD symptoms, but only 38% could recognize effective PTSD treatments. In addition, many participants identified false items as true (e.g., divorce was a trauma that could cause PTSD, drug addiction was a symptom of PTSD) suggesting there are many public misperceptions about PTSD. One reason for these misperceptions may be media-based perpetuation of stigma related to PTSD. A content analysis of over 800 articles that mentioned PTSD in *The New York Times* between 1980 and 2015 (Purtle, Lynn, & Malik, 2016) found that negative themes such as

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crimes perpetrated by people with possible PTSD were common (18% of all articles) and relatively few articles mentioned PTSD treatment options (9% of all articles). The authors concluded that public awareness of PTSD has increased over the years, but may be incomplete, inaccurate, and perpetuate PTSD stigma at individual- and institutional-levels.

Attitudes about PTSD may vary by sociodemographic characteristics and political affiliation. One national study found that public members who were younger, white, female, and more educated tended to have more positive attitudes about people with mental illness (Stuber, Rocha, Christian, & Link, 2014). Public members who are white have also been found to have better recognition of PTSD symptoms than those who are non-white (Harik et al., 2017). These attitudes and knowledge may also shape public policy. For example, there has been longstanding concern about gun ownership among people with PTSD (Bowen & Chang, 2016; Freeman & Roca, 2001) and recent debate around proposed legislation to allow military veterans who have mental problems carry a firearm (Phillips, 2017). Various mental health experts have worked to dispel misconceptions about links between psychopathology and gun violence, which can be complicated by cultural and political values (Metzl & MacLeish, 2015). Nonetheless, improving public literacy around mental illnesses like PTSD can help ensure public health policies related to these conditions are shaped by an informed public.

In this study, we surveyed a national convenience sample of U.S. adults to examine public attitudes and knowledge about PTSD. We sought to identify common stereotypes about PTSD, characterize stigma-related factors that may impede treatment seeking, and help determine whether there is need for greater public education about PTSD. Unlike prior surveys (Harik et al., 2017), we surveyed both adults who reported PTSD symptoms and those who did not. Based on prior work (Harik et al., 2017; Purtle et al., 2016), we hypothesized that the majority of our public sample would have misconceptions about PTSD and have incomplete knowledge about treatment for PTSD. We further hypothesized that those who have never experienced PTSD symptoms would have more misconceptions and lack of knowledge than those who have experienced PTSD symptoms.

2. Material and methods

2.1. Participants

As shown in Table 1, participants had a mean age of 37 years, 73% were non-Hispanic white, 47% were male, and about 57% had a college degree. The majority of participants lived in large cities or suburbs and earned $15,000–$70,000 annually. Our sample was a convenience sample and may not be representative of the general population, but nonetheless, we found background characteristics of our sample were roughly similar to the general U.S. adult population (U.S. Census Bureau, 2017); for example, sample characteristics compared to population characteristics were 34 and 38 for median age, respectively; 73% and 77% White, 47% and 49% male, 99% and 87% high school education or higher, and median income = $31–50,000 range and $53,889, respectively.

2.2. Procedure

A national online survey was conducted in November 2016 through a contract with ClearerThinking.org, which operates a platform that collects data through Amazon Mechanical Turk. Mechanical Turk was created as an online labor market to recruit large numbers of "workers" to complete Human Intelligence Tasks (HITs), and has become an increasingly popular method for conducting surveys and online interventions in social science research (Mason & Suri, 2012). Workers log into the Mechanical Turk website when they would like to work and their account tracks the number of HITs completed and their acceptance rates. For our survey, only workers who had completed at least 500

Table 1
Characteristics of the sample (N = 541).

	Mean/N	SD/%
Sociodemographics		
Age	36.61	10.96
Sex- Male	256	47.3
Race/Ethnicity		
Non-Hispanic white	397	73.4
Non-Hispanic black	47	8.7
Hispanic white	48	8.9
Hispanic black	6	1.1
Asian/Pacific islander	45	8.3
Native/Alaskan	6	1.1
Other	5	0.9
Education		
Below high school	1	0.2
High school/GED	64	1.8
Some college	165	30.5
Associates/Bachelors	234	43.3
Advanced degree	77	14.2
Annual Income		
Less than $15,000	87	16.1
$15,000–30,000	123	22.7
$31,000–50,000	138	25.5
$51,000–70,000	111	20.5
$71,000–90,000	34	6.3
$91,000–110,000	24	4.4
Greater than 110,000	24	4.4
City Size of Residence		
Large city of 100,000 or more	202	37.3
A small city	89	16.5
A suburb	117	21.6
A small town	68	12.6
A rural town	65	12.0
Ever served in the military	25	4.6
Political affiliation		
Democrat	223	42.2
Republican	110	20.8
Independent	171	32.4
Other	24	4.5
Trauma and clinical characteristics		
Experienced a traumatic event	460[a]	85.0
Total # of different traumatic events	3.27	2.66
Age first experienced worst traumatic event[b]	24.51	11.63
Lifetime PCL-5[c] positive screen	162	29.9
Past-month PCL-5 positive screen	66	12.2
GAD-2 positive screen	121	22.4
PHQ-2 positive screen	114	21.1
Any suicidal ideation	92	17.0
AUDIT-C positive screen	190	35.1

[a] The most common 'worst' traumatic event reported by 34.3% was "sudden death of close family member or friend".

[b] Among only those who reported having been experienced a traumatic event.

[c] PCL-5 = Posttraumatic Stress Disorder-Checklist for DSM-5; PHQ-2 = Patient Health Questionnaire-2; GAD-2 = Generalized Anxiety Disorder-2; AUDIT-C = Alcohol Use Disorders Identification Test-Consumption.

HITs with an approval rate of 96% or greater from previous tasks were eligible to participate; these criteria was set to screen out individuals who might engage in indiscriminate or inaccurate reporting. Two initial screening questions were used to recruit only participants who were over the age of 18 and lived in the United States. Of 577 participants who were initially recruited, 541 (93.8%) participants from 47 U.S. states completed the survey and were included in this study. Participants who completed the survey were compensated $2.50 which is commensurate with other similar Mechanical Turk tasks. All study procedures were considered ethical and approved by the institutional review boards at (blinded institution) and (blinded institution).

There are various advantages with using Mechanical Turk, including the ability to recruit a diverse range of participants across the United States, having high quality participants, and a community governed by strong norms of honesty and accuracy (Rand, 2012; Suri, Goldstein, & Mason, 2011). Prior studies have used Mechanical Turk for trauma