

Receipt, Spending, and Clinical Correlates of the Economic Impact Payment Among Middle- and Low-Income U.S. Adults

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Objective: This study examined characteristics and planned expenses of U.S. adults who received the economic impact payment (EIP) during the COVID-19 pandemic.

Methods: Using a nationally representative sample of 6,607 middle- and low-income U.S. adults, the authors examined the proportion and correlates of EIP receipt among eligible adults and the associations among planned EIP-financed expenses, challenges with paying expenses, and clinical characteristics.

Results: Of the sample, 78.8% reported that they received the EIP, and 82.3% of EIP recipients reported that it had a positive impact on their life. Being a veteran (odds ratio [OR]=2.59), being married (OR=1.82), having a history of schizophrenia spectrum disorder (OR=1.74) or posttraumatic stress disorder (OR=1.51), and screening negative for recent suicidal ideation (OR=0.49) were associated with EIP receipt. Planned expenses with the EIP were

savings, paying debt, and rent and accounted for 63.4% of the total amount. Screening positive for mental health or drug use problems was positively associated with greater planned expenses for substances and gambling. EIP receipt also was associated with fewer problems paying daily expenses, but participants who screened positive for mental health or alcohol use problems were more likely to report problems paying past-month daily expenses.

Conclusions: Unconditional cash transfers such as the EIP may be important for sustaining the living situation of middle- and low-income populations. The management of funds is important to consider, especially among adults experiencing mental health and substance abuse problems, and such cash transfers may represent opportunities for financial literacy and money management interventions.

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Historically, disparities in access to care and assistance have been well documented among low-income adults with mental illness and substance use disorders (1, 2). These disparities have been found to be exacerbated during major events such as natural disasters, economic recessions, and pandemics (3, 4). The COVID-19 pandemic has particularly affected racial-ethnic minority, low-income, and homeless populations (5–9). Passage of the Coronavirus Aid, Relief, and Economic Security Act in 2020 authorized the U.S. government to provide a one-time unconditional cash transfer called an *economic impact payment* (EIP) (10) to middle- and low-income adults. The EIP provided \$1,200 by direct deposit or mailed check to adults with annual taxable personal incomes up to \$75,000 (10). The extent to which the EIP was distributed to low-income adults with mental illness has not been studied from a disparities framework.

Two previous studies found that the EIP increased household spending on payments such as food, rent, mortgages, and credit cards (11). Most recipients did not spend

all of their EIP, but those who were unemployed or of lower socioeconomic status spent more (12). However, these studies did not examine the association of mental health characteristics with EIP receipt or related expenses. Although some federal cash benefit programs (e.g., Supplemental

HIGHLIGHTS

- Most middle- and low-income adults received the economic impact payment (EIP) and reported that it had a positive impact on their life.
- Having a history of schizophrenia and posttraumatic stress disorder was associated with EIP receipt, but those who reported recent suicidal ideation were less likely to have received the EIP.
- Current mental health and alcohol use problems were both associated with greater problems paying daily expenses in the past month, which receipt of the EIP mitigated.

Security Income) have been extensively studied in the United States (13), little research has looked at one-time unconditional cash transfers such as the EIP. The international literature has found that conditional and unconditional cash transfers can improve mental health (14), but most studies have been conducted in developing countries (15, 16). Thus, the question remains as to whether adults with mental illness experience disparities in accessing one-time cash transfer programs such as the EIP and how they plan to use EIP funds after receipt. Answering this question may help ensure that programs such as the EIP benefit those in need and determine the need for targeted supportive interventions to maximize those benefits.

In this study, we drew on a nationally representative sample of middle- and low-income U.S. adults who were eligible for the full EIP amount to examine the extent to which eligible adults received the EIP, compare sociodemographic and clinical differences between those who did and did not receive the EIP, and explore planned EIP expenses and associations with clinical and psychosocial characteristics.

METHODS

From May 20 to June 20, 2020, a national sample of 6,607 middle- and low-income U.S. adults were recruited and compensated with online cash credits through Amazon Mechanical Turk (MTurk), an online labor market with >500,000 participants. Participants were asked to complete an online assessment that included self-designed measures along with validated measures of health and social well-being during the COVID-19 pandemic. Inclusion criteria for the study were as follows: U.S. adults who were ages ≥ 22 years, reported an annual personal income of $\leq \$75,000$, had completed ≥ 50 previous tasks (called Human Intelligence Tasks [HITs]) on MTurk, had an HIT approval rating of $\geq 50\%$, and passed validity checks (using four validity questions from the Minnesota Multiphasic Personality Inventory-2). A total of 9,760 individuals initially enrolled; 6,762 (69.3%) met eligibility criteria, but 155 failed validity checks. Therefore, the final sample consisted of 6,607 participants from all 50 U.S. states and the District of Columbia. Results from cross-sample investigations have indicated that data obtained from MTurk are of the same or higher quality than those obtained from traditional subject pools, especially when eligibility requirements and validity checks are used (17). Although we did not perform stratified or probability-based sampling, we used raking procedures (18) to compute and apply poststratification weights so that our sample would be nationally representative of the U.S. middle- and low-income adult population with respect to age, gender, race, ethnicity, and geographic region, according to the 2018 American Community Survey. All participants provided informed consent, and study procedures were approved by the institutional review board at the University of Texas Health Science Center at Houston.

Measures

Sociodemographic information was assessed with a questionnaire. Veteran status was defined as “ever served on active duty in the U.S. military,” and history of homelessness was defined as “ever not have a stable night-time residence (such as staying on streets, in shelters, cars, etc.).”

EIP receipt was assessed by asking participants, “Have you heard of the coronavirus stimulus checks (also called ‘economic impact payments’)? These are checks up to \$1,200 per individual that the government is sending to individuals in response to the coronavirus and city shutdown.” Participants were provided with three response options: “Yes, I’ve heard of it and have received mine,” “Yes, I’ve heard of it but have not received mine,” and “No, I’ve never heard of it.” Participants who reported receiving the EIP were further asked how they received it (i.e., check in the mail, direct deposit into bank account, or other method). They were also asked to report in specific dollar amounts what they planned to spend their EIP on among 18 categories of daily living (e.g., rent, transportation, alcohol, and savings). In addition, participants were asked to respond to the question, “How helpful would you say the stimulus check has been for your life?” on a 5-point scale, ranging from 1, strongly negative impact, to 5, strongly positive impact.

Financial problems were assessed by asking participants whether they had run “out of money to pay for any of the following” in the past month, followed by checkboxes for none, rent or mortgage, utilities, food, transportation, clothing, and medical care. COVID-19 testing and infection status was assessed by asking participants whether they had been tested for COVID-19 and what the outcome was (i.e., positive, negative, not tested). Social support was assessed with the Medical Outcomes Study Social Support Survey–Short Form (19), which consists of six items that are summed for a total global score of functional social support. General medical health status was assessed by asking participants whether they had ever been diagnosed as having any of 22 different medical conditions (e.g., cancer, heart disease, or arthritis); the total number of medical conditions was summed (20).

Psychiatric history was assessed by asking participants whether they had ever been diagnosed as having any of nine psychiatric or substance use disorders. Current mental health and substance use was assessed with the Patient Health Questionnaire-2 (PHQ-2) (21), the Generalized Anxiety Disorder-2 (GAD-2) (22), the Alcohol Use Disorders Identification Test–Consumption (AUDIT-C) (23), and a suicidal ideation item from the Mini–International Neuropsychiatric Interview (24). Participants were also asked whether they had used any illicit drugs in the past month. For this study, Cronbach’s α was 0.83 for the PHQ-2, 0.84 for the GAD-2, and 0.74 for the AUDIT-C.

To assess COVID-19 era-related stress, the Posttraumatic Stress Disorder Checklist for the Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition (PCL-5 [25])

was administered. Because COVID-19 may not qualify as a traumatic event (26), we used the PCL-5 to determine COVID-19 era-related stress instead. Participants were asked to “think about your experience with COVID-19 and the current situation” (which could include the viral pathogen, personal loss, business lockdowns, or other aspects of the pandemic) and to rate the degree to which they experienced each of 20 symptoms over the past month on a scale ranging from 0, not at all, to 4, extremely. Internal consistency of the scale was excellent (Cronbach’s $\alpha=0.98$). A supplementary item, “Did these reactions cause you distress or result in a failure to fulfill obligations at home, work, or school?” was administered to assess distress and dysfunction related to symptoms; it was rated on the same 0–4 scale with the same 1-month time frame. For this study, a positive screen for COVID-19 era-related stress was determined by PCL-5

TABLE 1. Bivariate comparison of adults who did and did not receive an economic impact payment (EIP) (N=6,607)^a

Characteristic	EIP (N=5,083)		No EIP (N=1,524)		Test of difference (F or χ^2)	df
	Raw N	Weighted %	Raw N	Weighted %		
Age, weighted M $\pm$ SD	49.3 $\pm$ 12.7		46.2 $\pm$ 11.7		F=51.31***	1, 9998
Gender					$\chi^2=11.11^{**}$	1
Male	2,171	41.8	801	45.8		
Female	2,912	58.2	723	54.2		
Race-ethnicity					$\chi^2=9.57^*$	3
White	3,918	78.6	1,087	75.6		
Black	659	11.9	233	13.2		
Asian	351	3.5	134	4.4		
Other	155	6.1	70	6.7		
Education					$\chi^2=62.02^{***}$	3
High school or below	445	9.2	106	5.9		
Some college	976	23.2	326	17.9		
Associate or bachelor’s	2,539	47.6	816	52.1		
Advanced degree	1,123	20.1	276	24.0		
Student status					$\chi^2=80.41^{***}$	2
Not a student	3,968	83.5	1,042	75.1		
Part-time	375	5.6	146	7.4		
Full-time	740	11.0	336	17.4		
Marital status					$\chi^2=87.86^{***}$	2
Single	1,493	22.8	672	32.6		
Divorced, single, or widowed	535	21.0	89	19.4		
Married or living with partner	3,055	56.2	763	48.0		
No. of children who are minors (M $\pm$ SD)	1.61 $\pm$ 1.01		1.65 $\pm$.92	.92	F=4.30*	1, 9998
Work status					$\chi^2=7.92^*$	2
Half- or full-time	3,599	58.9	1,026	58.0		
Self-employed	401	10.3	145	8.7		
Not working	1,083	30.8	353	33.3		
Personal income (in \$, M $\pm$ SD)	35,142 $\pm$ 22,563		33,135 $\pm$ 23,888		F=14.10***	1, 9998
State of residence					$\chi^2=90.40^{***}$	3
Northeast	940	17.4	297	14.6		
Midwest	1,032	22.3	248	14.6		
South	1,939	37.2	579	41.0		
West	1,172	23.2	400	29.7		
Veteran status	676	16.7	140	9.8	$\chi^2=62.03^{***}$	1
Any history of homelessness	1,041	18.0	305	19.0	$\chi^2=1.08$	1
MOS Social Support Survey ^b (M $\pm$ SD)	21.3 $\pm$ 6.1		20.9 $\pm$ 5.9		F=5.02*	1, 9998
COVID-19 status					$\chi^2=30.22^{***}$	2
Untested	3,527	71.5	907	65.9		
Positive	283	4.4	71	4.1		
Negative	1,273	24.1	546	29.9		
No. of medical conditions (M $\pm$ SD)	.83 $\pm$ 1.12		.86 $\pm$.99		F=1.79	1, 9998
History of psychiatric disorders						
Schizophrenia spectrum disorder	218	3.7	42	2.4	$\chi^2=7.44^*$	1
PTSD	555	9.4	129	7.0	$\chi^2=11.92^{**}$	1
Bipolar disorder	430	7.4	118	6.7	$\chi^2=1.40$	1
Anxiety disorder	1,593	25.5	449	25.0	$\chi^2=.30$	1
Major depression	848	14.4	265	14.1	$\chi^2=.11$	1
Alcohol use disorder	566	9.7	221	14.0	$\chi^2=32.18^{***}$	1
Drug use disorder	246	4.0	81	4.5	$\chi^2=1.22$	1

continued

TABLE 1, continued

Characteristic	EIP (N=5,083)		No EIP (N=1,524)		Test of difference (F or χ^2)	df
	Raw N	Weighted %	Raw N	Weighted %		
TBI	107	1.6	26	1.6	$\chi^2=7.44^*$	1
Positive screen for COVID-19 era-related stress	1,204	18.6	483	26.0	$\chi^2=58.27^{***}$	1
Positive screen for major depression	1,954	32.2	691	38.7	$\chi^2=32.30^{***}$	1
Positive screen for generalized anxiety disorder	1,988	32.3	700	38.4	$\chi^2=28.06^{***}$	1
Past-2-week suicidal ideation	1,444	22.1	620	34.0	$\chi^2=128.08^{***}$	1
Positive screen for alcohol use disorder	1,971	35.3	635	35.5	$\chi^2=.03$	1
Any illicit drug use in past month	1,169	21.0	306	23.5	$\chi^2=5.80^*$	1

^a TBI, traumatic brain injury.

^b MOS, Medical Outcome Study. Social Support Survey scores ranged from 6 to 36, with higher scores reflecting greater social support.

* $p<0.05$, ** $p<0.01$, *** $p<0.001$.

responses that corresponded to posttraumatic stress disorder (PTSD) criteria according to the *DSM-5* (26), which included at least one item each from criteria B and C, two items each from criteria D and E, and endorsement of criterion G (26). Items rated 2 (“moderately”) or higher were considered indicative of positive symptom endorsement (27).

Data Analysis

First, we divided participants into those who reported that they did and did not receive the EIP. We then used *t* and chi-square tests to compare the groups on sociodemographic, clinical, and psychosocial characteristics. Next, we conducted logistic regression analyses to examine characteristics associated with EIP receipt. Descriptive analyses were conducted on participants’ planned expenses using the EIP, and exploratory Pearson correlation analyses were conducted to explore the association among EIP receipt, planned expenses, problems paying expenses, clinical characteristics, and participant ratings of the impact of the EIP. Given the large number of correlations conducted, we set statistical significance for these analyses at the 0.01 level and focused on effect size (i.e., $r \geq 0.25$) instead of merely statistical significance. The largest correlations were further analyzed with select multiple regression analyses. Finally, we conducted a series of logistic regression analyses in which EIP receipt, screening positive for mental health or alcohol use problems, and their interaction were entered as independent variables and problems paying expenses in different categories were entered as dependent variables.

RESULTS

Of the total sample, 5,083 (weighted percentage=78.8%) reported that they received the EIP, and 1,524 (21.2%) reported that they did not. Among EIP recipients, 24.0%

reported receiving their stimulus by mailed check, 75.4% received it by direct deposit, and 0.6% did not specify. Among EIP recipients, 82.3% rated the EIP as having a “slightly/strongly positive impact” on their lives, 12.7% indicated “no impact,” and 5.0% indicated a “slightly/strongly negative impact.”

As shown in Table 1, bivariate comparisons indicated that EIP re-

cipients were more likely to have tested positive or been untested for COVID-19 and to have been given a diagnosis of schizophrenia spectrum disorder or PTSD, but they were less likely to have been diagnosed as having alcohol use disorder and less likely to screen positive for current major depression, generalized anxiety disorder, suicidal ideation in the past 2 weeks, COVID-19 era-related stress, or any illicit drug use in the past month.

Table 2 shows the results of the logistic regression analyses, which revealed that being female, not being a student, not having a college degree, being married with children, employed, living in the Midwest, being a military veteran, testing positive for COVID-19, or having a history of schizophrenia spectrum disorder or PTSD were each independently and significantly associated with EIP receipt. Screening positive for COVID-19 era-related stress and past-2-week suicidal ideation were both associated with a lower likelihood of EIP receipt. The largest effects were being married (odds ratio [OR]=1.82), being a veteran (OR=2.59), having a history of schizophrenia spectrum disorder (OR=1.74) or PTSD (OR=1.51), and screening negative for recent suicidal ideation (OR=0.49).

As shown in Table 3, among EIP recipients, the largest planned expenses using the EIP were for savings and paying debt and rent, which combined for a mean total of \$761.00 (63.4%) of the total EIP amount. Much of the remaining funds were planned for other essentials, such as groceries, utilities, transportation, and medical care. EIP recipients planned only small expenses for alcohol, drugs, or gambling or lottery; they totaled a mean of \$32.86, or 2.7% of the total amount.

Exploratory correlational analyses revealed that screening positive for current major depressive disorder, generalized anxiety disorder, COVID-19 era-related stress, and recent illicit drug use had the strongest associations with greater expenses planned for toiletries, cigarettes, alcohol,

and gambling ($r \geq 0.25$ for all associations). Greater planned expenses for phone and clothing were moderately associated with any psychiatric history and screening positive for current major depressive disorder, generalized anxiety disorder, and COVID-19 era-related stress ($r \geq 0.20$ for all associations). Expenses planned for drugs were also moderately associated with screening positive for major depressive disorder, generalized anxiety disorder, COVID-19 era-related stress, and any recent illicit drug use ($r \geq 0.20$ for all associations). In terms of participants' ratings of the impact of the EIP on their lives, correlations showed that EIP impact ratings were negatively associated with planned expenses for cigarettes, alcohol, drugs, and gambling or lottery ($r \geq 0.18$ for all associations); expenses planned for paying debts were positively associated with EIP impact ratings.

For the strongest correlations we found (i.e., for those with $r \geq 0.25$), multiple regressions controlling for sociodemographic characteristics, number of medical conditions, and COVID-19 status confirmed the statistical significance of these associations (see Supplementary Table 1, available in an online supplement to this article). Additional correlational analyses (see Supplementary Table 2 in the online supplement) revealed that screening positive for current major depressive disorder, generalized anxiety disorder, COVID-19 era-related stress, and alcohol use disorder were each significantly associated with problems paying rent or mortgage ($r = 0.16$ – 0.25), utilities ($r = 0.15$ – 0.26), food ($r = 0.20$ – 0.37), transportation ($r = 0.13$ – 0.23), clothing ($r = 0.10$ – 0.22), and medical care ($r = 0.07$ – 0.18) in the past month. EIP receipt had small negative correlations with problems paying rent or mortgage, utilities, and food ($r = -0.02$ to -0.05).

Table 4 shows the results of logistic regression analyses on receipt of EIP, a positive screen for a mental health or alcohol problem, and their interaction in predicting problems paying expenses. There was only one significant interaction effect, which revealed that EIP receipt was significantly associated with fewer problems paying rent only for participants who did not screen positive for a mental health or alcohol problem.

DISCUSSION

The majority of our sample of middle- and low-income U.S. adults reported that they had received the EIP and that it had a positive impact on their life. About one-fifth of the sample who were eligible for the EIP reported that they did not receive it during the study period, which is estimated to be roughly equivalent to >13 million U.S. households not having received the payment (28). Adjusting for sociodemographic and clinical characteristics, we found that vulnerable groups, including women, veterans, those with no college degree, and those who tested positive for COVID-19, were more likely to have received the EIP. In addition, adults with a psychiatric history of schizophrenia spectrum disorder or PTSD were also more likely to have received the EIP. One contributing factor may be that some of these

TABLE 2. Logistic regression examining characteristics associated with receipt of economic impact payment^a

Characteristic	OR	95% CI
Age	1.00	1.00–1.01
Male (reference: female)	.82***	.74–.92
Race-ethnicity (reference: White)		
Black	1.16	.99–1.36
Asian	1.03	.80–1.33
Other	.96	.78–1.18
Education (reference: some college or below)		
Associate or bachelor's	.66***	.58–.74
Advanced degree	.59***	.51–.69
Student status (reference: not a student)		
Part-time	.71**	.58–.88
Full-time	.62***	.53–.73
Marital status (reference: single)		
Divorced, single, or widowed	1.19	1.00–1.42
Married or living with partner	1.82***	1.58–2.08
No. of minors in household	.94*	.88–.99
Work status (reference: half- or full-time)		
Self-employed	.87	.72–1.05
Not working	.69***	.61–.79
Personal income	1.00	1.00–1.00
State of residence (reference: Northeast)		
Midwest	1.23*	1.03–1.47
South	.73***	.62–.84
West	.68***	.58–.80
Veteran status (reference: nonveteran)	2.59***	2.15–3.12
Any history of homelessness (reference: no homelessness history)	1.01	.86–1.18
MOS Social Support Survey score ^b	.99	.99–1.00
COVID-19 status (reference: untested)		
Positive	1.14	.85–1.51
Negative	.83**	.74–.94
History of psychiatric disorders (reference: no psychiatric disorder)		
Schizophrenia spectrum disorder	1.74*	1.24–2.44
PTSD	1.51***	1.23–1.85
Alcohol use disorder	.78*	.65–.93
TBI	.83	.54–1.27
Positive screen for (reference: negative screen)		
COVID-19 era-related stress	.83*	.71–1.00
Major depression	1.14	.97–1.33
Generalized anxiety disorder	1.03	.88–1.20
Past-2-week suicidal ideation (reference: no past 2-week suicidal ideation)	.49***	.42–.58
Any illicit drug use in past month (reference: no illicit drug use in past month)	.98	.86–1.12

^a TBI, traumatic brain injury.

^b MOS, Medical Outcomes Study.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

TABLE 3. Correlational analyses between planned expenses using the \$1,200 economic impact payment (EIP) and clinical or psychosocial variables

Planned expense	M±SD (\$)	Correlation with							
		EIP receipt by direct deposit	How helpful EIP is for your life	Any psychiatric history	Current positive screen for major depressive disorder	Current positive screen for generalized anxiety disorder	Positive screen for COVID-19 era-related stress	Positive screen for alcohol use disorder	Any recent illicit drug use
Rent	199±364	.04	.02	.03*	.08*	.07*	.05*	.03	-.01
Utilities	48±114	-.02	-.03	.13*	.14*	.15*	.18*	.04*	.08*
Telephone or cell phone	25±65	-.06*	-.13*	.20*	.22*	.22*	.25*	.12*	.19*
Groceries	82±169	.07*	.02	-.05*	-.03	-.02	-.00	.12*	-.06*
Restaurants and dining	18±25	-.09*	-.16*	.19*	.19*	.23*	.24*	.16*	.22*
Recreation and entertainment	23±86	-.10*	-.06*	.07*	.08*	.08*	.10*	.05*	.09*
Toiletries	16±46	-.11*	-.13*	.24*	.27* ^a	.26* ^a	.30* ^a	.16*	.25* ^a
Cigarettes	11±35	-.15*	-.21*	.28* ^a	.30* ^a	.28* ^a	.32* ^a	.24*	.32* ^a
Alcohol	12±38	-.15*	-.21*	.27* ^a	.31* ^a	.29* ^a	.31* ^a	.29* ^a	.32* ^a
Drugs	11±45	-.11*	-.18*	.19*	.22*	.21*	.23*	.15*	.32* ^a
Gambling or lottery	9.6±39	-.14*	-.20*	.23*	.28* ^a	.26* ^a	.28* ^a	.17*	.29* ^a
Transportation	29±120	-.02	-.00	.13*	.10*	.08*	.09*	.04*	.09*
Clothing	20±63	-.09	-.10*	.20*	.21*	.21*	.21*	.11*	.16*
Medical care	28±109	-.04	-.03	.10*	.10*	.10*	.11*	.02	.05*
Pay debts	185±362	.02	.14*	-.10*	-.11*	-.08*	-.10*	-.10*	-.03*
Saving	377±494	.04	-.02	-.16*	-.18*	-.20*	-.20*	-.14*	-.16*
Miscellaneous	107±279	.02	.05*	-.01	-.07*	-.06*	-.07*	-.02	-.04

^a Correlation coefficients ≥0.25.

* p<0.001.

vulnerable groups may already have been enrolled in federal programs such as Medicaid, Social Security, and Department of Veterans Affairs benefits, which made it easier for them to receive their EIP through direct deposit (10). This finding may have implications for future disbursement of cash transfers such as the EIP, although it is important to recognize that many vulnerable groups are also unbanked or

underbanked (29) and may be disproportionately affected if payments are only available through direct deposit.

Adults who reported more COVID-19 era-related stress or any recent suicidal ideation were less likely to have reported receiving their EIP than those who did not report these mental health problems. The COVID-19 pandemic has had deleterious effects on mental health and well-being

(30–32), and it is well known that psychological distress can have a negative impact on daily functioning (33–36). One possible explanation, then, is that some adults who were eligible for the EIP were too preoccupied with mental health problems to attend to means for receiving or accessing their EIP. Alternatively, it may be that those who did not receive the EIP struggled more financially as a result, which contributed to their greater mental health problems. We could not infer directionality or causality from our data, but our findings are

TABLE 4. Logistic regression analyses including receipt of economic impact payment (EIP), screening positive for mental health or alcohol use problem, and their interaction in predicting problems paying expenses

"Ran out of money in past month..." ^a	EIP receipt		Screened positive for major depressive disorder, generalized anxiety disorder, COVID-19-era stress, or alcohol use disorder		Interaction between EIP receipt and any positive screen for mental health or alcohol use problems	
	OR	95% CI	OR	95% CI	OR	95% CI
Paying rent or mortgage	.80	.55–1.16	6.49**	4.53–9.32	1.04	.69–1.57
Utilities	.67*	.49–.91	3.92**	2.86–5.39	1.59*	1.10–2.28
Food	.70*	.53–.92	7.34**	5.57–9.67	1.30	.95–1.78
Transportation	1.05	.66–1.67	6.18**	3.89–9.81	1.08	.64–1.80
Clothing	.88	.58–1.34	4.74**	3.10–7.25	1.30	.80–2.09
Medical care	.92	.59–1.43	4.99**	3.19–7.79	1.11	.67–1.83
None	1.52**	1.23–1.87	.13**	.11–.17	.77*	.60–.99

^a Reference group was "Did not run out of money in past month," for each of the respective categories.

* p<0.05, **p<0.01.

consistent with those from a body of literature that has documented disparities among low-income adults with mental illness (1–4), which may be driven by both internal and external factors. Moreover, systematic reviews have found that mental illness can cause poverty, and poverty can also cause mental illness, which may work through theorized mechanisms such as limited cognitive bandwidth (14, 15). This was further supported by our finding that those who screened positive for mental health or alcohol use problems were more likely to report problems paying for daily basic expenses.

On average, participants planned to use 63.4% of EIP funds for savings and paying debt and rent. Most remaining funds were planned to be used for daily needs, such as groceries and transportation, suggesting that many middle- and low-income adults were planning to use their EIP to sustain their current living situation. These findings are consistent with those of two other studies that found that the EIP led to smaller increases in durable spending and larger increases in daily expenses and paying debts (11, 12). Together, these findings highlight the economic struggles of middle- and low-income adults during the COVID-19 pandemic and the potential benefits an EIP may provide.

Notably, greater mental health problems were associated with greater expenses planned on alcohol, drugs, and gambling, although this finding was not surprising, given that mental illness is often comorbid with addictive disorders (37). Moreover, participants who planned expenses in these categories were less likely to report that the EIP was helpful for their lives; those who planned to pay debts were more likely to report that the EIP was helpful. These findings, although exploratory, suggest that the impact of cash transfers such as the EIP may depend on how well equipped the recipient is to manage the funds. Money management interventions have been developed to help adults who have low income and mental illness or addictive disorders manage their funds (38–40). It may be important to offer such interventions or include them as a component of a cash transfer program such as the EIP, especially for those with comorbid mental illness and substance use disorders. This area may be worthwhile to study in future programs, and future planning may also want to consider how participants receive cash transfers, because there is some evidence that this can affect spending patterns (41). For example, our exploratory analysis found that receiving the EIP as a direct deposit was correlated with greater planned expenses for paying debts versus other expenses such as alcohol, drugs, and gambling.

We note several limitations. The study was cross-sectional, and data were based on self-reports regarding the EIP. We assessed only planned expenses and not actual expenses, which may be particularly important in interpreting correlations between planned expenses on substance use and gambling, which relied on participants' impulse control, so our findings

need to be validated in a further study. We treated participants as individuals, but additional EIP funds were provided for larger households. These limitations were counterbalanced by the strengths of the study, including a nationally representative sample, inclusion of important sociodemographic and clinical variables, and results that contribute to timely information during the COVID-19 pandemic and the literature on unconditional cost transfers. Further research is needed to follow up EIP recipients over time to better understand long-term impacts, unintended consequences, and ways to build on the strengths of vulnerable populations.

CONCLUSIONS

For middle- and low-income adults, unconditional cash transfers, such as the EIP, are often used to sustain basic needs and may also present opportunities for financial education and money management interventions for adults with mental illness and substance use disorders.

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