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Unconditional cash transfers reduce homelessness

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Homelessness is an economic and social crisis. In a cluster-randomized controlled trial, we address a core cause of homelessness—lack of money—by providing a one-time unconditional cash transfer of CAD$7,500 to each of 50 individuals experiencing homelessness, with another 65 as controls in Vancouver, BC. Exploratory analyses showed that over 1 y, cash recipients spent fewer days homeless, increased savings and spending with no increase in temptation goods spending, and generated societal net savings of $777 per recipient via reduced time in shelters. Additional experiments revealed public mistrust toward the ability of homeless individuals to manage money and demonstrated interventions to increase public support for a cash transfer policy using counter-stereotypical or utilitarian messaging. Together, this research offers a new approach to address homelessness and provides insights into homelessness reduction policies.

homelessness | cash transfer | randomized controlled trial | subjective wellbeing | cognitive function

The human toll of homelessness is profound. As 150 million people worldwide—2% of the global population—currently experience homeless (1), they face increased risks of trauma, mental health challenges (2), and substance use disorders (3). The life expectancy of people experiencing homelessness is 8 to 13 y less than the general population (4). In addition to human costs, homelessness poses significant economic costs. The estimated average annual costs of providing health and social services for an individual experiencing homelessness are $5,148 USD (5), but for those with mental illness, the costs can exceed $55,000 CAD in Canada (6) and $83,000 USD in the US (5).

Traditional approaches to addressing homelessness have focused on the provision of emergency services, healthcare, and housing supports. While these programs help prevent more severe forms of homelessness (7–9), they do not directly address a core cause: lack of money (10). Because poverty impairs cognitive function (11) and mental health (2), cash transfers help address both financial and psychological barriers. Indeed, a growing body of research from low- and middle-income countries has demonstrated that unconditional cash transfers provide a wide range of benefits for low-income recipients, including improvement in physical health (12), psychological well-being (13), education and employment (14), and financial management (15). Unconditional cash transfers provide recipients the freedom to make their own decisions about how to spend the money, which can enhance the recipients' sense of empowerment and control (13, 16). In addition, cash transfers can improve executive function and reduce anxiety and impulsivity in low-income individuals, helping them make better decisions over the long run (17, 18). Finally, one-time lumpsum transfers are more likely to increase spending on durables, psychological well-being, and female empowerment than smaller monthly transfers (13).

Despite the burgeoning evidence, most cash transfer studies to date were conducted in low- and middle-income countries (19), thus the impact of cash transfers on individuals under poverty in higher-income countries is less well known. The reason for the lack of cash transfer studies in higher-income countries is partly due to policy constraints, such as the benefits cliff where recipients risk losing existing social benefits due to the cash transfer (19). More critically, there is no experimental evidence on the efficacy of cash transfers in addressing homelessness. Building on past evidence, here we test the impact of a one-time unconditional cash transfers on individuals experiencing homelessness in Vancouver, British Columbia, a city with a growing homeless population, rising housing costs, and low vacancy rates (20). This study provides a crucial proof of concept for providing unconditional cash transfers to individuals experiencing homelessness in a higher-income country.

Study 1. Cash Transfer Experiment

We conducted a preregistered cluster-randomized controlled trial where individuals experiencing homelessness were randomly assigned to receive a one-time unconditional cash transfer of CAD$7,500. This amount equaled the annual income assistance in British

Columbia in 2016 and represented 59.6% of the average personal annual income ($12,580) of our participants. The cash transfer was provided in a lump sum to enable maximum purchasing freedom and choice (e.g., rent, durable goods), whereas smaller repeated transfers would not. To avoid benefits cliff, we established an agreement with the BC provincial government that ensured the cash transfer did not impact participants' existing or future benefits. All experiments reported here received approval from UBC Behavioural Research Ethics Board and were preregistered on the Open Science Framework (see links in *Data, Materials, and Software Availability*), and all participants provided informed consent.

We screened 732 participants from 22 shelters from four shelter organizations across Metro Vancouver. Our preregistered screening criteria were: age 19 to 65, homeless for less than 2 y (homelessness defined as the lack of stable housing), Canadian citizen or permanent resident, and nonsevere levels of substance use (DAST-10) (21), alcohol use (AUDIT) (22), and mental health symptoms Colorado Symptom Index (CSI) (23) based on predefined thresholds (see *SI Appendix,* Table S1 in *SI Appendix,* section 1.3.2). These screening criteria were used to reduce any potential risks of harm (e.g., overdose) from the cash transfer. To ensure accurate responses, the screening survey was conducted under a cover story without any mention of the cash transfer. Of the 732 participants, 229 passed all criteria (31%). Due to loss of contact with 114 participants despite our repeated attempts to reach them, we successfully enrolled 115 participants in the study as the final sample (50 cash, 65 noncash; see Table 1). The sample size was modest but was nonetheless adequately powered to detect statistically significant effects from the preregistered power analysis (*SI Appendix,* section 1.1).

To mitigate potential risks (e.g., theft, assault) from providing cash transfer to some participants but not others within the same shelter, we randomly assigned each shelter to conditions, such that all participants recruited from a given shelter were in the same condition. Shelters within each shelter organization were then randomly assigned to conditions. This stratified randomization procedure also balanced shelter partner organizations, shelter sizes and client demographics across conditions.

There were four conditions in the study: two cash and two non-cash. Based on past studies showing that motivational training can help improve cognitive and behavioral outcomes for those living in poverty (24, 25), we provided workshop and coaching supports in addition to the cash transfer (*SI Appendix,* section 1.3.4). Workshop consisted of a 1-h session every 3 mo for 1 y, where participants were guided to complete self-affirmation, goal-setting, and plan-making exercises to help participants brainstorm strategies to regain stability in their lives. The activities were designed based on past interventions that had demonstrated positive impacts on low-income individuals (24). Coaching consisted of three 45-min phone calls per month for 6 mo with a certified coach trained to help participants learn from their own experiences to increase self-efficacy in developing life skills and strategies to achieve their life goals.

In condition 1, 25 participants ($n_{shelters} = 5$) were provided with a one-time cash transfer of $7,500, workshop, and coaching. In condition 2, 25 participants ($n_{shelters} = 5$) were provided with the cash transfer and workshop but no coaching. In condition 3, 19 participants ($n_{shelters} = 5$) were provided with workshop and coaching, but no cash transfer. In condition 4, 46 participants ($n_{shelters} = 6$) were not provided with the cash transfer, workshop, or coaching. All participants were offered honoraria for completing surveys, a free checking account from a local credit union, replacement ID services, a resource booklet that outlined local social services, and a used smartphone (*SI Appendix,* section 1.3.5).

Table 1. Participant information by condition and balance checks

	Non-cash	Cash	Total	*P*
Demographics				
Age (years)	40.7	43.4	41.9	0.27
Born in Canada (yes)	86.2%	78.0%	82.6%	0.37
Female	35.4%	46.0%	40.0%	0.34
Marital status (single)	58.5%	54.0%	56.5%	0.77
Homelessness history				
Government ID (yes)	71.9%	82.0%	76.3%	0.30
First experience homeless (yes)	40.0%	56.0%	47.0%	0.13
Homelessness duration (weeks)	21	30	25	0.03
Number of times homeless	2.7	3.1	2.9	0.78
Total time homeless (years)	1.7	1.8	1.7	0.80
Income, employment, and spending				
Annual income at screening (CAD)	$11,986	$13,279	$12,580	0.59
Total annual spending at baseline (CAD)	$13,008	$10,107	$11,772	0.13
Employed at screening (yes)	29.0%	28.6%	28.8%	1.00
Would like a job (yes)	91.8%	95.1%	93.3%	0.84
Receiving income assistance (yes)	47.7%	58.0%	52.2%	0.36
Receiving disability assistance (yes)	27.7%	34.0%	30.4%	0.60
Health and wellbeing				
Mental health diagnosis (yes)	40.6%	46.9%	43.4%	0.63
Substance dependence disorder (yes)	9.4%	18.0%	13.2%	0.28

Note. Balance tests were conducted using *t* tests for numeric variables and chi-square tests for categorical variables. *P* values were not corrected for multiple comparisons.

Participants in the two cash conditions (*N* = 50) received the cash transfer into their checking account. The baseline survey and the follow-up surveys at 1, 3, 6, 9, and 12 mo after the cash transfer measured the same set of outcomes: housing stability (26), employment, education, income, spending (27), executive function (28), fluid intelligence (29), subjective well-being (30–36), food security (37), substance use severity (21), and social service use (38, see *Dependent Measures* in *SI Appendix,* section 1.3.6). Survey dates for participants in the two noncash conditions were yoked to cash participants to ensure that similar timelines were followed. Over the 12-mo follow-up period, attrition was similar in the two cash conditions (30%) and the two noncash conditions (32%).

Results from Preregistered Analyses. While we expected that the cash transfer might impact a variety of life outcomes, we focused our preregistered hypotheses on only subjective well-being and cognitive outcomes at 1 mo, because no prior studies have tested the impact of cash transfers on homeless individuals, and the existing evidence shows that cash transfers and motivational training can improve subjective well-being and cognitive outcomes in low-income individuals for the short term (13, 24, 25, 39, 40). Thus, we hypothesized that cash recipients (conditions 1 and 2 combined) will demonstrate better cognitive outcomes (fluid intelligence and executive function) and subjective well-being outcomes (satisfaction with life, positive and negative affect, and self-efficacy) at 1 mo than those who do not receive cash transfers (condition 3 or 4, H1); cash recipients who take part in coaching (condition 1) will demonstrate better cognitive and well-being outcomes at 1 mo than cash recipients who do not take part in coaching (condition 2, H2); and noncash participants who take part in the workshop and coaching (condition 3) will demonstrate better cognitive and well-being outcomes at 1 mo than those who do not (condition 4, H3). Detailed measures are described in *SI Appendix*, section 1.3.6. The preregistered analyses are presented in Table 2, with descriptive statistics (means and SDs) shown in *SI Appendix*, Table S3.

The confirmatory preregistered analyses were two-way mixed-effect ANOVAs (within-subjects factor of time: baseline vs. 1 mo x between-subjects factor of conditions), which showed no significant interaction effect for any of the preregistered outcomes. Specifically, cash recipients did not differ from noncash participants in terms of cognitive and subjective well-being outcomes from baseline to 1 mo; cash recipients with coaching did not differ from cash recipients without coaching; and noncash participants with workshop and coaching did not differ from noncash participants without any supports.

Results from Exploratory Analyses. To increase statistical power, we combined conditions 1 and 2 to form the cash condition and conditions 3 and 4 to form the control condition, and conducted more comprehensive exploratory analyses to compare the cash and control conditions to examine the impact of the cash transfer on all outcomes (in addition to the pre-registered ones) across the full 12-mo follow-up period. Combining the two cash and noncash conditions was also warranted because there was no significant difference between the two cash or noncash conditions based on the preregistered analyses. In these exploratory analyses, we used 3-level

linear mixed effects regression models to examine the interaction between conditions (0 = control, 1 = cash) and time, which was dummy coded to identify each time point treating baseline as the reference. Thus, the Condition x Time interaction estimates the difference in mean changes from baseline to each follow-up time point. Observations across time points were clustered within individuals, who were clustered within shelters. We removed outliers more than 3 SDs from the mean to reduce the influence of extreme and/or improbable data points, and we standardized outcomes into z-scores by subtracting each observation from the pooled mean across time points and then dividing it by the pooled SD across time points. Our primary analyses test the overall effects of the cash transfer on the key outcomes of housing stability, assets, income, spending food security, employment, education, cognitive function, subjective well-being, substance use, and service use over 12 mo, collapsing across follow-up time points and correcting for multiple comparisons using the Benjamini–Hochberg procedure (Fig. 1) (41). The primary analyses collapse across the 12 mo to provide a broad overview of the average effects of the cash transfer over 1 y. Details about the analyses, along with descriptive statistics (means and SDs for each condition and time point) and sensitivity analyses that demonstrate the robustness of the results (e.g., including outliers, covariates, imputing data, using a wild bootstrap to account for shelter clustering) are presented in *SI Appendix*, sections 1.4 and 1.5.

Fig. 1 shows the overall standardized treatment effects over 1 y, measured as the difference between cash and control participants controlling for baseline. Over the year, cash recipients spent 99 fewer days homeless (e.g., shelter, streets) and 55 more days in stable housing (e.g., apartment) on average than control participants. The difference in days was due to participants moving into other types of housing (e.g., transitional, institutional) between homelessness and stable housing. For cash recipients, the majority of time in stable housing was spent in apartment rentals (74%) or single-room occupancy units (17%). For finances, cash recipients retained more savings ($1,160) and increased monthly spending more ($429) on average than control participants. Specifically, they spent more on durable goods (e.g., furniture, car), rent, food, and transit. Importantly, spending on temptation goods (i.e., alcohol, drugs, cigarettes) was not different between groups. Although spending was measured through self-reports (adapted from ref. 13), this result is consistent with prior cash transfer studies in lower-income countries (42). By reducing time in shelters, the cash transfer was cost-effective. The societal cost of a shelter stay in Vancouver is

Table 2. Preregistered two-way mixed-effect ANOVAs testing the interaction effect between time and condition for each hypothesis

	H1		H2		H3	
	F (df)	P	F (df)	P	F (df)	P
Cognitive outcomes						
Fluid intelligence (accuracy)	2.44 (69)	0.09	0.00 (29)	0.98	3.48 (40)	0.07
Executive function (accuracy)	1.47 (51)	0.24	0.18 (24)	0.68	1.56 (28)	0.22
Executive function (efficiency)	0.23 (73)	0.79	0.00 (47)	0.96	0.21 (41)	0.65
Subjective well-being outcomes						
Wellbeing composite	2.30 (96)	0.11	3.27 (35)	0.08	0.07 (60)	0.79
Satisfaction with life	0.52 (97)	0.60	2.02 (38)	0.16	0.02 (60)	0.89
Positive affect	2.59 (97)	0.08	4.14 (36)	0.05	0.02 (60)	0.89
Negative affect	1.13 (97)	0.33	1.09 (34)	0.31	0.17 (61)	0.68
Self-efficacy	0.21 (91)	0.82	0.25 (33)	0.62	0.02 (58)	0.88

The tests were two-tailed, unadjusted for multiple comparisons.
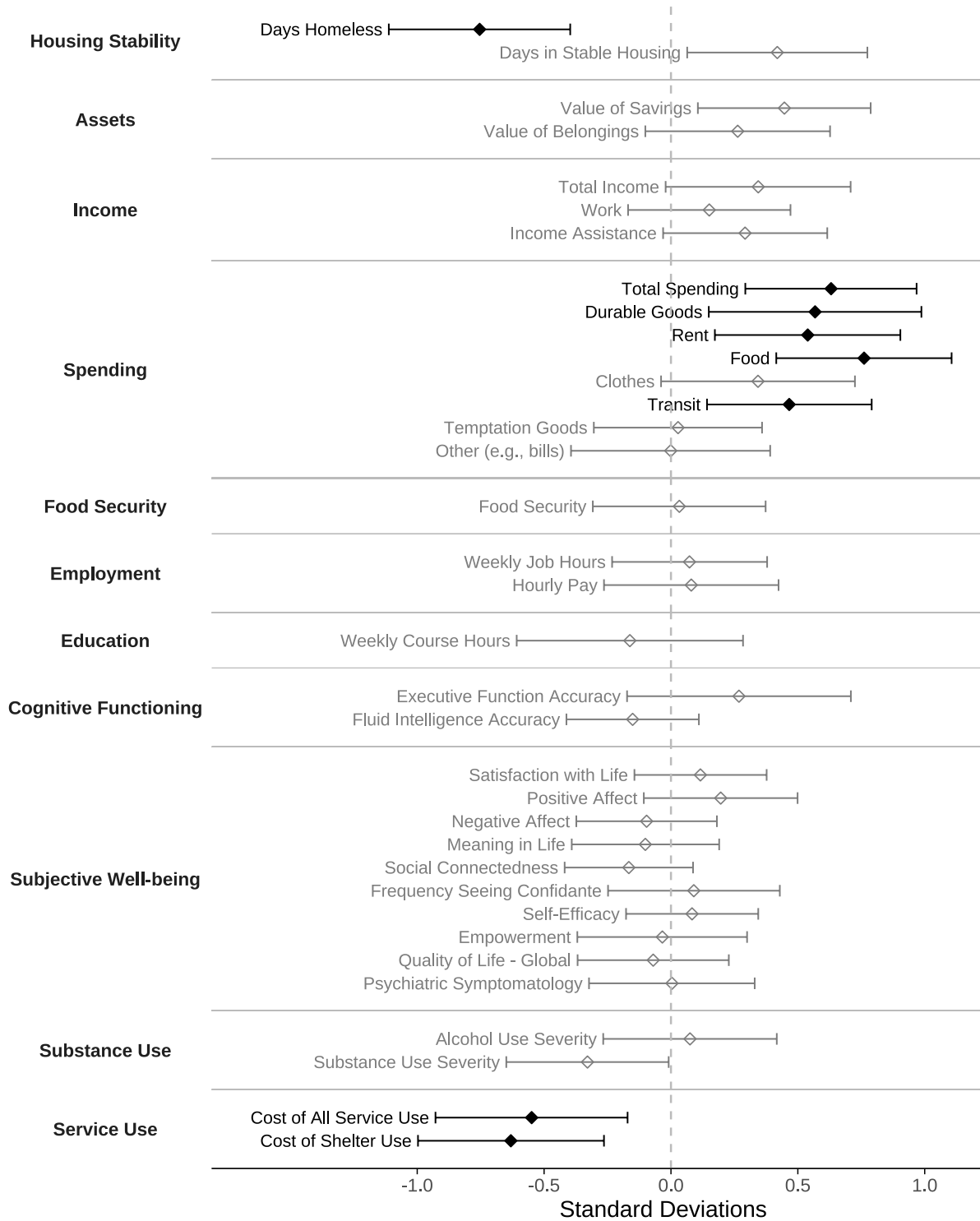
Fig. 1. Overall treatment effects of cash compared to control groups pooled across follow-up time points over 1 y, while controlling for baseline levels. Treatment effects are presented in SDs. ◆ = significant at 0.05, ◇ = not significant at 0.05 (adjusted for multiple comparisons). Error bars represent 95% CIs.

estimated at $93 per night (6), so fewer nights in shelters generated a societal cost savings of $8,277. After accounting for the cost of the cash transfer, the reduced shelter use led to societal net savings of $777 per person a year. Alternatively, freed-up shelter beds can be reallocated, so the benefits can trickle down by helping others avoid sleeping on the street. The point estimates for the other outcomes were not statistically significant, as they had wide CIs due to the small sample. Excluding the 1-mo survey—which overlapped

with the 3-mo survey—did not substantially change the results (see *Sensitivity Analyses* in *SI Appendix*, section 1.5.5).

The follow-up analyses examined the effects of the cash transfer at each follow-up time point (Table 3). Since these analyses were exploratory with the goal of discovering potential effects, they were not adjusted for multiple comparisons, and we emphasize the need for future work to confirm these findings. The analyses suggest that the overall effects were primarily driven by impacts

Table 3. Standardized treatment effects at each time point (unadjusted) and overall treatment effect (adjusted for multiple comparisons, pooled across time points) as regression coefficients and SEs are shown in parenthesis

Domain	Outcome	1 mo	3 mo	6 mo	9 mo	12 mo	Overall
Housing stability							
	% Days homeless	−0.95*** (0.21)	−0.94*** (0.21)	−0.56* (0.22)	−0.4† (0.24)	−0.3 (0.24)	−0.75*** (0.18)
	% Days in stable housing	0.64** (0.21)	0.61** (0.22)	0.32 (0.22)	−0.11 (0.24)	−0.01 (0.24)	0.42† (0.18)
Assets							
	Value of savings	1.11*** (0.21)	0.58* (0.22)	0.05 (0.23)	0.26 (0.25)	−0.17 (0.26)	0.46* (0.17)
	Value of belongings	0.37 (0.24)	0.33 (0.25)	0.11 (0.26)	0.15 (0.28)	0.33 (0.28)	0.26 (0.19)
Income							
	Total income	0.01 (0.23)	0.56* (0.24)	0.4 (0.25)	0.18 (0.28)	0.47† (0.28)	0.34 (0.19)
	Work	0.07 (0.21)	0.23 (0.22)	0.23 (0.23)	0.05 (0.25)	0.02 (0.25)	0.15 (0.16)
	Income assistance	0.23 (0.21)	0.38† (0.22)	0.2 (0.22)	0.59* (0.24)	0.16 (0.24)	0.29 (0.16)
Spending							
	Total spending	0.99*** (0.22)	0.8*** (0.23)	0.43† (0.23)	0.22 (0.26)	0.47† (0.26)	0.64*** (0.17)
	Durable goods	1.01*** (0.28)	0.89** (0.29)	0.42 (0.29)	−0.1 (0.31)	0.39 (0.32)	0.57* (0.21)
	Rent	0.78** (0.22)	0.54* (0.24)	0.47† (0.24)	0.2 (0.27)	0.25 (0.26)	0.55* (0.19)
	Food	1.41*** (0.22)	0.86*** (0.23)	0.27 (0.23)	0.35 (0.26)	0.52* (0.26)	0.76*** (0.18)
	Clothes	0.99*** (0.25)	0.31 (0.26)	0.04 (0.26)	−0.03 (0.28)	0.36 (0.28)	0.34 (0.2)
	Transit	0.49* (0.21)	0.47* (0.22)	0.31 (0.23)	0.46† (0.25)	0.73** (0.25)	0.46* (0.16)
	Temptation goods	0.06 (0.22)	0.33 (0.22)	0.05 (0.23)	−0.4 (0.26)	−0.14 (0.25)	0.03 (0.17)
	Other (e.g., bills)	−0.01 (0.26)	0.11 (0.27)	−0.08 (0.28)	0 (0.3)	0.13 (0.3)	0.02 (0.2)
Food security							
	Food security	0.46* (0.22)	−0.1 (0.22)	−0.11 (0.23)	−0.33 (0.25)	0.02 (0.25)	0.04 (0.17)
Employment							
	Weekly job hours	0.07 (0.2)	0.05 (0.21)	0.1 (0.21)	0.09 (0.24)	−0.02 (0.24)	0.07 (0.16)
	Hourly pay	−0.06 (0.22)	0.31 (0.23)	−0.03 (0.24)	0.04 (0.26)	0.02 (0.26)	0.08 (0.18)
Education							
	Weekly course hours	–	0.06 (0.3)	-0.34 (0.3)	0.04 (0.32)	−0.47 (0.33)	−0.17 (0.23)
Cognitive functioning							
	Executive function accuracy	0.12 (0.29)	0.63* (0.28)	0.26 (0.3)	0.09 (0.33)	−0.15 (0.35)	0.27 (0.22)
	Fluid intelligence accuracy	−0.22 (0.17)	−0.26 (0.18)	−0.22 (0.19)	0.23 (0.22)	−0.12 (0.22)	−0.15 (0.13)
Subjective well-being							
	Satisfaction with life	0.17 (0.17)	0.14 (0.17)	−0.05 (0.18)	−0.04 (0.2)	0.21 (0.2)	0.12 (0.13)

(Continued)

Table 3. Standardized treatment effects at each time point (unadjusted) and overall treatment effect (adjusted for multiple comparisons, pooled across time points) as regression coefficients and SEs are shown in parenthesis (Continued)

Domain	Outcome	1 mo	3 mo	6 mo	9 mo	12 mo	Overall
	Positive affect	0.45* (0.2)	0.11 (0.2)	−0.08 (0.21)	0.06 (0.23)	0.3 (0.23)	0.2 (0.16)
	Negative affect	−0.24 (0.18)	−0.04 (0.19)	0.08 (0.19)	−0.03 (0.21)	−0.24 (0.21)	−0.1 (0.14)
	Meaning in life	0.11 (0.19)	−0.17 (0.19)	−0.34† (0.2)	−0.34 (0.22)	0.14 (0.22)	−0.09 (0.15)
	Social connectedness	0.03 (0.16)	−0.19 (0.17)	−0.3† (0.17)	−0.38* (0.19)	−0.21 (0.19)	−0.17 (0.13)
	Frequency seeing confidante	0.02 (0.22)	0.19 (0.23)	−0.08 (0.24)	0.13 (0.26)	0.26 (0.26)	0.09 (0.17)
	Self-efficacy	0.1 (0.17)	0.03 (0.18)	0.14 (0.18)	0.13 (0.2)	0 (0.2)	0.09 (0.13)
	Empowerment	0.04 (0.21)	−0.02 (0.22)	−0.09 (0.23)	−0.26 (0.25)	−0.12 (0.25)	−0.04 (0.17)
	Quality of life–global	–	−0.15 (0.2)	−0.12 (0.2)	0.02 (0.22)	0.01 (0.22)	−0.07 (0.15)
	Psychiatric symptomatology	–	0 (0.19)	–	–	0.01 (0.22)	0 (0.17)
Substance use							
	Alcohol use severity	–	0.19 (0.2)	–	–	−0.11 (0.22)	0.07 (0.17)
	Substance use severity	–	−0.33† (0.19)	–	–	−0.34 (0.22)	−0.34 (0.16)
Service use							
	Cost of all service use	–	−0.76** (0.24)	−0.46† (0.24)	−0.5† (0.26)	−0.3 (0.27)	−0.55* (0.19)
	Cost of shelter use	–	−0.92*** (0.23)	−0.53* (0.23)	−0.46† (0.25)	−0.36 (0.25)	−0.62* (0.19)

Note. Some outcomes were not measured at all time points. †$P < 0.1$, *$P < 0.05$, **$P < 0.01$, ***$P < 0.001$.

within the first 3 mo after the cash transfer. For example, the benefits in housing stability and spending were immediate, but diminished as the control group eventually gained stability over time (*SI Appendix*, Fig. S3). The cash transfer did not have overall impacts on employment, cognitive function, subjective well-being, alcohol use severity, education, or food security, yet there were some short-term impacts on these outcomes. For example, more cash recipients achieved food security than control participants 1 mo after the cash transfer. Cash recipients also showed higher positive affect at 1 mo, had greater total income, and showed higher accuracy on an executive function task at 3 mo. The only detrimental effect was lower social connection at 9 mo, which could be due to moving to a new housing environment and a new community away from the shelter. Additional exploratory results are provided in *SI Appendix*, section 1.5.

Discussion. The preregistered analyses yielded null effects in cognitive and well-being outcomes, which could be due to the low statistical power from the small participant number in each condition or the possibility that any effect on cognition and well-being may take more than 1 mo to show up. By combining the two cash and two noncash conditions to increase statistical power, exploratory analyses showed that cash recipients showed higher positive affect at 1 mo and higher executive function at 3 mo. Based on debriefing, participants expressed that while they were initially happy with the cash transfer, moving out of homelessness into stable housing took substantial efforts and hard work in the first few months, which could explain the delayed effect on cognitive function.

The limited impacts of the workshop or coaching could be due to a mismatch between the participants' needs and the type of support provided by motivational training. Based on debriefing, participants expressed that they needed instrumental supports such as getting their ID replaced, completing their resume for work or education, and finding affordable housing. These needs were not specifically supported by the workshop or coaching which involved discussions of higher-level life goals and plans.

The exploratory analyses showed that over 1 y the cash transfer reduced days homeless, increased stable housing, savings, and spending, but without increased spending on temptation goods, and generated net savings for society via reduced social service use. The benefits of the cash transfer were the most pronounced in the first 3 mo. This can be due to several reasons. First, the cost of living is extremely high in Vancouver, and the majority of the cash was spent within the first 3 mo for most recipients. Second, while the cash provided immediate benefits, control participants eventually "caught up" over time. This is consistent with prior work showing that typical shelter clients exit the shelter system within 1 to 3 mo using existing supports (43, 44). Finally, the sample size decreased over time due to attrition, reducing statistical power to detect any effects.

This study presents evidence that a one-time unconditional cash transfer of $7,500 has the potential to reduce homelessness, increase housing stability, savings, and spending, and generate net savings for society via reduced social service use. These findings are based on exploratory analyses in a modestly sized sample that represents a high-functioning subset (e.g., 31% screen-in rate) of the total homeless population in Vancouver. Thus, our results may

not extend to people who are chronically homeless or experience higher severity of substance use, alcohol use, or psychiatric symptoms. Regardless of these limitations, this study provides proof of concept for the provision of cash as a new tool to reduce homelessness.

Study 2. Public Prediction of Spending on Temptation Goods

Despite the benefits observed in Study 1, there are social barriers that may prevent cash transfers from being adopted as a public policy. Research suggests that people experiencing homelessness are perceived as having less interpersonal warmth and competence (45) and less important psychological needs than those who are not homeless (46). The specific bias in the current context is the tendency for the public to think that homeless individuals will increase spending on temptation goods (alcohol, drugs, cigarettes) when given the cash transfer compared to people who are not homeless (47). This bias can favor the provision of paternalistic forms of aid over more agentic forms of aid, thus presenting a barrier to the cash transfer policy (48).

To examine and quantify the mistrust in the ability of homeless individuals to manage the cash transfer, we conducted a preregistered experiment where participants (N = 1,114) from the US public on Amazon Mechanical Turk were asked to predict the cash recipients' expenditure on temptation goods over 1 y in Study 1. We varied the description of the cash recipient as homeless or stably housed, someone else or yourself, to examine the mistrust toward the homeless individual who is not the participant themselves.

The preregistered analyses showed that the predicted spending on temptation goods was significantly higher (M = \$329, SD = 5.52, 80.8% more) when the cash recipient was described as a homeless other (i.e., someone who is homeless), compared to when the recipient was described as a nonhomeless individual or as the participants themselves whether homeless or not (M = \$182, SD = 404, $t(1094)$ = 4.74, P < 0.001, d = 0.33, 95%CI [0.19, 0.47], see *SI Appendix*, section 2 for additional methods and results). This reveals a public mistrust of individuals experiencing homelessness in their ability to manage money. This mistrust can be a barrier for establishing cash transfers as a homelessness reduction policy.

Study 3. Public Support for Cash Transfer Policy

The final experiment designed and tested two ways to frame the benefits of the cash transfer to make it more palatable to the public, with the goal of improving public support for a cash transfer policy and mitigating the mistrust shown in Study 2. In this preregistered study, participants (N = 1,373) from the US public on Amazon Mechanical Turk were randomly assigned to one of three conditions. In the counter-stereotype condition, participants read a summary of results in Study 1 showing that the cash transfer decreased spending on temptation goods and increased spending on rent, food, and clothing. In the utilitarian condition, participants read another summary of Study 1 results showing that cash recipients reduced their reliance on the shelter system and saved more money than the cash transfer itself, producing net savings for society. In the control condition, participants were not shown a summary of the study results. Afterward, participants in all conditions rated their level of support for a public policy that distributes \$7,500 to people who are homeless and do not have a severe level of substance use, alcohol use, or mental health challenges.

The preregistered analyses showed that support for the public policy was significantly higher in the utilitarian condition (M = 3.95, SD = 1.06, $t(875)$ = 5.83, P < 0.001, d = 0.38, 95%CI [0.25, 0.51]) or in the counter-stereotype condition (M = 3.78, SD = 1.24, $t(896)$ = 3.4, P = 0.002, d = 0.22, 95%CI [0.09, 0.36]) than the control condition (M = 3.50, SD = 1.3), with a smaller difference between the counter-stereotype and utilitarian conditions ($t(872)$ = 2.23, P = 0.077; see *SI Appendix*, section 3 for additional methods and results). This suggests that support for a cash transfer policy is strengthened by counteracting the stereotype of homeless individuals or by providing the utilitarian evidence that the cash transfer generated a positive impact on the recipients and net savings for society. These two messages can be used to boost public support for a cash transfer policy to reduce homelessness.

General Discussion

The current studies revealed not only the impact of a one-time unconditional cash transfer of \$7,500 on individuals experiencing homelessness in the context of a higher-income country but also a mistrust in the public toward these individuals in their ability to manage money, and constructive messaging to improve public support for a cash transfer policy by highlighting the benefits of the cash transfer to the recipients themselves and society. The findings from Study 1 were consistent with past cash transfer studies in lower-income countries in that overall spending increased but without increased temptation goods spending after the cash transfer (13, 42). However, the findings were inconsistent with past studies as the cash transfer had limited impact on cognitive function and subjective well-being on these individuals, presumably because \$7,500 was relatively a small amount of money in Vancouver, Canada, representing 12% of the average annual personal income, whereas the average cash transfer in lower-income countries was relatively larger, representing 37% annual personal income (19). Another contextual factor was that the cash transfer study took place during the development of modular housing in Vancouver, which may have facilitated cash recipients finding stable housing. Given that most of the analyses were exploratory, the cash transfer intervention should be repeated in future studies.

The current findings are important for a number of reasons. First, this work suggests that cash transfers may offer a cost-effective solution to combat homelessness for recently homeless individuals without severe substance use, alcohol use, or psychiatric symptoms. Building upon existing social supports, this approach may help individuals get out of homelessness by providing choice and freedom to make their own decisions to meet their own needs. While cash transfers are not a panacea, they may speed the path to stability and can be integrated easily with existing social supports. Second, this work suggests that the current workshop and coaching supports provide little benefits to individuals experiencing homelessness. This calls for future work to explore which supports can be paired with cash to benefit individuals experiencing homelessness given their needs. Third, our study adds to growing global evidence demonstrating the benefits of cash transfers to low-income populations (25, 49). By demonstrating potential impact for reducing homelessness, this work opens up new avenues for research with other marginalized groups (e.g., youth aging out of foster care, people exiting prisons) and other types of transfers (e.g., \$10k, guaranteed basic income). Finally, the last two experiments demonstrated how to overcome public resistance to cash transfer policy due to people's mistrust in recipient spending on temptation goods. To reduce the resistance, policy support can be bolstered by showing counter-stereotypical or utilitarian benefits

of the cash transfer, as shown in the final experiment. Thus, the current findings provide useful guidelines on garnering public support for policies that aim to raise the income floor for the homeless population. While the results are preliminary and need to be replicated with confirmatory research, this study provides proof of concept for the provision of cash assistance for individuals experiencing homelessness. As more countries around the world have embraced cash assistance to help individuals cope with economic hardships, the time has never been better to extend these benefits for those most in need.

Data, Materials, and Software Availability. Preregistrations are available on the Open Science Framework. To protect participant privacy, data are not publicly available but will be made available upon reviewer request. Study 1 original preregistration: https://osf.io/e68ab. Study 1 update to preregistration: https://osf.io/h3u9k. Study 2 preregistration: https://osf.io/86x9z?view_only=c364b-6f934ab4e2eb77e7fa342c83930. Study 2 replication preregistration: https://osf.io/txqgv/?view_only=ffe5355f5b2347f9a8e9177446d8d72a. Study 3 preregistration: https://osf.io/resf3/?view_only=a3181257a92b4608a326e0ebf2d41e17. Study 3 replication preregistration: https://osf.io/3876c/?view_only=2afe9629a1c048e8b37d27b6a6852e0d. Study 2 and Study 3 data: https://osf.io/kdn4j/?view_only=511852ce5b434960b20591ac650f3de8 (50).

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