Episode 25—Dr. Sandra Lane: Community Health and Community Violence: The Relationship and Impacts

Welcome to inSocialWork, the podcast series of the University at Buffalo School of Social Work at www.inSocialwork.org. We're glad you could join us today. The purpose of inSocialWork is to engage practitioners and researchers in lifelong learning and to promote research to practice and practice to research. We educate. We connect. We care. We're inSocialWork.

Hi from Buffalo. Recent news that the Nature Conservancy purchased 600 additional acres to add to the Zoar Valley Multi Use Area reminded me of another perk of Buffalo area living. A 40 minute drive from downtown Buffalo, Zoar is a spectacular area of deep gorges with cliff walls as high as 500 feet carved by the Cattaraugus Creek. It includes multiple strands of old growth forests in an area of ancient gigantic trees and abundant wildlife, providing incredible opportunities for recreation all year long. Google it for a drone video that will tell the story of this special place. I'm Peter Sobota. In this episode our guest Dr. Sanderling employs an anthropologist eye on the intersection of Community Health and Community Violence, weaving a path of research, professional and personal experience and a keen appreciation for the dynamic relationships among populations and environments, Dr. Lane connects the dots to a thorough application of an ecological perspective to address health, mental health and economic problems. Specifically, Dr. Lane addresses issues of infant mortality, reproductive health, gun violence, street addiction, and goes on to describe the impact of Post-Traumatic Stress Disorder on the biological, neurological and educational functioning of affected community residents. Sandra D. Lane, Ph.D. MPH is Laura J. and L. Douglas Meredith Professor of Teaching Excellence and Professor of Public Health and Anthropology at Syracuse University. She is also a research professor in the Department of Obstetrics and Gynecology at Upstate Medical University. Dr. Lane was interviewed in January of 2019 by our own Robert Keefe Ph.D., an associate professor here at the UB School of Social Work and a frequent collaborator with Dr. Lane.

Well hello Sandy, thank you very much for joining us.

Thank you very much for inviting me.

Oh I think this is a really exciting time in the field of research that you've been throwing yourself into and being so productive in. I do have some questions I really am interested in asking you when I think our listeners will be very interested in finding out more about as well. I know much of your earlier research focused on maternal and child health. In the past several years you focused heavily on community and neighborhood violence. Can you tell us how you see these two topics overlapping?

Well when I finished graduate school in 1988 I was hired by the Ford Foundation, which is the philanthropic agency that gives money away around the world for good work. And I was a program officer in the Ford Foundation's Cairo field office with responsibility for reproductive health, population and child survival. At that point I had mostly focused on maternal and child health and reproductive health. It was a very hot topic at that point. We had just experienced the Safe Motherhood project started by the World Health Organization in 1987, 1984 the United States funded Child Survival. So as a worldwide group of public health professionals we were focused on trying to improve the health of mothers and children. And I was part of that and very glad to be part of it. It was fundable. It was important research, it related to something that I could understand. My first baby was stillborn and we named him Adam and I went on to have another child who is now 27 and very healthy, I'm happy to say. But it was something that I felt very passionate about and worked in for quite a while. When I came to Syracuse after working overseas for not quite 15 years, I still did consultancy overseas and maternal mortality, prevention of the death of women during
pregnancy, especially in birth hospitals. And then when I got to Syracuse I realised that Syracuse had an enormous infant mortality problem. It had the highest African-American infant mortality in the country in early 1990s.

[00:04:45] Wow.

[00:04:46] I arrived in Syracuse in 1997 and was hired by the Onondaga County Health Department to write grants for infant mortality reduction. So the first grant I wrote was The Healthy Start grant. Five million dollars, and we got it. Healthy Start is still going on in Syracuse. I was only the director until 2002 and then moved to the medical school to work on other projects. But I was, I learned a lot and was able to channel my passion for reducing infant mortality into that project. Since then, and because when you run a program like that, it was federally funded. There were a lot of requirements. It was a lot of administration which was important that it's really well done. But there were issues that I saw that I couldn't go deeper in looking at. And they were issues of disparities. Health disparities, usually racial and ethnic health disparities. Although there are many other kinds of disparities. So when I stopped being director of Healthy Start and at that point joined the faculty of Obstetrics and Gynecology at Upstate Medical University I started focusing and you were my co-investigator at that point.

[00:06:04] Yes I was.

[00:06:04] We did it together with many other people on some of the issues that are now called social determinants of health that we thought and we demonstrated lead to disproportionate infant mortality, low birth weight, teen pregnancy and HIV and STIs. And those were still within the reproductive health area, subject area. But we looked at food deserts and found where mothers lived during pregnancy if they didn't have a nearby full service grocery store selling healthy food they had higher intra-utilized and growth restriction, which is a specialized way of looking at low birth weight. Similarly we found that if fathers, the fathers of the babies, were not involved with the baby's mother at the time of the birth, and we measured that by whether the father was able to sign the Declaration of Paternity, then the babies had much higher, almost four times as high post neonatal mortality. That's death of a baby after the first month of age and before the first birthday. And then we found that that was really much higher for African-American babies. In fact, fathers involvement at the time of the birth explained the racial difference between African-American and white babies in terms of post-neonatal mortality. And secondarily we found that one of the leading causes of the disproportionate rate of fathers not signing the Declaration of Paternity was fathers incarceration. So you and I and my colleagues at Syracuse University and Upstate have worked really hard to help community members do what they want to do, sometimes helping them write grants. And so in terms of neighborhood violence we were approached by Noble, whose real name is Timothy Jennings Bay. Noble is his nickname. And his colleagues to focus on murders in Syracuse. And I said "Okay, we could help you focus on murders but what are we talking about? I have never known anybody who's been murdered." and he said "Are you kidding? I've known 100 people." We just sat and looked at each other because we'd known each other for a while and respected each other and we have come to be good friends. But still that was shocking. He said he was shocked that I didn't know anybody and I was shocked by how many he knew. So that led to all the rest of our research, not quite all but most of it, since about the year 2010. We realized that there's an enormous gunshot problem in Syracuse. So the first thing I thought we should do was provide some foundational evidence in the form of articles and other reports that we couldn't use to write grants and to plan together with the community for interventions. So we did an analysis of gunshots with the chief of police, Frank Fowler and Kim Brundidge in the police department, who's their data person. David Larson, a professor at Syracuse University was the lead person on that. He taught
students and community members GIS, which is a statistical method of putting statistical data on maps. And then David was the first author of that publication and that gave us a sense of where the problem was higher. Noble and his colleagues in the community had started the trauma response team and we wrote that up, we thought this is such a unique intervention, there's so many people trying to reduce murders and gunshots. Good people in other cities try to bring the warring factions together and have them make up. So they've tried that in Syracuse. For various reasons it hasn't been a success. Not that people didn't try. And so Noble's insight was that for every murder there are approximately 200 people in the community who are affected in a ripple pattern and that they are affected by trauma and that the trauma often results in people nurturing, or at least becoming sort of obsessed with retribution. And that's understandable if a loved one is killed and you know that the members of the perpetrator's family are walking around you could get very angry. And even if you don't commit any violence following that, there may be one person who would. So he felt that one of the things we could do, not the only thing but one of the things we did right away, is try to reduce the violence and try to decrease the trauma. And that's a really important insight. A lot of what we've done had followed on to that. So as I said, they started the trauma response team, which works very closely with the police and first responders to respond to every murder or significant injury. Most of these are gunshot murders. Sometimes they're stabbing or other forms of violence. And they go right away there and they try to separate the families of the perpetrators and the victims. They help the victim's family but they also provide space for the first responders and the police to act because for a while the police and first responders were having to deal with people coming and interfering with their collection of evidence or interfering with their emergency treatment of the injured person. And so the Trauma Response team went on after that, after each murder, and visits the people at home, they work at that point with Mothers Against Gun Violence who do home visiting to the bereaved families and provide whatever resources they're able to do. So that we wrote up. Then there was another one that we started just before that which is called Street Addiction. That was a really really unusual idea for research.

[00:12:30] Yeah I think that that is such a fascinating term, Street Addiction. And when we think of living on the streets, when we think of living in high crime areas where we do see a lot of murders and a lot of violence perpetrated against various members and we know of course mothers and young children often are very much bystanders in that fray of that violence. But among some of the interesting findings that I found that you've been talking about recently are with regard to street addiction and how people somehow seem to not gravitate toward that, it's not that, but they do seem to be involved in it that it's almost hard to escape it. Is that accurate?

[00:13:06] For some people it is.

[00:13:08] OK.

[00:13:08] So we've looked at, and I know that you've done this with me as well as Noble and Robert Rubenstein, Dessa Bergen-Cicco, David Larsen, faculty at Syracuse University, Dr. Najah Salaam, Jennings-Bey. All of us have looked at this together. And we looked at this as if there's trauma going on in the community, and we have demonstrated that there's quite a lot of trauma. We did a survey of community members who completed the civilian PTSD checklist and 52 percent of them screened positive for PTSD. And we can compare that to our returning veterans when about 22 percent of them screen positive for PTSD.

[00:13:52] Which is a dramatic, dramatic difference between those two populations. With certain associates, the higher PTSD among returning veterans but just living in a community where we have such high violence I don't think people would necessarily think we'd have such a high prevalence rate of PTSD in those communities.
Exactly. Now we can also say that this survey was just a one time survey and we were not able to get a true random sample of the population. So it should be interpreted somewhat carefully. But 52 percent still is a mother lode of pain. We also asked people how many murder victims do they know personally and out of 101 people who answered the survey the majority knew 10 or more.

[00:14:35] Wow.

Slightly over half. Not the vast majority but still, again it's not a random sample it's not absolutely representative. It still demonstrates that this a mother lode of pain. In the year 2016 we had the highest rate of murders in New York State. Now last year we didn't, thank goodness. So it goes up and down and we hope that we're getting a little bit better. 2016 there were 31 murders as I read recently. In 2018 there were 25. That's an improvement. It still could go a lot lower. In 2016 we were not far away from the city of Chicago per capita with the rate of murders. So what we now are gaining an insight on, I can't say it's completely proved contention, is that the trauma in the neighborhoods, living in a neighborhood that is essentially like a war zone affects different parts of the population differently, partially depending on their age. And so babies and young children born to parents living in high gunshot neighborhoods are being raised by stressed parents. They may be raised by a single mother because so many of the babies' fathers are incarcerated. If you look at the European American population, the white folks in Syracuse between the ages of 25 and 29, for every hundred white women there are 100 white men. So they have relatively equal numbers of males and females. And for those individuals who are heterosexual and want to have a partner they could probably find a partner. If you look at African-Americans between 25 and 29 in Syracuse in 2014, I think I recall for every hundred African-American men there are 164 women. That means that over a third of the women if they are heterosexual and want partners, not everybody is, the math isn't there for them. So that immediately affects the babies born and the young children. They also live in areas of much higher lead poisoning, which we know is a risk factor for subsequent risk taking, especially in adolescence. Our research, yours and mine, demonstrated that where teen women had higher lead poisoning as infants and toddlers, they had more teen pregnancy. And research in Cincinnati has demonstrated that where young boys are exposed to lead in their infancy and toddlerhood, they have much higher rates of arrest and sometimes arrest for violent crime. So the toddlers and infants are exposed to various issues and I don't think we can say that the lead that they're exposed to is entirely separate from the gunshots, partially because as I said there's this biological risk of increased risk taking, but also mothers whose babies fathers are incarcerated are not around have to live in neighborhoods that are easier to afford, and those neighborhoods that are easier to afford in Syracuse have higher lead poisoning. Okay.

So then we get to the teens. Let me just even go to the third grade first. A recent study that we published together demonstrated that where there's higher numbers of gunshots. Third grade reading and math scores are 50 percent lower. And this was a statistically significant finding. We simply plotted the gunshots on a map as I said and then we put in the map the catchment areas of the 19 public elementary schools. Seven of those are in what we call gunshot clusters. Much higher levels of gunshots. One of them in fact there's so many gunshots around the school that when there's a gunshot around the elementary school during the day they have the children hide under their desks and then when the police say the gunshots are over they have the children set up again and they start to teach them. There's no de-briefing.

There's no de-briefing. No processing of the events that have just taken place or anything.

So what we find is that the children themselves in the elementary schools, especially we've heard from the teachers in that school, the children as the teachers say go from zero to 60 in a
heartbeat. What that means if the children are corrected, you know "sit down and pay attention to what we're doing" or whatever, some of the children start to hurt the teachers or staff, including throwing desks at the teachers. I am not in this case blaming the children. The children are growing up in a very high stress neighborhood where I believe the mothers and fathers are doing their best, but everybody's stressed. And so there may be sort of a trigger anger and response. When the children get a bit older they've often by that point, let's say as soon as they can, let's say they're in ninth grade, they may drop out of school after that. Their reading and math scores especially, let's talk about reading, on average when people drop out of high school their reading level falls about four or five years below their highest grade completed. And they're dropping out in part because they're not able to keep up. And they feel ashamed. Now we have, our community partners, have a project with several students who have dropped out. I can tell you they are perfectly intelligent and our community partners are helping them to catch up and do their GED and they're doing it successfully. This isn't low intelligence. This is a situation where the kids can't sit still to some extent. What we think the children are suffering from is PTSD. We did not test the children because to do research with children requires more approval from the parents and we will do that. We haven't done that yet. But what we can say is in some of the elementary schools there's really high rates of children who've been diagnosed with disabilities. Now that is not necessarily very often mobility or visual disability. It's mostly disability like what would fall into that category as conduct disorders, ADHD, Oppositional Defiant Disorder. What if those are not necessarily those diagnoses. What if it's PTSD?

Right. And we do know that children, or people in general when they sustain tremendous trauma their own psychosocial development becomes arrested or it certainly becomes delayed. And we're seeing that here with these children in these schools that they're developing along at rates that we would certainly think of as within normal limits. But then they sustain these traumas and their ongoing traumas and the traumas become a normative part of the environment in which they live that their development and their school development also become slowed. And it's very very difficult to catch up.

Bear in mind that Onondaga County where Syracuse is located, in 2007 there was a major report by a think tank in Washington that compared all counties in the United States of populations over a quarter of a million. And what they did was they looked at the racial disparity in 2006 in sentencing of individuals to a correctional facility that year for a drug related crime. Onondaga County had the second highest disproportionate sentencing the first highest was San Luis Obispo in California. Why did we have the second highest, I've been scratching my head. We don't have more people taking drugs here than other cities I don't think. And with regard to some of the studies that we have of urine drug screens and admittedly we have tried to use those as proxies for looking at racial disparity of drug taking. But what we have found is that European American and African-American folk appear to take drugs, illicit drugs at approximately the same rate. And yet African-Americans, mostly men but some women, are sentenced at 98 times higher, 98 times higher than European Americans. So these kids who start doing poorly, a lot of them are going to end up involved with the criminal justice system. So then we get to street addiction, and this we think mostly relates to teens and adolescents. I realize those two things can be overlapping but could affect people in the 20s. And what happens is that kids are from families that are struggling. Often single parent households, and there's an intense draw to be out on the street with their mates, with their friends and then there's a pattern. It might be true in other cities but in Syracuse the people living in the neighborhoods. And here it is mostly the adolescents have drawn boundaries around little tiny pieces of a neighborhood, maybe four or five square blocks and they named those blocks. They named those what we call street turfs. Sometimes the police call them gang areas. 110, Boot camp, etcetera. There are 15 of those little geographical identified areas and then the youth in each area have a warlike mentality in some cases toward the people in the other areas. If somebody crosses into so-called the wrong area they could be at risk for harm. And this predates the current
group of teens and adolescents living in those areas. Like these names started before they were
born. So they bond together in their neighborhoods for safety, for comfort, for friendship and
because human beings have needs for bonding for closeness. Their families, that try their very best
are often in somewhat chaotic and troubled situations. And so what you have is intense policing in
neighborhoods of high crime, high gunshots, here I'm not blaming the police. The police have a job
to do. Intense policing, which often involves stopping and frisking. That I would recommend to the
police not to do because it is essentially like a public sexual assault. In my opinion. Let me just say
that's my opinion. In any case the youth bond with each other so they get intense closeness and then
they have this slightly conflict ridden approach to people living in other neighborhoods and
adversarial responses to the police who are adversarial to them. So running from the police gives
rise to some adrenaline and then when you can successfully get away from the police or whatever,
you get a hit of dopamine. And then you've got lots of bonding which, I mean I don't mean to be
totally biologically deterministic but this probably gives rise to oxytocin. So you've got this
neurochemical pattern of closeness, bonding in the emergency fight or flight adrenaline reaction.
And then you can win from that. You don't get harmed. Well that is a lot what our military face in
warzones. They have intense bonding that the military actually promotes and they should do that
they're wise to promote it. But bonding with people in their unit they have often unfortunately but
probably necessarily an adversarial response to the people who they're fighting and then if they're
shot at and they don't get hurt then probably great relief and all of that is something that will
possibly lead our brains in some cases to a form of addiction. So that was the contention of our
neighborhood collaborators, our community collaborators. Noble is the one who led that hypothesis.
He came and asked us to study it and we said Okay, All right. So he and his colleagues did
interviews with 12 individuals who have just, they were over the age of 18 but not much over. And
they had been in gangs and they were reflecting on their previous experience and they did
qualitative interviews. And so Dessa Bergen-Cicco, our faculty member who is a specialist in
addictions, analyzed their interviews and she said this is a behavioral addiction. This acts like many
behavioral addictions. And so we tried to publish it several times. We went through three journals. I
have to say everybody in the first two journals the reviewers responses kept saying "this isn't an
addiction, it's just black people behaving badly." And we said "you know, addiction doesn't
usually lead people to behave well no matter what their background is. We're not saying that the people are
behaving well. We're saying that in addition to this maybe being criminal some of what they're
doing undoubtedly, there could be a neuro-physiological draw." So finally we got to the third
journal and they published it. We went through several rewrites of it to make sure that everybody
realized we weren't condoning criminal behavior.

[00:27:50] Right.

[00:27:50] And they asked us to do a YouTube video, which we did, to explain it and to show our
faces and we did that. And since then Dassa and Noble have been contacted by people around the
world. This is the first time we posited that as a potential behavioral addiction. Of course just doing
qualitative interviews with a small group in Syracuse, we can't say for sure oh yeah this is
automatically going to be accepted. No. But it has all the elements of it. And people have contacted
us and said This is what some of our returning veterans say. And other people have contacted us
and said "Okay, so you mean if we are trying to do some rehabilitation of people who have gotten
out of correctional facilities we should have some of the elements of addiction recovery programs,"
and they have tried that. It's still a work in progress. But we think that the people who are affected
by street addiction are likely to be adolescents because adolescent brains are developing. And we
know that they are more likely to get addicted to other things, especially cigarettes. So mostly
adolescents and it may follow them into older adulthood but quite likely the draw of the street as
people age might weaken. But during that time their addiction to the street, they're acting out of all
of what they've faced growing up traumatizes the rest of the community. It serves to replicate the
whole process. And then the older people, let's talk about the women giving birth. You and I have
done several studies now on prenatal and postpartum depression or perinatal mood disorder. And I think typically people may have thought certain things fed into that were a risk like intimate partner violence. But we have recently suggested, you and I, that maybe living in violent neighborhoods is a risk factor for perinatal mood disorders and it makes sense. So this is part of what we have together begun to call the social determinants of mental health. And I have to say that I want to give a plug to you because you spoke about this to the National Academy of Sciences Engineering and Medicine last year and they thought this was a great concept to study further. So that sort of goes through the lifespan if you want to go a little further in the lifespan you could look at premature deaths and African-Americans in Onondaga County die before European Americans, often of the same causes that kill European Americans. Same causes that kill most adults in the United States. Chronic disease, stroke, heart disease, complications of type 2 diabetes and respiratory disease. But they die about 10 to 15 years earlier, from our analyses. And we think that at least before the Affordable Care Act, so-called Obamacare, it was because they didn't have access to in every case to ongoing health care because 55 percent of the jobs prior to Obamacare did not pay health insurance. So there's a lot of working poor people who didn't have health insurance. And we've done, you and I, an analysis of people who are attending a large and really well run medical clinic for low income uninsured adults, the Mays Clinic. And that demonstrated that people who don't have insurance don't get adequate preventive care.

[00:31:35] Exactly right.

[00:31:36] They're elevated blood pressure goes untreated or undertreated, if they're on medications they may not have the money for it. Think about that and go back to the kids, the adolescents who are street addicted or the third graders who are failing math and English language standardized tests or the rest of the population. If you look at the African-American population in Syracuse in the census approximately six percent of them are aged 65 and older compared to, and I'm just quoting this from memory, but something like 18 percent of the European American population or the white population. So what happens when you get into financial difficulty? It looks like, if you're a white person in Syracuse it may well be that your mother or even grandmother is still alive. They may not have a lot of money but they might be able to help you, take you in, care for your kid, whatever. If you're African-American you may be more likely to be alone.

[00:32:36] Yeah.

[00:32:37] And that's what you found in your recent interviews with poor mothers, in this case in Rochester, a city with very similar problems. They reported that they were alone. They didn't have anybody to depend on.

[00:32:52] Exactly. And many of their families very very disengaged from each other entirely. So the families were completely estranged from each other.

[00:32:59] Well if you have family members who just have so many needs you can have what we think another problem that we see that we have looked at here, which is compassion fatigue. And this is from Noble. He said the teachers, the police, the personnel at the emergency department, the folks who are first responders might have secondary trauma.

[00:33:23] Absolutely.

[00:33:24] Because they take care of the traumatized population. And part of what happens with secondary trauma is compassion fatigue. And that's largely I think what's causing some of the burnout for teachers who are leaving the city school district. I'm not blaming the teachers. I would get burned out too. But it's hard. Let me just say Linda Stonefish, another faculty member at
Syracuse University who has published on trauma informed practice, did four sets of large workshops for professionals in Syracuse on trauma informed practice and how to protect themselves psychologically and emotionally while working with traumatized populations. So we've tried a lot of things.

[00:34:10] Well and because where you're going on, as talking about the mothers in Rochester that were part of the study that you and I have been working on and living in a similar crime ridden communities where they're facing, or living in gunshot clusters themselves within Rochester, makes me that question where you see the intersection of the areas of maternal and child health and neighborhood violence, where you see that research going? What needs to happen next to bring the field forward?

[00:34:37] Clearly we need to stop the gunshots. And let me just say, we've been asked about that. What have you done to stop the gunshots? And Helen Hudson, who's the president of the Common Council, has led a study of where did the guns come from and how can we stop the flow of guns into Syracuse. Our research team has not yet focused on that, partially because we didn't start out as criminal justice specialists. And we've worked across discipline disciplinary, definitely. We've worked at all kinds of different groups and people and disciplines, but we haven't worked on that. And that's been bothering me. But we will need to involve other people in that, because I don't have the skill set to do that. That's one thing, we've got to stop the gunshots. People did fight in the past and maybe they've even had gang turf in the past, but it wasn't quite like it is now. Another dire emergency is education. The students in the Syracuse City School District are not doing well enough and we know that by their third grade reading and math scores. Again it's not my area of expertise but it's something that we need to work on. And we've reached out to the school district and have worked a bit on that. Let me just say we have a couple of projects in the pipeline on that. A third issue is providing we've now done some analysis of perinatal mood disorders, but what the OBGYN docs tell us and the midwives and nurses is they don't really have enough places to send people for care. And in part I think it's because the schools of social work don't emphasize perinatal mood disorder much as much anymore. And social workers are the leading group providing therapeutic care in the United States. So I would ask, and we have, you and I have, schools of social work to begin to focus on that again. I mean there's a lot that needs to happen. One thing that has been somewhat successful in Syracuse is infant mortality is down somewhat. Not as far as it needs to be but much better than it used to be, particularly much better for the African-American population. European American or white infant mortality is close to the national level. So I would say that the people working on infant mortality have taken the charge and run with it and succeeded.

[00:37:06] And I would like to say myself, I would like to see social workers becoming a more active part of that process of working with new mothers who are living in gunshot clusters whose children are not thriving because of living in those gunshot clusters and to bring people together. To bring people together to come up with solutions to the problems in their own home communities. Well thank you, Dr. Sandra Lane, very very much for joining us today and it's been our pleasure to have you.

[00:37:33] Thank you.

[00:37:34] Good bye.

[00:37:35] Bye.

[00:37:36] You've been listening to Dr. Sandra Layne discuss community health and community violence on inSocialWork.
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