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**THE RELATIONSHIP BETWEEN MEDICAL DIAGNOSES, RISK PERCEPTIONS, AND
SOCIAL DISTANCING COMPLIANCE: A LONGITUDINAL ANALYSIS**

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ABSTRACT

Background: The current study examined whether medical health diagnoses affected individuals' beliefs about health risks and their compliance with social distancing. Previous research examining medical diagnoses is nearly non-existent. We examined how being diagnosed with a physical health ailment or a mental health ailment contributed to beliefs that health is at risk and willingness to comply with social distancing mandates.

Methods: The current study used longitudinal data from the Toledo Adolescent Relationship Study (TARS) (n=790), which examined adults prior to, and during, the COVID-19 pandemic. Dependent variables included beliefs about health risk and compliance with social distancing. Independent variables included physical and mental health diagnoses. We included key indicators associated with the COVID-19 pandemic as well as sociodemographic variables.

Results: Individuals who had a physical health diagnosis perceived that their health was more at risk during the pandemic but were not more likely to comply with the social distancing guidelines. In contrast, individuals who had a mental health diagnosis were more likely to comply with the social distancing guidelines but were not more likely to believe their health is at risk.

Conclusion: Health considerations are important to account for in assessments of responses to the pandemic, beliefs about health risk, and social distancing behavior. Additional research is needed to understand the divergence in the findings in regard to physical health, beliefs about health risk, and social distancing compliance. Further, research is needed to understand how mental health issues impact decision-making related to social distancing compliance.

Key words: Physical Health, Mental Health, Compliance, Risk, COVID-19

INTRODUCTION

In 2019, the “coronavirus disease 2019” or COVID-19¹ was identified in the Wuhan province in China. As of May 2021, there have been 32,681,787 COVID-19 cases and 581,573 deaths in the United States due to this contagious disease⁷. In Ohio alone, there have been 1,089,357 cases of COVID-19 as of May 2021 and 19,528 deaths⁹. In the midst of the COVID-19 pandemic, various measures were put in place to ensure public health safety. Examples include maintaining a six-foot distance from others, otherwise known as “social distancing,” and wearing a mask when out in public. These public health measures are especially important to individuals most at risk if they contract the virus including those with prior health diagnoses. According to the Centers for Disease Control and Prevention, risk for severe illness due to COVID-19 increase with the following health diagnoses: cancer, chronic kidney disease, chronic lung disease, dementia, diabetes, down syndrome, heart conditions, AIDS/HIV, immunocompromised state, liver disease, obesity, sickle cell disease, solid organ or blood stem cell transplant, stroke, and substance use disorders⁸. Because these health conditions put Ohioans more at risk if they contract COVID-19, it is important to factors that affect compliance with public health mandates among those with and without diagnoses.

Younger Americans tend not to suffer from as many physical health conditions as older Americans but taken together a significant share of young adults report having physical health conditions. For example, only 2.9% of individuals, ages 24 – 32, reported having diabetes and 10.6% of the same age group reported having high blood pressure¹⁴. Additionally, 8.5% of young adults, ages 20 – 34, reported having high cholesterol, and 4.7% of individuals, ages 25 – 44, reported having heart disease²¹. According to the Centers for Disease Control and Prevention¹⁵,

2.3% of adults, ages 30 – 39, suffer from hepatitis B, and .029% of adults, ages 25 - 34 reported having AIDS/HIV. Further, 8.0% of Americans, 25 - 34 suffer from asthma²⁰. Miller, Barnes, and Beaver¹⁸ found that .9% of the sample using Wave 3 of National Longitudinal Study of Adolescent to Adult Health reported a cancer diagnosis.

There is extensive research on young adults' mental health resulting in growing concerns about the implications of these health issues especially during the pandemic. Nearly one in eight, 11.6%, of individuals, 25 – 35, report diagnosed anxiety, 15.2% report diagnosed depression²⁶, and 4.76% report having been diagnosed with ADD/ADHD¹⁰. To date, however, there is little, if any, research regarding whether these diagnoses contribute to individuals' beliefs that their health is at risk due to COVID-19, and whether having such diagnoses affect social distancing compliance. This age group is of critical importance because in the United States, individuals, ages 20 – 49, has accounted for much of the spread of the COVID-19 virus¹⁹.

There are varied reasons that individuals have provided for not following social distancing guidelines. In Italy, for example, individuals were less likely to comply if the duration of the stay-at-home order was longer than expected⁵. Yet, individuals who perceived the disease to be more deadly reported a lower likelihood of social distancing compliance in what has been dubbed the “fatalism effect”³.

Research on sociodemographic correlates of beliefs and behaviors during the pandemic have included gender, race/ethnicity, age, and economic background. Women have reported taking more precautions than men in protecting themselves from COVID-19¹¹. Also possessing more knowledge of COVID-19 has led to increased levels of social distancing for women, but not men¹³. Socioeconomic background also has played a role in compliance in that those with

higher socioeconomic status reported more instances of taking precautions against COVID-19¹¹. Individuals with a high school degree or less were found to have greater numbers of close contact (i.e., less compliance with social distancing mandates) than those with more education⁶. Race/ethnicity has not been found to be associated significantly with social distancing behaviors²³. In addition older, compared with younger, adults have tended to have more close contacts and were more likely to have gone out the previous day⁶.

Previous research has found that in the United States, political beliefs have played a role in whether individuals complied with social distancing regulations. Individuals who resided in Republican counties were less compliant with stay-at-home orders than individuals who resided in Democratic counties²². Additionally, individuals affiliated with the Democratic Party reported lower likelihoods of compliance when the stay-at-home order was issued by a Republican governor²². Viewers of conservative media outlets, such as Fox News, have tended to be less compliant with stay-at-home orders²⁴. Regarding beliefs about health risk, individuals who identify as Democrats reported higher levels of pessimism regarding health than individuals who identify as Republicans¹¹. Moreover, those who endorsed Donald Trump were less likely to believe that they are at risk for COVID-19⁴. In sum, politics have influenced whether individuals believe they are at risk for COVID-19 and whether they followed social distancing guidelines.

In spite of the serious health implications of COVID-19, there is a paucity of research on health diagnoses and compliance with social distancing guidelines²³ or whether individuals believe that their health is at risk if they contract COVID-19. An important conceptual model for understanding health behaviors is the Health Belief Model. This model posits that individuals will engage in health behaviors if they believe they are (1) more at risk for contracting a disease, (2) likely to experience more serious consequences for that disease, (3) able to access potential

protection that could reduce susceptibility and/or severity of the disease, (4) able to benefit from potential protection efforts, and (5) certain that the benefits outweigh any barriers that could prevent the disease²⁵. As mentioned previously, several medical conditions can lead to more serious health consequences from COVID-19⁸. Following the Health Belief Model, individuals with diagnosed medical conditions prior to the pandemic may be more likely to believe that they are at risk for serious consequences of COVID-19 and may be more compliant with social distancing guidelines.

This study examined whether physical and mental health diagnoses influenced individual's compliance with social distancing mandates and whether they believed that they are at risk for serious consequences from COVID-19. Utilizing a binary indicator of whether individuals have a physical or mental health diagnosis¹⁷, this study used self-reported physical and mental health diagnoses from doctors and/or other healthcare professionals. We expected that individuals who reported a physical or mental health diagnosis would be more likely to believe that they are more at risk for the consequences of COVID-19, and would report higher social distancing compliance. Models included controls for political beliefs and the social distancing behavior of significant others that prior research has shown to be related to compliance¹².

METHODS

Setting and Design

This study used data from the Toledo Adolescent Relationship Study (TARS). The initial TARS sample was interviewed in 2000 and 2001 and consisted of a stratified random sample of seventh, ninth, and eleventh graders from Lucas County, Ohio. According to Census data, Lucas

County is similar to national statistics regarding education, income, and race²⁸. The TARS data contains seven waves of data with Wave 1 (2000-2001), Wave 6 (2019), and Wave 7 (2020) being utilized for this study, as such, the data were collected prior to and during the pandemic. IRB approval was received for each wave of data collection.

Participants

The baseline sample included 1,321 respondents, ages 12 - 18. The most recent interview, Wave 7, included 822 respondents, ages 31 - 38. The sampling frame was based on school rosters in Lucas County, Ohio with an oversample of Black and Hispanic respondents. Rosters were available through Ohio's Freedom of Information act, and respondents did not have to attend school to participate in the study. Due to small sample sizes, we excluded respondents who reported their race as "other" (n = 18), and who were missing data on the dependent variables (n = 7). The final analytical sample is 790 respondents with 73.46% of the sample currently living in Ohio.

MEASURES

Dependent Variables

Beliefs about Health Risk were measured with a two-item summed scale. We asked how strongly respondents agreed or disagreed with the following: (1) "I am at a high risk of becoming infected," and (2) "Most people my age will not have serious health consequences from COVID-19" (reverse coded). The scale ranged from (1) strongly disagree to (5) strongly agree.

Social Distancing Compliance was measured with a six-item summed scale. Respondents were asked how often they did the following when the social distancing guidelines were suggested: (1) "increase physical space between you and others (six feet is recommended) to avoid spreading

illness,” (2) “stay home to avoid spreading illness,” (3) “go to grocery store or pharmacy,” (reversed) (4) “go to a workplace that requires contact with others,” (reversed) (5) “hang out or spend time with friends (not living with you),” (reversed) and (6) “hang out or spend time with family (not living with you)” (reversed). The scale ranged from (1) never to (5) as much as possible.

Independent Variables

Physical Health Diagnoses were measured by asking whether respondents were told by a doctor, nurse, or other health care provider that they have “cancer, lymphoma, or leukemia,” “high cholesterol, triglycerides, or lipids,” “high blood pressure or hypertension,” “high blood sugar or diabetes,” “heart disease or heart failure,” “asthma,” “chronic bronchitis, or emphysema,” “epilepsy or another seizure disorder,” “hepatitis B or C,” “sleep apnea,” “chronic kidney disease or kidney failure,” “blood clot, stroke or mini stroke,” “HIV/AIDS,” or “a sexually transmitted disease such as genital herpes, warts, chlamydia, HPV, gonorrhea, or syphilis”¹⁷. Responses were (0) no and (1) yes.

Mental Health Diagnoses were measured by asking whether respondents were told by a doctor, nurse, or other health care provider that they have “depression,” “post-traumatic stress disorder or PTSD,” “anxiety or panic disorder,” or “attention problems or ADD or ADHD”¹⁷. Responses were (0) and (1) yes.

COVID-19 Indicators

Fear of COVID was measured with a three-item summed scale. We asked how often during the pandemic did respondents experience the following: (1) “Worried you might have contracted the virus,” (2) “Worried one or more of family might contact COVID-19,” and (3) “Listened to news

or read social media about COVID-19 developments.” Responses included (1) never to (5) very often ($\alpha = .71$).

Political Beliefs were measured with a two-item summed scale by asking how strongly respondents agreed or disagreed with the following: (1) “Politicians, the news and social media have exaggerated the risk,” and (2) “Government should not tell me what to do.” Responses included (1) strongly disagree to (5) strongly agree ($\alpha = .71$).

Friends Social Distance Compliance was measured with the following: “How many of your friends and acquaintances practice social distancing?” Responses included (1) none to (5) all.

Family Social Distance Compliance was measured with the following: “How many of your family members practice social distancing?” Responses included (1) none to (5) all.

Exposure to COVID-19 was measured with a two-item summated scale. We asked the following: (1) “Do you personally know someone who has/had the virus,” and (2) “Do you know someone who is in a job that puts them at higher risk for exposure to COVID-19?” The scale responses were (0) no and (1) yes.

Sociodemographic Indicators

Age is measured at the Wave 7 interview. Respondents were, on average, age 34, with a range of 31 - 38. Gender, measured at Wave 1, with male as the comparison. Race/ethnicity, measured at Wave 1, included non-Hispanic White (reference), non-Hispanic Black, and Hispanic.

Educational attainment, measured at Wave 6, included high school or less (reference), some college, and college graduate. Month of interview indicated when respondents completed the interview ranging from 6 (June) to 10 (October/November).

Statistical Analyses

We examined descriptive statistics for all variables (Table 1). Next, we estimated health beliefs with OLS regression models (Table 2). Model 1 regressed health beliefs onto physical health diagnosis and mental health diagnosis. Model 2 regressed health beliefs onto physical health diagnosis, mental health diagnosis, and the COVID-19 variables. Model 3 regressed health beliefs onto physical health diagnosis, mental health diagnosis, and the sociodemographic variables. Model 4 regressed health beliefs onto physical health diagnosis, mental health diagnosis, the COVID-19 variables, and the sociodemographic variables. Finally, we examined social distancing compliance in terms of physical and mental health diagnoses with a series of OLS regression models (Table 3). Model 1 regressed compliance onto physical health diagnosis and mental health diagnosis. Model 2 regressed compliance onto physical health diagnosis, mental health diagnosis, and the COVID-19 variables. Model 3 regressed compliance onto physical health diagnosis, mental health diagnosis, and the sociodemographic variables. Model 4 regressed compliance onto physical health diagnosis, mental health diagnosis, the COVID-19 variables, and the sociodemographic variables. Interview month is included, but not presented in tables.

RESULTS

The mean value of the health beliefs was 5.65, which represents a mid-point on a scale ranging from 2 to 10 (Table 1). The average social distancing score was 19.65, indicating that most respondents responded to values above the mid-point. Regarding the key independent variables,

over half (50.82%) reported a physical health diagnosis, and 43.65% reported a mental health diagnosis. The mean score on conservative political beliefs was 5.93 indicating values just below the mid-point of the scale, which ranged between 2 and 10. Friends who social distance and family who social distance averaged above the mid-point, 3.64 and 3.72, respectively, indicating values just above the mid-point of the scale between 1 and 5. COVID-19 exposure was low with a mean score of 1.43 indicating values just above the mid-point of the scale between 0 and 2. Respondents' mean age was 34.10. Nearly 60% of the sample was female. One-fifth (20.00%) of the sample was Black, 11.07% Hispanic and two-thirds (68.93%) White. About 18.49% of respondents have a high school degree or less, 42.14% reported some college, and 39.37% reported a college degree.

In Model 1 (Table 2), physical health was associated positively with beliefs about health risk. Individuals with a physical health diagnosis were more likely to believe that their health was at risk compared to those without a physical health diagnosis. Mental health was not significantly related to health beliefs in Model 1, and this was true even when physical health was not included in the model (not shown). In Model 2, the relationship between physical health and beliefs about health risk remained significant with the inclusion of the COVID-19 variables. Individuals who expressed greater fear of COVID-19 believed their health is more at risk than those who expressed lower levels of fear. Individuals who expressed conservative political beliefs were less likely to believe their health was at risk than individuals who expressed liberal political beliefs. Model 3 examined how physical health diagnosis, mental health diagnosis, and the sociodemographic variables influenced health beliefs. The significant relationship between physical health diagnosis remained the same as in Models 1 and 2. Women, compared with men, were more likely to believe their health was at risk. Black, compared with White, respondents

were more likely to believe their health was at risk. Individuals with a college degree, compared to those without a degree, were less likely to believe their health was at risk. Model 4 included the full set of covariates and showed how physical health diagnosis, mental health diagnosis, the COVID-19 variables, and the sociodemographic variables influenced health beliefs. The significant relationship between physical health diagnosis and beliefs about health risk remained the same in all models. Fear of COVID-19, conservative political beliefs, gender, and possessing a college degree remained significant. Those with some college were significantly less likely to believe that their health is at risk.

In Model 1 (Table 3), mental health diagnosis was found to be positively associated with social distancing compliance. Those with a mental health diagnosis were more likely to social distance compared to those without a mental health diagnosis. Physical health diagnosis was not associated with social distancing compliance, and was not associated with compliance in a model without the mental health indicator (not shown). In Model 2, the relationship between mental health and social distancing compliance remained significant with the inclusion of the COVID-19 variables. Those who expressed greater fear of COVID-19 were more likely to social distance than those who expressed lower levels of fear. Individuals who expressed conservative political beliefs were less likely to social distance than individuals who expressed liberal political beliefs. Individuals who have friends and family who social distance were more likely to social distance than individuals whose friends and family did not. Model 3 examined how physical health diagnosis, mental health diagnosis, and the sociodemographic variables influenced social distancing compliance. The significant relationship between mental health diagnosis and social distancing compliance was similar as reported in Models 1 and 2. Further, older, compared to younger, individuals were less likely to social distance. Women, compared with men, were more

likely to social distance. Individuals with a college degree or more were more likely to social distance than those without a college degree. Model 4 examined how physical health diagnosis, mental health diagnosis, the COVID-19 variables, and the sociodemographic variable affected social distancing compliance. The significant relationship between mental health diagnosis and social distancing compliance remained significant across all models. Fear of COVID-19, conservative political beliefs, friends and family social distancing, age, and gender all remained statistically significant. Educational attainment was not associated with social distancing once the full set of covariates were included in the model.

DISCUSSION

The current study examined whether physical health and mental health diagnoses were associated with beliefs about health risk and social distancing compliance. We found that individuals who were diagnosed with a physical health problem were more likely to believe that their health was at risk than those who did not have a physical health diagnosis. Despite this finding, individuals with a physical health diagnosis were not more likely to comply with social distancing guidelines. Individuals who had received a mental health diagnosis from a doctor or other professional were more likely to comply with social distancing recommendations than individuals who did not have a mental health diagnosis. Individuals with a mental health diagnosis, however, were not more likely to believe their health was at risk.

The current study adds to a limited body of research on physical and mental health issues and social distancing behaviors. Consistent with Papageorge and colleagues²³ recent study, results do not indicate a significant relationship between physical health and social distancing,

yet the findings indicate that individuals who have a physical health diagnosis believe they are more at risk for COVID-19, even as they do not report greater compliance with social distancing.

Thus, complicating the basic tenets of the Health Belief model, these individuals recognize that they are at risk, but are not more likely to take the actions needed to protect themselves from the virus. This could reflect structural or social impediments to effective social distancing, or attitudes, such as fatalism that may play a role. Conversely, individuals who have received a mental health diagnosis are more likely to social distance, even as they indicate that they are not at greater risk for COVID-19. This is consistent with recent CDC findings underscoring that none of the mental health indicators contribute to having a higher risk of contracting COVID-19⁸. Some mental health conditions may be associated with a more general decrease in the desire to socialize, and conditions such as agoraphobia in particular^{2,27} relate to a fear of leaving home. Both anxiety and depression may be linked to an increase in other types of ‘fears’ resulting in a heightened sensitivity to the issue of COVID-19 and resulting desire to comply fully with the social distancing recommendations.

The results of this study point to the need to examine the divergence in findings; those with physical health diagnoses, in particular, recognized their risks, but were not more likely to comply. Although we find that the associations between health and pandemic-related beliefs and behaviors are not explained by COVID-19 indicators or sociodemographic measures, future research needs to consider the type of health condition or severity of the health condition.

This study, however, is not without limitations. First, the TARS sample is concentrated around Lucas County, Ohio. Due to the data’s local nature, it is not possible to generalize to the United States population. Nevertheless, the characteristics of Toledo, Ohio and the surrounding

area are similar to those of other Ohio regions. In addition, this study does not account for degree of severity for individual diagnoses as the health diagnoses measures are dichotomous variables. It may be that individuals suffer from varying degrees of their diagnosis. Finally, this study does not examine underlying motivations for social distancing or beliefs about health risk. Further research determining how the pandemic has shaped beliefs and behaviors is warranted. Despite these limitations, this study makes contributions to the literature on social distancing compliance and beliefs about health risk.

This study contributes to the literature on social distancing compliance and beliefs about health risk in two key ways. Although previous research has focused mostly on gender¹¹, the length of the pandemic⁵, and politics^{11,22,24}, this study focused on the physical and mental health circumstances of a large, heterogeneous sample. Receiving a diagnosis from a doctor or healthcare provider may be a more accurate indicator of current health of the respondent than self-reported physical health or mental health. Additionally, TARS is a longitudinal study, whereas many recent studies on COVID-19 are cross-sectional so causality cannot be established, and/or relied on convenience samples so generalizability is questionable, or are based on retrospective questions that are subject to recall bias²³. With longitudinal data, we were able to examine how earlier medical diagnoses impacted current social distancing compliance and beliefs about health risk.

PUBLIC HEALTH IMPLICATIONS

Although health beliefs are important for understanding compliance with various public health recommendations, the current study describes a disjuncture between beliefs and action that warrants greater attention by researchers and practitioners. Those adults in their mid-thirties who

had received a physical health diagnosis well-understood that they were at increased risk, but did not take the efficacious actions that corresponded to those beliefs. Conversely, the respondents who had received mental health diagnoses did not believe they were at heightened risk (consistent with CDC findings indicating no increased risk⁸), but nevertheless were more likely to comply than those without such diagnoses. This suggests the need for researchers to continue to investigate mechanisms underlying not only the association between beliefs and action, but differences between general viewpoints and the process of making changes in basic patterns of social behavior. Recognizing the way individuals are positioned economically, politically, and socially may affect the nature of beliefs, compliance itself, and these disjunctures. Public health messages should be sensitive to these complex influences, and to variability in life circumstances as reflected in physical and mental health problems.

There have been 1,089,357 cases of COVID-19 in Ohio as of May 2021 and there have been 19,528 deaths due to COVID-19 as of May 2021⁹. The daily COVID-19 cases in Ohio have been between 1000-5000 from January until April of 2021, with numbers decreasing in May⁹. Although signs of improvement are encouraging, understanding the dynamics involved in social distancing is important as this can be an effective strategy in the event of future outbreaks. It is well-documented that young adults are not the most vulnerable age-group in terms of general risk, but those with health problems constitute an important exception to this general finding.

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Table 1. Means/Percentages and Standard Deviations of Dependent Variables, Independent Variables, and Control Variables (n=790)			
	%/Mean (SD)	Min	Max
Dependent Variables			
Beliefs about Health Risk	5.65	2	10
Social Distancing Compliance	19.65	5	25
Health Diagnosis			
Physical Health Diagnosis	50.82%	0	1
Mental Health Diagnosis	43.65%	0	1
COVID-19 Variables			
Fear of COVID-19	9.62	3	15
Political Beliefs	5.93	2	10
Friend Social Distance	3.64	1	5
Family Social Distance	3.72	1	5
Exposure to COVID-19	1.43	0	2
Sociodemographic Variables			
Age	34.10	31	38
Gender			
Male	40.35%	0	1
Female	59.65%	0	1
Race/Ethnicity			
White	68.93%	0	1
Black	20.00%	0	1
Hispanic	11.07%	0	1
Educational Attainment			
High School or Less	18.49%	0	1
Some College	42.14%	0	1
College Degree or More	39.37%	0	1
Month of Interview Completion			
June	36.23%	0	1
July	24.91%	0	1
August	18.24%	0	1
September	12.70%	0	1
October/November	7.92%	0	1

Source: Toledo Adolescent Relationship Study (TARS) 2001-2020

Dependent variables collected in seventh interview (2020)

Independent Variables collected at first, sixth, and seventh interviews (2001-2020)

Table 2. OLS Regression Models Estimating Beliefs About Health Risk (n=790)												
	Model 1			Model 2			Model 3			Model 4		
	b	se		b	se		b	se		b	se	
Intercept	5.39	.13	***	5.11	.48	***	5.29	1.20	***	4.30	1.13	***
Health Diagnosis												
Physical Health Diagnosis	.33	.13	**	.30	.16	**	.29	.12	*	.25	.11	*
Mental Health Diagnosis	.09	.13		-.05	.12		.01	.13		-.13	.12	
COVID-19 Variables												
Fear of COVID-19	---	---		.19	.02	***	---	---		.20	.02	***
Political Beliefs	---	---		-.18	.03	***	---	---		-.21	.03	***
Friend Social Distance	---	---		-.05	.09		---	---		-.01	.09	
Family Social Distance	---	---		-.09	.08		---	---		-.14	.08	
Exposure to COVID-19	---	---		.13	.09		---	---		.14	.09	
Sociodemographic Variables												
Age	---	---		---	---		.00	.03		.04	.03	
Gender												
(Male)												
Female	---	---		---	---		.55	.12	***	.38	.11	***
Race/Ethnicity												
(White)												
Black	---	---		---	---		.47	.16	**	.29	.15	*
Hispanic	---	---		---	---		.20	.20		-.02	.18	
Educational Attainment												
(High School or Less)												
Some College	---	---		---	---		-.32	.17		-.39	.15	**
College Degree or More	---	---		---	---		-.68	.18	***	-1.15	.16	***

Source: Toledo Adolescent Relationship Study (TARS) 2001-2020

Notes: * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

^a Reference category in parentheses

^b Month included but not shown

Table 3. OLS Regression Models Estimating Social Distance Compliance (n=790)												
	Model 1			Model 2			Model 3			Model 4		
	b	se		b	se		b	se		b	se	
Intercept	19.88	.23	***	16.98	.82	***	23.12	2.14	***	21.28	2.00	***
Health Diagnosis												
Physical Health Diagnosis	-.15	.22		-.20	.20		-.09	.22		-.16	.20	
Mental Health Diagnosis	.67	.23	**	.64	.20	***	.50	.23	*	.52	.20	*
COVID-19 Variables												
Fear of COVID-19	---	---		.19	.04	***	---	---		.18	.04	***
Political Beliefs	---	---		-.42	.05	***	---	---		-.38	.05	***
Friend Social Distance	---	---		.61	.15	***	---	---		.57	.15	***
Family Social Distance	---	---		.36	.14	*	---	---		.39	.14	**
Exposure to COVID-19	---	---		.01	.16		---	---		.00	.15	
Sociodemographic Variables												
Age	---	---		---	---		-.13	.06	*	-.14	.06	**
Gender												
(Male)												
Female	---	---		---	---		1.16	.22	***	.67	.20	***
Race/Ethnicity												
(White)												
Black	---	---		---	---		.40	.29		.02	.26	
Hispanic	---	---		---	---		.39	.35		.21	.32	
Educational Attainment												
(High School or Less)												
Some College	---	---		---	---		-.07	.30		-.12	.27	
College Degree or More	---	---		---	---		.93	.31	**	.15	.29	

Source: Toledo Adolescent Relationship Study (TARS) 2001-2020

Notes: * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

^a Reference category in parentheses

^b Month included but not shown