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Medical mistrust in the context of Ebola: Implications for intended care-seeking and quarantine policy support in the United States

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Abstract

This investigation explores Ebola conspiracy beliefs, a form of medical mistrust, and their potential impact on health behavior. Results of an online survey in the United States in December 2014 demonstrated that 16 percent of 202 participants held conspiracy beliefs. Participants who were less knowledgeable about Ebola, more mistrustful of medical organizations, and more xenophobic more strongly endorsed conspiracy beliefs. Participants who more strongly endorsed conspiracy beliefs reported that they would be less likely to seek care for Ebola and were less supportive of quarantining people returning from West Africa. Results suggest that medical mistrust may influence health behaviors during infectious disease outbreaks.

Keywords

conspiracy beliefs; Ebola; infectious disease; medical mistrust; quarantine

Introduction

The largest documented outbreak of Ebola, which began in December 2013, was mostly limited to West Africa but was closely followed by the United States (US) government and populace. Guinea, Sierra Leone, and Liberia were significantly impacted by Ebola in August 2014, leading the World Health Organization (WHO) to declare a Public Health Emergency of International Concern (2014). US public interest, fear, and dialogue surrounding Ebola rapidly increased starting in August and continued through the fall of 2014 with the

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transport of several infected personnel for treatment to the US. Several states (e.g. New York and New Jersey) ultimately enacted controversial policies requiring asymptomatic healthcare providers returning from West Africa to be quarantined. These policies were stricter than those recommended by the Centers for Disease Control and Prevention (CDC), which called for active and direct monitoring of people exposed to Ebola patients, but not quarantine (Gambino, 2014). President Obama and members of the medical and scientific communities spoke out against the state-level quarantine policies (Somander, 2014). Yet, similar to past disease outbreaks (e.g. H1N1 in 2009), public reactions to Ebola may have influenced public policy (SteelFisher et al., 2015).

Public reactions to diseases, including Ebola, may be affected by medical mistrust. Medical mistrust is the suspicion of and lack of confidence in medical organizations and providers (Boulware et al., 2003; Pearson and Raeke, 2000). In October 2014, opinion polls demonstrated that many US adults did “not at all” trust information on Ebola from public health officials in the US (20%), the CDC (17%), local hospitals and health authorities (14%), and news organizations (15%) (SteelFisher et al., 2015). Medical conspiracy theories are a manifestation of medical mistrust and encompass proposed plots wherein medical organizations or providers are collaborating to achieve an objective that is typically harmful (Oliver and Wood, 2014; Wood et al., 2012). An analysis of tweets posted between late September and mid- October 2014 suggested that Ebola conspiracy theories had spread widely on Twitter (Jin et al., 2014). According to this analysis, popularly tweeted theories included that the Ebola vaccine only works on White people and health officials inject Ebola patients with lethal substances.

Medical mistrust is prevalent in the US, where medical conspiracy theories surround HIV, cancer, autism, and other diseases. A recent nationally representative survey suggests that conspiracy theories are widely known and endorsed (Oliver and Wood, 2014). Approximately 50 percent of adults agreed with at least one of six theories described (e.g. the Central Intelligence Agency deliberately infected Black Americans with HIV, vaccines cause autism and other psychological disorders) and 20 percent agreed with three or more theories. Some observers attribute medical mistrust to historical events in which authorities have deceived the public. Examples of these events include the Tuskegee syphilis study, in which White doctors withheld treatment for syphilis from Black patients who did not consent to participate in research; “Mississippi appendectomies,” wherein poor Black women were involuntary sterilized by doctors who were often (but not always) operating outside of the law and medical ethics; and radiation experiments conducted by the US Department of Energy on largely poor people of color (Washington, 2006). Knowledge of these acts of discrimination and unethical medical experimentation within medical, military, and government settings throughout US history has led to deep and persistent mistrust of these institutions (Freimuth et al., 2001; Thomas and Crouse Quinn, 1991; Washington, 2006). Medical mistrust may also be attributed to a worldview that centers on the conviction that authorities purposefully, and sometimes maliciously, deceive the public (Wood et al., 2012).

Medical mistrust is associated with a wide range of health behaviors including lower likelihoods of regularly using sunscreen, getting an annual physical examination, and getting

vaccines (Oliver and Wood, 2014). In the context of HIV, people who believe more conspiracy theories tend to use condoms less frequently (Bogart and Thorburn, 2005; Ross et al., 2006), are less likely to get tested for HIV (Bogart et al., 2008, 2010), and are less adherent to antiretroviral therapy (Dale et al., 2014; Kalichman et al., 2015). Medical mistrust can affect both individual and public health. For example, individuals who choose not to receive an influenza vaccine, perhaps due to medical mistrust, may become infected with influenza. They may suffer the effects of influenza, impacting their own health, and may also infect other individuals, thereby impacting public health.

In the current investigation, we explored potential public health implications of medical mistrust, specifically belief in conspiracy theories, in the context of the 2014 Ebola outbreak. Although there were very few cases of Ebola in the US, we conducted this study to gain insight into the role of conspiracy beliefs in rapidly emerging and evolving disease contexts similar to Ebola. We first examined socio-demographic and psychosocial correlates of Ebola conspiracy beliefs to understand who might endorse these beliefs. We hypothesized that people who mistrust the medical system generally would endorse Ebola conspiracy beliefs to a greater extent. We then explored associations between conspiracy beliefs with intentions to seek care if one had Ebola and quarantine policy support to understand how conspiracy beliefs might relate to individual behavior and support for public health policies. We hypothesized that conspiracy beliefs would be associated with both lower intended care-seeking behavior and greater support for quarantining returning travelers and healthcare workers even when controlling for other constructs theoretically related to these outcomes, including knowledge about and fear of Ebola (which might affect both individual behavior and quarantine policy support) and prejudice toward foreigners (which might affect quarantine policy support in particular, given that Ebola patients were almost entirely West African).

Materials and methods

Procedure and participants

We conceptualized this study in October 2014, soon after the first diagnosed case of Ebola appeared in the US and Ebola conspiracy theories were being widely discussed (SteelFisher et al., 2015). We acquired approval from our Institutional Review Board for all procedures in November and completed data collection in mid-December 2014 when Ebola was still in the popular discourse. All data were collected via Amazon Mechanical Turk (MTurk), an online marketplace wherein researchers can post studies, and people can view and complete studies and other tasks. MTurk yields samples that are more representative of the US population than in-person convenience samples yet slightly less representative than national probability samples (i.e. MTurk yields younger, and fewer Black and Latino participants) (Berinsky et al., 2012). Benefits of MTurk use include access to a large and relatively diverse participant pool, low cost, and rapid data collection (Buhrmester et al., 2011; Mason and Suri, 2012). In the context of the current investigation, the ability to collect data rapidly was critical. The study was titled “Ebola in the US” and was limited to adults aged 18 years or older who lived in the US. Participants completed the study in Qualtrics, an online survey tool, and

were compensated US\$1. A total of 218 people accessed the study and 202 were included in the analytic sample. Responses from 16 participants were excluded due to incomplete data.

Measures

Participants reported several socio-demographic characteristics, including their age, gender, race/ethnicity, education, and geographic location (described as rural, suburban, or urban).

Conspiracy beliefs—We adapted a measure of HIV conspiracy beliefs (Bogart et al., 2008; Bogart and Thorburn, 2005) to refer to Ebola. The four items included “There is a cure for Ebola, but it is being withheld,” “Ebola is a form of genocide, or planned destruction, against Africans,” “There would be a cure for Ebola by now if it was in the US,” and “The government could cure Ebola, but chooses not to.” Responses were indicated on a scale ranging from *strongly disagree* (1) to *strongly agree* (5) with the scale midpoint (3) indicating *neither disagree nor agree*. The items were reliable (Cronbach’s $\alpha = 0.85$) and a mean score was calculated.

Outcomes—We derived two measures for intended behavior and quarantine policy support. *Intended care-seeking* was measured with four items. Participants were prompted to indicate how likely they would be to take several actions if they thought they had Ebola. These included “seek medical treatment,” “go to the hospital,” “stay at home” (reverse-scored), and “avoid hospitals” (reverse-scored). Responses were indicated on a scale ranging from *not at all likely* (1) to *very likely* (5). A mean score was calculated (Cronbach’s $\alpha = 0.78$). *Quarantine policy* support was measured with four items. Participants first read an introduction stating “Several states have introduced policies that require anyone who has had contact with an Ebola patient to be quarantined for 21 days, even if they do not have symptoms of Ebola.” Participants were then asked to indicate agreement with items including, “I agree with the quarantine policies,” “The quarantine policies are unnecessary” (reverse-scored), “The state quarantine policies are the best way to stop the spread of Ebola in the US,” and “Quarantine policies will do more harm than good” (reverse-scored) on a scale ranging from *strongly disagree* (1) to *strongly agree* (5). A mean score was calculated (Cronbach’s $\alpha = 0.88$).

Related constructs—We measured several psychosocial constructs to better understand who endorsed conspiracy beliefs and characterize associations between conspiracy beliefs and outcomes of interest while controlling for potential confounders. We measured *Ebola knowledge* with seven true/false items about Ebola transmission and symptoms. We created a proportion of correct items, wherein 0 reflects none correct and 1 reflects all correct. All other measures were responded to on a scale ranging from *strongly disagree* (1) to *strongly agree* (5). We measured general *medical mistrust* with seven items from a validated measure (LaVeist et al., 2009). The items were reliable (Cronbach’s $\alpha = 0.88$) and a mean score was calculated. We measured *xenophobia*, or prejudice toward foreigners and immigrants, with three items adapted from a validated scale (Van Der Veer et al., 2011). A mean score was calculated (Cronbach’s $\alpha = 0.87$). Finally, we measured *fear of Ebola* with nine items developed for the current study to measure fear of catching Ebola, perception of Ebola as a serious and fatal disease, and perception that the Ebola epidemic will reach the US (e.g. “I

am afraid of catching Ebola” and “A major outbreak of Ebola in the US could happen”). A mean score was calculated (Cronbach’s $\alpha = 0.81$).

Statistical analyses

We first conducted exploratory analyses to characterize univariate associations between conspiracy beliefs with socio-demographics, related constructs, and outcomes of interest. Participant characteristics were stratified by conspiracy belief agreement. We divided the sample into participants who rejected conspiracy theories or neither rejected nor endorsed them (scoring 3, the midpoint, or below on the scale) versus those who endorsed or agreed with conspiracy theories (scoring above 3). We further explored associations between sociodemographic and other participant characteristics with conspiracy beliefs using a linear regression to understand which characteristics were associated with greater endorsement of Ebola conspiracy beliefs while controlling for all other characteristics.

In all regression analyses, we differentiated between White and non-White participants, participants with graduate degrees from participants with less than graduate degrees, and participants in rural locations from participants in other locations. (Note that due to issues of sample size, we were unable to further differentiate non-White participants by race/ethnicity.) Finally, we examined associations between conspiracy beliefs with intended care-seeking behavior and quarantine policy support, controlling for participants’ socio-demographic characteristics and other characteristics related to Ebola.

Results

Table 1 describes participant characteristics. Overall, participants were in their mid-30s, there were more male than female participants, three-quarters of participants identified as White or European-American, most participants had completed some education beyond high school, and close to half lived in a suburban area. On average, participants answered five out of seven (73%) of the Ebola knowledge questions correctly. Mean scores for medical mistrust were just over the scale midpoint of 3 (Mean (M) (standard deviation (SD)) = 3.46 (0.78)), mean scores for xenophobia were just under the scale midpoint of 3 (M (SD) = 2.46 (1.09)), and mean scores for fear were just over the midpoint of 3 (M (SD) = 3.34 (0.71)). On average, participants reported that they were likely to engage in care-seeking if they thought they had Ebola (M (SD) = 4.03 (0.89)) and expressed some support for quarantine policies (M (SD) = 3.89 (0.87)).

Approximately 16 percent of the sample agreed with the Ebola conspiracy theories. Univariate results suggested that more participants who identified as non-white (including Black, Latino(a), and other/multiple races) agreed with conspiracy beliefs. Moreover, participants who agreed with conspiracy beliefs reported lower Ebola knowledge, greater medical mistrust, greater xenophobia, greater fear of Ebola, lower intended care-seeking, and lower support for quarantining people who have had contact with Ebola patients. Table 2 includes results of the multiple linear regression analysis, which shows that participants who identified as non-White (B (standard error (SE)) = 0.43 (0.13), $\beta = 0.21$, $p < 0.001$) were less knowledgeable about Ebola (B (SE) = -0.87 (0.33), $\beta = -0.17$, $p = 0.01$), more mistrustful of medical organizations (B (SE) = 0.35 (0.07), $\beta = 0.31$, $p < 0.001$), and more

xenophobic ($B(SE) = 0.23(0.06)$, $\beta = 0.28$, $p < 0.001$) endorsed conspiracy beliefs to a greater extent. Of these significant associations, medical mistrust had the strongest association with conspiracy beliefs and Ebola knowledge had the weakest. These variables accounted for 31 percent of the variance in Ebola conspiracy belief endorsement.

Table 3 shows that participants who endorsed more conspiracy beliefs predicted that they would be less likely to engage in care-seeking actions if they thought they had Ebola ($B(SE) = -0.20(0.08)$, $\beta = -0.20$, $p = 0.02$). Together, the variables accounted for 13 percent of the variance in intended care-seeking, with conspiracy beliefs uniquely accounting for 8 percent of the variance (R^2 change = 0.03, $p = 0.02$). Participants who endorsed more conspiracy beliefs also reported lower support for quarantine policies ($B(SE) = -0.27(0.07)$, $\beta = -0.27$, $p < 0.001$). In addition to conspiracy beliefs, participants who reported more fear of Ebola reported greater support for quarantine policies ($B(SE) = 0.42(0.09)$, $\beta = 0.34$, $p < 0.001$). Together, the variables accounted for 23 percent of the variance in quarantine policy support, with conspiracy beliefs uniquely accounting for 5 percent of the variance (R^2 change = 0.05, $p < 0.001$). Overall, conspiracy beliefs had the strongest associations with intended care-seeking and quarantine policy support of all variables examined, with the exception of fear of Ebola, which had an association that was slightly larger in effect size with quarantine policy support. The socio-demographic characteristics, Ebola knowledge, medical mistrust, and xenophobia were either not statistically significantly associated with intended care-seeking and quarantine policy support or were marginally statistically significant in their associations ($p = 0.06$).

Discussion

We sought to understand potential public health implications of Ebola conspiracy beliefs in the current work. Approximately 16 percent of our sample agreed with Ebola conspiracy beliefs, which is comparable to reports of mistrust of information about Ebola from public health officials in the US during October 2014 (SteelFisher et al., 2015). It is also similar to national rates of agreement with conspiracy beliefs regarding deliberate infection of Black Americans with HIV (12%) and the role of vaccines in autism (20%) (Oliver and Wood, 2014). Medical conspiracy theories, including those surrounding emerging disease outbreaks such as Ebola, do not appear to be contained to only a few, fringe individuals.

We further found that participants who endorsed conspiracy beliefs to a greater extent predicted that they would be less likely to engage in care-seeking behaviors if they thought they had Ebola. In the context of an actual outbreak of Ebola or another highly infectious and dangerous disease, people who are ill but do not seek care and avoid treatment centers may endanger both their own and others' health. Participants who endorsed conspiracy beliefs to a greater extent were also less supportive of quarantine policies. This finding may seem paradoxical if it is assumed that medical knowledge underlies conspiracy beliefs and quarantine support. That is, it may be expected that people with greater medical knowledge would both disagree with conspiracy beliefs and reject quarantine policies, leading to a positive association between conspiracy beliefs and support of quarantine policies. Yet, belief in conspiracy theories may be driven, in part, by an underlying belief that authorities deceive and sometimes harm the public (Wood et al., 2012); therefore, individuals who

endorse medical conspiracy beliefs may oppose quarantine policies due to the control over individual autonomy that such policies grant authorities, leading to the observed negative association between conspiracy beliefs and support of quarantine policies.

Beyond conspiracy theories, there was discussion in the academic literature of the role of fear in decisions to enact state-level quarantine policies (Davtyan et al., 2014; Gonsalves and Staley, 2014; Mitman, 2014). In this study, we found that fear also played a role in people's support for these policies: participants who were more fearful of Ebola supported quarantine policies to a greater extent. Participants with greater knowledge of Ebola endorsed conspiracy beliefs to a lesser extent. Knowledge of Ebola, however, was not directly associated with quarantine policy support once conspiracy beliefs and fear were controlled for in analyses, suggesting that conspiracy beliefs were a more robust or proximal predictor of quarantine policy support. Future research may continue to study these associations, including whether conspiracy beliefs mediate associations between sociodemographic characteristics, knowledge, medical mistrust, and xenophobia with health behaviors and policy support.

Limitations and strengths of current study

With regard to study limitations, several measures were developed or adapted for this study. Although these measures generally demonstrated adequate reliability, more work is needed to ensure their real-world applicability in the context of future disease outbreaks. For example, our measure of care-seeking included items asking whether participants would generally seek care as well as specifically seek care from medical establishments (e.g. hospitals). These items were included because care for Ebola patients was provided in hospital settings (Sugalski et al., 2015), and people who avoid care settings are at risk of infecting others. Moreover, people were screened, evaluated, and tested for Ebola in hospital settings in the US (Goodman et al., 2015; Karwowski et al., 2014; Sugalski et al., 2015). Yet, some guidelines instructed people to call healthcare providers before seeking care in person (CDC, (2015)). Future researchers might develop measures that examine a fuller range of health behaviors (e.g. both calling providers and seeking care in person) and can be tailored to emerging disease outbreaks to allow for real-time investigation of the role of psychosocial processes in these outbreaks. Data were collected via Amazon MTurk. Research suggests that MTurk yields samples that are more representative of the US population than in-person convenience samples; however, they are less representative than national probability samples (Berinsky et al., 2012).

With regard to study strengths, we collected these data in December 2014 at a time when Ebola remained of domestic and international concern. It is possible that if we were to repeat the study now the findings would be different in accordance with the containment of the epidemic in West Africa, decreasing media attention, and the increasing benefit of hindsight regarding the minimal rates of transmission and generally good outcomes of the few cases of Ebola that were seen in the US. Despite its limitations, the use of MTurk enabled us to rapidly collect the data. This allowed us to extend research on medical conspiracy theories to a new disease context and to demonstrate that findings about conspiracy beliefs in the context of other diseases (e.g. HIV) may generalize to other conditions.

Conclusion

In October 2014, President Obama addressed the Ebola outbreak and state quarantine policies, stating “America in the end is not defined by fear. We don’t just react on our fears. We react based on facts and judgment and making smart decisions” (Obama, 2014). Results of this investigation suggest that some US adults’ reactions to Ebola may have been defined by fear, mistrust, and conspiracy theories more than facts and judgment. Although participants, on average, correctly responded to the majority of Ebola knowledge questions, Ebola knowledge was not directly associated with quarantine policy support, whereas conspiracy beliefs were inversely associated support for quarantine policies. Our findings suggest that as outbreaks of new infectious diseases occur, it will be important for public health and other officials to take seriously and immediately address emerging conspiracy theories.

Research suggests that conspiracy beliefs may constitute a belief system, or worldview (Wood et al., 2012), underpinned by a general distrust for authorities. It may therefore be possible to intervene in conspiracy theories broadly to address their role in current and future disease outbreaks. In doing so, it is important to acknowledge that conspiracy beliefs are often rooted in mistrust born of accurate knowledge of wrongdoings perpetrated by authorities (Washington, 2006). To prevent public health mishaps driven by mistrust and conspiracy theories, it is imperative that our medical, political, and military institutions earn the public’s trust. A recent review of interventions designed to increase medical trust yielded insufficient evidence that any existing interventions effectively increase trust in medical providers among individuals (Rolfe et al., 2014). More work is needed to address medical mistrust and repair relationships between individuals and medical institutions within the US.

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Table 1

Participant socio-demographic characteristics, constructs related to Ebola conspiracy beliefs and outcomes, and intended care-seeking and quarantine policy support stratified by Ebola conspiracy belief agreement.

	Overall sample		Conspiracy Belief		Conspiracy belief		Difference	
	100% (N = 202)		Disagree/neutral		Agree		t(df) or $\chi^2(df)$	p-value
<i>Socio-demographics</i>								
Age, M(SD)	34.07 (10.31)		34.26 (10.38)		33.09 (10.03)		t(200) = 0.60	0.55
Gender, % (n)							X ² (1) = 1.29	0.26
Female	45.5 (92)		80.4 (74)		19.6 (18)			
Male	54.5 (110)		86.4 (95)		13.6 (15)			
Race/ethnicity, % (n)							$\chi^2(4) = 11.26$	0.02
Asian/Asian-American	5.9 (12)		100 (12)		0 (0)			
Black/African-American	6.9 (14)		57.1 (8)		42.9 (6)			
Latino(a)/Hispanic-American	7.4 (15)		80.0 (12)		20.0 (3)			
White/European-American	74.3 (150)		86.0 (129)		14.0 (21)			
Other and multiple	5.4 (11)		72.7 (8)		27.3 (3)			
Education, % (n)							X ² (2) = 0.52	0.77
High school or less	35.1 (71)		83.1 (59)		16.9 (12)			
Associate or bachelor's degree	55.4 (112)		83.0 (93)		17.0 (19)			
Master's or doctoral degree	9.4 (19)		89.5 (17)		10.5 (2)			
Geographic location, % (n)							X ² (2) = 1.41	0.49
Rural	19.8 (40)		77.5 (31)		22.5 (9)			
Suburban	45.5 (92)		84.8 (78)		15.2 (14)			
Urban	34.7 (70)		85.7 (60)		14.3 (10)			
<i>Related constructs, M(SD)</i>								
Ebola knowledge	0.73 (0.17)		0.80 (0.17)		0.74 (0.17)		t(200) = 1.74	0.08
Medical mistrust	3.48 (0.78)		3.35 (0.77)		4.10 (0.50)		t(200) = -5.42	<0.001
Xenophobia	2.46 (1.09)		2.33 (1.04)		3.13 (1.15)		t(200) = -3.98	<0.001
Fear of Ebola	3.34 (0.71)		3.29 (0.67)		3.58 (0.77)		t(200) = -2.15	0.03
<i>Outcomes, M(SD)</i>								

	Overall sample	Conspiracy Belief Disagree/neutral	Conspiracy belief Agree	Difference	
	100% (N = 202)	83.7% (N = 169)	16.3% (N = 33)	t(df) or $\chi^2(df)$	p-value
Intended care-seeking	4.03 (0.89)	4.12 (0.83)	3.57 (1.04)	t(200) = 3.37	0.001
Quarantine policy support	3.89 (0.87)	3.95 (0.83)	3.63 (1.01)	t(200) = 1.93	0.06

Ebola knowledge scores ranged from 0–1, with higher scores indicating greater knowledge. Medical mistrust, xenophobia, fear of Ebola, intended care-seeking, and quarantine policy support scores ranged from 1–5, with higher scores indicating greater agreement with or endorsement of the construct. Bold values indicate statistically significant differences, $p < 0.05$.

Table 2

Linear regression predicting conspiracy belief endorsement.

	<u>Conspiracy belief endorsement</u>		
	<i>B</i> (<i>SE</i>)	β	<i>p</i> -value
Intercept	1.78 (0.56)		<0.001
Age	−0.01 (0.01)	−0.11	0.11
Gender: male	−0.22 (0.12)	−0.12	0.06
Race/ethnicity: non-White	0.43 (0.13)	0.21	0.001
Education: graduate	−0.01 (0.19)	−0.01	0.98
Geographic location: rural	−0.04 (0.08)	−0.04	0.60
Ebola knowledge	−0.87 (0.33)	−0.17	0.01
Medical mistrust	0.35 (0.07)	0.31	<0.001
Xenophobia	0.23 (0.06)	0.28	<0.001
Fear of Ebola	−0.07 (0.08)	−0.05	0.42
<i>R</i> ²	0.31		<0.001

Unstandardized (*B* (*SE*)) and standardized (β) regression paths shown. Bold values indicate statistically significant associations, $p < 0.05$.

Table 3

Linear regressions predicting intended care-seeking and quarantine policy support.

	Intended care-seeking			Quarantine policy support		
	<i>B</i> (<i>SE</i>)	β	<i>p</i> -value	<i>B</i> (<i>SE</i>)	β	<i>p</i> -value
Intercept	3.47 (0.58)		<0.001	2.83 (0.53)		<0.001
Age	0.01 (0.01)	0.10	0.17	0.01 (0.01)	0.01	0.85
Gender: male	0.10 (0.13)	0.05	0.46	-0.12 (0.12)	-0.07	0.32
Race/ethnicity: non-White	-0.03 (0.15)	-0.02	0.82	0.17 (0.14)	0.09	0.21
Education: graduate	-0.14 (0.21)	-0.05	0.52	-0.21 (0.20)	-0.07	0.28
Geographic location: rural	-0.16 (0.17)	-0.07	0.34	0.27 (0.16)	0.12	0.09
Ebola knowledge	0.70 (0.38)	0.13	0.07	-0.21 (0.35)	-0.04	0.56
Medical mistrust	0.03 (0.09)	0.02	0.77	0.07 (0.08)	0.06	0.40
Xenophobia	-0.13 (0.07)	-0.16	0.06	0.06 (0.06)	0.07	0.34
Fear of Ebola	0.11 (0.10)	0.09	0.23	0.42 (0.09)	0.34	<0.001
Conspiracy beliefs	-0.20 (0.08)	-0.20	0.02	-0.27 (0.07)	-0.27	<0.001
<i>R</i> ²	0.13		0.02	0.23		<0.001

Unstandardized (*B* (*SE*)) and standardized (β) regression paths shown. Bold values indicate statistically significant associations, $p < 0.05$.