The Impact of Cognitive Behavioral Therapy and Cash Transfers on High-Risk Young Men in Liberia

Researchers:

Chris Blattman

Sebastian Chaskel

Julian Jamison

Margaret Sheridan

Sector(s): Crime, Violence, and Conflict, Finance, Gender, Labor Markets, Political Economy and Governance, Social Protection

Fieldwork: Innovations for Poverty Action (IPA)

Location: Monrovia, Liberia

Sample: 999 high-risk young men, aged 18 to 35

Target group: Men and boys Urban population Youth Adults Communities recovering from conflict People with a criminal record

Outcome of interest: Alcohol, tobacco, and drug use Arrests and convictions Earnings and income Employment Mortality Household finance Violence Aggressive behavior Asset ownership Attitudes and norms Crime Gender-based violence Profits/revenues Socio-emotional development Soft skills

Intervention type: Cash transfers Coaching and mentoring Cognitive behavioral therapy Unconditional cash transfers Psychosocial support

AEA RCT registration number: AEARCTR-0001205

Données: Download from the AEA

Research Papers: Reducing Crime and Violence: Experimental Evidence from Cognitive Behavioral Th..., Cognitive Behavior Therapy Reduces Crime and Violence over 10 Years: Experiment...

Partner organization(s): Global Communities, National Science Foundation (NSF), Wellspring Philanthropic Fund, UK International Development, USAID Development Innovation Ventures

Urban crime and violence is one of the most costly and divisive issues facing cities around the world. Short-term studies have demonstrated that cognitive behavioral therapy (CBT), a therapeutic approach to improving a wide range of harmful beliefs and behaviors, is an effective way to reduce violence and criminality among adolescents and young adults. To understand the long-term effectiveness of CBT among adults, researchers evaluated the impact of a short-term CBT program and the distribution of unconditional cash transfers on the behavior of high-risk young men in Liberia. CBT reduced criminal behavior among participants both in the short run, one year following the intervention, and the long run, ten years later. At both intervals, these results were greater for participants who received both CBT and cash grants, but cash grants alone had no impact.

Policy issue

Urban crime and violence—the most serious of which typically is committed by a small number of people—is one of the most costly and divisive issues facing cities around the world. This challenge is particularly acute in fragile states, where poor young men with limited economic opportunities drive high rates of crime and violence and may be easily mobilized into destructive activities such as rioting and rebellion. For weak governments, these young men often pose one of the greatest risks to stability and economic growth. Across a variety of contexts, policymakers are searching for violence prevention measures that can serve as alternatives to coercive tools, such as aggressive policing, punishment, and imprisonment.

Randomized evaluations, including in Liberia[1], and the United States,[2], suggest that cognitive behavioral therapy (CBT), a therapeutic approach to improving a wide range of harmful beliefs and behaviors, is likely an effective way to reduce violence and criminality among adolescents and young adults. These studies have inspired the take-up of similar CBT-based programs to prevent crime and violence in varied contexts.[3] However, most existing studies are short-term—following a small group of participants for one year—and conducted in the United States. There is a need for larger, long-term studies of more diverse populations to assess whether CBT's impacts are lasting. To understand the potential long-term effectiveness of CBT among adults in fragile states, researchers evaluated the ten-year impacts of a short-term CBT program and the distribution of unconditional cash transfers on the behavior of high-risk young men in Liberia.

Context of the evaluation

During the periods 1989-1996 and 1999-2003, Liberia suffered two civil wars that killed ten percent of the population, displaced a majority, and recruited tens of thousands of people into combat. Though the last armed conflict ended in 2003, the country still remains very poor; most young men have limited employment, and so some turn to criminal activity. In 2010-2012, when the STYL intervention was conducted, the participants—men aged 18 to 35—would have spent up to 15 years of their childhood or adolescence in conflict.

The men who were recruited for and participated in this study were considered at highest risk for criminal or violent behavior, ranging from street fighting to drug dealing, petty theft, and armed robbery. Those enrolled in the CBT program had an average of eight years of schooling and earned about US$68 per month working 46 hours per week (mainly in low skilled labor and illicit work). Thirty-eight percent were former members of an armed group, and 24 percent were homeless.

A young man stands in a market in Liberia. Photo: Glenna Gordon | IPA

Glenna Gordon

Details of the intervention

Researchers conducted a randomized evaluation to measure the impact of the Sustainable Transformation of Youth in Liberia program (STYL), a short-term CBT program targeting high-risk young men to reduce criminality and other destructive behaviors. They recruited 999 young men living in Monrovia, and half were randomly enrolled in STYL.

The eight-week STYL program, which was initially evaluated between 2010 and 2012, combined frequent group therapy sessions with one-on-one counseling, conducted by program facilitators who were graduates of a previous STYL program. Counsellors aimed to help participants improve their self-control and self-image and deal peacefully with anger and violence. The curriculum—which combined discussion, reflection, and practical homework assignments—was designed to help participants recognize harmful thoughts and behaviors and practice new responses. Participants were given lunch during session days to compensate for time spent in session.

Researchers also examined the impact of unconditional cash transfers on the young men's behaviors and beliefs. Shortly after the therapy program ended, another random half of the 999 young men received one-time unconditional cash grants of US$200. Thus, one group of the men received cash, a second group received therapy, a third group received both cash and therapy, and a fourth comparison group received nothing.

To measure both short- and longer-term impacts on participants' beliefs, behaviors, and economic outcomes, researchers conducted follow-up surveys two and five weeks, twelve and thirteen months, and 114 and 115 months (or approximately 10 years) after the cash grants were distributed. When they followed up ten years later, researchers collected survey data from 833

(83 percent) of the original respondents, including 93 percent of known survivors (103 participants died in the intervening years). Researchers combined survey responses to create indexes of participants' antisocial behavior, economic performance, and other measures of behaviors and beliefs. Since most data were self-reported, they validated the behavior of a subsample with intensive qualitative observation.

In addition to receiving ethical review and approvals from an institutional review board, researchers took a number of steps to minimize risk to participants, including conducting the lottery for the cash transfer in private—mitigating the possibility that recipients would be robbed or pressured—and piloting the intervention with an initial group of 100 participants to monitor for adverse effects.

Results and policy lessons

The STYL program—particularly when combined with a cash transfer—had large and persistent impacts on participants' criminal and violent behavior, which continued to be observed ten years after the program was originally implemented. Receiving therapy also improved some measures of self-control and mental health. Neither the therapy nor the cash grant impacted long-term economic outcomes.

Behaviors and beliefs: Receiving therapy with or without cash reduced the likelihood of aggressive and criminal behavior among participants. After ten years, the combination of therapy and cash reduced an index of antisocial behaviors by 0.25 standard deviations. This effect is larger and more robust, but not statistically distinguishable, from the effect of therapy alone. These long-term impacts on antisocial behaviors are similar to those observed in the short term, as displayed in the table below.

Table 1. STYL impacts on antisocial behavior at different intervals

	Comparison group mean	*Therapy and cash*	*Therapy only*
1 month	0.151	-0.308	-0.249
1 year	0.032	-0.245	-0.075
10 years	0.116	-0.246	-0.201

In practical terms, this implies that therapy reduced self-reported drug selling, thefts, and robberies by more than 50 percent. After ten years, for instance, participants who received both therapy and cash reported committing 0.92 (49 percent) fewer crimes in the past two weeks; those who received therapy only reported committing 1 (54 percent) less crime.

The reductions in crime and violence were greatest among the men who reported the highest levels of antisocial behavior before starting the program. For this group, therapy alone reduced antisocial behavior by 0.71 standard deviations and therapy and cash by 0.82 standard deviations.

Receiving therapy also improved some measures of self-control and self-image. Consistent with the STYL curriculum's emphasis on patience and planning, the combination of therapy and cash was associated with more forward-looking behavior—an increase of 0.20 standard deviations after one year and 0.25 standard deviations after ten years. One year after the program, therapy and cash recipients demonstrated increased self-control skills, though these diminished in the long-run.

Those who received both therapy and cash also reported improved mental health—which improved by 0.23 standard deviations after one year and 0.21 standard deviations after ten—largely due to improvements in self-reported well-being and self-esteem. These are large changes by the standards of most therapeutic interventions.

Economic outcomes: Receiving therapy had no impact on the usage of the cash grant. Regardless of receiving therapy, cash recipients reported using roughly a quarter of the grant on consumption and rent, a quarter on business investments, and about one-fifth on savings and debt payments. Only 4 percent of the grant was allocated to drugs, alcohol, and other temptation goods.

The cash grants increased recipients' incomes and business investments at the one-month mark, relative to those who did not receive cash grants, but these effects did not persist into the long run. In the first month, cash recipients invested approximately US$56 more on average in their businesses, and weekly business profits increased by US$4.12, or 29 percent.

Interviews with participants suggested that at least part of the reason they were not able to sustain these profits in the long run was due to insecure property rights. During the one-year survey, about 70 percent of the men reported a robbery or stolen belongings in the past month. While cash alone did not have long-term effects on economic outcomes, researchers hypothesize that cash reinforced the effects of therapy, enabling a few months of non-criminal economic activity and thus helping to cement men's new identities and behaviors.

These results demonstrate that cognitive behavioral therapy, combined with unconditional cash transfers, can be an effective and lasting method of reducing criminality and violence, offering an alternative to more coercive policing and imprisonment tactics. The combination of therapy and cash was fairly low cost, at US$530 per participant. Estimates suggest that the program resulted in more than 200 fewer crimes committed per participant, implying a cost of less than US$2.50 per crime avoided. The program's cost-effectiveness, and the fact that it was delivered by nonexperts, suggests that it could be replicated in a variety of settings, with local organizations adapting the curriculum to fit different cultural contexts. The one-year results have already inspired cities in the United States, El Salvador, Mexico, and elsewhere to implement similar CBT programs with the goal of reducing crime. With support from the researchers, the city of Chicago has scaled a CBT intervention—modeled after STYL—to prevent gun violence in public schools.[4]

More research is needed to better understand which factors can lead CBT-induced behavior change to endure and whether different variations on the program, such as CBT booster sessions or other forms of economic assistance, might boost its effectiveness. The fact that the program was most effective for the most antisocial young men also suggests that there may be benefits to finding ways to better identify and engage the highest-risk youth.

Blattman, Christopher, Julian Jamison, and Margaret Sheridan. "Reducing Crime and Violence: Experimental Evidence on Adult Noncognitive Investments in Liberia." Working Paper, April 2015.

1. Blattman, Christopher, Julian C. Jamison, and Margaret Sheridan. 2017. “Reducing Crime and Violence: Experimental Evidence from Cognitive Behavioral Therapy in Liberia.” *American Economic Review* 107, no. 4: 1165-1206. doi: 10.1257/aer.20150503.

2. Heller, Sara B., Anuj K. Shah, Jonathan Guryan, Jens Ludwig, Sendhil Mullainathan, and Harold A. Pollack. 2017. “Thinking, Fast and Slow? Some Field Experiments to Reduce Crime and Dropout in Chicago.” *The Quarterly Journal of Economics* 132, no. 1 (2017): 1-54. doi: 10.1093/qje/qjw033

3. The Economist. 2019. “Monrovia on Lake Michigan: Applying lessons from war-torn Africa to Chicago.” https://www.economist.com/united-states/2019/05/04/applying-lessons-from-war-torn-africa-to-chicago.

4. The Economist. 2019. “Monrovia on Lake Michigan: Applying lessons from war-torn Africa to Chicago.” https://www.economist.com/united-states/2019/05/04/applying-lessons-from-war-torn-africa-to-chicago.