

Behavioral Interventions Scholars: 2017 Grantees

Ania Jaroszewicz

Project Title: The Psychological Costs of Seeking Help for Financial Hardships

Mentor: Dr. Alex Imas

Project Funding Years: 2017-2018

University Affiliation: Carnegie Mellon University

Project Abstract

Prior research shows that despite potentially large benefits, low-income individuals do not always take advantage of government welfare programs and other services available to them. However, the extent of and reasons for underuse are not yet well understood. In collaboration with a Pennsylvania social services agency specializing in housing assistance, we intend to run a survey and a randomized control trial with two central aims. First, the studies will aim to document the extent to which people fail to ask for financial help from a social services agency, even when the help is available. Second, they will seek to identify what psychological costs may drive this behavior, preventing people from seeking help for their financial hardships. We hope that together, the studies will shed light on how to develop low-cost, scalable methods of encouraging people in poverty to access potentially life-saving financial help.

Background and Objectives

A large body of literature shows that people do not always ask for help, even when it is available and useful. This pattern of underuse has been observed in a wide range of domains, including physical health, mental health, education, and finance. However, the extent of and reasons for this underuse are not yet well understood. Work in economics, psychology, and sociology posits that in addition to standard economic costs of seeking help (such as time and effort expended on searching for services), there may also be a host of potent psychological costs (such as feelings of shame and indebtedness) contributing to this chronic underuse of services. Across two studies, this project will aim to first document the extent to which people underuse social services, and then identify the reasons for this underuse.

Relevant Behavioral Concepts

The first study will aim to identify which of a wide range of behavioral concepts may play the largest role in people's decisions to (not) seek help from a social services agency. The second study will focus on reciprocity and feelings of competence as possible psychological explanations for participants' (lack of) help-seeking.

Research Questions

We aim to test two research questions. First, to what extent do people fail to ask for help for their financial hardships? Second, assuming evidence for limited help-seeking, what psychological factors drive that behavior?

Hypotheses

Consistent with the prior literature, we hypothesize that people do not always seek help from social services agencies when they face financial hardships, even when the help is available and beneficial. Second, we hypothesize that psychological factors play an important role in those decisions. Specifically, we believe reciprocity and feelings of competence are likely to be important.

Sample

Our sample consists of people who have initiated contact with a Pennsylvanian social services agency, but have not yet received all the help they may need.

Measures

The primary outcomes of interest for both studies will be people's self-reported and actual willingness to seek help for their financial hardships.

Practice and Policy Implications

In this project, we seek to better understand why people may fail to ask for help in the face of financial hardships. By testing for the existence and impact of various psychological costs of seeking help, we hope to develop low-cost, scalable methods of helping people in poverty access potentially life-saving help.

Eleanor Martin

Project Title: Virtual mentorship to support maternal and infant health and wellbeing: Understanding the participant experience and evaluating the impact of NurturePA

Mentor: Dr. Christina Weiland

Project Funding Years: 2017- 2019

University Affiliation: University of Michigan

Project Abstract

Background and Objectives

Parents' interactions with their young children form the bedrock for school readiness and subsequent life success. However, new mothers in particular can struggle with increased stress and, not infrequently, depression, which can affect their interactions with their children. While some of the most at-risk mothers receive support from home visiting programs, for many families the transition to parenthood is a vulnerable and demanding period where the accumulation of unmitigated stressors can negatively impact healthy development for children and parents alike.

Pittsburgh-based non-profit NurturePA has developing a text-based peer-to-peer mentorship program to provide social support for new parents. NurturePA seeks to promote the healthy development of young children by enhancing their mothers' parenting skills and by reducing maternal stress. New mothers are paired with mentors, who use text messaging to communicate with, support, inform, and encourage them. While prior research has demonstrated that text-based nudges can lead to shifts in the behavior of college-bound students and of parents with school-aged children, this behavioral approach to intervention has not been broadly utilized or studied in populations of parents with young children. A study of the NurturePA program affords an opportunity to understand how this type of behavioral intervention can be used to support families with children aged zero to three.

By conducting a randomized control trial of the NurturePA program, in combination with a qualitative interview supplement, this study seeks to examine the impacts of the NurturePA program on key targeted outcomes and to link implementation of the program and participant engagement to impacts on maternal stress, maternal knowledge of child development and care, and maternal engagement in language and literacy supportive practices.

Relevant Behavioral Concepts

The NurturePA model is designed to respond to behavioral barriers to optimal parenting including task complexity and delayed gratification. Recognizing that parents may be overwhelmed by the complexity of parenting and the many choices it requires of them, as well as by often-contradictory advice and sources of information, the NurturePA model provides parents with specific and credible information to simplify choice making. It also provides regular encouragement and reminders of the longer-term benefits of immediate investment in activities such as reading to children in which the challenge of delayed gratification might otherwise lead parents to underinvest. Finally, like other text-based interventions, the NurturePA model also relies on the idea that human behavior responds to nudging and that such nudges can be effectively delivered through the medium of text messaging.

Research Questions

The results of this study will be reported across a series of three papers. The research questions to be addressed by each paper are as follows:

Paper 1

1. What are the characteristics of mothers' engagement with NurturePA?
2. Does engagement and responsiveness vary across mentors?
3. Does engagement and responsiveness vary across subgroups including first time mothers, mothers in different income terciles, and mothers who initiate exchanges with their mentor?
4. How do NurturePA participants perceive the text-based mentorship to have influenced their experience as a new parent and their experience with maternal stress? How do these perceptions align, or fail to align, with mentors' perspectives on the effects of program?

Paper 2

1. What is the impact of the NurturePA intervention on maternal health and well-being, maternal engagement in language and literacy activities, and maternal knowledge after four months of participation?

Paper 3

1. How are the impacts of the NurturePA intervention discussed in Paper 2 related to or mediated by characteristics of mothers' engagement with the program described in Paper 1?
2. How do the relationships between program impacts and characteristics of mothers' engagement reflect participants' and mentors' perceptions of and perspectives on program effects and influences?

Hypotheses

We hypothesize that the NurturePA intervention will have positive impacts on our key measures of interest including reduction in maternal stress, increased maternal knowledge of child development and care, and increased maternal engagement in language and literacy supportive practices.

Sample

The sample for this study will consist of 200 mothers (100 treatment, 100 control) recruited from the maternity ward of West Penn Hospital in Pittsburgh, PA. Race will be used as a stratifying variable during recruitment with the goal of recruiting 100 white birth mothers and 100 black birth mothers. We expect to enroll a socioeconomically diverse sample. Our sample will be restricted to mothers who have no more than one other child, who plan to stay in the Pittsburgh area for at least two years, and whose focal infant was born full term and at a normal birth weight.

Measures

Using an intake survey and the participants' clinical records, the study will collect baseline covariates including race, income, number of children, maternal education, marital status, anxiety/depression history, employment status, focal infant's gestational age at birth, and focal infant's birth weight. In addition, through an online survey administered at four months post-study enrollment, measures of maternal stress, maternal knowledge of child development and care, and maternal engagement with language and literacy supportive practices will be collected. Self-administered subscales from the *Parenting Stress Index* and *Parenting Stress Index Short Form* will be used to measure parent stress. An adapted version of the Opinions About Babies Questionnaire developed by Stephanie Reich as a criterion-referenced knowledge questionnaire will be used to measure maternal knowledge of child development and care. Finally, maternal engagement with language and literacy supportive practices will be measured using survey questions drawn from the Metro Baby Study, a longitudinal study of low-income minority families in New York City, the Early Head Start parent surveys, and the Ages and Stages 12-month questionnaire.

Practice and Policy Implications

The results of this study will contribute to the literature on technology-based interventions for parents of young children and will add insight into the mechanisms that may drive the impacts of such interventions. The results will also contribute to existing behavioral economics literature on using text-messaging to shift behavior. In addition, this study will provide information about the effectiveness of a potentially highly scalable intervention that could be used to support families who are not eligible for more intensive supports such as home visiting. Finally, the results will provide information to NurturePA that can help the program to improve its own model.

Kathryn Andrews

Project Title: Supporting families of infants in the NICU to access Supplemental Security Income

Mentor: Dr. Margaret McConnell

Project Funding Years: 2017-2018

University Affiliation: Harvard T.H. Chan School of Public Health

Project Abstract

Background and Objectives

In the United States, 8% of all infants are admitted to the Neonatal Intensive Care Unit (NICU), which amounts to approximately 320,000 infants per year (Harrison & Goodman, 2015). These infants are commonly admitted for care of prematurity (gestational age at birth less than 37 weeks), low birthweight (weight at birth <2,500g), respiratory distress, or infection (March of Dimes, 2014). The experience of families who have infants in the NICU is one of high levels of stress (Ionio et al., 2016), depression, anxiety (Müller-Nix & Ansermet, 2009), and even Post-Traumatic Stress Disorder (Clotney & Dillard, 2013). This period is also often exacerbated by financial strain. One study estimates that weekly family out-of-pocket spending to care for an infant in the NICU is approximately one-quarter of weekly income (Argus, Dawson, Wong, Morley, & Davis, 2009).

Fortunately, there are support resources available. One such resource is Supplemental Security Income (SSI). SSI is a Federal Income Benefits Program of the Social Security Administration (SSA) that provides income support to adults and children with disabilities (Social Security Administration, 2017). Infants with Down Syndrome, birthweight less than 1,200g, or who were born with specific gestational age and birthweight combinations, among other adverse conditions, may be eligible for SSI benefits. In the state of Massachusetts, these benefits include monthly financial transfers of approximately \$70 for each month the infant is in the NICU, MassHealth insurance, and up to \$850 in monthly payments (depending on family structure and income) for at least the first year of life.

However, the application process for SSI is arduous. It includes approximately 40 pages of paperwork, including documentation of medical treatments, and proof of various assets and earned and unearned income. Families with infants in well-resourced NICUs may have the support of social workers to complete the application, but this is not always the case. SSI benefits commence on the first of the month, and are back-dated only to the date of application, meaning that submitting an application late, after the first of the month, could result in a month of foregone benefits. In addition, the application review process by SSA takes 3-5 months, so benefits are not received by families immediately.

Relevant Behavioral Concepts

The resources provided through SSI are clearly beneficial, but even if families are aware of the program, uptake may be inhibited by small barriers that could potentially be removed by behavioral economic approaches. Specifically, the need to complete the initial forms could be subject to present bias and hyperbolic discounting (Laibson, 1997; Rabin & O'Donoghue, 1999) in that the present annoyance may weigh against the future value of the SSI benefits that will not appear for many months. This type of barrier could potentially be reduced by an intervention increasing the present value of the benefits. Because just having given birth and having an infant in the NICU is a stressful and busy situation, completing a complex form and gathering proof of assets, etc. may not be particularly salient or at top of mind, and could potentially benefit from simplification (reducing cognitive load), clear information on the tangible benefits (framing), and/or reminders (Karlan, McConnell, Mullainathan, & Zinman, 2010).

Research Questions

This study's research questions are: 1) What are the rates of application and missed opportunities to apply for SSI? 2) What are the barriers and facilitators families with infants in the NICU face in accessing SSI? The answers to these will be synthesized to refine the intervention design and protocol (including identifying target populations, conducting sample size calculations, and addressing logistical considerations) to achieve our ultimate goal of preparing a randomized control trial of a behavioral intervention to increase SSI application and receipt.

Hypotheses

The behavioral hypothesis driving this work is that families with infants in the NICU are experiencing high stress, financial burden, and competing priorities, and this context is likely to lead to a depletion of cognitive bandwidth, and ultimately, failure to access benefits. However, there is the potential for behavioral interventions to increase utilization of benefits to which families are entitled.

Sample and Measures

To answer the first research question, we seek data from state and federal government sources on the percent of eligible infants in the NICU whose families apply for and receive SSI. We aim to examine whether these rates differ by sociodemographic factors, and over time and geography within the state of Massachusetts.

To answer the second research question, we are conducting a survey of all social workers who work in NICUs around the state. Our survey has questions on resources available to families in NICUs, the nature of the SSI application process, gaps in knowledge of SSI on behalf of families, and barriers and facilitators families face in applying, among others.

The information gleaned from answering these two research questions will then be used to refine the design of a behavioral intervention which will be feasibility-piloted among a sample of families of SSI-eligible infants in a NICU in Boston, Massachusetts. In the full-scale trial, we will examine the impact of the intervention on rates of knowledge of, application to, and successful receipt of SSI.

Practice and Policy Implications

In order to better serve families of infants in the NICU and potentially improve their health and economic outcomes, more information is first required to document the rate of missed opportunities to receive SSI and the barriers to accessing it. The first step to intervening is to fully understand the present situation, which may also highlight important areas of disparity in utilization of available federal resources.

Then, using the information gained, designing an intervention to support families in completing the SSI application process has the potential to shed light on future designs for federal support program application processes that may smooth the process. In the long term, intervention in this area has the potential to increase the uptake of a program that already exists but for which there is some activation energy on behalf of recipients required at a particularly busy and stressful time. Increasing the utilization of SSI has the potential to decrease the financial burdens on families of sick infants by smoothing the pathway to their receiving benefits for which they are eligible. Those caregivers who would benefit most from the financial support afforded by SSI may also be those who are less likely to be aware of SSI and have more difficulty completing the application (due to many other competing stresses associated with financial strain), meaning that an intervention to ease barriers to completion of the application has the potential to decrease disparities in outcomes of sick infants by supporting families most in need. Linking families of infants in the NICU to SSI may also have the added effect of serving as a gateway to other

programs; if parents become aware of and use SSI during their child's infancy, this may also expose and empower them to seek and utilize other available support programs.

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Marika Yip-Bannicq

Project Title: Promoting Constructive Conflict in Low SES Couples: An Abstraction-Based Intervention Approach

Mentor: Patrick E. Shrout

Project Funding Years: 2017-2018

University Affiliation: New York University

Project Abstract

Background and Objectives

It is well documented that low socioeconomic status (SES) couples are particularly vulnerable to experiencing relationship problems. The proposed study aims to advance our understanding of how romantic relationships in low SES populations can be sustained and improved by testing the impact of a novel conflict management intervention in low SES couples. How romantic couples approach, engage in, and resolve conflict is essentially tied to well-being at both the individual and relationship level. Yet the social-cognitive mechanisms of constructive conflict management are not well understood. The present study adopts an intervention-based approach to investigating the role that relationship construal level—the level of abstraction used to mentally represent one’s relationship—plays in determining whether day-to-day relationships conflicts are handled constructively or destructively.

By training low SES couples to habitually adopt high level construals of their relationship it may be possible to help them buffer against the strains that poverty can place on romantic relationships. In addition to the association between relationship instability and low socioeconomic status, recent research has established that economic hardship impedes cognitive function (Vohs, 2013; Mani, A., Mullainathan, S., Shafir, E., & Zhao, J., 2013). The socio-cognitive framework provided by Construal Level Theory (Trope & Liberman, 2011) allows for the consideration of how being low in socioeconomic status and high in financial hardships may influence relationship-related processes such as conflict. I propose that economic hardship and poverty-related concerns may lead SES couples to operate with a low construal level mindset insofar as their environment requires them to focus on means vs. ends and feasibility over desirability, both of which are hallmarks of low construal. To the extent that low SES relationship partners may be prompted to operate with a chronic low construal level by the constraints of their environment, this would be expected to negatively impact their relationship maintenance processes such as conflict management. This may in part explain why low SES couples are particularly vulnerable to relationship instability compared to higher SES populations.

Relevant Behavioral Concepts

The key behavioral concept that this research draws on is dyadic self-control. We encounter self-control conflicts between goals of lesser and greater value on a daily basis, and a rich literature on self-control details the conditions under which we are most likely to succeed or fail in self-control, but this process is usually conceptualized at the individual level. In contrast, this study takes a dyadic perspective on self-control to posit that when romantic partners experience conflict, this can be conceptualized as a dyadic self-control problem with opposing goals that are of lesser and greater value. In particular, among highly committed couples, the goal to maintain and improve one’s relationship is expected to be valued above “getting your way” in any given conflict, and thus set the stage for constructive conflict interactions to take place.

This research aims to promote dyadic self-control during conflict by prompting couples to think of their relationship in abstract terms. A wealth of research on Construal Level Theory demonstrates that thinking abstractly promotes successful self-control (e.g., resistance to unhealthy temptations,

prioritizing goals of greater value) (Fujita et al., 2006). I propose that a similar pattern should emerge in relationship conflict; increasing relationship construal level (i.e., relationship-specific abstract thought) should enable couples to better regulate conflict (e.g., not get caught up in the heat of the moment) to make progress toward their relevant relationship goals (e.g., increasing consensus, reaching resolution).

Another behavioral concept that is key to this project is the psychology of scarcity. Recent research suggests that living in conditions of high scarcity such as poverty can deplete mental resources and compromise cognitive functioning. Individuals whose environments require them to dedicate the majority of their “mental bandwidth” to problem-solving challenges that arise from living under economic hardship and social disadvantage may have less cognitive resources left over to dedicate to less immediately pressing concerns such as relationship maintenance. By testing the effects of training low SES couples to think abstractly about their relationship, this research explores if abstract thinking may help individuals living with the strains of social and economic hardship transcend the psychology of scarcity to direct more effort and attention to bolstering and sustaining the quality of their close relationships.

Research Questions

This study is designed to test three primary research questions: 1) Does being trained to habitually adopt a high level construal when encountering relationship conflict promote the use of constructive conflict strategies and reduce the use of destructive conflict strategies in low SES couples? 2) Does habitually adopting a high level construal when experiencing relationship conflict yield better conflict outcomes (i.e., resolution)? 3) Does self-inducing a high level construal lead to better long term relationship outcomes (i.e., relationship quality)? All three of these questions stand to inform the development of social services-based relationship enhancement interventions for low SES couples.

Hypotheses

I hypothesize that adopting a high level (i.e., abstract) construal of one’s relationship will facilitate the constructive management of conflict by highlighting the importance of relationship goals (e.g., maintaining one’s relationship) relative to partners’ individual goals that conflict and cause disagreements to occur (e.g., the goal to spend vs. save more). In particular, I hypothesize that couples who receive the abstraction intervention will report more constructive conflict strategies, better conflict outcomes and better long-term relationship outcomes than couples in the control condition.

Sample

A sample of 146 low SES couples recruited via online panels will be used. To be eligible to participate couples must have been in their current relationship for at least one year and be cohabiting at the time of recruitment. Participants must also be at least 21 years of age and both partners of each couple must be willing to partake in the study.

Measures

This study uses an intensive longitudinal approach with a survey-experimental design, beginning with a two-week long daily diary and ending with a one-month follow-up questionnaire. Prior to commencing the daily diary, couples randomly assigned to the intervention condition will complete an initial construal level exercise paired with implementation intention (Gollwitzer, 1999) to train them to self-induce an abstract mindset when they encounter conflict. Each evening during the diary period partners will complete a short survey about conflicts experienced that day and what strategies they used (e.g., construal level self-induction) and how they are feeling about their relationship (relationship affect). In the intervention condition, a daily construal level exercise will also be added to practice applying this

technique to daily life in addition to text message reminders throughout the study to practice these exercises. The one-month follow-up survey will assess change in relationship quality and conflict management strategies.

Practice and Policy Implications

The findings of this research stand to inform social services programs and policies for the promotion of relationship health and wellbeing in low SES populations. The ease and low cost of implementing the construal level training intervention tested in the proposed research make it highly translatable to applied settings such as clinical practices and social services programs. The process of training couples to self-induce a high level construal of relationship conflict should be easily implementable in conjunction with other social services support and programs that low SES families may seek and should not require a mental health specialist to administer. The construal level training intervention is designed to be taught in a single session, with take home exercises that couples can easily incorporate into their daily lives without being burdensome. Given the low-cost nature of this relationship-enhancing intervention for both social services providers and the couples who use it, a construal level training intervention has the potential to have a high impact on relationship quality and stability in low SES couples relative to the low cost of implementing it.

The findings of this research also stand to inform applications of Construal Level Theory to other relationship maintenance processes aside from conflict management, with implications for policy and social services programs aimed at promoting relationship sustainment that do not focus specifically on conflict. Social support, joint-decision making, and co-parenting are all relationship processes that require dyadic coordination and typically suffer when relationship quality and stability are poor. The present research may provide preliminary evidence for the impact of relationship construal level interventions on relationship maintenance more generally and encourage extensions beyond the scope of relationship conflict.

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