

ARTICLE

Public exposure and attitudes about homelessness

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Abstract

In this study, we conducted a survey among a large sample of U.S. adults to assess attitudes and beliefs about the causes of homelessness, policies to address homelessness, and programs for homeless individuals. In 2016, we surveyed a national sample of 541 adults from 47 different U.S. states using Amazon Mechanical Turk. Of the total sample, 78% reported that homelessness was a problem in their communities and 60% believed homelessness would increase in the next 5 years. The majority expressed compassion for homeless individuals and endorsed structural, intrinsic, and health factors as causes of homelessness. Most participants (73%–88%) believed the federal government should dedicate more funds and policies for homeless individuals. These attitudes were substantially more likely to be reported by participants who were female, lower income, Democrat, and personally exposed to homelessness. Most Americans care about homelessness as a major problem but there are divergent perspectives on solutions to address homelessness based on gender, income level, and political affiliation.

Homelessness is a salient public health and social problem in most major metropolitan cities in the United States today. In general, public opinion polls over the past several decades have found that Americans across the political spectrum consider homelessness a serious problem and are concerned about homeless individuals (Blasi, 1994; Tompsett, Toro, Guzicki, Manrique, & Zatakia, 2006; Toro & Warren, 1991). Since the 1980s, there have been numerous federal and local initiatives to provide healthcare and housing for homeless individuals (Bachrach, 1987; Bassuk & Harvey, 1990; Tsai, 2014; U.S. Interagency Council on Homelessness, 2010). However, recent epidemiological studies and annual point-in-time counts of homeless individuals have reported that homelessness continues to be a persistent and prevalent problem in the U.S (Tsai, 2017; U. S. Department of Housing and Urban Development, 2016). With the intractable problem of homelessness, there continue to be divergent political perspectives and policy debates about how to best address and prevent homelessness (Clifford & Piston, 2017; Toro et al., 2007).

Studies on public attitudes about homelessness in the 1990s have found that there has not been “compassion fatigue” for homeless individuals and that the majority (65%–89%) of the U.S. public report feeling compassion and sadness as well as anger about homelessness in the country (Link et al., 1995; Toro & McDonell, 1992). A more recent

national study conducted in 2016 found that these feelings remain prevalent (Tsai, Lee, Byrne, Pietrzak, & Southwick, 2017). Over the past three decades, federal funds dedicated to direct services and research on homelessness has grown dramatically and studies have shown that the general public is willing to pay higher taxes to help homeless people obtain housing (Toro & Warren, 1999).

However, there are diverse opinions about homelessness and proposals for solutions. Private attitudes and perceptions of homelessness often reflect individual sociodemographic characteristics. For example, several studies have found that younger, female, liberal, and less wealthy individuals tend to express more sympathetic attitudes toward homeless people (Tompsett et al., 2006; Toro & McDonell, 1992). One national study found that education was associated with greater tolerance for homeless individuals but less support for economic aid (Phelan, Link, Stueve, & Moore, 1995). These authors theorize that education leads to understanding that equal opportunity does not always result in equal outcomes. Greater religiosity and being a racial minority have also been found to be associated with greater willingness to help homeless individuals (Morgan, Goddard, & Newton Givens, 1997).

Drawing upon the contact hypothesis of in-group/out-group relations, studies have also found that people who are exposed to homelessness in their own lives tend to have more compassionate and favorable attitudes about homelessness (Lee, Farrell, & Link, 2004). Moreover, those who have interpersonal contact with homeless individuals were less likely to see homelessness as the results of individual characteristics, such as substance abuse or laziness (Knecht & Martinez, 2009). However, there have been some mixed findings on studies of people who are panhandled. For example, one national survey found that encounters with homeless panhandlers had mixed effects on public attitudes and behaviors (Lee & Farrell, 2003). Another study found that people who are panhandled are more likely to defend homeless people's right to panhandle, but they did tend to view homelessness as a burden on their communities and reported changing their shopping, entertainment, and transportation routines to avoid panhandlers (Knecht & Martinez, 2009).

In the current study, we conducted a national contemporary survey among U.S. adults to determine public attitudes and beliefs about homelessness and identified individual characteristics associated with different attitudes and beliefs. While studies have found that the general public remains sympathetic and supportive of policies to address homelessness (Tsai et al., 2017), there has been not been recent examination of predictors of these attitudes. In this study, we examined participants' personal exposure to homelessness, their feelings about homeless individuals, and their support for the role of the federal government and other policies concerning homelessness. We also explored which sociodemographic, clinical, psychosocial, and exposure characteristics are associated with attitudes and beliefs about homelessness. The results provide contemporary data about factors related to different Americans' sentiment, public health literacy, and viewpoints regarding homelessness.

1 | METHOD

A national online survey was conducted in November 2016 through a contract with Gimbel Technologies, LLC, which operates a platform that collects data using Amazon Mechanical Turk (MTurk). MTurk was created as an online labor market to allow "requesters" to recruit large numbers of "workers" to complete tasks that are difficult to automate and has become an increasingly popular method for conducting surveys and online interventions in social science research (Mason & Suri, 2012). The purpose of the survey was to assess public knowledge and attitudes about homelessness and posttraumatic stress disorder. All study procedures were approved by the Institutional Review Board at the VA Connecticut Healthcare System and Yale University in the Spring of 2016.

There are various advantages of using MTurk, such as the ability to recruit a diverse range of participants across the United States and obtain high-quality participants because the participants work to maintain a good online reputation, and it is a community governed by strong norms of honesty and accuracy (Rand, 2012; Suri, Goldstein, & Mason, 2011). In addition, cross-sample investigations have demonstrated that data obtained from MTurk are similar to data collected from more traditional subject pools, such as college undergraduates and community samples, on various characteristics including political orientation (Berinsky, Huber, & Lenz, 2012), decision-making biases (Paolacci, Chandler, & Ipeirotis,

2010), personality styles (Buhrmester, Kwang, & Gosling, 2011), and clinical symptoms (Shapiro, Chandler, & Mueller, 2013).

1.1 | Participants

Two initial screening questions were used to include only participants who were older than 18 years of age and lived in the United States. Of 577 participants who were initially recruited, 541 (93.8%) completed the survey and were included in this study. Participants were from 47 different U.S. states. As shown in Table 1, participants had a mean age of 37 years, and 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 only a small proportion (5%) reported having served in the U.S. military. Participants' income levels were normally distributed, with most receiving \$15,000–\$70,000 annually. These background characteristics are roughly similar to the general U.S. population (U.S. Census Bureau, 2015), although our sample had a higher proportion of adults who were White and with lower income; these differences have been found in other samples recruited from MTurk (Paolacci et al., 2010).

1.2 | Assessments

Information about sociodemographic characteristics and political affiliation of participants were based on self-report. Participants were also asked questions about their personal exposure and experience with homelessness. We used the following assessments to obtain participants' clinical characteristics: Trauma History Screen (THS; Carlson et al., 2011); the Posttraumatic Stress Disorder Checklist for the *Diagnostic and Statistical Manual of Mental Disorders 5th Edition* (PCL-5; U.S. Department of Veterans Affairs, 2016); two-item Generalized Anxiety Disorder Scale (GAD-2; Kroenke, Spitzer, Williams, & Löwe, 2009); Patient Health Questionnaire-2 (PHQ-2; Kroenke, Spitzer, & Williams, 2003); one item assessed suicidal ideation (Kroenke & Spitzer, 2002); and Alcohol Use Disorders Identification Test-Consumption (AUDIT-C; Bush, Kivlahan, & McDonnell, 1998). Per scale developer recommendations, scores of 3 or greater on the GAD-2 or PHQ-2 were considered positive screens on the respective scales; on the AUDIT-C, scores of 4 or greater were considered positive screens for men and scores of 3 or greater were considered positive screens for women.

We assessed attitudes, beliefs, and perceptions about homelessness with a total of 52 items from previous surveys (Link et al., 1995; Tompsett et al., 2006; Toro & McDonell, 1992). All items were rated on a 4-point Likert scale. Based on factor analyses, these items were grouped into six domains, as described below (refer to Table 2 for the full list of questions).

The first domain was related to Perceived Causes of Homelessness. Participants were asked the extent to which they agreed with different causes of homelessness (11 items; $\alpha = .67$). The total scale was further divided into three subscales to differentiate the nature of different causes: structural (five items; $\alpha = .80$), intrinsic (two items; $\alpha = .74$), and health causes (four items; $\alpha = .71$).

The second domain was related to Role of Federal Government. Participants were asked the extent to which they agreed that the federal government should dedicate more resources or legislation to homelessness (seven items; $\alpha = .90$).

The third domain was related to Effectiveness of Policies. Participants were asked the extent to which they agreed that various policies were effective in reducing homelessness (10 items; $\alpha = .80$). The total scale was further divided into two subscales: financial (seven items; $\alpha = .76$) and mental health-related policies (three items; $\alpha = .67$).

The fourth domain was related to Compassion for Homeless Individuals. Participants were asked about their emotions and feelings toward homeless individuals (four items; $\alpha = .69$).

The fifth domain was related to Restrictions and Rights. Participants were asked the extent to which they agreed that homeless people should be able to use public spaces for sleeping and panhandling (four items; $\alpha = .71$).

The sixth domain was related to Personal Attitudes and Beliefs. Questions asked participants the extent to which they agreed with statements about the behavior and community effects of homeless individuals (16 items; $\alpha = .89$). Statements were divided into three factors: trustworthiness/dangerousness of homeless individuals (eight items;

TABLE 1 Background characteristics of participants (N = 541)

	Mean/N (SD/%)
Sociodemographic characteristics	
Age	36.6 (11.0)
Male sex	256 (47.3%)
Race/ethnicity	
Non-Hispanic White	397 (73.3%)
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 (11.8%)
Some college	165 (30.5%)
Associate/bachelor degree	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	
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 (4.6%)
Psychosocial and clinical characteristics	
Ever been homeless	70 (12.9%)
Total lifetime years of homelessness ^a	1.66 (2.3)
Total # of different traumatic events	3.27 (2.7)

(Continues)

TABLE 1 (Continued)

	Mean/N (SD/%)
Lifetime PCL-5 score ^b	27.0 (17.7)
Past-month PCL-5 score ^b	15.7 (15.4)
Positive GAD-2 screen ^c	121 (22.4%)
Positive PHQ-2 screen ^d	114 (21.1%)
Any suicidal ideation	92 (17.0%)
Positive AUDIT-C score ^e	190 (35.1%)
Exposure to homeless individuals	
Homelessness in your community	
Not a problem	22.4%
Small problem	52.3%
Large problem	25.3%
Homelessness has gotten worse in your community in past 5 years	44.7%
Homelessness has gotten worse in the country in past 5 years	78.7%
Frequency you see homeless person in your neighborhood	
Never/seldom	55.6%
Sometimes	26.6%
Often	17.8%
Expectation about number of homeless individuals in next 5 years	
Decrease	10.7%
Stay about the same	30.7%
Increase	58.6%
Ever volunteered/worked to provide services to homeless people	24.8%
Frequency a homeless panhandler/beggar asked you for money in past year	
Never	17.0%
Once or twice	38.0%
3–10 times	25.9%
More than 10 times	19.1%
Frequency you donate to homeless panhandlers	
Never/ rarely	54.1%
Sometimes	34.6%
Almost always	11.3%
Average number of homeless people seen weekly	
None	24.2%
1 or 2	38.8%
3 to 10	22.7%
More than 10	14.4%

Note. SD = standard deviation.

^aData about years of homelessness and ages of homeless episodes were asked only of those who reported been homeless sometime in their life.

^bPCL-5 = Posttraumatic Stress Disorder Checklist for the *Diagnostic and Statistical Manual of Mental Disorder 5th Edition*.

^cGAD-2 = 2-item Generalized Anxiety Disorder Scale, mean score (SD) = 1.6 (1.7).

^dPHQ-2 = 2-item Patient Health Questionnaire, mean score (SD) = 1.4 (1.7).

^eAUDIT-C = Alcohol Use Disorders Identification Test-Consumption, mean score (SD) = 2.5 (2.7).

TABLE 2 Attitudes and beliefs about homelessness (N = 541)

	Mean (SD)	% who agree ^a
Perceived causes of homelessness^b		
<i>In your opinion, how much do each of the following contribute to homelessness?</i>		
Factor 1: Structural causes		
Shortage of affordable housing	2.2 (0.9)	78.0
Shortage of government aid for poor people	1.9 (0.9)	66.4
An economic system that favors the rich over the poor	2.2 (1.0)	76.2
Failure of society to provide good schools for many people in this country	1.8 (1.0)	62.3
Bad luck	1.8 (0.8)	63.8
Subscale mean score	2.0 (0.6)	
Factor 2: Intrinsic causes		
Irresponsible behavior on the part of the homeless themselves	1.8 (0.8)	62.1
Laziness on the part of the homeless themselves	1.4 (0.8)	41.7
Subscale mean score	1.6 (0.3)	
Factor 3: Health causes		
Mental illness	2.4 (0.7)	88.2
Drug and alcohol abuse	2.4 (0.7)	88.4
The release of mental hospital patients into the community	2.0 (0.9)	68.7
Physical illness and handicaps	2.1 (0.7)	79.4
Subscale mean score	2.2 (0.5)	
Total mean score	2.0 (0.8)	
Role of federal government^c		
<i>The federal government should spend more money to:</i>		
Build affordable housing for poor people	3.3 (0.8)	86.0
Build shelters and other emergency housing	3.3 (0.8)	88.4
Give rent subsidies for homeless people	3.2 (0.9)	77.2
Provide more welfare benefits for homeless people	3.1 (0.9)	75.0
Provide free alcohol and drug treatment programs	3.2 (0.9)	82.2
Raise the minimum wage to reduce homelessness	3.1 (1.0)	73.3
Give more tax breaks for private developers that build housing for poor people	3.0 (0.9)	77.1
Total mean score	3.2 (0.7)	
Effectiveness of policies^d		
<i>How effective do you think each of the following would be as a way of reducing homelessness?</i>		
Factor 1: Financial policies		
Building more low income housing	3.1 (0.9)	75.6
Giving rent subsidies	3.1 (0.9)	75.2
Cutting welfare benefits	3.3 (0.9)	78.9
Increasing minimum wage	2.9 (1.0)	68.0
Establishing child care programs	3.3 (0.8)	80.6
Helping more homeless people get welfare benefits	3.0 (0.9)	69.1
More temporary and emergency housing	3.3 (0.8)	83.1
Subscale mean score	3.1 (0.7)	

(Continues)

TABLE 2 (Continued)

	Mean (SD)	% who agree ^a
Factor 2: Policies that target mental illness		
Requiring patients in mental hospitals have place to live before release	3.4 (0.8)	84.4
Making alcohol and drug treatment programs free	3.4 (0.8)	86.3
Committing people with serious mental illness for mental health treatment	3.2 (0.9)	81.0
Subscale mean score	3.3 (0.4)	
Total mean score	3.0 (0.8)	
Compassion for homeless individuals		
Feel sad and compassionate for homeless people	3.3 (0.7)	89.5
Careful not to touch a homeless person	2.6 (0.9)	56.7
Makes you angry to think that so many are homeless	3.3 (0.8)	85.9
Feel less compassion for homeless people than you used to	3.0 (0.9)	74.0
Total mean score	3.0 (0.5)	
Restrictions for homeless individuals		
Should homeless people have the right to sleep overnight in public places like parks, or bus and train stations?	2.9 (0.9)	70.1
Should homeless people have the right to vote?	3.6 (0.7)	92.6
Should homeless people be allowed to beg or panhandle in public places	2.7 (0.8)	59.0
Should homeless people be allowed to set up tents or other temporary shelter in public parks?	2.5 (1.0)	49.0
Total mean score	3.0 (0.5)	
Personal opinions of homeless individuals^e		
Factor 1: Trustworthiness/dangerousness		
Most homeless people have always had trouble making friends	2.7 (0.7)	65.2
Most homeless people would respect their neighbors' property	2.9 (0.7)	76.8
Most homeless people have always had trouble with family relationships	2.4 (0.7)	45.3
Homeless people are more likely to commit violent crimes than other people	2.7 (0.8)	63.5
Homeless people are no more dangerous than other people	2.8 (0.8)	65.4
If I knew that a person had been homeless, I would be less likely to trust him or her	2.8 (0.8)	64.6
In the interest of public safety, homeless people should not be allowed to gather in public places	3.0 (0.9)	73.4
Programs for the homeless cost taxpayers too much money	2.9 (0.9)	69.6
Subscale mean score	2.8 (0.7)	
Factor 2: Effect of homelessness on communities		
The more homeless people there are in an area, the worse the neighborhood becomes	2.1 (0.8)	26.2
Even when homeless people seem all right, it is important to remember that they may be dangerous	2.4 (0.8)	37.5
It's only natural to be afraid of a person who lives on the street	2.4 (0.8)	40.1
The quality of life in our nation's cities is threatened by the increasing number of homeless people	2.6 (0.9)	52.4
Local businesses lose customers when homeless people are around	2.2 (0.8)	26.4
The presence of homeless people spoils parks for families and children	2.3 (0.9)	37.8
Subscale mean score	2.3 (0.6)	

(Continues)

TABLE 2 (Continued)

	Mean (SD)	% who agree ^a
Factor 3: Capabilities of homeless people		
Most homeless people have good job skills	2.5 (0.7)	47.5
Given the opportunity, most homeless people could take care of a home	2.9 (0.6)	76.1
Subscale mean score	2.7 (0.3)	
Total mean score	2.6 (0.8)	

^aPercentage who endorse the statement, or report greater support for programs, funding, or compassion for homeless individuals.

^bItem scores ranged from 0 to 3 with higher scores reflecting greater endorsement of the statement.

^cItem scores range from 1 to 4 with higher scores reflecting greater support for federal spending in that area.

^dItem scores for the Effectiveness of Policies, Compassion for Homeless Individuals, and Restrictions, range from 1 to 4 with higher scores reflecting greater support for more programs or services, greater compassion, or fewer restrictions/more rights for homeless individuals, respectively.

^eItem scores range from 1 to 4 with higher scores reflecting more positive attitudes about homeless individuals

$\alpha = .82$), the effect of homelessness on communities (6 items; $\alpha = .84$), and the capabilities of homeless people (two items; $\alpha = .64$).

1.3 | Data analysis

Data analyses proceeded in three steps. First, sociodemographic, clinical, and psychosocial characteristics of the sample were summarized using descriptive statistics. Second, public attitudes about homelessness were examined with frequency analyses, and mean item and scale scores were calculated.

Third, to examine factors related to public attitudes about homelessness, a series of three-block multiple regression analyses were conducted with the first block containing sociodemographic characteristics, the second block containing psychosocial characteristics, and the third block containing exposure-to-homelessness variables. The first block of variables was entered using the simultaneous/enter method, while the second and third block of variables were entered using stepwise forward method. The rationale for this approach was to examine and control for all sociodemographic characteristics, as well as to reduce multicollinearity among psychosocial and exposure-to-homelessness variables when examining their association with public attitudes about homelessness. Standardized beta values were calculated to provide a measure of the magnitude of associations, and adjusted R^2 as well as change in R^2 values were calculated to provide information about the amount of variance explained.

2 | RESULTS

2.1 | Background characteristics and exposure to homelessness

Table 1 shows the characteristics of the sample and their exposure to homelessness. A majority (77.6%) of participants reported homelessness was a problem in their communities, and three quarters of the sample reported seeing at least one homeless person weekly. A sizable group (13%) of participants reported they had been homeless themselves sometime in their lives, with the average age of onset in their late 20s. A little less than half of the sample believed homelessness has “gotten worse” in their communities in the past 5 years and over three-quarters believed homelessness has gotten worse in the country in the past 5 years. A majority (59%) also reported that they expected homelessness to increase in the next 5 years.

2.2 | Public attitudes about homelessness

Table 2 presents both the mean scores and percentage of participants who endorsed each item in each category related to public attitudes and beliefs about homelessness. With respect to Perceived Causes of Homelessness, the majority

(62–78%) of participants endorsed both structural causes of homelessness (e.g., failure of society) as well as intrinsic causes (e.g., irresponsible behavior of homeless individuals). Notably, a large majority (79%–88%) of participants endorsed beliefs that health problems cause homelessness, particularly mental illness and substance abuse. With respect to Role of Federal Government, across items, over 70% of participants supported greater federal funds for homelessness.

With respect to Effectiveness of Policies, the majority of participants (68–86%) reported they believed financial and mental health policies for homeless people were effective in reducing homelessness. With respect to Compassion for Homeless Individuals, the majority (74%–90%) reported feeling compassion for homeless individuals and anger that so many were homeless.

Regarding Restrictions for Homeless Individuals, there were more mixed feelings reported by participants. While the majority (70%–93%) agreed with allowing homeless people to vote and sleep in public places, fewer participants (49%–59%) agreed with allowing homeless people setup encampments and panhandle in public spaces. Regarding Personal Opinions of Homeless Individuals, there were widely varying opinions reported. The majority (65%–77%) of participants reported some fears and concerns about the dangerousness of homeless people. Most participants also reported perceiving some negative effects of homelessness on communities, although over half did not believe that homelessness was negatively affecting the quality of life in cities. Last, although three fourths of participants believed homeless people could take care of a home, less than half believed that homeless people have good job skills.

2.3 | Factors related to public attitudes about homelessness

Tables 3 and 4 present three-block multiple regression analyses of sociodemographic, psychosocial, and exposure characteristics associated with beliefs and attitudes about homelessness. Below, we describe the strongest ($\beta > .10$) and most consistent significant associations in each block of variables.

Among sociodemographic characteristics, participants who were female were more likely to report compassion, beliefs in structural and health causes of homelessness, beliefs in the capabilities of homeless individuals, and beliefs in the effectiveness of financial and mental health policies for homeless individuals. Participants with higher incomes were less likely to report compassion and trust for homeless individuals and were less likely to believe in structural causes of homelessness or the effectiveness of financial policies for homeless individuals. High-income participants were also less likely to support more federal funding to address homelessness and were more likely to support restrictions for homeless individuals.

Participants who identified as Democrats were more likely to report compassion, trust, and less negative community effects of homelessness. Democrats were less likely to believe in intrinsic causes of homelessness and more likely to believe in structural causes of homelessness. Democrats were also more likely to support greater federal funding to address homelessness and believe in the capabilities of homeless individuals and the effectiveness of financial and mental health policies.

Among psychosocial characteristics, participants who had been homeless themselves were more likely to endorse greater federal funding for and fewer restrictions on homeless individuals. Participants who reported experiencing a greater number of different traumatic events were more likely to endorse greater federal funding, fewer restrictions, more compassion, more trust, and greater beliefs in the effectiveness of mental health policies for homeless individuals. In addition, participants who reported greater symptoms of anxiety were more likely to believe in health causes of homelessness, while those who reported any suicidal ideation were less likely to believe in structural causes and those who reported greater symptoms of depression were more likely to believe in the effectiveness of financial policies for homeless individuals.

Among exposure variables, participants who reported more frequently donating to homeless people were less likely to believe in intrinsic causes of homelessness and more likely to believe in structural causes of homelessness. They were more likely to support greater federal funding and believe the effectiveness of financial and mental health policies in addressing homelessness. They were also more likely to agree with fewer restrictions for homeless individuals

TABLE 3 Three-block multiple regression analyses examining associations between sociodemographic, psychosocial, and exposure characteristics associated with beliefs about causes and policies for homelessness^a

	Structural causes of homelessness ^b	Intrinsic causes of homelessness	Health causes of homelessness	Federal funding for homelessness	Restrictions on homeless individuals
First block: Sociodemographic characteristics^c					
Age	-.04	-.01	-.03	.06	-.15**
Female	.12*	-.06	.14**	-.00	-.04
White	-.07	.11*	.05	-.10*	-.06
Education	.01	-.07	.11*	.04	.04
Annual income	-.23*	.11*	.04	-.24**	-.20**
City size	-.07	-.05	-.07	-.09*	.06
Veteran	-.04	.06	-.02	-.09	-.07
Democrat	.26**	-.16**	.04	.28**	.08
Adjusted R ²	.14	.05	.03	.15	.07
Second block: Psychosocial characteristics^d					
Ever been homeless	n/a	n/a	n/a	.11*	.13**
Total # of different traumatic events	.10*	n/a	n/a	.14**	.11*
GAD-2 score	n/a	n/a	.18**	n/a	n/a

(Continues)

TABLE 3 (Continued)

	Structural causes of homelessness ^b	Intrinsic causes of homelessness	Health causes of homelessness	Federal funding for homelessness	Restrictions on homeless individuals
PHQ-2 score	.14**	n/a	n/a	n/a	n/a
Any suicidal ideation	n/a	n/a	-.18**	n/a	n/a
R ² change	.04	-	.03	.04	.04
Third block: Exposure characteristics					
Amount of homelessness in your community	.204 ^c	n/a	n/a	.11 ^c	
Homelessness gotten worse in your community	n/a	n/a	n/a	n/a	n/a
Homelessness gotten worse in the country	n/a	n/a	.14**	n/a	n/a
Expected future increase in homelessness	.09 ^c	n/a	n/a	n/a	n/a
Ever volunteered/worked with homeless people	n/a	n/a	n/a	n/a	n/a
Frequency donate money to homeless person	.19**	-.15**	n/a	.21**	.26**
R ² change	.08	.02	.02	.05	.06

Note. n/a = not applicable; GAD = Generalized Anxiety Disorder Scale; PHQ = Patient Health Questionnaire.
^aValues shown are standardized beta values.
^bDependent variables in this analysis were based on subscale and total scale mean scores detailed in Table 2.
^cThe first block of variables was entered using a simultaneous entry method. Gender was coded as 0 = male, 1 = female. Race was coded as 0 = non-White, 1 = White. Democrat was coded as 0 = non-Democrat, 1 = Democrat.
^dThe second and third blocks of variables were each entered using a forward stepwise method.
*p < 0.05. **p < 0.01.

TABLE 4 Three-block multiple regression analyses examining associations between sociodemographic, psychosocial, and exposure characteristics associated with personal opinions and perceived effectiveness of policies around homelessness^a

	Compassion for homeless individuals ^b	Trustworthiness of homeless individuals	Effect of homelessness on communities	Capabilities of homeless individuals	Effectiveness of financial policies	Effectiveness of mental health policies
First Block: Sociodemographic characteristics^c						
Age	.05	-.04	-.16**	-.04	.04	.02
Female	.12*	.06	.06	.10*	.11*	.21**
White	-.01	.01	.02	-.08	-.07	-.04
Education	.00	.10*	.06	-.04	-.03	-.03
Annual income	-.14**	-.11*	-.08	-.08	-.16**	.02
City size	.06	.07	.06	.03	-.08	-.03
Veteran	-.05	.02	.05	.04	-.02	.00
Democrat	.16**	.17**	.15**	.10*	.31**	.22**
Adjusted R ²	.05	.04	.04	.02	.14	.08
Second block: Psychosocial characteristics^d						
Ever been homeless	.10*	n/a	n/a	n/a	.12**	n/a
Total # of different traumatic events	.14**	.11*	n/a	n/a	n/a	.17**
GAD-2 score	n/a	n/a	n/a	n/a	n/a	n/a

(Continues)

TABLE 4 (Continued)

	Compassion for homeless individuals ^b	Trustworthiness of homeless individuals	Effect of homelessness on communities	Capabilities of homeless individuals	Effectiveness of financial policies	Effectiveness of mental health policies
PHQ-2 score	n/a	n/a	n/a	n/a	.15**	n/a
Any suicidal ideation	n/a	n/a	n/a	n/a	n/a	n/a
R ² change	.04	.01	-	-	.04	.03
Third block: Exposure characteristics						
Amount of homelessness in your community	.13**	.13*	n/a	n/a	.15**	n/a
Homelessness gotten worse in your community	n/a	n/a	n/a	.18**	n/a	n/a
Homelessness gotten worse in the country	n/a	n/a	n/a	n/a	n/a	.10*
Expected future increase in homelessness	n/a	n/a	n/a	n/a	n/a	n/a
Ever volunteered/worked with homeless people	n/a	.11*	n/a	n/a	n/a	n/a
Frequency donate money to homeless person	.33**	.25**	.23**	.18**	.24**	.20**
R ² change	.12	.09	.05	.06	.07	.05

Note. n/a = not applicable; GAD = Generalized Anxiety Disorder Scale; PHQ = Patient Health Questionnaire.
^aValues showed are standardized beta values.
^bDependent variables in this analysis were based on subscale and total scale mean scores detailed in Table 2.
^cThe first block of variables was entered using a simultaneous entry method. Gender was coded as 0 = male, 1 = female. Race was coded as 0 = non-White, 1 = White. Democrat was coded as 0 = non-Democrat, 1 = Democrat.
^dThe second and third blocks of variables were each entered using a forward stepwise method.
*p < 0.05. **p < 0.01.

and less negative community effects of homelessness and reported more compassion and trust for homeless individuals. Participants who reported a greater amount of homelessness in their communities reported greater compassion, trust, beliefs in structural causes of homelessness, and beliefs in the effectiveness of financial policies for homeless individuals.

3 | DISCUSSION

In our national sample of U.S. adults, we found that the majority of the public was concerned and compassionate about homelessness, which aligns with results of public surveys conducted over the past three decades (Blasi, 1994; Link et al., 1995; Tompsett et al., 2006; Toro & Warren, 1991). More specifically, we found that the majority of people surveyed reported that homelessness was a problem in their community, and that they believed homelessness has not only gotten worse but they expected it would continue to get worse in the future. It is hard to determine whether homelessness in the United States has, in fact, increased because accurate estimates of homelessness has been notoriously hard to obtain. Annual point-in-time counts have indicated gradual decreases in the *number* of homeless people (U.S. Department of Housing and Urban Development, 2013, 2016), but at least one recent epidemiological study has found an increase in the prevalence of homelessness in the past decade (Tsai, 2017), which may be attributable to major economic recessions that have occurred during this time period.

Interestingly, we found that the majority of participants endorsed multiple causes of homelessness, including structural, intrinsic, and health factors. This finding suggests the public generally understands that homelessness is a multifactorial problem, which is borne out by the research (Crane et al., 2005; Susser, Moore, & Link, 1993; Tsai & Rosenheck, 2015). Among structural, intrinsic, and health factors, the strongest causes that participants endorsed in each category were shortage of affordable housing, irresponsible behavior, and substance abuse, respectively.

The majority of participants believed the federal government should take a larger role in developing solutions for these problems. Specifically, most participants supported more government spending and policies in favor of affordable housing, free substance abuse treatment, a higher minimum wage, and welfare benefits. However, it is important to point out that some of these policies may be costly and controversial. For example, studies have shown that increasing welfare benefits and increasing the minimum wage can have positive as well as unintended negative consequences on the communities they are intended to serve (Card & Krueger, 1995; Dube, Lester, & Reich, 2010; Pollin, Brenner, & Luce, 2002; Turton, 2001).

Some participants also reported conflicts between their compassion and perceived negative effects of certain policies. While many participants endorsed fewer restrictions on panhandling and sleeping in public places, most also reported fears about homeless people and believed that the public presence of homeless people had negative effects on local businesses and communities. These conflicting values have been reported in a previous study (Knecht & Martinez, 2009) and form the basis of many ongoing debates on proposed legislation related to panhandling and sleeping in public places (Clifford & Piston, 2016; Harris, 2017; Robinson, 2017). Thus, it is important for the general public to be well informed of both the potential costs and consequences of various policies so that the best evidence-based policies can be supported.

Attitudes about homelessness varied substantially by gender, income level, and political affiliation. In general, participants who were female, had lower income, or identified as a Democrat reported more compassion, were more likely to support government programs and policies in favor of homeless individuals, and had greater beliefs in their effectiveness in reducing homelessness. These results are generally consistent with findings of previous studies (Phelan et al., 1995; Tompsett et al., 2006; Toro & McDonell, 1992). Additionally, controlling for sociodemographic characteristics, participants who had been homeless themselves or had frequent contact with homeless individuals also held these attitudes. This finding is consistent with the in-group/out-group hypothesis, which is that those who have greater exposure to homelessness have greater compassion and make more external attributions about behaviors (Knecht & Martinez, 2009; Lee et al., 2004).

3.1 | Strengths and limitations

This study had several strengths: recruitment of a large sample, a comprehensive survey asking about various attitudinal areas related to homelessness including policies, and results that provided detailed contemporary information about public attitudes as the country strives to continue addressing homelessness.

Several limitations of this study are worth noting. Our national survey did not employ random or representative sampling and so generalizability of the results is unknown. The survey asked about attitudes and beliefs about homelessness but did not collect information on actual behavior or intent to support certain policies. Various studies have pointed out discrepancies between participants' reported attitudes and their actual behaviors (Ajzen & Fishbein, 1977). In addition, some participants reported contradictory attitudes such as believing homeless people are more likely to commit violent crimes but are not more dangerous than other people.

Although the responses were anonymous, social desirability may have influenced responses to certain items based on how they were worded. Because the survey was cross-sectional and exploratory, we could only surmise associations and could not infer causation between variables. We did not have specific hypotheses for the study, and the study involved a large number of comparisons that resulted in a high type I error rate so the results need to be considered with these limitations.

3.2 | Conclusion

Taken together, results of this national survey suggest that the majority of Americans care about homelessness and believe the federal government should spend more money to address homelessness. However, there were differing opinions about effective policies reflecting conflicts in values and perceived consequences. Attitudes about homelessness partly reflected sociodemographic characteristics, political affiliation, and exposure to homelessness. Given that homelessness has been a longstanding public health and social problem for several decades, innovative solutions and policies are needed but may also require the support of a well-informed public.

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REFERENCES

- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888–918.
- Bachrach, L. L. (1987). Homeless women: A context for health planning. *Milbank Quarterly*, 65(3), 371–396.
- Bassuk, E. L., & Harvey, M. R. (1990). Family homelessness: Recommendations for a comprehensive policy response. In E. L. Bassuk, R. W. Carman, L. F. Weinreb, & M. M. Herzig (Eds.), *Community care for homeless families: A program design manual*. Washington, DC: Interagency Council on the Homeless.
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, 20(3), 351–368.
- Blasi, G. (1994). And we are not seen: Ideological and political barriers to understanding homelessness. *American Behavioral Scientist*, 37(4), 563–586.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk a new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1), 3–5.
- Bush, K., Kivlahan, D. R., & McDonnell, M. B. (1998). The AUDIT alcohol consumption questions (AUDIT-C): An effective brief screening test for problem drinking: Ambulatory Care Quality Improvement Project (ACQUIP): Alcohol Use Disorders Identification Test. *Archives of Internal Medicine*, 158, 1789–1795.
- Card, D., & Krueger, A. B. (1995). Time-series minimum-wage studies: A meta-analysis. *American Economic Review*, 85(2), 238–243.
- Carlson, E. B., Smith, S. R., Palmieri, P. A., Dalenber, C., Ruzek, J. I., Kimerling, R., ... Spain, D. A. (2011). Development and validation of a brief self-report measure of trauma exposure: The Trauma History Screen. *Psychological Assessment*, 23(2), 463.

- Clifford, S., & Piston, S. (2016). Explaining public support for counterproductive homelessness policy: The role of disgust. *Political Behavior*, 39(2), 503–525.
- Clifford, S., & Piston, S. (2017). Explaining public support for counterproductive homelessness policy: The role of disgust. *Political Behavior*, 39(2), 503–525.
- Crane, M., Byrne, K., Fu, R., Lipmann, B., Mirabelli, F., Rota-Bartelink, A., ... Warnes, A. M. (2005). The causes of homelessness in later life: Findings from a 3-nation study. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 60(3), S152–S159.
- Dube, A., Lester, T. W., & Reich, M. (2010). Minimum wage effects across state borders: Estimates using contiguous counties. *Review of Economics and Statistics*, 92(4), 945–964.
- Harris, T. (2017). Neutralizing homelessness: Federal policy and the depoliticization of poverty. *Urban Geography*, 38(3), 341–347.
- Knecht, T., & Martinez, L. M. (2009). Humanizing the homeless: Does contact erode stereotypes? *Social Science Research*, 38(3), 521–534.
- Kroenke, K., & Spitzer, R. L. (2002). The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric Annals*, 32, 509–521.
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2003). The Patient Health Questionnaire-2: Validity of a two-item depression screener. *Medical Care*, 41(11), 1284–1292.
- Kroenke, K., Spitzer, R. L., Williams, J. B. W., & Löwe, B. (2009). An ultra-brief screening scale for anxiety and depression: The PHQ-4. *Psychosomatics*, 50(6), 613–621.
- Lee, B. A., & Farrell, C. R. (2003). Buddy, can you spare a dime? Homelessness, panhandling, and the public. *Urban Affairs Review*, 38(3), 299–324.
- Lee, B. A., Farrell, C. R., & Link, B. G. (2004). Revisiting the contact hypothesis: The case of public exposure to homelessness. *American Sociological Review*, 69(1), 40–63.
- Link, B. G., Schwartz, S., Moore, R., Phelan, J., Struening, E., & Stueve, A. (1995). Public knowledge, attitudes, and beliefs about homeless people: Evidence for compassion fatigue? *American Journal of Community Psychology*, 23(4), 533–555.
- Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical Turk. *Behavior Research Methods*, 44(1), 1–23.
- Morgan, M. M., Goddard, W., & Newton Givens, S. (1997). Factors that influence willingness to help the homeless. *Journal of Social Distress and the Homeless*, 6(1), 45–56.
- Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on Amazon Mechanical Turk. *Judgment and Decision Making*, 5(5), 411–419.
- Phelan, J., Link, B. G., Stueve, A., & Moore, R. E. (1995). Education, social liberalism, and economic conservatism: Attitudes toward homeless people. *American Sociological Review*, 60(1), 126–140.
- Pollin, R., Brenner, M., & Luce, S. (2002). Intended versus unintended consequences: Evaluating the New Orleans living wage ordinance. *Journal of Economic Issues*, 36(4), 843–875.
- Rand, D. G. (2012). The promise of Mechanical Turk: How online labor markets can help theorists run behavioral experiments. *Journal of Theoretical Biology*, 299, 172–179.
- Robinson, T. (2017). No right to rest: Police enforcement patterns and quality of life consequences of the criminalization of homelessness. *Urban Affairs Review*, Online First. <https://doi.org/10.1177/1078087417690833>
- Shapiro, D. N., Chandler, J., & Mueller, P. A. (2013). Using Mechanical Turk to study clinical populations. *Clinical Psychological Science*, 1(2), 213–220.
- Suri, S., Goldstein, D. G., & Mason, W. A. (2011). Honesty in an online labor market. *Human Computation: Papers from the 2011 AAAI Workshop (WS-11-11)*, 61–66.
- Susser, E., Moore, R., & Link, B. (1993). Risk factors for homelessness. *American Journal of Epidemiology*, 137(5), 546–556.
- Tompsett, C. J., Toro, P. A., Guzik, M., Manrique, M., & Zataia, J. (2006). Homelessness in the United States: Assessing changes in prevalence and public opinion, 1993–2001. *American Journal of Community Psychology*, 37(1-2), 47–61.
- Toro, P. A., & McDonell, D. M. (1992). Beliefs, attitudes, and knowledge about homelessness: A survey of the general public. *American Journal of Community Psychology*, 20(1), 53–80.
- Toro, P. A., Tompsett, C. J., Lombardo, S., Philippot, P., Nachtergaeel, H., Galand, B., ... Blume, M. (2007). Homelessness in Europe and the United States: A comparison of prevalence and public opinion. *Journal of Social Issues*, 63(3), 505–524.
- Toro, P. A., & Warren, M. G. (1991). Homelessness, psychology, and public policy: Introduction to Section Three. *American Psychologist*, 46(11), 1205–1207.

- Toro, P. A., & Warren, M. G. (1999). Homelessness in the United States: Policy considerations. *Journal of Community Psychology*, 27(2), 119–136.
- Tsai, J. (2014). Timing and momentum in VA's path toward Housing First. *Psychiatric Services*, 65(6), 836.
- Tsai, J. (2017). Lifetime and 1-year prevalence of homelessness in the U.S. population: Results from the National Epidemiologic Survey on Alcohol and Related Conditions-III. *Journal of Public Health*, 1–10. <https://doi.org/10.1093/pubmed/fdx034>
- Tsai, J., Lee, C. Y. S., Byrne, T., Pietrzak, R. H., & Southwick, S. M. (2017). Changes in public attitudes and perceptions about homelessness between 1990 and 2016. *American Journal of Community Psychology*, 60(3-4), 599–606.
- Tsai, J., & Rosenheck, R. A. (2015). Risk factors for homelessness among U.S. veterans. *Epidemiologic Reviews*, 37(1), 177–195.
- Turton, N. (2001). Welfare benefits and work disincentives. *Journal of Mental Health*, 10(3), 285–300.
- U.S. Department of Housing and Urban Development. (2016). The 2016 Annual Homeless Assessment Report (AHAR) to Congress. Retrieved from Washington, DC: Retrieved from <https://www.hudexchange.info/resources/documents/2016-AHAR-Part-1.pdf>
- U.S. Census Bureau. (2015). Current population survey. Retrieved from <https://www.census.gov/cps/>
- U.S. Department of Housing and Urban Development. (2013). The 2013 Annual Homeless Assessment Report (AHAR) to Congress: Part 1, Point-in-time estimates of homelessness. Retrieved from <https://www.hudexchange.info/resources/documents/AHAR-2013-Part1.pdf>
- U.S. Department of Veterans Affairs. (2016, March 4, 2016). PTSD Checklist for DSM-5 (PCL-5). Retrieved from <https://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp>
- U.S. Interagency Council on Homelessness. (2010). *Opening doors: Federal strategic plan to prevent and end homelessness*. Washington, DC: United States Interagency Council on Homelessness.

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