Monetizing Illness: The Influence of Disability Assistance Priming on How We Evaluate the Health Symptoms of Others

ABSTRACT: For low-income families in the United States disability assistance has emerged as a critical income support program in the post-welfare reform era. This article explores how this monetization of illness—tying receipt of government assistance to a physical or mental condition—influences how individuals evaluate the severity of another individual's health symptoms. Using data collected through a nationally representative survey experiment of adults in the United States (n=1005) in May 2013, I find that respondents who are primed to consider the existence of disability assistance are less likely to rate the symptoms described in a hypothetical vignette as severe relative to the control group. I find evidence that this effect holds for both physical (back pain) and mental (depression) conditions for adults and behavioral conditions (ADHD) in children. Moreover, respondents in the experimental group were more likely to blame the individual for her health condition and this measure was found to partially mediate the effect of the disability assistance prime. These findings have important implications for researchers, policymakers and medical practitioners by illustrating how premising state assistance on a health condition may in turn shape how individuals evaluate the health symptoms of others.

Keywords: USA; Disability; Public Policy; Inequality; Social Determinants of Health; Survey Experiment

In their 2014 article on stigma and the medicalization of poverty, Hansen et al. explore how increased reliance on disability assistance in the post-welfare reform era has changed the nature of what it means to be poor and receive government assistance in the United States. Using ethnographic methods, the authors demonstrate that tying receipt of government assistance to a medical diagnosis has profound implications for social exclusion, interpersonal relationships, and individual identity. As the authors note this may be particularly problematic in the United States, given the increasingly central role of disability assistance programs in the economic safety net for low-income families.

In discussing their results, the authors emphasize that growth in disability assistance has generated a significant "backlash stigma" (p. 82) against Supplemental Security Income (SSI) applicants and benefit recipients who, in the face of headlines highlighting the surge in SSI applications during the Great Recession, are increasingly being viewed as fraudulent (Blumberg, 2013; Fox News, 2012; Kristoff, 2013; New York Times 2009; Ohlemacher, 2013; Whitman, 2012). A closer inspection of the media coverage finds this heightened skepticism is often aimed at individuals who receive SSI assistance for mental health issues, such as depression, which today account for approximately 60% of all SSI cases among those under age 65 (SSA 2013). Moreover, increased attention is being paid to the growing number of families who receive assistance for a child's diagnosed disability, including developmental and intellectual disorders (such as ADHD). This news coverage has led to increased calls for reforms to the program by policymakers, particularly among Republicans, as evidenced in recent congressional hearings (e.g. House Subcommittee Hearing on Human Resources, 10/27/2011).

Skepticism expressed towards recipients of disability assistance echoes attitudes towards beneficiaries of other government programs. Historically, provision of public assistance to the poor in the United States has consistently met with resistance among some segments of the population, with rules governing major assistance programs continually being reevaluated to ensure that aid only goes to those who are truly “deserving” (Katz 1989). In the context of targeted cash welfare programs, the notion of deservingness is determined by assessments of morality and work ethic, with anti-welfare attitudes largely shaped by assumptions that those receiving assistance are “lazy” (Gilens 1999). Deservingness is often judged by the degree to which the person’s is to blame for his or her economic position; support for cash welfare is lower when it is assumed the individual is responsible for not getting ahead, an assumption that is often shaped by racial stereotypes (Gilens 1999; Luttmer 2001).

Eligibility for disability assistance, however, is premised not only on economic status but also on the presence of a health condition that limits one’s ability to work. Therefore evaluations of “deservingness” are likely to be at least in part function of the perceived legitimacy and severity of an individual's qualifying health condition (Willen 2012; Garthwaite 2011; Bambra & Smith 2010; Stone 1984). Indeed, one reason why historically disability assistance programs have been less divisive than targeted cash welfare is because benefits were limited to populations with severe physical disabilities that prevented them from participating in work, starting with veterans of the Civil War whose disability benefit was tied directly to the number of limbs lost in battle (Skocpol 1995). Those injured on the battlefield or on the factory floor were seen as legitimate and deserving of assistance in part because they were not to blame for their condition (Stone 1984).

As the definition of disability has expanded in the United States to incorporate more nuanced conceptions of physical—and later mental—conditions, the population of individuals theoretically eligible for disability assistance has also expanded (Stone 1984). This evolving conception of disability has been met with increasing skepticism of the deservingness of the population for government funded assistance (Hansen et al 2014). Yet given the nature of stigma and deservingness in health, this skepticism may not be uniform but instead conditioned on several factors, including the age, gender, race, work status of the individual and—the focus of this study—the nature of the health condition. For example, we might expect skepticism to be particularly strong for individuals seeking to qualify for disability assistance for mental health conditions, given the robust stigma associated with mental illness in the United States (Schomerus et al. 2012).

The prospect of financial assistance—particularly taxpayer funded financial assistance—may fundamentally alter the way one evaluates the health of another. Adding money to the equation wholly reshapes the relationship between the individual with a health condition and their evaluator—with the latter's assessment now infused with monetary value and therefore introducing questions of deservingness. This linking of government assistance to health may feel like an inappropriate monetary "match" (Zelizer 1994; 2005) which may influence both the evaluation of health symptoms as well as assumptions about whether an individual is to blame for his or her condition.

This report seeks to explore whether and how tying income support to disability may influence the way respondents evaluate the health symptoms of others.. Before turning to the data and methods, I first articulate a series of guiding hypotheses motivated by the literature cited above.

GUIDING HYPOTHESES

H1: Respondents primed with information that individuals with a work-limiting disability may be eligible to receive disability assistance will be harsher in their evaluations of individual health conditions, i.e., less likely to say a set of symptoms is disabling.

H2: Respondents primed with information on disability assistance for disability will be more likely to blame the individual for their health condition.

H3: Respondent assessment of the degree to which the individual is to blame for his/her health condition will mediate any observed differences in the evaluation of disability between the disability assistance condition and the control condition.

DATA & METHODS

Respondents based in the United States were recruited via an online panel hosted by a major national survey research firm in May of 2013. Project was exempted by the IRB Committee at Princeton University. The analytic sample consisted of 1,005 respondents and was designed to be nationally representative by income, age and gender. Respondents were randomly sorted into two groups, one experimental group (n=497) and one control group (n=508). All respondents were asked to read the following prompt:

> *Next you will be asked a series of questions about your own health. You will then be presented with short descriptions of individuals with health problems and asked a series of questions. We are particularly interested in the extent to which you think these people have a disability, that is, the degree to which they are limited in the kind or amount of work they can do.* ***[In the United States, individuals who have a disability may be***

> ***eligible for financial assistance from the government of hundreds or thousands of dollars a month.]***

The prompt displayed to individuals in the experimental group included an additional sentence noting the existence of disability assistance for persons with disability (in brackets and bolded above). Respondents in the control group were not presented with this information. Following a series of questions where respondents were asked to rate their own health, respondents were then shown a series of vignettes that described an individual with a particular health condition. These vignettes were adapted from those used in the 2007 Health and Retirement Study (HRS) and employed by Kapteyan et al. (2007) in their studies of cross national differences in health and disability evaluation (see also Datta Gupta et al. 2010). The first vignette focused on back pain:

> *Lisa has pain in her back and legs, and the pain is present almost all the time. It gets worse while she is working. Although medication helps, she feels uncomfortable when moving around, holding and lifting things at work.*

Given the increasing utilization of disability assistance among individuals with mental health conditions, I also tested a second vignette that describes an individual with symptoms of depression:

Maria feels depressed most of the time. She weeps frequently at work and feels hopeless about the future. She feels that she has become a burden to her co-workers.

After reading each vignette, respondents were asked to answer three questions. The first asked for an assessment of the degree to which the individual described in the vignette is limited in the amount or type of work they can do, with 5 response choices: not at all limited (1); mildly limited (2); moderately limited (3); severely limited (4); cannot do any work (5). The second question asked respondents to rate the individual's overall health, with a 5 point scale ranging from poor to excellent. Finally, I asked respondents to what degree they thought the individual in the vignette "is to blame for her condition," with a response scale ranging from "not at all" (1) to "a lot" (6).

The two vignettes outlined above focus on the physical and mental health issues of adults. Yet, as noted above, a significant number of children in the United States receive disability assistance for a range of conditions with intellectual and developmental disabilities being among the largest and fastest growing (SSA 2013). I therefore wanted to test whether priming individuals with information about the link between disability and disability assistance also influenced their evaluation of a child's symptoms. Before showing the child ADHD vignette, respondents were given additional instructions:

> *Now you will be asked to evaluate the symptoms of a child suspected of having Attention Deficit Hyperactivity Disorder (ADHD).* ***[In the United States, parents of children diagnosed with ADHD and other conditions may be eligible for several hundred dollars a month in financial assistance from the government through the SSI program.]***

Respondents in the experimental group were given an additional prime with the information that a child's disability diagnosis can also qualify the family for financial assistance (in brackets and bold above). Following these instructions, all respondents were shown a vignette describing a child with ADHD symptoms:

> *Billy is 9 years old and in the fifth grade. His teacher for the past 6 months observed that, in comparison to his peers, he talks excessively in the classroom, fidgets with his hands and often leaves his seat without permission. His class is generally quiet and task-focused. In relating with others he struggles to wait his turn and frequently interrupts conversations. He shouts out the answers to questions even before they have been completed. He finds it difficult to pay close attention to detail and often makes careless mistakes in his schoolwork. He avoids tasks that take a lot of mental effort for a long period of time, and his mom, reports a similar situation at home where he avoids doing homework. He is easily distracted and often appears to be daydreaming. He struggles to get organized for any activity, does not follow instructions and fails to finish work. This*

does not seem to be due to a failure to understand instructions. In general he is often forgetful.

This vignette is adapted from a study conducted by Groenewald et al. (2009), and the symptoms described are modeled on the DSM-IV criteria for ADHD. After reading the vignette, respondents were asked two questions. The first question asked respondents how likely is it that Billy has ADHD, with answers ranging from very unlikely (1) to very likely (6). The second question asked respondents to rate the severity of Billy's symptoms, from not very severe (1) to very severe. Respondents were not asked to assess the degree to which Billy is to blame for his health condition.

Difference in the mean responses of the experimental and control groups on all outcome measures are analyzed using a Wilcoxon Rank-Sum Test. Also known as the Mann-Whitney two sample test statistic, this procedure is a nonparametric alternative to the independent samples t-test that does not assume the sampling distribution for the means are normally distributed (Wilcoxon 1945; Mann and Whitney 1947). Therefore, all references to statistically significant differences in the results detailed below refer to results of a two-tailed Wilcoxon Rank-Sum Test. Alterative specifications using independent samples t-test yield substantively similar results. Error bars on all figures correspond to standard errors of the group mean. Results from logistic regression models (available on request) confirm that randomization achieved balance between experimental and control group on all observable characteristics.

RESULTS

Figure 1 shows the degree to which respondents in both the experimental and control groups consider the back pain symptoms to be disabling. There is a mean difference between the two groups, with those receiving the disability assistance prime assessing the back pain symptoms as less disabling relative to those in the control group. This difference is statistically significant at the p<.05 level (Figure 1: 3.15 vs 3.28; z=2.37; p=.018). Looking at the broader question asking respondents to assess the individual's overall health there is a significant difference between the experimental and control groups, with those who received the disability assistance prime rating the individual's health as better (2.06 vs 1.96; z=2.49; p=.0127).

[insert figure 1 about here]

Figure two compares the assessment of disability for the experimental and control group for the vignette describing depressive symptoms. Here again there is a stark difference between the two groups, with those receiving the disability assistance prime assessing the symptoms to be less disabling, on average, than those in the control group. This difference is statistically significant at the p<.05 level (Figure 2: 2.63 vs 2.75; z=2.17; p=.03). The same pattern emerges in assessment of overall health, with those in the experimental group rating the individual's health as better relative to those in the control group (2.40 vs 2.30 z=2.00; p=.045).

[insert figure 2 about here]

The next set of results focus on respondents' assessment of the child vignette, with mean responses on the likelihood Billy has ADHD by experimental and control group presented in Figure 3. Respondents who received the disability assistance prime are less likely to think Billy has ADHD than those in the control group, a difference that is statistically significant at the p<.01 level (Figure 3: 4.70 vs 4.94; z=3.15; p=.0016). On the more general question asking respondents to assess the severity of Billy's symptoms, there is also a statistically significant difference between the two groups, with respondents in the disability assistance condition reporting Billy's symptoms as less severe relative to those in the control group (4.39 vs 4.60; z=3.00; p=.0027).

[insert figure 3 about here]

Taken together, these results provide strong support for hypothesis 1: when primed with information on government assistance for disability, individuals are harsher in their evaluation of health symptoms, both in a general assessment of an individual's health and in the more specific assessment of the degree to which the symptoms described are disabling. Moreover, I find evidence that this association holds for both physical (back pain) and mental (depression) disorders for adults and mental disorders (ADHD) in children.

[insert figure 4 about here]

[insert figure 5 about here]

When disability assistance is at stake, questions of deservingness become particularly salient and individuals may be more likely to blame the individual for his or her health condition. And that is exactly what is shown in figures 4 and 5. In response to both the adult back pain vignette (Figure 4: 2.74 vs 2.55; z=1.93; p=.0537) and depression vignette (Figure 5: 2.40 vs 2.30; z=2.00; p=.045), respondents who received the disability assistance prime assigned greater blame to the individuals for their health condition than respondents in the control group. These findings provide strong support for hypothesis 2: when individuals evaluate health symptoms after being primed to consider disability assistance, they are significantly more likely to blame the individual for his or her health condition.

But can the increased blame placed on the individual for his or her health condition explain the observed differences between respondents in the experimental and control groups in their evaluation of whether the condition is disabling? Table 1 presents results from a mediation analysis that aims to answer this question. For the mediation analysis, I estimate OLS models with the degree to which the respondent found the condition to be disabling for both the back pain and depression conditions as the dependent variables.

[insert table 1 about here]

Model 1 largely replicates the results displayed in Figure 1: individuals who received the government assistance prime (the experimental group) were less likely relative to the control group to consider the condition to be disabling. Model 2 adds the measure of the degree to which the respondent felt the individual is to blame for her health condition. The coefficient on this measure is negative—the higher the blame assigned to the individual for his or her health condition, the less likely the respondent considers the symptoms to be disabling. A Sobel test confirms that the difference in the coefficients on the prime is statistically different after including the measure of blame in the model, suggesting that blame is one potential mediator. Notably, however, blame only accounts for about 14% of the total effect of the disability assistance prime on the evaluation of back pain in these data.

Model 3 replicates results seen in Figure 2: when primed to consider disability assistance, respondents are less likely to consider the depression symptoms as disabling. Model 4 adds the measure of blame and, here again blame is negatively related to evaluating a condition as disabling: when respondents blame the individual for her health condition, they are less likely to consider that condition as disabling. A

Sobel test indicates that the difference in the coefficients on the disability prime before and after including blame in the model is only marginally significant (p=.066). Although the difference may only be marginally significant it is notable that this measure of blame accounts for 41% of the total effect of the disability prime on evaluations of the severity of the disability.

DISCUSSION & CONCLUSION

This study demonstrates that evaluations of health symptoms—and the degree to which an individual is to blame for his or her condition—are fundamentally altered when government-funded disability assistance is considered by respondents. Moreover, across both the experimental and control groups, the degree to which respondents blame individuals for his or her health condition was directly linked to the degree to which they considered the health conditions disabling. What's more, this heightened sense of blame appears to mediate, at least partially, the observed positive relationship between being in the disability assistance prime condition and viewing the symptoms as less disabling.

Although statistically significant, the effect sizes presented above are relatively small. This is in part an artifact of the method and treatment used. But it may also be a function of the fact that respondents in both the experimental and control groups are drawn from the United States and are therefore all are situated in the same are social and cultural context where the conception of disability is viewed with heightened skepticism, relative to other countries (Kapteyn et al. 2007).. Viewed this way, the "treatment" given to respondents may only heighten the salience of disability assistance over and above an existing baseline that exists in the population.

At the same time, it is critical to consider that government financial assistance is a particular—and particularly loaded—form of assistance (Zelizer 1994; Katz 1989). Future work should explore how evaluation of health and disability changes based on other forms of "assistance" including financial assistance from charitable organizations or friends and family as well as nonfinancial assistance or even the ability to legitimately abstain from work. In the area of mental health conditions, it may be interesting to explore, for example, how the existence of accommodations in schooling such as increased time for tests may influence the way individuals assess the legitimacy of ADHD symptoms.

One additional limitation of the current study is that female names were used in both adult vignettes. It may be that these results would be substantially different if male names were used, particularly given the gendered nature of both back pain (more commonly associated with men) and depression (more commonly associated with women). Moreover, a male name was used in the child ADHD vignette, again limiting our ability to generalize to all children. Future work should explore the degree to which these results generalize across sexes and look for potential interactive effects between gender and type of health condition. More broadly, given that evaluations of stigma and deservingness are often conditioned on a range of sociodemographic and contextual factors including not only gender but race, ethnicity, age, citizenship, class and worker status it is crucial that future work explores how the evaluation of health deserving in a public assistance context is influenced by these ascribed and achieved individual level characteristics.

These findings have important practical implications for policymakers, advocates and practitioners of medicine and social service delivery. For practitioners, a heightened awareness of the degree to which evaluation of health symptoms may be altered under the prospect of disability assistance is needed. For policymakers and advocates, these findings highlight one way in which the stigmas associated with both disability status (and additionally mental illness) and public assistance receipt may be mutually reinforcing. If the only income support programs available to adults and families with children are predicated on a qualifying health condition—as is increasingly the case post-welfare reform in the United States—these reinforcing stigmas are likely to further increase the social exclusion of marginal populations.

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Tables:

Table 1. OLS Regression of Disability Assistance Prime on Evaluation of Health Vignette; Sobel Test of 'Blame' as Mediator

	Outcome: Back Pain as Disabling		Outcome: Depression as Disabling	
	Model 1	Model 2	Model 3	Model 4
Disability Assistance Prime	-.125* (.049)	-.107* (.049)	-.120* (.060)	-.069 (.054)
'Blame' for Health Condition	---	-.090*** (.018)	---	-.492*** (.030)
Constant	3.276*** (.035)	3.505*** (.059)	2.752*** (.042)	3.882*** (.079)
Sobel Mediation Test (P>|Z|)		0.036*		0.066ɫ
Proportion of Total Effect Mediated		0.14		0.42
R-squared	0.0064	0.0295	0.0039	0.21
n	1005	1005	1005	1005

Notes: ɫp<.10, *p<.05, **p<.01, ***p<.001; two-tailed t-tests; R-squared reported as proportion (0-1)

Figures:

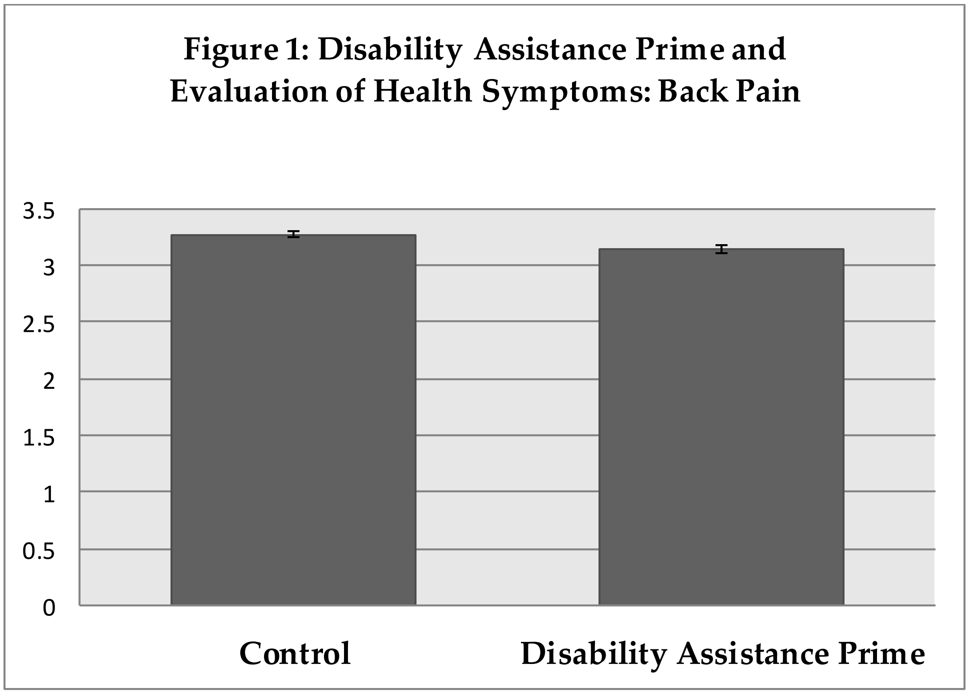


Figure 1: Disability Assistance Prime and Evaluation of Health Symptoms: Back Pain
3.5
3
2.5
2
1.5
1
0.5
0
Control
Disability Assistance Prime

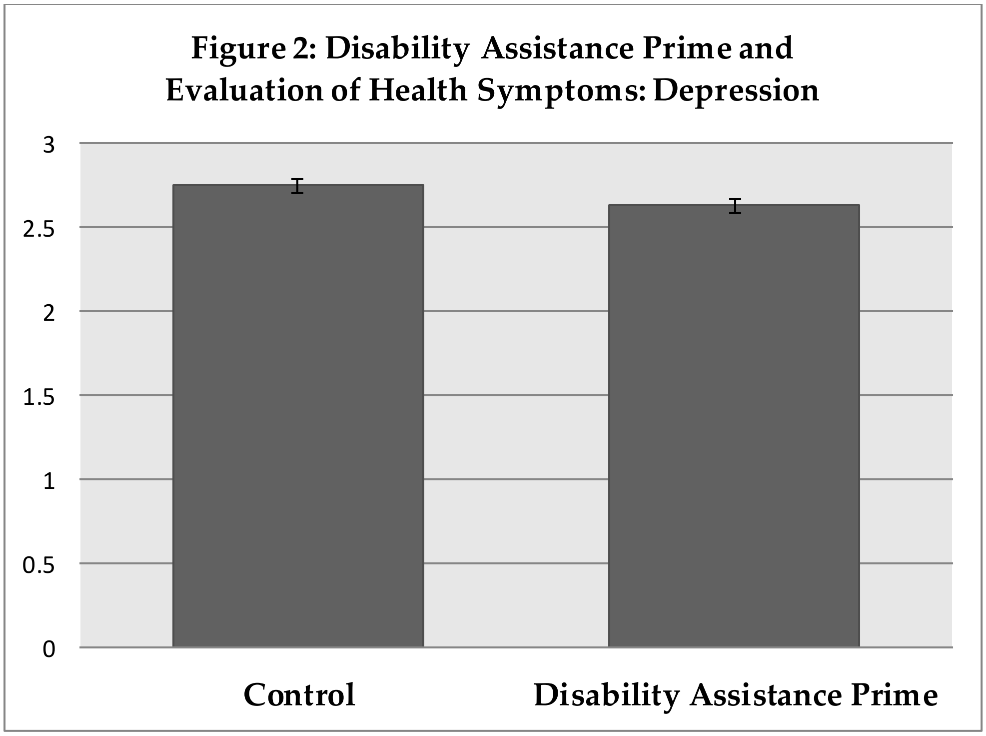
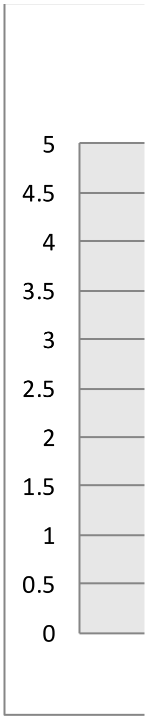


Figure 2: Disability Assistance Prime and Evaluation of Health Symptoms: Depression



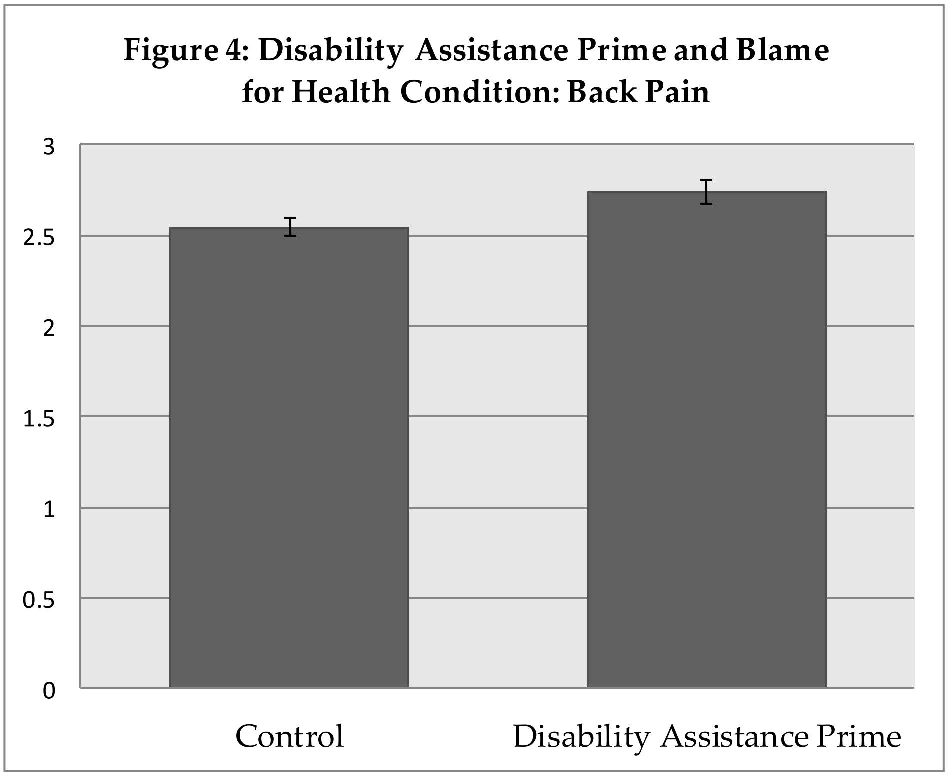


Figure 4: Disability Assistance Prime and Blame for Health Condition: Back Pain

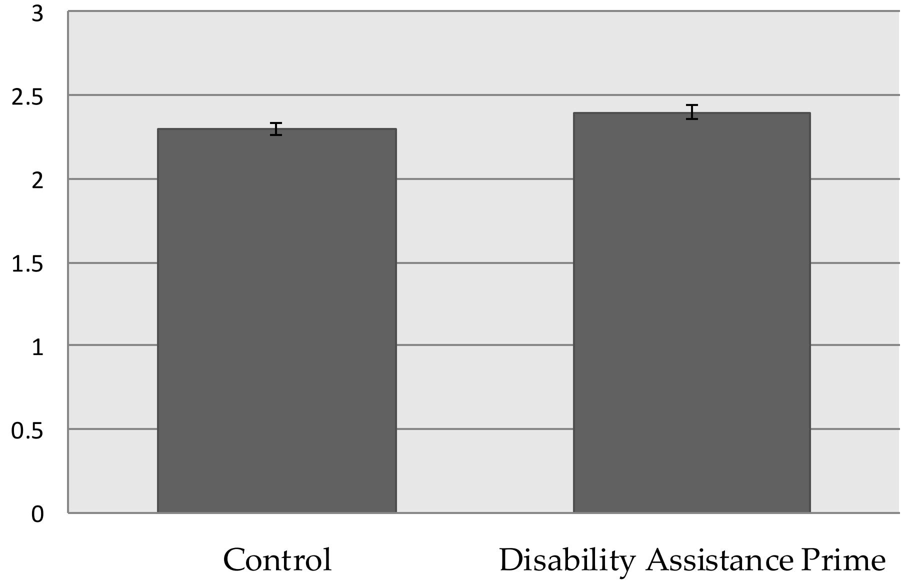


Figure 5: Disability Assistance Prime and Blame for Health Condition: Depression