

Using Cognitive Behavioral Therapy to Reduce Market Failures in Crime and Violence:
An Experiment in Liberia

Cheng, Chia Wen
cwcheng@umich.edu

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Professor Dean Yang

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Introduction

A person's economic situation is a factor in how people spend their time to leisure activities, business investments, and even criminal acts. Poor, young men are more likely than other population groups to engage in anti-social or criminal behaviors such as drug use, gambling, stealing, and violence.ⁱ When other factors that worsen the average economic situation of a generation or a specific vulnerable group of population are present, criminal issues caused by economic hardship can be more rooted and complicated.

This was the case in Liberia, which suffered from civil wars from 1989 to 1996 and from 1999 to 2003. In addition to suffering the casualties of war, tens of thousands of the youth were recruited into combat. After the civil wars in 2009, many of the Liberia's young adults between 18 and 35 years old lacked of the ability to control their emotions, plan thoroughly for actions ahead of time, and secure a positively invested job due to the conflicts endured in their childhood or adolescence. Without a stable societal position and income, many were in bad financial straits and thus were easily mobilized into election intimidation, rioting, and rebellion. Places where men with anti-social behaviors gathered could be easily identified by the community members. Some spaces even had strong reputations for crime.ⁱⁱ Men who were in poor situation and had no plans for their futures could be attracted to join the crime, armed recruitment, and violence groups because the places were near and concrete to them. This resulted in asymmetric information of a more socially-desired life.

To address market failures causing higher crime rates and violence, the government of Liberia had tried to reform policing and create job opportunities for their citizens. One example is the introduction of the “Confidence Patrols” program, as known as community policing, in the years 2018 and 2019. After the civil wars, because Liberians had been relying on customary institutions such as the “secret societies” that have existed in Liberia for over 400 years, and are critical to the rural communities, Liberians’ relationship with the Liberia National Police (LNP) was poor. The Ebola epidemic during the years 2014 and 2015 further exhibited pathologies of the LNP. Civilians were uncertain on how to contact the police in the first place and whether certain behaviors were illegal, and they rated the Liberia National Police (LNP) as ill-equipped, inaccessible, and ineffective. This uncertainty led to mistrust between citizens and the police, and resulting in a situation in which uncooperative citizens undermined police effectiveness, while ineffective police undermined cooperation from citizens at the same time. In the “Confidence Patrols” program, a small number of well-trained and well-equipped police engage with residents face-to-face and day-to-day, allowing the police and individuals to both get to know each other better and build positive, trusting relationships.ⁱⁱⁱ

Although the two commonly-used ways of eliminating crime and violence, policing and creating job opportunities, are effective, this paper examines an alternative method that is expected to boost the long-term effects of reducing and even preventing crime and violence.

In an experimental study, researchers provided cognitive behavioral therapy and distributed cash grants to groups of participants. With the expectation that “noncognitive” skills and self-identities are malleable in adults and can change patients’ time preferences from investing in crime and violence to more socially desirable activities, this research project seeks to explore the returns from and longevity of late-stage noncognitive investments and specific skills that are important and effective to the criminal.

Market Failures Result in Crime and Violence

I. Asymmetric information

Asymmetric information in labor markets often prompts poverty and criminal activities.

Due to the wars, the younger generations were forced to interrupt schooling, and were lack of opportunities to explore their career interests. The economic recession after the wars ended then suddenly pushed them to seek for job positions and live their lives themselves.

Equipping with insufficient skills, not knowing what they wish and where to start looking for a position, the promise of jobs, further education and other long-term benefits offered by political mobilization became the most attractive to the poor young men, regardless of their own ideologies and political opinions.^{iv} However, in countries still developing democracy, the youth are easily targeted to participate in election intimidation, rioting, and rebellion.^v

Inequivalent knowledge about the penalties that a non-socially desired behavior will lead to thus encourages irrational decisions of time preferences of the poor young men.

Specifically in this case of Liberia, ex-combatants were under constant surveillance or may have lost their family in the wars. Many expressed a deep sense of loneliness and gaps of schooling kept them innocent in understanding the costs of an illegal behavior and capacity to look for a positively belonged group. Re-mobilization recruitment and the need to link up with “big men” who could protect them gave them a sense of belonging. Thus, as they got confirmed to belong to a group, they saw the process as an opportunity to improve their social positions and future prospects, ignoring the results of these possible criminal actions.^{vi}

Last but not least, asymmetric information about banking also constraints how the poor plan for the use of their money, which also means they perform present-biased time preferences instead of future oriented use of time investment.^{vii} Without a tremendous increase in their incomes, almost running out of money presses a person to look for any ways to quickly make money, but not thinking for long-term stable sources of income. Thus, getting a small amount of money and not planning well for it repeatedly occur in one’s life because they tend to enjoy their lives rapidly with the small grants. Positions that are claimed to provide short-term benefits such as money and food, which many of the criminal activities share, are appealing to the poor although these benefits varied, depending on whether one is a senior commander or a junior member of the task force.^{viii}

II. Externalities

Despite the direct costs to investigate, arrest, and penalize criminals, and the explicit tragic

loss of life and injury, crime and violence also implicitly raise fear in the hearts of individuals, resulting in making irrational decisions and preventing possible entrepreneurial investment.^{ix} Furthermore, democratic process that intends to be inclusive and diverse of representatives may be slowed down due to the high rate of criminal activities that prohibits some individuals from participating. Populations' rights and freedoms are externally impeded and threatened when a victim of crime emerges.^x

In this case of Liberia, marginalized young men were one of the government's main concerns, especially poorly integrated ex-combatants and other men involved in drugs and crime. However, the government was unable to offer sufficient human rights protection that improved their quality of lives and internalized externalities, and thus crime rates remained to be at a high level. Drug and criminal networks are disorganized, but the government worried they could consolidate. They also worried about political violence. High-risk men had joined riots and election violence in the past, and they were targets for mercenary recruitment into the war in Côte d'Ivoire in the years 2010 and 2011.^{xi}

The Innovation: Impacts of Cognitive Behavioral Therapy and Cash

I. Introduction to the Sustainable Transformation of Youth in Liberia (STYL) Program

The STYL program is a combination of the Network for Empowerment and Progressive Initiatives (NEPI) founders' experiences and the Western standard cognitive behavior therapy (CBT). The STYL program highlights two goals that helps the participants: 1) to foster future

orientation over present-biased behavior by teaching non-cognitive skills of self-controlling;

2) to accept anticriminal, anti-violent values, identities, and habits by persuading them self-identify as normal members in the society rather than outcasts. It uses group discussion therapy as well as one-on-one counseling to introduce social norms and noncognitive skills to the participants, and invite them to execute skills learned from curriculum in real social situations with various forms of practice. The NEPI facilitators also constantly meet with the participants at their home or work to give advice to their step-by-step changes. In this program, there is no compensation for attending the group therapy except for lunch since participants spent four hours in the therapy instead of working and cannot afford eating.^{xii}

II. Study and Experimental Design

The experimental study in Liberia in 2009 targeted high-risk Liberians who were actively involved in crime such as stealing, interpersonal violence, and drugs, or who were poor and at risk of engaging in these activities in the selected five mixed-income neighborhoods with large markets and populations of about 100,000 in Monrovia, the capital of Liberia which is known for high rates of crime. Recruiters were from NEPI, where facilitators had plentiful local knowledge that could help make up the absence of administrative data, and they directly looked for and talked with targeted populations on the streets for recruitment. At last, 999 men, estimated to represent 0.6% of the adult males in the neighborhoods, with an average age of 25, 8 years of education, made 68 dollars in the past month, worked 46 hours per

week, and had 34 dollars informally saved, composed of the sample of this experiment.

According to the survey result, 41% were a former member of an armed group.^{xiii}

There were two interventions in this research: cash of \$200 for lottery winners or \$10 for the others, and the STYL eight-week therapy program. However, the cash grants were never told to the respondents before the lottery started. The fully-crossed experiment randomly assigned participants into four groups of treated and controlled by lottery that men took turns drawing colored chips from a fabric bag. 25% of the participants received cash only, 28% had therapy only, 25% had both treatments, and 22% had none, being the controlled group. To prevent men drawing the lottery later in the group received their status by default, the number of chips in the bag exceeded the number of draws. The experiment collected 5 self-reported surveys from each participant during the experiment with 93% of them completed the endline surveys, and 66 attendees were selected by the NEPI facilitators to participate in semi-structured qualitative interviews. The in-depth qualitative interviews were designed to examine the degree of trustworthy of self-reported survey responses.

Designed to figure out the effects of the two interventions, therapy and cash, on economic status, reduction in anti-social behaviors, and the possibility of behavioral change to an adult, this study includes two ultimate outcome variables, economy and reduction in anti-social behaviors, as well as one intermediary outcome families. The hypotheses are:

- a. Behavior changes of time preferences (present versus future orientation, time

inconsistency) and several noncognitive skills are feasible to adults.

- b. Improvement in the behavioral traits of poverty, present bias, low executive function, and low perseverance, will lead to more forward-looking economic decisions and decrease poverty and poverty-rooted aggressions.
- c. Cash windfalls will result in increased investment and lower poverty and violence due to the increase in initial ability, future-oriented time preferences, and initial credit constraints.^{xiv}

III. Results

Overall from the self-reported surveys, cash did not lead to a statistically significant or sustained reduction in anti-social behaviors, but therapy did. However, to persist the short-term deduction in anti-social behaviors, only the combination of therapy followed by cash succeeded. The difference between therapy and therapy plus cash after 12–13 months is significant at the 5% level. In addition, general economic activity increased significantly for participants receiving cash alone or cash following therapy less than one year after the grant, and little of the grant seems to have spent on non-socially desired products. In terms of improvement of the noncognitive skills learned, all the intermediary family indexes are not statistically significant after one year. But in the short run, only self-control skills did not show statistically significant in changing of the six indexes.

From the qualitative interviews, researchers found that the short run investments from

those who received the grants did not last because of the high rates of house robbery. People lost more after getting the grants. The therapy also influenced the treated participants in a positive way. Those men were attached to identity change from feeling ostracized at baseline to believe they could be someone better for the first time. Short-term change in appearance was significant by observance, but a long-term change after one year is barely found. This makes sense since the classic appearances for different socio-economic classes are not linear. Getting to the next stage of, say, business, is time consuming and needs unusual experience. On the contrary, long-term changes in applying skills of self-regulation in their own lives and trust between them and other normal society members were significant. Men still came for advice all the time.

Conclusion

I. Lessons learned

The hypotheses are mostly held in the short-term in terms of the effects, but long-term effects are usually not significant. Men seem to have used the cash for short-term investment in petty trade, earning returns to capital of at least 26%, which is consistent with rural ex-combatants in Liberia, who shifted away from illicit activities when a much more intensive employment program raised their farm productivity.^{xv} But the loss of long-term effects due to robbery draws how to sustain the economic effects of cash considering quality of neighborhoods and security of personal properties a concern for future studies.

Changes in men's appearance and relationship with the society are significant, echoing the theory in CBT: positive interactions challenged respondents' negative beliefs about themselves, and reinforced their identity as more responsible, mainstream members of society. Noncognitive skill change is also a major source of behavior change from the study. The largest and most precise changes are in forward-looking time preferences and self-control skills from the therapy. But therapy plus cash contributes to sustaining impacts of future-orientation behavioral skill the most.

II. Applicable to other contexts

Since the therapy was adapted from US-based CBT programs and the authors kept the experiment in low financial and infrastructural requirements, other developing countries suffering from civil wars or high crime and poverty rates should be able to adopt a similar innovative program. The fact that many countries have higher levels of education, more social workers, and the evidence suggesting that the most anti-social men stay, and the program is most effective with them, further supports the inspiration that replication and experimentation are adopted elsewhere. A critical hint for the success in similar replication is the cooperation between researchers and local talents or local organizations. It is best to have local talents with similar experience that the program participants can connect with and build relationship and trust based on to imply the potential success of themselves.

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