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Financial stress by design: examining barriers to social welfare take-up

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Chapter 7

Do reclaims trigger non-take-up of social welfare? Experimental evidence from a household paradigm

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ABSTRACT

Many eligible households do not take up social welfare. Reclaims resulting from overpayments have been proposed as a potential reason for non-take-up. We conducted two preregistered experiments (total N = 472) to examine if reclaims cause non-take-up and if this effect is stronger when reclaims result in indebtedness. We used an experimental paradigm that simulated managing a household's finances. Participants received social welfare and then did versus did not have to pay a reclaim, resulting in a financial shock. Subsequently, they were asked whether they wanted to continue taking up social welfare. Both experiments showed, as hypothesized, that reclaims increased subsequent non-take-up of social welfare. We found some preliminary support for our hypothesis that this effect was stronger for participants who ended up in debt after the reclaim. In the second experiment, we included an additional condition in which the financial shock was not caused by a reclaim but by an unrelated event. Results showed that take-up did not decrease in this condition, indicating that the adverse effect of a financial shock on take-up is specific to reclaims. Together, these findings suggest that reclaims may result in non-take-up of social welfare. In the discussion, we address the potential policy implications and avenues for future research.

INTRODUCTION

Challenges in social welfare

Social welfare stabilizes individuals and societies by providing financial security to those who cannot sustain themselves. The stabilizing role of social welfare is crucial in heightened macroeconomic uncertainties and volatile labor markets[1]. This may explain why policymakers' focus on social security significantly increased during the COVID-19 pandemic[2].

The effectiveness of social welfare systems in achieving their objectives depends on their accessibility to those who need support[3]. Policymakers face a challenge in this regard. On the one hand, they implement eligibility rules to ensure that social welfare reaches those most in need. On the other hand, these rules can create barriers that may deter eligible households from taking up social welfare[4,5].

Recent studies documented the extent of non-take-up of social welfare benefits. A study in the UK revealed that 30% of those entitled to Pension Credit did not claim, and 20% of those eligible for Housing Benefits for pensioners did not claim[6]. Similarly, a study across six European countries found that non-take-up of minimum income benefits ranged from 38% to 90%[7]. For individual households, non-take-up of social welfare may adversely affect their financial and overall well-being[8]. From a governmental perspective, non-take-up contradicts the goal of social security to provide stability to citizens, may exacerbate inequality, and erode the legitimacy of welfare systems[9,10]. Therefore, understanding the non-take-up of social welfare by eligible households is essential.

Reclaims and non-take-up

The decreasing job stability in the last decades, mainly due to more flexible contracts, more zero-hours contracts, and increasing numbers of self-employed, poses another challenge for social welfare systems: being sufficiently agile and responsive to households' volatile situations[11]. Millar and Whiteford[12] observed that "responsiveness [..] can be particularly challenging when changes in income and circumstances are frequent and unpredictable." (p. 5). They argued that the risk of welfare payments getting out of step with circumstances increases, which may result in overpayment and, hence, reclaims. Many social welfare systems worldwide offer advance payments to households to assist with unexpected emergencies or sudden income reductions. These advance payments may be reclaimed[a,b,c]. In the Dutch National Welfare Program (*Toeslagen*), payments are consistently issued in advance, calculated based on estimated income.

Adjustments are made retrospectively once actual income becomes known. If income turns out to be higher than estimated, reclaims may result. The recent support programs in response to COVID-19 illustrate how responsiveness may result in reclaims. Many governments around the globe compensated companies for the loss of revenue due to the pandemic. Governments based the compensation on estimated revenues to quickly support companies and prevent them from going bankrupt. Many companies may have to repay (part of) the received support if revenues are higher[13,14]. In the Netherlands, an estimated one-third of the first support package issued immediately after the pandemic will be reclaimed[14].

Reclaims create adverse financial shocks for social welfare claimants. Previous studies have shown that adverse financial shocks can negatively affect well-being and mental health. In a study among US households, the Consumer Financial Protection Bureau[15] found that households experiencing a financial shock in the past 12 months had lower financial well-being scores than those that did not. Similarly, Bufe et al.[16] demonstrated a significant decline in subjective financial well-being in response to income shocks. Codagnone et al.[17] reported that during the COVID-19 pandemic, economic vulnerability and exposure to adverse economic shocks placed 42.8% of respondents at a high risk of stress, anxiety, and depression.

Previous studies have also shown that reclaims have the potential to induce financial hardship and exacerbate financial stress[18–20]. The repercussions of these reclaims are more pronounced for low-income households. Such households typically receive higher benefits, resulting in higher reclaims. Consequently, a payback period is longer after a reclaim, and individuals within these income brackets remain entrenched in financial hardship for an extended period[21,22]. Two extreme cases of detrimental effects of reclaims on financial hardship are the Australian Robodebt scandal and the Dutch benefits scandal. In both scandals, tens of thousands of welfare recipients got unjust reclaims[23,24]. Even years later, victims of those two scandals still suffer from financial hardship, anxiety, depression, and ill health[25,26].

We argue that households may refrain from taking up social welfare after a reclaim. Having experienced the negative impact of a financial shock, eligible households may perceive the anticipation of a future reclaim as a direct threat to their well-being that they wish to avoid. This proposition would fit with models of psychological stress and coping[27–29]: anticipating a future financial shock is appraised as a threat to one's well-being. This appraisal may trigger anxiety[30,31]. In response to this anxiety, avoidance may be used as a coping mechanism[32].

These insights suggest that eligible households may forgo social welfare to avoid the perceived threat associated with reclaims and the resulting anxiety, despite that such a non-take up decision may worsen their financial hardship.

While empirical studies directly demonstrating the effect of reclaims on non-take-up remain scarce, two qualitative studies conducted in the Netherlands suggest that reclaims may lead to non-take-up. From a qualitative interview study among local policymakers and street-level bureaucrats in six Dutch municipalities, Tempelman et al.[33] concluded that low-income households that experienced a reclaim often refrained from applying for future benefits. In a qualitative interview study among low-income households in two Dutch cities, Simonse et al.[20] found that low-income families reported past experiences of reclaims as the primary reason for avoiding the take-up of social welfare.

The current research

To our knowledge, no quantitative studies have examined the effect of reclaims on subsequent non-take-up of social welfare. In the current research, we conducted two studies in which we experimentally tested whether reclaims increased the likelihood of non-take-up of social welfare. In addition, we tested whether this effect was moderated by being indebted. Results of previous studies indicated that debts may result in decreased well-being and happiness[34,35] and increased financial stress and mental health issues[36–38]. Therefore, we expected the impact on non-take-up to be more pronounced when reclaims caused a debt.

The two studies employed an experimental task to examine the effect of reclaims on take-up decisions. We adopted the Household Task, an experimental paradigm where participants manage a household's finances[39]. In this task, participants receive a salary and must pay expenses during a series of rounds representing one month. To study the effect of reclaims, we adapted this paradigm so that participants received social welfare in each round to make ends meet[a]. After

a Before implementing the paradigm presented here, we performed two initial tests. We tested whether the instructions were clear and whether the manipulations worked. Also, we aimed to gain insight into whether participants experienced the social welfare as unpredictable and helpful. Based on the tests, we adapted the instructions to make them clearer. We observed that participants that did not have to pay a reclaim all continued using take-up. Non-take-up was considerable among participants that had to pay a reclaim, especially those that were indebted after the reclaim. These findings suggest that the manipulations worked. The procedure and data of the tests are available on the Open Science Framework (*osf.io/xsvug/*). These initial tests were approved by the Leiden University Psychology Research Ethics Committee.

six rounds, participants either did or did not have to pay a reclaim of their social welfare. Next, participants were asked whether they wished to continue receiving social welfare in the subsequent rounds.

In Experiment 2, we added a condition where participants experienced a financial shock not due to reclaim of received social welfare (i.e., they unexpectedly had to pay a garage bill). This enabled us to assess whether the effect of a reclaim was more than merely a response to a financial shock.

Both experiments tested the following hypotheses:

- **Hypothesis 1.** Compared to participants who do not have to pay a reclaim of social welfare, those who have to pay a reclaim are less likely to take up social welfare subsequently.
- **Hypothesis 2.** The effect of paying a reclaim on subsequent non-take-up of social welfare is stronger for indebted participants than for not-indebted participants.

Experiment 2 additionally tested the following hypothesis:

- **Hypothesis 3.** Compared to participants who experience an unrelated negative financial shock, those who have to pay a reclaim of social welfare are less likely to take up social welfare subsequently.

STUDY 1

In the first study, we tested our first two hypotheses. We preregistered our hypotheses, experimental design, and analysis plan on the Open Science Framework (*osf.io/fsauy*). The materials, data, code, and results are also available on the OSF (*osf.io/7qw6m/*). The experiment was approved by the Leiden University Psychology Research Ethics Committee.

Participants and design

Participants were randomly assigned to one of the four conditions of a 2 (financial shock: reclaim vs. no reclaim) by 2 (debt: yes vs. no) between-participants design. A sensitivity power analysis, with medium effect size (w = .3), type I error probability α = .05, and power 1-β = 0.95, using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) indicated a required sample of 191. To allow for some dropout, we recruited 200 British participants via the online platform Prolific Academic, of whom 198 completed the study. After removing data from one participant who failed the attention check and four who skipped at least one work task, data from 193 participants remained. Of these participants, 80 were male (41%), 111 were female (58%), one had non-binary/third gender (0.5%), and one preferred not to say (0.5%). Participants' mean age was 37 years (*SD* = 12), and their mean income was £ 3,341 (*SD* = 1,264). Participants' understanding of the instructions was high (the mean score was 6.23 on a 7-point scale, *SD* = 0.81). Participants received incentivized payments based on the outcome of the task. In addition to a fixed payment of £ 2.25, participants could earn a bonus reward of £ 1.00 if they ended the task with a positive balance. Participants only ended with a positive balance if they continued to take up social welfare.

Procedure

Figure 1 visualizes the procedure. After providing informed consent, participants received a general instruction in which they learned how their incentivized payment would be determined. Participants were asked whether the instructions were clear, after which they received an introduction to the Household Task and completed a practice round. In our version of the paradigm, participants first played six rounds, where each round represented one month. Each round started with performing a work task: typing five ten-character strings backward. Next, participants were informed about their salary, expenses, and social welfare and received a financial overview, including a balance. In all conditions, salary was set at £ 1,525 per month, corresponding to 75% of median disposable income in the UK in 2022. Expenses were set at £ 2,010 per month, so participants would have

a considerable negative monthly balance if they did not receive social welfare. Social welfare was manipulated between conditions. Condition 1 (no reclaim, no debt) received £ 490 social welfare per month, condition 2 (no reclaim, debt) received £ 440 per month, condition 3 (reclaim, no debt) received £ 740 per round, and condition 4 (reclaim, debt) received £ 690 per month.

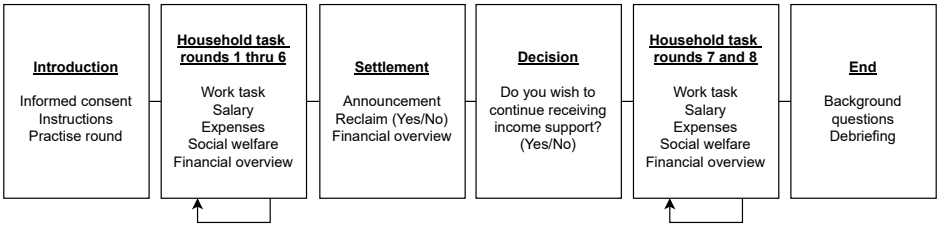

Figure 1. The procedure of the Household Task. Experimental manipulation took place by (1) presenting versus not presenting participants with a reclaim in the settlement stage and (2) varying the amount of social welfare, as a result of which participants became indebted versus not indebted. In Study 2, a third condition was added in the settlement stage: some participants received a bill from the garage instead of a reclaim.

After six rounds, we introduced a settlement stage during which participants learned whether they would have to pay a reclaim. This phase was used for manipulating financial shock. Participants in the reclaim condition received a statement that they had to pay a reclaim of £ 1,500. In contrast, participants in the no reclaim condition received a statement that they did not have to pay a reclaim. After the settlement stage, the two no-debt conditions had a positive balance of £ 30, whereas the two debt conditions had a negative balance of £ 270. Therefore, the two no-debt conditions had the same financial balance after six rounds, as did the two debt conditions.

Next, we presented an attention check and an updated financial overview, including a balance. Participants were then asked whether they wished to continue receiving social welfare in the upcoming rounds and were reminded that a settlement would occur again after six months. Participants performed two more rounds of the Household Task. After that, the experiment ended, and participants were asked to provide their age, income, and gender (all optional). After that, they were informed about their payment and debriefed. The average completion time of the study was 19 minutes.

Analyses

To test hypotheses 1 and 2, we performed a logistic regression with take-up of social welfare as a dichotomous dependent variable. The dichotomous independent variables were financial shock (reclaim vs. no reclaim), debt (yes vs. no), and the interaction between financial shock and debt[b].

Results

Overall, non-take-up of social welfare among participants was 21% (Table 1). Non-take-up differed considerably between conditions. Non-take-up was higher for participants who had experienced a reclaim (35%) than for participants who had not experienced a reclaim (6%). For the two reclaim conditions, non-take-up was 41% in the debt condition and 29% in the no-debt condition.

Table 1. Non-take-up in the four conditions (Study 1).

		Financial shock		
		Reclaim	**No reclaim**	**Total**
Debt	**No**	16 / 51 (29%)	2 / 50 (2%)	17 / 101 (17%)
	Yes	19 / 46 (41%)	4 / 46 (9%)	23 / 92 (25%)
	Total	34 / 97 (35%)	6 / 96 (6%)	40 / 193 (21%)

Note: The cells in the table contain a / b (c%), where a is the number of participants in the respective condition that did not continue to take up social welfare, b is the total number of participants in the condition, and c is the non-take-up percentage.

Results of the logistic regression showed a significant main effect of financial shock (Table 2, B = -2.30, p = .003). Supporting Hypothesis 1, participants who had to pay a reclaim were less likely to continue taking up social welfare than participants who did not have to pay a reclaim. Results showed no main effect of debt (B = -0.83, p = .354) and no interaction between financial shock and debt (B = 0.30, p = .760). The latter result contrasts Hypothesis 2.

b We preregistered a separate logistic regression with only financial shock (reclaim and no reclaim) as an independent variable to test Hypothesis 1 and a logistic regression for the full model to test Hypothesis 2. These analyses, available on the Open Science Framework, gave the same results.

Table 2. Logistic regression for Hypotheses 1 and 2 in Study 1.

	B	**σ**	***z***	***p***
(Intercept)	3.18	.72	-4.40	< .001
Financial shock: reclaim	-2.30	.78	2.94	.003
Debt: yes	-.83	.89	.93	.354
Financial shock * Debt	.30	.99	-.31	.760

Note: The model contained non-take-up as the dependent variable and financial shock), debt, and the interaction between shock and debt as the independent variables. The columns contain the regression parameter (B), standard error (σ), Wald 's test statistic (z), and p-value (p).

We performed an exploratory contrast analysis (see Appendix, Tables A1 and A2). Results showed that there was a significant difference in non-take-up between those who had to pay a reclaim and those who did not for both the no debt condition (B = -2.30, p = .003) and the debt condition (B = -2.00, p < .001). Also, results did not show significant differences in non-take-up between those who were indebted versus those who were not indebted for either the reclaim condition (B = -.52, p = .222) or the no reclaim condition (B = -.83, p = .354). These findings corroborated the results of the main analyses.

Discussion

Results of Study 1 showed that reclaims increased non-take-up of social welfare (Hypothesis 1). We found no support for a moderation effect of indebtedness (Hypothesis 2).

STUDY 2

The second experiment was a replication and extension of the first. In this experiment, we included an extra financial shock condition, where participants were presented with an unexpected garage bill (hereafter bill condition). The height of this bill was equivalent to the reclaim in the other financial shock condition. The primary objective of including the bill condition was to test whether the effect of a financial shock on taking up social welfare was specific to a reclaim. The debt manipulation (yes vs. no) was identical to Study 1. In Study 2, we thus tested Hypotheses 1 through 3. We preregistered the hypotheses, experimental design, and analysis plan on the OSF (*osf.io/c3b8h*). The materials, data, code, and results are available on the OSF (*osf.io/4g36m/*). The experiment was approved by the Leiden University Psychology Research Ethics Committee.

Participants and Design

Based on a power analysis similar to that of Study 1, we recruited 300 British participants via the online platform Prolific Academic. Participants of Study 1 were not allowed to participate in Study 2. Of the recruited participants, 299 completed the study. Data of 20 participants were excluded: six failed the attention check, and fourteen skipped at least one work task. Of the remaining 279 participants, 101 were male (36%), 171 were female (61%), 5 had non-binary/third gender (1.8%), and 2 preferred not to say (0.7%). The mean age of participants was 40 years (*SD* = 13), and their mean income was £ 3,120 (*SD* = 1,270). Study 2 had a 3 (financial shock: reclaim vs. no shock vs. bill) by 2 (debt: yes vs. no) between-participants design.

Procedure

As the procedure of Study 2 was similar to that of Study 1, we describe only the differences here. Results of Study 1 showed that the instructions were clear to the participants. Therefore, we did not verify this again in Study 2. After the sixth round, participants in the no shock and the bill condition received a statement that they did not have to pay a reclaim. Next, those in the bill condition received a statement that they had to pay a bill from the garage. The height of this bill was equal to the height of the reclaim in the reclaim condition. The average completion time of the study was 18 minutes.

Analyses

To test Hypotheses 1 through 3, we performed a logistic regression with non-take-up of social welfare as a dichotomous dependent variable. We included financial shock in the form of dummy variables (“reclaim,” “no shock,” and “bill,” where

"reclaim" served as the reference category)[c]. Debt was included in the form of dummy variables ("yes" and "no," where "no" was the reference category). In addition, we included the interaction between financial shock and debt using the same dummy variables.

Results

Overall, the non-take-up of social welfare among the participants was 15%. Non-take-up differed considerably between groups (Table 3). Participants who had to pay a reclaim had the highest average non-take-up rate (31%), compared to 9% for the participants who experienced no financial shock and 4% who received an unexpected garage bill. For participants who had to pay a reclaim and had a debt, the non-take-up was 43%, whereas the non-take-up rate was 23% for participants who had to pay a reclaim but had no debt.

Table 3. Non-take-up in the six conditions (Study 2).

		Financial shock			
		Reclaim	**No shock**	**Garage bill**	**Total**
Debt	**No**	12 / 53 (23%)	4 / 60 (7%)	1 / 45 (2%)	17 / 158 (11%)
	Yes	17 / 40 (43%)	5 / 44 (11%)	2 / 37 (5%)	24 / 121 (20%)
	Total	29 / 93 (31%)	9 / 104 (9%)	3 / 82 (4%)	41 / 279 (15%)

Note. The cells in the table indicate per condition, the number of participants who did not want to continue to take up social welfare, the total number of participants, and the percentage of non-take-up, respectively.

Results of the logistic regression showed a significant main effect of financial shock. Participants in the reclaim condition were less likely to continue to take social welfare than participants in the no shock condition (B = -1.41, p = .021) or participants in the bill condition (B = -2.56, p = .016) (Table 4), supporting Hypotheses 1 and 3. Results showed no significant interaction effects (B = -.341, p = .684 and B = -.004, p = .997 for the no shock and the garage bill conditions, respectively (Table 5), in contrast with Hypothesis 2. However, results showed a significant main effect of debt (B = .926, p = .043). Participants in the debt conditions were less likely to continue to take up social welfare than those in the no debt conditions.

c We preregistered separate logistic regressions for the two no shock and bill conditions. These analyses, available on the Open Science Framework, gave the same results.

Table 4. Logistic regression for Hypotheses 1, 2 and 3 in Study 2.

	B	σ	*z*	*p*
(Intercept)	-1.23	0.33	3.74	< .001
Financial shock: no shock	-1.41	0.61	2.30	0.021
Financial shock: bill	-2.56	1.06	2.40	0.016
Debt: yes	0.93	0.46	-2.02	0.043
Financial shock: no shock * debt	-0.34	0.84	0.41	0.684
Financial shock: bill * debt	-0.00	1.33	0.00	0.997

Note: The model contained take-up as the dependent variable and financial shock (reclaim vs. no shock vs. bill), debt (yes vs. no), and the interaction between financial shock and debt as the independent variables. The columns contain the regression parameter (B), standard error (σ), Wald's test statistic (z), and p-value (p).

We performed exploratory contrast analysis (see online materials on OSF). Results showed a significant difference in non-take-up between participants in the reclaim condition and those in the no shock or the bill condition. This was the case in both the debt and no debt conditions. Furthermore, among participants who had paid a reclaim, non-take-up was significantly higher for participants who were in the debt condition than those who were in the no debt condition (B = -.93, p = .043). So, although the data did not support debt being a moderator of the effect of reclaims on non-take-up, the exploratory analysis suggests that, for those in the reclaim condition, non-take-up was higher among indebted versus non-indebted participants.

Combined data from studies 1 and 2

In a last exploratory analysis, we combined the data of both experiments, except for the data from the bill condition in Study 2 (N = 390), allowing us to leverage statistical power (Appendix, Tables A5 through A7). Results showed a significant main effect of financial shock (B = -1.81, p < .001). Participants in the reclaim condition were less likely to continue to take social welfare than participants in the no shock condition. Results neither showed a main effect of debt (B = -.66, p = .231) nor an interaction between financial shock and debt (B = -.06, p = .919). Post-hoc contrast analyses did show a significant difference between the no debt and debt condition for participants in the reclaim condition (B = -.72, p = .021). So, although the data did not support debt being a moderator of the effect of reclaims on non-take-up, the exploratory contrast analysis indicated that, for those in the reclaim condition, non-take-up was higher among indebted versus non-indebted participants.

Discussion

From Study 2, we conclude that participants who had to pay a reclaim had higher non-take-up rates for social welfare than participants who experienced no financial shock (Hypothesis 1) or received a bill unrelated to social welfare (Hypothesis 3). The data do not support an interaction effect of reclaims and debts on the non-take-up of social welfare (Hypothesis 2). However, post-hoc contrast analyses showed that – within the group of participants who had to pay a reclaim – indebted participants had significantly higher non-take-up than non-indebted participants.

GENERAL DISCUSSION

Many eligible households do not take up social welfare. To investigate whether reclaims might help explain this phenomenon, we conducted two incentivized experiments in which participants performed a task that simulated managing a household's finances. In the task, participants performed work, received a salary, and had to pay expenses. As their expenses exceeded their incomes, participants received social welfare to help them make ends meet. Some participants received the correct amount social welfare see supplemental materials, whereas others received too much social welfare and had to pay a reclaim. Also, we manipulated the amount of social welfare participants received. Consequently, some participants were indebted at the end of the task, whereas others were not. In Study 1, the financial shock consisted of a reclaim, whereas in Study 2 the financial shock was either a reclaim or a garage bill.

Results showed an increase in non-take-up after a reclaim of social welfare. Participants who had to pay a reclaim had considerably higher non-take-up than those who did not. The effect of being indebted on non-take-up was less clear. We found no statistically significant interaction between financial shock and debt in both studies. In Study 2 and the data combining the two studies, we found, however, that when participants had to pay a reclaim, they were less likely to take up subsequent social welfare if they were indebted by the reclaim than if they were not indebted. The main conclusion of our current research is that households may refrain from taking up social welfare after having to pay a reclaim. Whether being indebted due to a payment of a reclaim strengthens the effect of a reclaim on non-take-up received some preliminary support. More research is needed, however, to arrive at more definite conclusions on the effects of indebtedness on non-take-up.

Strengths, limitations, and suggestions for further research

The current research has several strengths. First, to our knowledge, our studies are the first experiments that examine a causal relation between reclaims and non-take-up of social welfare. Establishing a causal link between reclaims and non-take-up is especially relevant in social welfare systems that attempt to be responsive to the changing circumstances of eligible households. A particular challenge of such systems is that they may result in overpayments and, hence, in reclaims. Second, the task we used in which participants allegedly manage their household finances enabled us to simulate experimentally difficult-to-test situations in the field. Conducting real-life experiments would require randomly

giving some eligible households too much social welfare and confronting them with a reclaim. Such a research approach encounters both practical and ethical objections. Our experimental approach can help policymakers develop better policies by testing them in a controlled setting.

An important limitation of the current research concerns the applicability to real-life situations. First, compared to our experimental paradigm, people may have more control over their expenses in real life and might be able to take preventive measures to avoid reclaims. Future research could incorporate such aspects in an experimental paradigm, like the one we used, and assess their impact in a controlled setting. Second, our experiments simulated households' incomes, expenses, and social welfare. The outcomes of these simulations did not affect participants' actual financial situation, except for a relatively small payment that depended on their performance in the task. Future research could use administrative data to examine whether the association between reclaims and take-up we found in our research is corroborated by these data about people's actual lives.

The underlying mechanisms in the causal relationship between reclaims and take-up remain unanswered. Several studies have explored the anxiety associated with potential reclaims, but none of them established a link with non-take-up. To illustrate, in a quantitative study among eligible households, Simonse et al.[40] found no support for an association between reclaim anxiety and non-take-up of health care or child support benefits. Moreover, in a qualitative study, Garthwaite[41] observed more anxiety and uncertainty among long-term receivers of illness benefits in the UK. Her study took place against the backdrop of extensive welfare reform with stricter eligibility conditions. The expressed anxiety in this study was associated with the prospect of being reassessed, which could result in not receiving illness benefits in the future. Also, this study did not establish a link between anxiety and non-take-up. Future research could examine this link further as a possible mediating role of anxiety avoidance in the relation between reclaim and non-take-up fits with models of psychological stress and coping[27–29].

Finally, the moderating role of being indebted after a reclaim deserves further research. Although our research provided some preliminary support for this role, more research is needed to arrive at more definite conclusions. In our current research, the amount of debt was relatively small (approximately 12% of total monthly income). Future research could include larger debts in an experimental setting and test whether larger debts provide a clearer picture of the role of being indebted in the relation between reclaims and non-take-up.

Potential implications for policy

In our studies, participants simulated managing the finances of a financially vulnerable household. They received a salary of 75% of median disposable income in the UK, and their expenses were higher than their salaries. Therefore, they needed social welfare to make ends meet. The situation we simulated in our experiments resembles that of many households eligible for social welfare. Results showed that overpayments followed by reclaims resulted in more non-take-up, which, in turn, worsened already worrisome financial situations. That is, those who chose to forego social welfare were worse off than those who continued taking up social welfare. Our results indicate that well-intended policies may have counterproductive effects on some vulnerable groups. Responsiveness in social welfare is meant to better align with financially vulnerable households' changing circumstances. However, this responsiveness might make overpayments and underpayments unavoidable. Our results suggest that the reclaims accompanying overpayments may result in non-take-up of social welfare. This means that the responsiveness in social welfare, although well-intended, may increase rather than decrease the financial vulnerability of some households. This is in line with our own (qualitative) research, in which we showed that financially vulnerable households were reluctant to use social welfare because of negative experiences with reclaims[20].

Previous studies indicate that households in financial stress may display economically adverse behaviors, such as avoiding financial information, delaying financial decisions, impulsive buying, gambling, overspending, suboptimal investing, decreased job search effectiveness, and overborrowing[42–47]. Our current research adds to the literature by showing that non-take-up of social welfare could be another behavior negatively affected by financial stress. Moreover, it hints at the possibility that this effect might perpetuate financial hardship and contribute to a poverty trap.

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CHAPTER 7. APPENDIX
EXPLORATORY ANALYSES

We performed a contrast analysis using the R-package *emmeans*[1]. We used pairwise comparisons and applied Holm's adjustment for performing multiple parallel analyses. We performed these analyses for Study 1, Study 2 and the combined data from Studies 1 and 2. For the latter, we also repeated the main analyses of Studies 1 and 2.

Study 1

Table A1. Contrast analyses for Study 1, based on Debt (Yes/No).

Contrast	Debt	estimate	SE	z.ratio	p.value
ReclaimYes - ReclaimNo	No	2.3	0.78	2.94	.003
ReclaimYes - ReclaimNo	Yes	2.0	0.60	3.32	< .001

Table A2. Contrast analyses for Study 1, based on Financial shock (Reclaim/No shock).

Contrast	Financial shock	estimate	SE	z.ratio	p.value
DebtYes - DebtNo	No shock	0.83	0.89	0.93	.354
DebtYes - DebtNo	Reclaim	0.52	0.43	1.22	.222

Study 2

Table A3. Contrast analyses for Study 2, based on Debt (Yes/No).

Contrast	Debt	estimate	SE	df	z.ratio	p.value
None - Reclaim	No	-1.41	0.61	Inf	-2.30	.049
Bill - Reclaim	No	-2.56	1.06	Inf	-2.40	.049
Bill - None	No	-1.15	1.14	Inf	-1.01	.313
None - Reclaim	Yes	-1.75	0.57	Inf	-3.06	.004
Bill - Reclaim	Yes	-2.56	0.79	Inf	-3.22	.004
Bill - None	Yes	-0.81	0.87	Inf	-0.93	.352

Table A4. Contrast analyses for Study 2, based on Financial shock (Reclaim/No shock/Bill).

Contrast	Shock	estimate	SE	df	z.ratio	p.value
Yes - No	Reclaim	0.93	0.46	Inf	2.02	.043
Yes - No	None	0.58	0.70	Inf	0.83	.405
Yes - No	Bill	0.92	1.25	Inf	0.74	.459

COMBINED DATA FROM STUDIES 1 AND 2

Table A5. Logistic regression for the combined data from Studies 1 and 2.

	B	*σ*	*z*	*p*
(Intercept)	-2.853	0.420	-6.794	< .001
ShockReclaim	1.805	0.476	3.794	< .001
DebtYes	0.655	0.547	1.197	.231
ShockReclaim:DebtYes	0.064	0.631	0.102	.919

Note: The model contained non-take-up as the dependent variable and financial shock), debt, and the interaction between shock and debt as the independent variables. The columns contain the regression parameter (B), standard error (σ), Wald 's test statistic (z), and p-value (p).

Table A6. Contrast analyses for the combined data from Studies 1 and 2, based on Debt (Yes/No).

Contrast	**Debt**	**estimate**	**SE**	**df**	**z.ratio**	**p.value**
Reclaim – None	No	1.80	0.48	Inf	3.79	< .001
Reclaim – None	Yes	1.87	0.41	Inf	4.52	< .001

Table A7. Contrast analyses for the combined data from Studies 1 and 2, based on Financial shock (Reclaim/No shock).

Contrast	**Shock**	**estimate**	**SE**	**df**	**z.ratio**	**p.value**
Yes - No	None	0.66	0.55	Inf	1.197142	0.231
Yes - No	Reclaim	0.72	0.31	Inf	2.300572	0.021

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