Evaluation Update | May 2015

Reminder Messaging and Peer Support for Debt Reduction in the United States

Do text message reminders and peer support improve the financial health of Debt Management Plan clients? Can reminders and peer support increase the effectiveness of consumer credit counseling? What is the optimal content and frequency of reminder messages?

American households often borrow too much and save too little, making it hard to meet basic needs, build assets, prepare for retirement, and pay for emergency expenses. Debt Management Plans (DMPs) – debt reduction plans offered by nonprofit credit counseling agencies around the country – are promising tools for debt reduction. However, monthly DMP payments are significant and sticking to a plan requires an ongoing effort on the part of the borrower. Approximately 20 percent of DMP clients drop out within one year.

Behavioral economics research suggests that small, inexpensive nudges targeted toward human behavioral biases can have large impacts on financial habits at a low cost. This evaluation assesses whether two such behaviorally-informed product features – opt-out text message reminders and an opt-in peer support program – help DMP clients stick to their plans and meet their monthly payments. In particular, this evaluation compares the effectiveness of high- versus low-frequency messages and task- versus goal-oriented messages.

Researchers found that clients who received low-frequency, task-oriented messages were more likely to be on track with their debt management plans. Similarly, clients who received low-frequency, task-oriented messages were more likely to meet their target monthly payments. This report summarizes findings from administrative and credit report data collected on DMP clients over the course of 18+ months in the study sample.

RESEARCHERS

Jonathan Zinman, Dartmouth College
Dean Karlan, Yale University

PARTNERS

Clarifi

LOCATION

United States
(Pennsylvania, Nevada, and New York)

SAMPLE

1,059 Debt Management Plan clients

TIMELINE

2011-2015

THEMES

Financial Inclusion

POLICY GOALS

Financial Capability

DONOR SUPPORT

Center for Financial Services Innovation (CFSI)

Background

The application of reminder messages and peer support to debt reduction is inspired by a large body of evidence showing that these interventions can increase savings balances and loan repayment rates in countries around the world.

Text message reminders are believed to be effective because they target two of our natural biases, present bias and limited attention. *Present bias* drives our strong preference for instant gratification, leading us to prioritize consumption today over planning for the future. *Limited attention* compounds this problem; in the face of many demands on our attention, we focus on our most pressing immediate needs at the expense of less-urgent, long-term goals.

Text message reminders combat these biases by keeping us focused. Goal-oriented reminders increase the salience of future payoffs, encouraging discipline in the present. On the other hand, task-oriented reminders facilitate planning for the future by highlighting specific, immediate actions needed to attain our long-run objectives.

A number of studies have shown a positive impact of reminders on savings and loan repayment. In a three-site evaluation of savers in Peru, Bolivia, and the Philippines, reminders were associated with significant increases in savings balances and goal attainment. In particular, message content mattered: the most impactful messages were those that highlighted the motivation for saving, with goal-specific messages most effective in Peru and incentive-based messages most effective in Bolivia.[i] Among micro-entrepreneurs in Chile, researchers found that text messages increased the frequency and size of savings deposits, as well as average saving balances.[ii]

In the context of individual lending, researchers found that sending monthly SMS reminders before loan payment due dates led to a 7-9 percent increase in on-time payments among borrowers in Uganda.[iii] Similarly, SMS messages sent to borrowers in the Philippines reduced the number of loans with 30-day delinquencies by almost 40 percent for repeat borrowers when the messages mentioned a loan officer by name.[iv]

Peer support offers an alternative strategy for targeting present bias. In the face of day-to-day temptations, studies have shown that consumers may benefit from opting in to the use of *commitment devices*, or products with features that allow people to "tie their hands" to a future goal.[v] Peer support may help DMP clients stick to their repayment schedules by acting as a source of accountability, with peers playing the role of a friendly "enforcer" to provide additional impetus for clients to follow through on their commitments. Peers may even act as a source of structural and functional support in achieving this goal, encouraging DMP clients emotionally and offering practical resources or advice.[vi]

The role of peers has long been studied within the microfinance sector, with a particular focus on how peers can support screening and enforcement for joint-liability loans and facilitate commitment among rotating savings groups.[vii] Recent work suggests a promising role for peer support in individual lending as well. A study of peer referrals for small consumer loans in South Africa found that incentivizing referrers based on the repayment rates of their peers reduced charge-off likelihood from 16 to 5 percent. The authors suggest that the social pressure created (by indirectly incentivizing referrers based on repayment rates) may actually be more effective than incentivizing borrowers directly.[viii] Similarly, a study of small business loans in India found that assigning borrowers to receive a bi-weekly call from a “relationship manager” reduced delinquencies, suggesting that borrowers may even feel accountable to “peers” chosen from lending staff.[ix]

This study builds on the existing literature by testing peer support and reminder messaging for debt reduction in the US, with a novel application to DMP clients in particular. It tests the effectiveness of reminders relative to (and in combination with) peer support, attempting to shed light on Kast et al.’s hypothesis that “regular feedback and follow-up could be more important to the success of self-help peer groups than the peers themselves.”[x] At the same time, this study was designed to determine whether the content and frequency of reminder messaging matters. Specifically, the study asks whether task-oriented reminders intended to promote client planning are more effective than goal-oriented reminders, which focus client attention on future objectives. In addition, the study is designed to explore whether increasing the frequency of reminder messages from monthly to biweekly affects DMP client outcomes.

Context

Individuals typically enter a DMP with a significant amount of unsecured debt that they cannot effectively manage on their own. Through existing relationships with creditors, DMP service providers establish repayment plans on the client’s behalf. Providers then collect a single, consolidated monthly payment from clients and redistribute the payment to these creditors. Monthly payment amounts are set so that clients can pay off significant debt within five years. Clients are only able to enroll in a DMP if their income is sufficient to support the payment. These payments can be readjusted or stopped in the case of an adverse shock (such as job loss).

Clients typically exit the DMP through one of four channels:

(1) *Successful completion of the payment plan;*

(2) *“Self-administration” of remaining payments without the help of the DMP provider (typical of clients nearing the end of their plans);*

(3) *Drop-out via non-payment or withdrawal; and*

(4) *Bankruptcy.*

Reminders and peer support are targeted at clients in the third (drop-out) category. By encouraging clients to maintain good habits and keep their big-picture goals in mind, and by building formal channels of accountability and support for clients who start to fall behind on their plans, reminders and peer support are designed to tackle the problem of short-term attrition among DMP clients.

In collaboration with Clarifi, a Philadelphia-based nonprofit financial counseling agency, researchers implemented text message reminders and peer support among clients starting or restarting a DMP. To achieve adequate scale for the study, Clarifi engaged two partner agencies, the Financial Guidance Center (Nevada) and the Consumer Credit Counseling Service of Buffalo, Inc. (New York). DMPs typically last 36-60 months, with some clients paying off their balance ahead of schedule. Clients enrolled in the study had initial outstanding debt as high as $317,300, with baseline scheduled monthly payments ranging from approximately $25 to over $2,800.

FIGURE 1: CLIENT CHARACTERISTICS IN MONTH OF GROUP ASSIGNMENT	
Average debt	$ 27,271
Average monthly income	$ 2,857
Average monthly DMP payment scheduled	$ 580

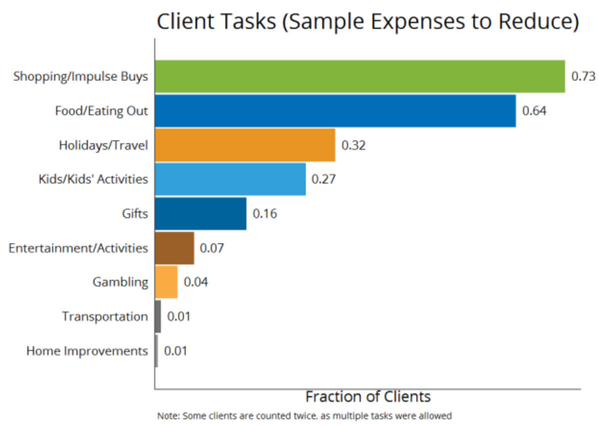
Evaluation Design

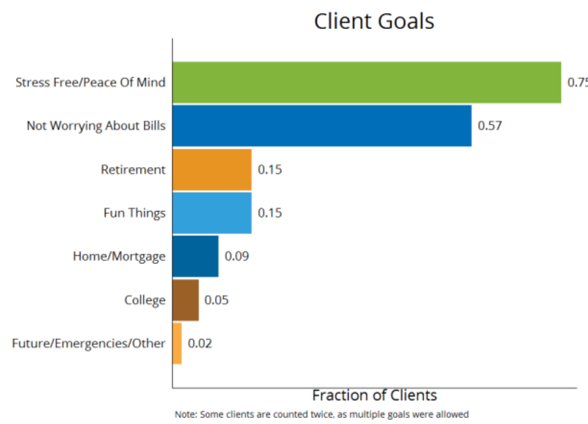
Between March 2011 and July 2013, a total of 1,059[1] clients were assigned to one of five text messaging groups (see Figure 2) and one of two peer support groups (a peer support offer or a comparison group).

FIGURE 2: REMINDER GROUPS			Message text
Task-oriented text messages	**Low frequency**	**139 clients**	Your DMP payment is due … Controlling expenses on/by … is key to your DMP. † Spending less on … is key to your DMP.
	High frequency	**117 clients**	
Goal-oriented text messages	**Low frequency**	**142 clients**	Your DMP is key to reducing financial stress. Your DMP is key to reaching your goal of … † Your DMP is key to eliminating your debt. † When planning your spending this month, remember your goal of …
	High frequency	**116 clients**	
Comparison group		**531 clients**	

† *Only clients in the high-frequency groups received these messages.*

[1] *Four clients were accidentally assigned to multiple reminder or peer support categories. An additional ten clients passed away during the course of the study. These clients were dropped from the sample and are not represented in the figures and tables below.*





Clients assigned to text message reminders were automatically subscribed to the messaging service. After an initial welcome message that included information on how to opt out of the service, clients received messages on an approximate biweekly (high frequency) or monthly (low frequency) basis. Clients received messages that alternated from among two to four message templates (depending on the reminder group), with customizable fields that allowed the messages to be tailored to payment due dates and clients' self-identified tasks or goals (see Figure 2). Due date reminders were sent approximately one week before payments were scheduled, while the remaining messages were distributed throughout the month.

Approximately two-thirds of clients assigned to reminders successfully received at least one message. A large majority of these clients accepted the default option of receiving messages throughout the course of the study (see Figure 3).

FIGURE 3: REMINDERS IMPLEMENTATION	
Assigned to text message reminders	514 clients
Welcome message sent	71.4 %
1+ messages successfully received †	67.7 %
Opted out of service*	16.5 %

FIGURE 4: PEER SUPPORT IMPLEMENTATION	
Assigned to peer support	507 clients
Recorded offer of peer support	75.7 %
Accepted offer of peer support	11.2 %
Recorded peer supporter contact information	4.3 %

† *This count may include the welcome message. Messages could be "sent" but not "received" when: the phone number provided was invalid, the number was out of service, or the client requested to opt-out of messaging by a means other than texting the STOP word.*

* *Clients who opted out of the service typically did so quickly, with 34 percent of opt-outs occurring within one day of the client's first message and 50 percent occurring within one month of the client's first message. Among clients who received any message, opt-out rates were slightly higher for task-oriented messages than for goal-oriented messages.*

Clients assigned to the peer support group were invited to select one to two friends, colleagues, or family members to referee their progress on their DMP. Clients agreed that peer supporters could be notified when clients missed a payment, so that the peer supporter could contact the client to help him or her get back on track. Peer support take up was low. One-tenth of assigned clients expressed interest in the peer support offer, but when counselors offered clients the opportunity to "opt in" to peer support by providing contact information for friends or family who could help them stay on track, most clients declined (see Figure 4).

FIGURE 5: DIFFERENCES IN DMP PLAN PERFORMANCE OVER ALL MONTHS IN SAMPLE		DMP on track as of month[1]	Paid 100% of monthly payment[2]	Amount paid month / amount owed for month[3]
Task-oriented reminder messages	**Low frequency**	**+ 6.0 % ***	**+ 7.6 % ****	**+ 7.7 % ****
	High frequency	**0.0 %**	**- 6.0 %**	**- 4.2 %**
Goal-oriented reminder messages	**Low frequency**	**+ 1.5 %**	**- 1.0 %**	**+ 0.4 %**
	High frequency	**+ 3.0 %**	**+ 3.0 %**	**+ 5.7 %**
Sample mean of outcome variable (N observations)		76.9 % (27,308)	70.1 % (26,401)	76.1 % (26,401)

*** Significant at the 5% level; * Significant at the 10% level. Differences refer to percentage points and are measured relative to the comparison group. The dataset has one observation per person-month.*

[1] *"On-track" is defined as active, active restart, or successful complete (relative to self-administered, non-payment, or bankrupt).*

[2] *"Paid 100% of monthly payment" is a binary variable that is equal to 1 if the client paid at least 100% of scheduled payment, or if the client had no payment but the DMP was complete. It is equal to 0 if client paid less than 100% of scheduled payment, or if the client had no payment and the client's DMP status was active, active restart, self-administered, non-payment, or bankrupt.*

[3] *"Amount paid for month / amount owed for month" is equal to the payment made divided by the scheduled payment amount for each client and month. It is equal to 100% if the client had no payment data for the target month but the DMP was complete. It is equal to 0% if the client had no payment data for the target month and the client's DMP status was active, active restart, self-administered, non-payment, or bankrupt.*

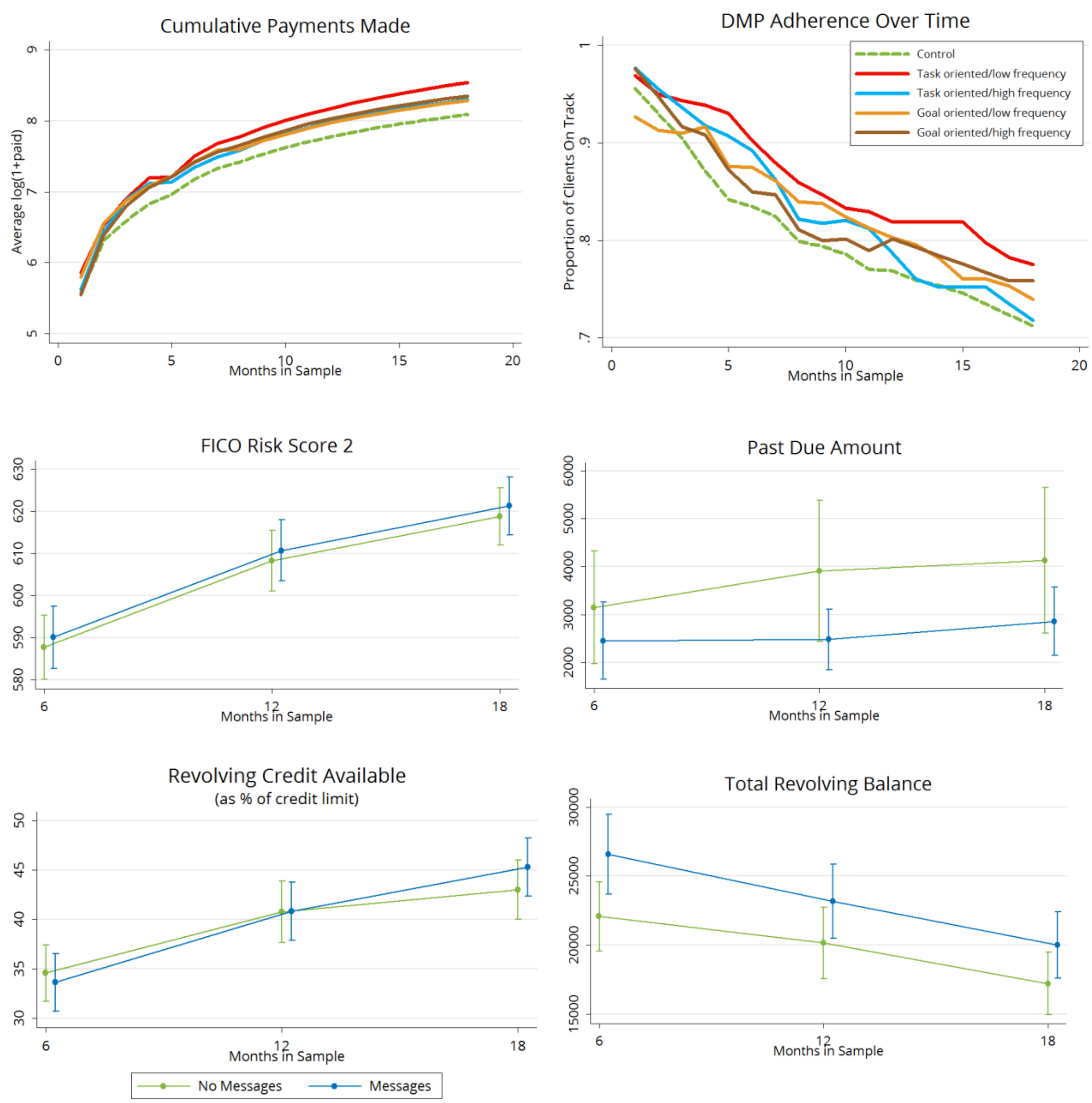
Results

Clients assigned to low-frequency, task-oriented reminder messages were approximately 6 percentage points more likely to be on track in any given month than clients who received no reminder messages. In other words, these clients were more likely to be active in a DMP, or to have completed a DMP, than clients who received no reminder messages.

Clients assigned to low-frequency, task-oriented messages were almost 8 percentage points more likely to have met their scheduled payment amount (or to have completed their DMP) in any given month than clients who received no reminder messages. These clients paid 7.7 percent more of their scheduled payment amounts, on average.

Credit report outcomes show signs of improvement over the course of the DMP, with credit scores climbing and revolving debt balances falling. However, at present we do not see consistent differences in credit report outcomes between clients who did and did not receive reminder messages. High variability in credit report outcomes, combined with the smaller sample size of the credit report data (which was collected every 6 months, rather than every month as in the administrative data) may explain the lack of precise findings. For example, the cumulative amount that clients paid towards their DMP after 18 months in our sample differed by approximately $1000 on average between those who did and did not receive reminder messages. A difference of this size is difficult to detect given the uncertainty surrounding the estimates of average total revolving balances drawn from the credit report data (shown below).

Finally, peer support had no significant relationship with DMP administrative outcomes in the sample, and is unlikely to explain the observed variation in credit outcomes. In the few instances where clients who provided peer support contact information decided to drop the program, peer supporters were not contacted; the decision to drop the DMP was typically made in consultation with credit counselors and/or the peer supporters, so contacting the peer supporters was not deemed necessary.



Note: 95% confidence intervals shown. Pull months are approximate:
Six-month pulls are taken from months 4-8; 12-month pulls are taken from months 9-16;
and 18-month pulls are taken from months 17-24.

Policy Implications

These results suggest early promise for the application of text message reminders to debt reduction. At a low administrative and financial cost, reminders may yield meaningful decreases in DMP attrition and encourage clients to meet their plan targets.

In particular, task-oriented, low-frequency messages seem most promising in this context. The effectiveness of task-oriented reminders suggests that actionable reminders may be best suited to long-term debt reduction, reminding people *what* they need to do *when* they need to do it. Nevertheless, the fact that low-frequency task-oriented reminders appear more effective than high-frequency task-oriented reminders suggests that participants may "tune out" reminders that are too frequent – a trend that has been observed in other settings as well.

At the same time, these results highlight the need to refine the peer support model for debt reduction. On the one hand, the close relationship between clients and counselors may render peer support superfluous; client decisions to drop off the DMP may be made strategically, with the support of DMP staff. On the other hand, the low take-up of the peer support offer may suggest that friends and family are not the best peers for DMP clients. Given that many clients wish to keep information about their debts private from those around them, future research could investigate whether fellow DMP clients would be more appropriate peer supporters.

Methodology

In the figures above, reminders categories represent intent-to-treat. Point estimates are from linear regressions, with standard errors clustered by client. Estimates shown exclude controls, because assignment to reminder and peer support groups was random and statistical tests confirmed that client characteristics were similar across those who did and did not receive reminders or peer support.

Regressions do include a binary variable representing assignment to peer support, which is not shown. Assignment to peer support was not associated with any significant differences in outcomes from DMP administrative data. While assignment to peer support was associated with significant differences in some of the credit report outcomes, these differences are likely to be a matter of coincidence given that the peer support intervention was not fully implemented.

Observation counts differ by outcome variable primarily because payments data was not available for 52 clients. The dataset contains one observation per person-month, with the number of observations per person varying with the number of months since the person was assigned to a peer support and reminder group. The last enrolled client reached 18 months since group assignment in January 2015; however, some clients were observed for as many as 43 months after group assignment.

Endnotes

[i] Dean Karlan et al., *Getting to the Top of Mind: How Reminders Increase Saving*, Working Paper, (October 2014), http://karlan.yale.edu/p/Top-of-Mind-Oct2014.pdf.

[ii] Felipe Kast, Stephan Meier, and Dina Pomeranz, *Under-Savers Anonymous: Evidence on Self-Help Groups and Peer Pressure as a Savings Commitment Device*, Working Paper (Harvard Business School, June 2014), http://www.hbs.edu/faculty/Publication%20Files/12-060_25eb4ab1-7f56-470b-b3a9-8e039b44118e.pdf.

[iii] Ximena Cadena and Antoinette Schoar, *Remembering to Pay? Reminders vs. Financial Incentives for Loan Payments*, Working Paper (National Bureau of Economic Research, May 2011), http://www.nber.org/papers/w17020.

[iv] Dean Karlan, Melanie Morten, and Jonathan Zinman, *A Personal Touch: Text Messaging for Loan Repayment*, Working Paper, (August 2013), https://www.dartmouth.edu/~jzinman/Papers/RepaymentReminders_2013_08.pdf.

[v] Nava Ashraf, Dean Karlan, and Wesley Yin, "Tying Odysseus to the Mast: Evidence From a Commitment Savings Product in the Philippines," *The Quarterly Journal of Economics* 121, no. 2 (May 1, 2006): 635–72, doi:10.1162/qjec.2006.121.2.635;

Xavier Giné, Dean Karlan, and Jonathan Zinman, "Put Your Money Where Your Butt Is: A Commitment Contract for Smoking Cessation," *American Economic Journal: Applied Economics* 2, no. 4 (October 1, 2010): 213–35, doi:10.1257/app.2.4.213.

[vi] M. W. Verheijden and J. C. Bakx, "Role of Social Support in Lifestyle-Focused Weight Management Interventions," *European Journal of Clinical Nutrition* 59 Suppl 1 (2005): S179–86, doi:10.1038/sj.ejcn.1602194.

[vii] Mary Kay Gugerty, "You Can't Save Alone: Commitment in Rotating Savings and Credit Associations in Kenya," *Economic Development and Cultural Change* 55 (2007): 251–82;

Stefan Ambec and Nicolas Treich, "ROSCAS as Financial Agreements to Cope with Self-Control Problems," *Journal of Development Economics* 82, no. 1 (2007): 120–37.

[viii] Gharad T. Bryan, Dean Karlan, and Jonathan Zinman, *Referrals: Peer Screening and Enforcement in a Consumer Credit Field Experiment*, Working Paper, (May 2014), http://www.dartmouth.edu/~jzinman/Papers/Referrals2014_05.pdf.

[ix] Antoinette Schoar, *The Personal Side of Relationship Banking*, SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, March 15, 2012), http://papers.ssrn.com/abstract=2024653.

[x] Kast, Meier, and Pomeranz, Under-Savers Anonymous.