Research Action

New Initiative Supports Mental Wellbeing in College Students



Shaping a Better World through Research & Action Wellesley Centers for Women

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Commentary on restorative justice • Q&A with new postdoctoral research scientist • STEM education at home and abroad • Economic benefits of immigration • Year in review

Research \ Action Report

annual report 2019

Contents



New Initiative Supports Mental Wellbeing in **College Students**



Social and Emotional Learning Supports **Restorative Justice**



Economist Testifies Before Congress on the Benefits of Immigration



Fathers Have a Role to Play in Their Teens' Sexual Health



Preventing Depression with Online Tools



Research Study Highlights Challenges to Child Sexual Abuse Prosecution



STEM Education at Home and Abroad



Convenings Around the Globe



We tried some new things in this issue of the *Research* & Action Report. Share your thoughts with us at wcwonline.org/feedback





Questions/comments: news-wcw@wellesley.edu



The Wellesley Centers for Women is a program of Wellesley College

From the Executive Director

A World That Is Good for Women Is Good for Everyone.™

The Wellesley Centers for Women is an academic research and action institute at Wellesley College that is focused on women and gender and driven by social change. Our mission is to advance gender equality, social justice, and human wellbeing through high-quality research, theory, and action programs.

Production of this report was supported in part by the Mary Joe Gaw Frug Fund, an endowed gift to the Wellesley Centers for Women. ooking back on the past year, it's easy to feel powerless in relation to events going on in the world around us. Sometimes it seems as though our country—and the world—is moving in a direction that troubles us and it all feels beyond our control. But I am constantly reminded that we do have power, because I've seen our research here at WCW drive social change time and again. That's power... the power of data. And, in fact, when our research is transformed into action, it can actually prevent harm and protect those who are vulnerable.

As you'll read, our research scientists and project directors are working hard, not only to find solutions to problems faced by women and girls, families and communities, but also to head off those problems before they take root. Tracy Gladstone and her team are in the process of developing an innovative online depression prevention program for Wellesley College students who are not clinically depressed, but who show some symptoms of depression. This program is built on an evidence-based depression prevention program used with adolescents that Tracy and a collaborator developed previously. One of those working on the program is Katie Buchholz, who joined WCW this past summer as a postdoctoral research scientist and has a clinical background that informs her approach to helping students build resilience.

In recent years, many school communities have moved towards restorative justice and restorative practices as approaches to discipline and community building. **Kamilah Drummond-Forrester** writes about how Open Circle, a research-informed social and emotional learning (SEL) program of WCW, is a restorative approach to SEL. We know that SEL helps children by promoting their health and wellbeing and



contributing to the prevention of violence, truancy, bullying, and substance use, and restorative justice results in similar positive outcomes.

Jennifer Grossman published an article in September investigating the role that fathers play in preventing risky sexual behavior in their young adult children. Nan Stein published an article using a high school sexual harassment lawsuit in Sweden as a case study to illustrate how sexual harassment can become normalized at the organizational level—and how that normalization can be prevented. And the risks of social media were the focus of a workshop Linda Charmaraman led for middle schoolers about social media's impact on their lives and how to use it in a healthy way.

When we see the daunting problems around us, we at WCW are inspired to buckle down and tackle them through the tools at our disposal—namely, high-quality research and innovative action. Better yet, we work on preventing those problems in the first place. We couldn't do it without you, our donors and partners, so **thank you** for helping us in our mission to advance gender equality, social justice, and human wellbeing. When we join together, our power is limitless!

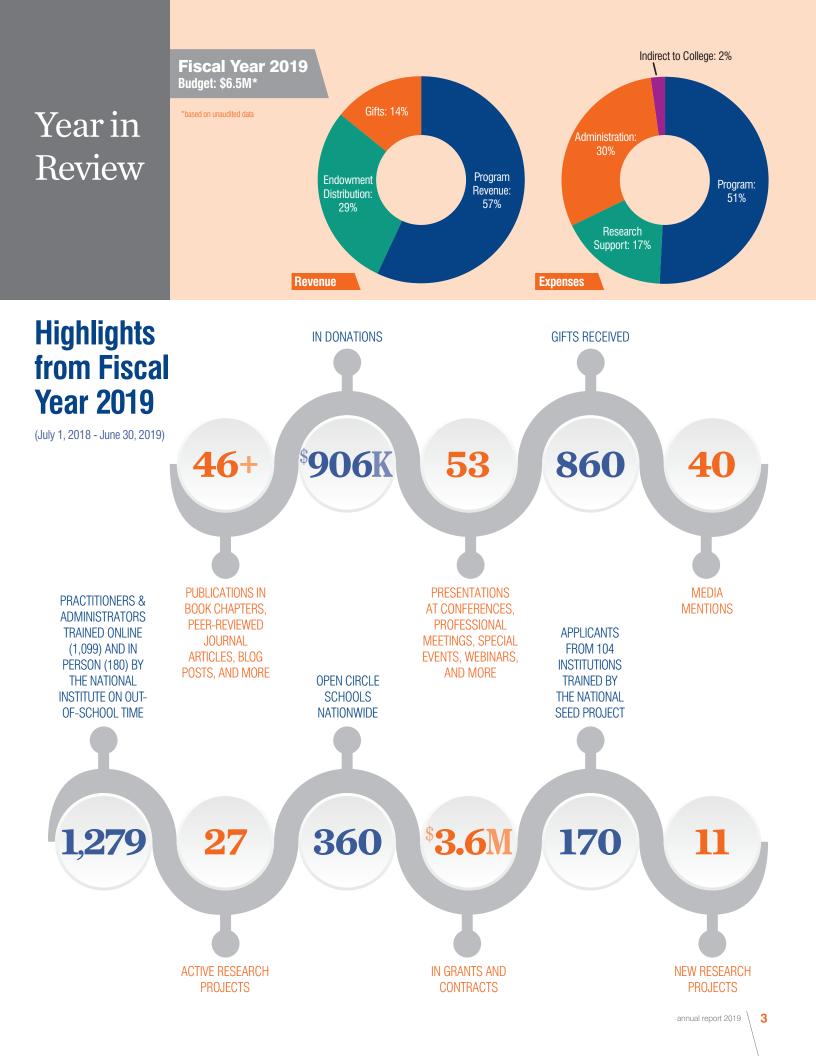
Layli Maparyan, Ph.D. Katherine Stone Kaufmann '67 Executive Director

Thank You

To our friends, supporters, funding partners, and colleagues—thank you for believing in our work. Your generosity supports **research that drives social change**.

With you as our partner, we study critical social issues and use data to improve the lives of women and girls, families and communities around the world through high-quality research, theory, and action programs. Your support helps us share what we know with decision makers of all kinds so they can make informed investments in policies, programs, and practices that **shape a better world**.

Thank you for making this work possible and for believing that A World That Is Good for Women Is Good for Everyone.™



COVER ARTICLE

New Initiative Supports Mental Wellbeing in College Students

research team from WCW is conducting a pilot study to develop a depression prevention program for Wellesley College students.

Thanks to a generous grant to the College from the Huiying Memorial Foundation, CY He '18 Vice President, and in collaboration with the Office of the Dean of Students.

the WCW team will adapt and evaluate an innovative online intervention program that aims to reach students who do not have serious symptoms but might be showing early signs of depression.

Tracy Gladstone, Ph.D., director of the Robert S.

and Grace W. Stone Primary Prevention Initiatives, senior research scientist, and associate director

at WCW, has an

and evaluating

extensive background

in studying, developing,

depression prevention

previously co-principal

programs. She was

We're very excited to bring this program to Wellesley College students.

- Sheilah Horton, vice president and dean of students



investigator of a study that evaluated the online intervention tool CATCH-IT, which incorporates interactive tools and video blogs to help users learn skills that reinforce their mental wellness.

"Our research showed CATCH-IT to be associated with decreased depressive episodes among high school students with elevated symptoms of depression," said Gladstone. "As an online tool, it has the benefit of being easy to use, private, personalized, and accessible 24/7.

> Now we're adapting CATCH-IT for students at Wellesley College to see if it can be equally successful here."

On average, 20-30 percent of college students report experiencing depression. According to one assessment, 46 percent of college students reported they "felt

so depressed it was difficult to function" in the past 12 months. Students at Wellesley College report similar rates of depression, so it made sense for the research team to start in its own backyard.

Though students experiencing serious symptoms of depression have resources readily available on campus—particularly the Stone Center Counseling Service—this pilot study will target those who are struggling with milder symptoms like low mood or

4

⁴⁴ As an online tool, it has the benefit of being easy to use, private, personalized, and accessible 24/7.⁹⁹

increased anxiety, with the goal of promoting healthy coping strategies and preventing the onset of depression.

"We're very excited to bring this program to Wellesley College students," said Sheilah Horton, vice president and dean of students. "I am excited that students will be involved in the development of the tool and once it is piloted, our students will benefit from learning coping mechanisms. As always, our top priority is the health and wellness of our students."

The Wellesley College community has been and will continue to be deeply involved

in the pilot program. The research team has conducted focus groups with students, faculty, and staff, and a Student Advisory Board will inform the project every step of the way. The study will also look at the effectiveness of the program for vulnerable students, including students of various races and ethnicities as well as LGBTQ students and other underrepresented groups. Student input will shape the presentation of the modules used in CATCH-IT to ensure the tool is tailored to the Wellesley College student community.

"We're currently in an information collection phase, and plan to make the program available to students beginning



in fall 2020," said Gladstone. "Our hope is that eventually it can be adapted for other colleges as well, with the wider aim of reducing the high incidence of depression among college students across the country."

46% of college students reported they "felt

so depressed it was difficult to function" in the past 12 months

Source: American College Health Association-National College Health Assessment II: Undergraduate Student Executive Summary Spring 2019

Commentary by Kamilah Drummond-Forrester, M.A., CAGS

Social and Emotional Learning Supports Restorative Justice

Many schools have moved towards restorative justice and restorative practices as school-wide approaches to discipline and community building in recent years. Rooted in indigenous practices, restorative justice is a philosophy and a set of practices that emphasize building community and righting wrongdoing through repairing harm rather than only punishing offenders. It views harm through a wide lens: misbehavior often has an impact not just on an individual but on the wider community.

A community solution is therefore warranted. Restorative practices seek to understand why the harm was inflicted and what the impact was, and then reach a collective consensus for how amends can be made and healing can occur. Some schools use restorative justice and practices interchangeably, while others view restorative justice as the application of restorative practices.

In my work as director of Open Circle– an evidence-based social and emotional learning (SEL) program of WCW–I've come to see Open Circle as a restorative approach to SEL.

According to the Collaborative for Academic, Social and Emotional Learning, SEL is the process of developing essential social and emotional skills, knowledge, and attitudes related to five key areas: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. The Open Circle Curriculum is organized to explicitly teach and strengthen skills in these five areas for children in grades K-5. Our program couples curriculum with a multi-day, multi-modal professional development that emphasizes the importance of positive relationships as foundational to the work of teaching and learning.

I believe SEL skill development is critical for effective implementation of restorative justice practice. I have specifically noticed these areas of alignment and strength between Open Circle's skill-building approach and the restorative justice approach:



Honoring the power of the circle.

When you walk into an Open Circle classroom, you see children sitting in a circle of chairs with one empty chair to symbolize that there is always room for one more experience, perspective, or person. We encourage Open Circle facilitators to invite other members of the school community to fill the empty chair from time to time. During Open Circle Meetings, students practice expressing their feelings, sharing experiences, and problem solving. Open Circle teachers are trained to facilitate these meetings in a manner that allows for safety, authenticity, and community building.

Restorative justice also employs the power of the circle, sometimes called a peacemaking circle. A trained facilitator also provides a safe space for participants to share their feelings, resolve conflict, and explain their point of view. Sometimes others are invited to join these peacemaking circles, like family and community members.

Focus on the who.

On the first day of Open Circle training, participants are asked to reflect on who they are as individuals and how their multiple identities impact the work they do with students, families, and colleagues. It is our belief that effective social and emotional learning occurs when educators are in tune with how they show up in the curriculum and relationships they have with students. This self-awareness builds on the social awareness of knowing students as individuals, understanding where they are developmentally, and embracing who they are culturally.

Restorative justice also seeks to attend to the whole person and to provide space for emotional, social, and moral development. Emotional habits and attitudes are not simply inborn traits fixed by our genetic code, but traits cultivated through relationships with others and reflective self-awareness. Research confirms that emotional skills of empathy, patience, and emotional self-management can be learned and nurtured within the classroom and school community.

Students practice expressing their feelings, sharing experiences, and problem solving.

Centralizing the power of relationships.

Relationship building is at the heart of what we do at Open Circle. Teachers have known for a long time that academics aren't the only important things children learn in school. School is also a place where students learn about themselves and each other and about how to get along, solve problems, and contribute to a community. In today's classrooms, students learn actively through social interaction, so they need to learn the tools to have positive interactions when working with others.

Open Circle professional development emphasizes the importance of attending to all relationships within a school community—relationships among students, among adults, and between adults and students. Relationship building is also foundational to the restorative approach. Restorative justice can't occur without trusting and caring relationships between all members of a school community. These relationships offer a foundation for effective problem solving and conflict resolution.

A community approach.

Open Circle's whole-school approach is crucial to its success. We provide professional development and support for all members of a school community. Effective SEL requires whole-school involvement, where all adults in a school community—teachers, administrators, counselors, support staff, and families/caregivers—acknowledge and reinforce SEL skill development throughout the school day and beyond. This approach has a unifying effect.

Restorative justice, too, can help to build a positive school climate, a sense of belonging, and a connectedness among students and adults to the school community. It depends on the circle—all members of a community sitting together—as a space that is structured to cultivate and support positive behavior inside and outside of the circle, generating a positive school climate.

Strengthening a reflective process, mindfully.

Reflection and mindfulness are embedded throughout the *Open Circle Curriculum* and training. We purposely slow our professional development down to offer moments for educators to reflect on their practice from



Kamilah Drummond-Forrester, M.A., CAGS, is the director of Open Circle, an action program of WCW that equips elementary schools with evidence-based curriculum and training to improve school climate and teach children essential social and emotional skills.

a variety of vantage points. Students are

taught to strengthen their ability to reflect mindfully on their behaviors, intentions, and community impact.

Research shows that mindful practices can have a tremendous impact on physical and mental wellbeing—supporting learning and protecting a student's developing brain from the harmful effects of stress and trauma. They also cultivate greater self-awareness and an expanded awareness of others and the world. Restorative justice highlights mindfulness and reflection as a way to enhance mental, physical, emotional, and spiritual wellbeing.

Open Circle and restorative justice have something else in common: they're both associated with positive results. SEL helps children by promoting their health and wellbeing and contributing to the prevention of violence, truancy, bullying, and drug and alcohol abuse. In addition, it is associated with significant gains on academic achievement tests. Restorative justice also results in positive outcomes: reduced suspensions, reduced repeat suspensions, increased connection to school and learning, better relationships between parents and school administration and staff, and better relationships between children and their parents.

I believe that it is important for educators to consider how SEL goes hand in hand with restorative justice, and how both can be implemented in tandem. Together, they can contribute to a healthier, happier school community.

Economist Testifies Before Congress on the Benefits of Immigration

Sari Pekkala Kerr, Ph.D., economist and senior research scientist at WCW, testified before the U.S. House Committee on the Budget during a hearing on the economic benefits of immigration in June 2019.

Kerr shared findings from her research on the contributions immigrant entrepreneurs make to the U.S. economy, highlighting the significant role immigrants play as business founders and job creators. While immigrants make up about 13 percent of the U.S. population, they are the founders of 26 percent of new businesses, and immigrants across the country are more likely than those born in the U.S. to be entrepreneurs.

"U.S. states differ in the share of firms owned by immigrants, but in all states, in all cases, immigrants start more firms on a per capita basis than natives do," said Kerr during her testimony.

In the United States, immigrants have a broad economic impact, founding businesses in both high-tech and low-tech sectors.



Sari Kerr during testimony

It is a false notion that less-skilled immigrants or immigrants without a college degree don't provide something for the economy...They are an economic powerhouse. ** Some of today's largest tech companies, like Google, have immigrant founders, as do many businesses in accommodation and food, professional and technical services, health care, social services, and retail fields.

"It is a false notion that less-skilled immigrants or immigrants without a college degree don't provide something for the economy," Kerr said in response to a question from Rep. Joseph Morelle of New York. "They are an economic powerhouse."

Kerr also reminded the committee that research indicates immigrants have an overall positive impact on their host country's economy.

In her written testimony she explained, "Even large, sudden inflows of migrants

have not been found to cause negative employment or wage effects on the natives, but instead benefit the economy in the long run, with benefits increasing the more highly educated the incoming group of migrants is."

Schools Can Prevent Normalization of **SEXUAL HARASSMENT**



exual harassment is a frequent, pervasive problem in schools at all educational levels, from primary school through college. In fact, sexual harassment in schools is so common that harmful behaviors have become normalized within educational institutions.

To better understand how this normalization happens, **Nan Stein**, Ed.D., senior research scientist at WCW, and her colleague Katja Gillander Gådin, Ph.D., of Mid Sweden University, used a high school sexual harassment lawsuit in Sweden as a case study. In 2019, their article illustrating how sexual harassment can become normalized at the organizational level was published in *Gender and Education,* a peer-reviewed journal that highlights global perspectives on culture, gender, and education issues.

"In order to prevent the re-enactment and perpetuation of this problem, it is important to explore processes that contribute to its existence," write Gådin and Stein, referring to sexual harassment in schools.

Their study uncovered a multi-layered web of factors and practices at the organizational level that relate to the normalization of sexual harassment in schools. Gådin and Stein recommend that schools address multiple needs in order to change the school culture to one where sexual harassment is not normalized. These needs include: strengthening organizational weaknesses; adults enacting their responsibility to change the situation; and increasing awareness of the relationship between sexual harassment, gender, and power.

Fathers Have a Role to Play in Their Teens' Sexual Health

It's powerful to see that teens' relationships with their fathers make a difference in their health years later. **

- Jennifer Grossman, Ph.D.

n article co-authored by Jennifer M. Grossman, Ph.D., senior research scientist at WCW, was published in *The Journal of Primary Prevention* in September 2019. The article investigates the role fathers play in regards to their children's sexual risk behavior. Previous studies have examined the role of mothers, but this research helps to fill the gap in understanding how fathers' conversations with their teens about sex affect the choices teens make later on.

Grossman worked with Anne Black, Ph.D., of the Yale School of Medicine, Amanda M. Richer, M.A., of WCW, and Alicia Lynch, Ph.D., of Lynch Research Associates, to study fathers' parenting during their children's adolescence. Focusing on residential fathers (those who live in the same home as their children), the researchers examined whether and how those fathers' parenting behaviors-including communication, disapproval of teen sex, parental presence, and closeness-related to sexual risk behaviors reported by their children as young adults. They also studied whether these associations differed depending on the children's gender or whether the child's mother was a teen parent.

Adolescents who perceived that their fathers disapproved of teen sex were more likely to make safer choices about sex as young adults, the researchers found. This suggests that fathers' attitudes about delaying sex are protective for male and female young adults' sexual health.

"Our study suggests that if a father tells his teen he thinks they should wait to have sex, the teen is more likely as a young adult to use condoms, have fewer sexual partners, and take fewer sexual risks overall," said Grossman. "It's powerful to see that teens' relationships with their fathers make a difference in their health years later."

Prior research found that mothers' disapproval of teen sex had similar effects, which suggests that talking with teens about sex is an important task for both mothers and fathers. Though children of teen mothers have a higher likelihood of risky sexual



behavior as adults, this study found no differences between children of teen mothers and children of adult mothers when it comes to the impact of fathers' parenting.

The data used in this paper came from the National Longitudinal Study of Adolescent to Adult Health, a national study funded by multiple agencies that resulted in a large shared set of data on 15,000 people. Grossman and her team's work was funded by a grant from the Eunice Kennedy Shriver National Institute of Child Health and Human Development at the National Institutes of Health.

What can parents take away from the study? Conversations about sexual health are not solely the domain of mothers; fathers should get involved, no matter the gender of their child.

"Conversations with teens need to go beyond when it's ok to have sex," said Grossman. "Express caring and concern for their health and safety. Talk with them on a regular basis about sex and relationships, and share your values—because it seems that dads' engagement with their teens can really make a difference in their children's future health."

9

Preventing Depression with Online Tools

Katherine R. Buchholz, Ph.D., joined WCW as a postdoctoral research scientist in the summer of 2019. Over the next two years Buchholz will primarily focus on two depression prevention research initiatives under the mentorship of Tracy Gladstone, Ph.D., associate director and senior research scientist at the Centers as well as the inaugural director of the Robert S. and Grace W. Stone Primary Prevention Initiatives.

What were you doing before joining the Centers?

My research and clinical background has focused on trauma and PTSD in adults specifically women who have experienced intimate partner violence or sexual assault and veterans with combat trauma. As a clinician, I have worked with clients who have PTSD administering Cognitive Processing Therapy and Prolonged Exposure, two evidence-based therapies for PTSD. And, while my research has covered many topics, I have been particularly interested in issues related to seeking trauma-focused therapy and college student mental health. While it is a bit of a shift, I feel that my previous work with trauma and PTSD complements the depression prevention work that Dr. Gladstone is doing at the Centers. Here, we are looking at adolescents and young adults who are at risk for depression and trying to give them skills to help weather it. In many ways it is resilience-building.

Resilience is something that I have developed an interest in through my work with trauma and PTSD. Dr. Gladstone's work provides me with an opportunity to further explore resilience and the goal of promoting mental wellness.



One of the projects you will work on at the Centers involves a depression prevention intervention for adolescents. Tell us about it.

In this study, we will compare the effectiveness of an online intervention and an in-person intervention for adolescents who are at risk for depression. Primary care providers will screen adolescent patients, and if they have elevated depressive symptoms, but not a major depressive disorder, they will be given one of these depression prevention resources. Both programs, the online program, CATCH-IT, and the in-person group intervention, teach cognitive behavioral skills, ways to understand your thoughts and change how you react to certain situations.

We already know that both of these prevention interventions are effective for some populations. This study will help us understand which program works better for different audiences. For example, will adolescents with a particular symptom profile experience better outcomes from an in-person program or an online program? What about adolescents who have parents with different levels of depressive symptoms? We'll be able to answer some of those questions with this study.

Your other major project is focused on a depression prevention program for college students.

That's right. We will take the evidence-based online program for adolescents, CATCH-IT, and adapt it for Wellesley College students. I think it's a really exciting project. We've started talking to stakeholders, like students, faculty, and staff around Wellesley College to get a sense of their perceptions about mental health issues, how they could see this program in use, and how we might best adapt it to be relevant and helpful to Wellesley students.

This will be one more tool for students who might be struggling but don't meet the criteria for major depression. The idea is to catch someone before they reach the See our related cover story on page 4

level of having major symptoms that affect their day-to-day activities or their ability to engage in their courses. With this program, we can offer people skills to manage stress, emotions, and the depressive symptoms they are experiencing.

If this model expanded to other colleges, do you think it could impact the way that colleges approach mental health services?

I think it has the potential to add to the way colleges approach mental health with students. There's always going to be a need for a counseling center that provides mental health treatment to address psychological concerns. But I think CATCH-IT broadens the approach to include prevention across campus. This program can encourage people to think about mental health before it's a problem that interferes in someone's life in a significant way.

Both of these projects involve an online depression prevention platform. What are the possibilities for online mental health tools?

I think online tools have great potential. You can reach so many people with online tools. Many people find it difficult to reach out to a mental health professional for treatment, and online tools can provide another avenue to connect people with important skills.

You mentioned that this online program is effective and based on research. Why is that important?

Evidence-based treatments, in my mind, are essential. If someone was sick, you would want to give them the treatment that you know has the highest likelihood of making them better. Similarly, if someone is struggling with mental health symptoms, you want to know that you are providing a treatment or intervention that will lead to relief from these symptoms. Through research, we know that we have treatments that work. We know that we have interventions and treatments that can improve emotional wellbeing and help people to re-engage in the world and go about their day-to-day lives.

Have you thought about ways that you can incorporate your knowledge about trauma and PTSD into the work you are doing at the Centers?

I'm interested in looking at trauma-related factors that impact depression prevention. For example, are these preventive interventions as helpful for people who have a history of trauma as they are for people who don't? If so, that's great. If not, how can we adapt the intervention to be more effective for people with a history of trauma?

I am also interested in developing a larger program of research on the prevention and treatment of trauma-related disorders such as PTSD and depression on college campuses. I want to understand what goes into students' decisions to use or not to use therapeutic interventions, which interventions students with trauma find helpful, and how we may be able to best adapt current evidence-based interventions for use on college campuses.



Katherine R Buchholz, Ph.D., is a postdoctoral research scientist working with Tracy Gladstone, Ph.D., at WCW. Buchholz is a clinical psychologist whose clinical and research work has focused on trauma and PTSD in college students, women survivors of interpersonal violence, and veterans.

I love how the Centers bring together psychologists, sociologists, educators, and practitioners to make change in the world."

Was there anything in particular that interested you about working at the Wellesley Centers for Women?

Yes. I love the mission of WCW. I love how the Centers bring together psychologists, sociologists, educators, and practitioners to make change in the world. I had actually come across WCW before I saw the job posting. I don't exactly remember how, but I stumbled upon the website, started reading about everyone's work, and thought, "I really want to work there!"

Research Study Highlights Challenges to Child Sexual Abuse Prosecution

Linda Williams, Ph.D., director of the **Justice and Gender-Based Violence** Research Initiative and senior research scientist at WCW, and Stephanie Block, Ph.D., associate professor at University of Massachusetts Lowell and collaborator with the initiative, recently completed a study on the prosecution of child sexual abuse and examined why so few cases lead to a conviction or guilty plea. Their findings will be the basis of a white paper for prosecutors, attorneys general, lawmakers, and child advocates offering specific solutions and policy recommendations to address the challenges faced in responding to these cases.

Funded by the National Institute of Justice, the study reviewed 500 reports of child sexual abuse to determine which reports resulted in prosecution and which cases made it to trial. The study also examined the characteristics of cases that dropped out of the criminal justice system along the way. Williams and Block found that less than 10 percent of the cases resulted in a conviction or guilty plea, and sought to understand why.

⁴⁴ Though dissemination of findings doesn't always receive as much funding support as research does, it is critical to ensuring that our research leads to social change that is good for women, children, and families. ³⁹

"Our study highlighted a number of obstacles to the prosecution of these cases," said Williams. "They often come down to the word of a child versus the word of an adult. Prosecutors may hesitate to bring cases to jurors who might not understand



that child victims typically delay disclosure of the abuse, some for months or years. And when the perpetrator is a close family member or friend, the child's family may not support going forward to a trial."

WCW's mission is to translate research into action, and to make our work accessible and useful to those who have the power and desire to make positive change. For Williams and Block, the ultimate goal of their current work is to increase access to justice for victims and to promote successful prosecution of adult perpetrators. To that end, they aim to create a clearly written, accessible presentation of the research findings and, most importantly, to provide specific solutions and recommendations for next steps in addressing the challenges documented by this study. The white paper will reflect their collaborations with prosecutors and rely on partnerships built through their research to develop best practice guidelines for the field.

The white paper, provisionally titled: "Prosecution of Child Sexual Abuse: Achieving Justice for the Victims," will be authored by Williams and Block along with prosecutors who have decades of experience prosecuting these crimes. During the preparation of the white paper, the authors will meet with several teams of prosecutors to ensure that the findings and recommendations are most useful to them.

The white paper is expected to be completed in 2019, and will then be disseminated by WCW online and through webinars and conference presentations. Training sessions may also be offered.

"This white paper is an important outcome of our work," said Williams. "Though dissemination of findings doesn't always receive as much funding support as research does, it is critical to ensuring that our research leads to social change that is good for women, children, and families."

WCW Partners with Local Middle School to Promote Healthy Social Media Use

F rom Youtube to Instagram to Fortnite, middle schoolers are surrounded by social media and social gaming platforms, but are they using them safely? WCW teamed up with the Wellesley College Computer Science Department to host a workshop at the Dr. Philip O. Coakley Middle School in Norwood, MA, from July 15 through July 18, 2019, to teach middle schoolers about social media's impact on their lives and how to use it in a healthy way.

"Early adolescents are particularly vulnerable to behavioral and mental health risks that can be heightened by social media use," said **Linda Charmaraman**, Ph.D., a co-leader of the workshop, senior research scientist at WCW, and project director of the WCW Youth, Media & Wellbeing Research Lab. "This

collaboration allows us to put our research into action, providing tools

to support healthier social media use and simultaneously engaging with students, teachers, counselors, and parents while we examine the role of technology in our lives."

Thirteen 6th-8th graders attended the workshop co-led by Charmaraman and **Catherine Delcourt**, Ph.D., assistant professor of Computer Science at



Wellesley College. The workshop was funded by the Social Sciences Summer Research Internship Program at Wellesley College and the I Am Strong Foundation of Westwood, MA, which is dedicated to shattering the stigma of teen mental health struggles.

Throughout the workshop, Charmaraman, Delcourt, and Wellesley College students **Ashley Kim**'19, **Cynthia Serrano Najera** '21, and **Payton Vandergriff**'22 engaged participants in discussions on how apps are created and introduced them to coding concepts. Participants also contributed to the design of a research-based app Charmaraman and Delcourt are developing to teach middle schoolers about healthy social media use.



"Middle school students are at the forefront of the social media world. It has so much to offer and so many distractions and negative possibilities," she said. "It was fantastic working with Wellesley to see how our students are interacting with social media and having our students learn more about this medium."

The idea for the workshop grew out of an ongoing research study of the Youth, Media

** This collaboration allows us to put our research into action...
** Wellbeing Research Lab at WCW funded by the Eunice Kennedy Shriver National

"It is so important for adolescents to understand the design and creation process of the apps they use. This knowledge can give them insight into what enabled unhealthy social media usage habits and empower them to find better solutions," said Delcourt.

To cap off the four-day workshop, participants presented their ideas for Charmaraman and Delcourt's app and discussed what they learned throughout the workshop. One participant said, "I learned that most kids are addicted to their phones, and there are ways to stop being addicted."

The principal of Coakley Middle School, Margo Fraczek, Ph.D., was glad to partner with WCW on this important issue. Institute of Child Health and Human Development of the National Institutes of Health. The aim of this project is to study associations between middle school students' social media use and health implications, as well as the roles of peer influence and parental monitoring.

"We need to better understand the specific behavioral and psychosocial risks early adolescents face when using social media at such a young age," said Charmaraman. "This research will inform how educators, policymakers, pediatricians, and families address early adolescent social media use and its impact—both positive and negative—on youth development."

STEM Education at Home and Abroad

Editing the Code of Violence in Northern Nigeria through STEAM Education

Commentary by Hauwa Ibrahim, J.D., S.J.D., M.L., and LaShawnda Lindsay-Dennis, Ph.D.

Nigeria, rich with its cultural diversity and natural resources, faces many social and economic challenges that threaten the financial stability of the country. For many Northern Nigerian youth, living in this context often translates into unemployment, social isolation, and hopelessness, making them ripe for extremist groups like Boko Haram who, under the guise of religion, recruit youth by offering them a sense of identity and purpose.

Science, technology, engineering, arts and math (STEAM) have the ability to pull these pupils *out of the jaws* of Boko Haram. This past summer, we collaborated with international partners to provide a new STEAM opportunity for pupils in Northern Nigeria.

With the support of WCW's **Layli Maparyan**, Ph.D., and **Wendy Wagner Robeson**, Ed.D., Corrine Cressman, Stacy Scott, Arlene Lieberman, Wellesley College students, and many more supporters, our team—Cornelius Balle, Rodrigo Vassallo, Masa Awad, Simon Muhlbauer, Sadeen Qardan, Silvio Dionisotti, and the two of us—received 500 STEMKits, a sustainable, low-resource science curriculum developed by Wellesley College students, and other materials to run STEAM camps.

Armed with culturally responsive, studentcentered, experiential lesson plans and activities, we set out to excite, inspire, and empower kids ages 10 to 14. Over five weeks, we hosted camps in three communities in two states of Northern Nigeria—Bauchi town, Hinna Village, and Gombe town. These communities are in the region where Boko Haram kidnapped over 200 schoolgirls in April 2014. Collectively, over 1,200 pupils from 100 schools participated in the programs.

Recognizing the resourcefulness of the local communities, over 80 percent of the materials used were found in local markets. With minimal instruction, pupils performed science experiments related to topics including density, pH, osmosis, genetics, and blood type. In technology and engineering classes, they built things like baking soda and vinegar-powered rockets and self-supporting da Vinci bridges.

In art classes, pupils made beading, jewelry, drawings, and finger paintings. Local drummers and singers joined us to bring back memories of tradition and culture. Using local instruments encouraged the youth to maintain a connection to their rich cultural heritage. Math was taught using fun-filled activities, jokes, play, scavenger hunts, and encouraging hands-on manipulation to strengthen skills. Pupils were taught how to make a calculator out of cups and dice using cardboard, which improved their ability to solve equations.



Our next step is to create a 10-year sustainability plan focused on continuing the camps while also encouraging ownership of the ideas and initiatives among local communities. We are also in conversation with the Ministry of Education, Gombe State to update the state-wide curriculum to include studentcentered STEAM instruction.

Hauwa Ibrahim, J.D., S.J.D., M.L., is a visiting scholar at WCW, a world-renowned human rights lawyer, 2005 laureate of the Sakharov Prize, and advocate for the voiceless, powerless, illiterate, and poor.

LaShawnda Lindsay-Dennis, Ph.D., is a research scientist at WCW where she directs Black Girls Create, a culturally responsive maker program for girls.

NIOST to Study Impact of STEM Program for Rural Girls





Students living in rural areas of the U.S. face limited educational resources and are falling behind their suburban peers in science, technology, engineering, and math (STEM) benchmarks. At the same time, women in the U.S. are earning fewer STEM degrees than men and are underrepresented in STEM careers.

To tackle these simultaneous problems, the **National Institute on Out-of-School Time** (NIOST) has partnered with GEMS, a program that encourages girls to explore STEM education and career paths, to better understand which STEM education practices work best for girls in rural areas. Over the next year, NIOST will study the impact of GEMS among girls who participated in the program in rural Franklin, PA. The study is funded by a \$50,000 grant from the Pittsburghbased McElhattan Foundation, under the sponsorship of Bridge Builders Community Foundations.

"This study will help us uncover which practices are effective in encouraging girls in rural communities to pursue STEM careers. That knowledge could benefit youth development programs across the country," said **Georgia Hall**, Ph.D., director of NIOST.



Since 1994, GEMS, which stands for Girls Excelling in Math and Science, has offered opportunities for girls around the country to get hands-on math and science experiences outside of the classroom. The program has been running in Venango County, where Franklin, PA, is located, since 2013.

"We are thrilled to be able to conduct research on the impact of GEMS programs," said Laura Reasoner Jones, GEMS founder. "We estimate that over 1,600 girls have been served through

** This study will help us uncover which practices are effective in encouraging girls in rural communities to pursue STEM careers.**

GEMS programs at the [Venango County] elementary and middle schools and through programs at the libraries."

GEMS is well-positioned to reach rural girls because it offers an online hub for adults to download lesson plans and start GEMS clubs in their communities without requiring many resources.

"When you live in rural locations, you have less access to zoos, science museums, aquariums, and other informal STEM learning environments. That can have an impact on your thinking about STEM pathways and careers," said Hall. Programs like GEMS can bridge that gap.

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