Aaron van Dorn (00:07):

Welcome to AJP Audio for August, 2024. I'm Aaron van Dorn. Today on the podcast I spoke with Dr. Evan Krueger, an assistant professor at the Tulane University School of Social Work. Dr. Krueger and colleagues have a paper in the August issue of AJP looking at the impact of change and continuity in sexual identity on mental health outcomes among people who identify as sexual minorities. Following that we'll again speak with the American Journal of Psychiatry editor-in-chief Dr. Ned Kalin about the rest of the August issue and what brings it together.

(00:32):

Dr. Krueger, rates of mental health and substance use are consistently higher among people who identify as sexual minorities. For example, gay, lesbian, bisexual than nonsexual minority adults. The impact of that extends to elevated likelihood to have an anxiety disorder, depression, elevated substance use or suicidal ideation. Your study looked at how changes in an individual's sexual identity could impact their mental health and wellbeing. What did you find?

Dr. Evan Krueger (00:52):

So yes, we know that broadly sexual minority populations experience wide-ranging disparities on the basis of mental health and substance use behaviors. But just to set the stage for this particular study, while this may seem pretty obvious to folks in the LGBTQ community, researchers and professionals have really just started to catch up and realizing that, or at least accounting for, the idea that under this larger LGBTQ umbrella are a diverse range of folks who utilize and express various identity labels and who have a range of other experiences across race and ethnicity, gender, age, socioeconomic status, and other characteristics. And the point that I'm trying to make is that I feel we're just starting to catch up in our understanding of why all these health disparities are pretty universal. The magnitudes of these disparities and possibly the underlying causes of them vary across differing groups. And so that was sort of an underlying motivation for this study.

(01:54):

So for instance, we know that on average, folks who identify as bisexual and particularly women, tend to report on average worse mental health and more substance use. And that's above and beyond both heterosexual and lesbian, gay identified folks. So this led to sort of an interesting thought experiment. What if people change identities? And I'm sort of putting this bluntly, but when someone adopts a bisexual identity, do they suddenly take on the increased health burden of other bisexual folks? And it's obviously not as simple as that. And again, if we can answer that specific question, it opens up a whole range of new questions to sort of try to get the reasons for why that might be the case. But it was an interesting starting place. And so what we found was that broadly, those who changed identities over the course of the study were at higher risk for developing poor mental health and increasing problematic substance use over the course of the study.

Aaron van Dorn (02:49):

Your study used data from the generation study, which looked at cohort of cisgender sexual minority adults. What can you tell us about this group?

Dr. Evan Krueger (02:55):

Well, I've mentioned the existence of behavioral health disparities between cisgender sexual minority and cisgender heterosexual adults. And we've seen these patterns both in clinical and community-based samples as well as in US nationally representative samples. So to give you a little bit of a background

about this sample, the generation study followed a US probability sample of cisgender sexual minority identified adults from three different age cohorts over a three-year period. The sample was recruited in 2016, and they were followed once per year until 2018. And to collect this sample, the study investigators partnered with Gallup, the research and analysis organization that's famous for conducting nationwide public opinion polls. So this partnership was pretty innovative. And by essentially piggybacking the generation study onto Gallup's existing efforts, the generation's team was able to recruit a nationally representative sample of sexual minority adults at a time when that was still considered pretty difficult to do.

(03:57):

And so while some other nationally representative surveys certainly did collect sexual identity data at that time, the response options to those questions were largely and still are, by the way, limited to a few identity choices, lesbian, gay, and bisexual. So one of the ways in which generations was innovative was in its assessment of identity in at least a somewhat more comprehensive way.

Aaron van Dorn (04:21):

A large majority of your sample, over 90%, reported a consistent sexual identity over the course of the study period. For those who reported a change in sexual identity, how did they differ from the rest of the study group?

Dr. Evan Krueger (04:30):

Yeah, for sure. So I don't know that it's surprising that most sexual minority adults didn't change their identity over a two-year period. I know my own identity, has remained stable over the last two years. So I actually think the surprising finding was that nearly 10%, I think it was 9%, reported an identity change in just a two-year time span. So even though we tend to think of identity development as more of an adolescent process, this shows that identity development, and that sometimes means changing the label you use to describe your identity, truly is a life course process. But to answer your question, we did find that those who reported a change in sexual identity differed from those who did not in terms of both their age and sex with both younger and female respondents being more likely to report a change in identity compared to older and male respondents respectively.

(05:23):

And importantly, we know that mental health and substance use rates do vary across those demographic characteristics. So what's notable here is that even after controlling for those and other factors in our analysis, we found that identity changes were uniquely associated with increased mental health and substance use challenges.

Aaron van Dorn (05:42):

You found some differences between male and female participants who experienced a change in sexual identity over time. What did you find there?

Dr. Evan Krueger (05:48):

So let me take a little bit of a step back and explain our process a little bit.

Aaron van Dorn (05:52):

Sure.

Dr. Evan Krueger (05:52):

So for both males and females, we looked at folks' use of both monosexual and plurisexual identities. So monosexual is most easily described as having attraction to one sex or gender. And so for many of us, including heterosexual folks, are monosexual, we are attracted to and have relationships with either same sex or opposite sex partners. And among sexual minority population, lesbian and gay identified folks can also be thought of as monosexual. They experience attraction to members of the same sex. So plurisexual, on the other hand, it's kind of an umbrella term, but it refers to folks with at least the potential for attraction to more than one sex or gender. And this includes people who identify as bisexual, pansexual, and queer among other identities.

(06:40):

So with those terms in mind, we simply categorized participants into one of four different groups for analysis. We looked at those who consistently held a monosexual identity over the two-year period. We looked at those who consistently held a plurisexual identity over that two year period, and then we looked at those who changed, those who from monosexual to plurisexual and those who changed from plurisexual to monosexual between baseline and follow up. So based on the type or the direction of change from monosexual to plurisexual or from plurisexual to monosexual, we found some interesting differences between male and female participants in their behavioral health outcomes. And generally what we found was that among females, those who adopted a blurry sexual identity, so those who identified as monosexual at baseline and later identified as plurisexual, they took a hit in terms of their mental health.

(07:29):

And then conversely, among males, we found that adopting a monosexual, so those who originally identified as plurisexual but then later identified as monosexual, they took a hit in terms of their mental health. And regardless of the direction or the type of change, males who reported either type of change from monosexual to plurisexual or reverse, they experienced an increase in problematic alcohol and other drug use.

Aaron van Dorn (07:53):

What are the clinical implications of your findings for people who are working with these sexual minority individuals?

Dr. Evan Krueger (07:58):

Yeah, I think these findings point to identity change as a unique sort of "developmental" period during which people might need a little more support. So first, I think it's really important to highlight what these findings do not suggest. So we certainly found that identity change was associated with reductions in mental health and increases in problematic substance use. But there is no evidence to suggest that we should be making efforts to influence one's identity developmental trajectory, for instance, through so-called conversion therapy, or that it would even be effective and affecting a positive impact on sexual minority behavioral health. And in fact, there's ample research to show the opposite, that efforts such as these are incredibly harmful to sexual minority health and wellbeing. Instead, we hypothesize that along with changing one's identity come other changes in one's environment, both positive, negative, and neutral.

(08:51):

So think about it. As you're engaging with and taking on a new identity, you might form new friendships or other relationships. And for instance, you might find yourself hanging out in different spaces, which

may or may not include bars or nightclubs that facilitate substance use. Right? So the point that I'm trying to make is that these environmental changes that come along with identity change may impact your mental health and substance use behaviors. And so I think these findings suggest that clinicians working with sexual minority clients, and particularly those who may be sort of actively "figuring it out" or exploring their identities, they may need a little support managing stress and new experiences, and possibly identifying healthy coping strategies for dealing with these new life stressors.

Aaron van Dorn (09:39):

What were the limitations of your study?

Dr. Evan Krueger (09:41):

So this study didn't include transgender or other gender diverse populations, including gender queer and non-binary folks. But you can think about how there might be parallel processes with gender identity development and change as we see with sexual identity. And so there still is a need to explore how gender identity fluidity and change may be associated with behavioral health. Also, these data were collected several years ago. So data collection ended in 2018, I believe, and since then a lot has happened.

(10:13):

For instance, the Coronavirus pandemic. We know that during the pandemic we saw unprecedented levels of stress and population-wide changes in both mental health and substance use patterns. Also, the generation study was sort of born out of this idea that the landscape for sexual minorities was improving with increasing legal protections, and at the time, the recent passage of marriage equality shortly before the study began. But now it's no secret that we find ourselves in a very different sociopolitical climate in which, for instance, politicians are spewing harmful rhetoric about sexual and gender minority population, and some of those legal protections are being rolled back. So it's very possible that our finding that 9% of participants changed their identities over a two-year period might look a little different now. I'm just guessing here, but perhaps we'd see fewer folks being willing to explore and change their identities, or perhaps we'd see fewer people identifying as sexual minorities at least sort of openly on a survey overall.

Aaron van Dorn (11:11):

Given the fact that the older populations in your sample tended to be more static in their identity, is it possible that the changes in sexual identity that you saw are more emblematic of younger people discovering themselves versus older people who have had a chance to experience life? And do you think that that might differ given differing levels of acceptance of people who identify as sexual minorities in society?

Dr. Evan Krueger (11:28):

I think you're probably right. I mean, time will tell, but we do see, there's been some other interesting research to show that, for instance, young folks are identifying as LGBTQ with a non-heterosexual cisgender identity at very high rates compared to... For instance, I think those folks in generation Z, nearly a quarter of generation Z identifies as non-cisgender heterosexual, which it's insane compared to what we thought the going rate for LGBTQ identity was somewhere between four and 10% less than 10 years ago. So I think there definitely is sort of a generational difference and sort of willingness to explore and think about identity in a more complex way.

(12:17):

I also think that, I understand we're sort of in a weird sociopolitical climate now, but overall young folks have a little bit more of an ability to explore identity. And so maybe what we're seeing is that they're doing it because they feel that they can or that, "Oh, I've seen in the media, or I've talked to my friends, I know about all these additional identity labels and let me try them out, think about them." So I didn't put that super eloquently, but I definitely think there's a little bit of a generational difference in just options, what's even available to explore or what's been available to explore.

Aaron van Dorn (12:53):

Sure. It seems like if you'd done this study 20 years ago, you would have much different results than if you did it in 10 years from now as opposed to when you did it.

Dr. Evan Krueger (13:01):

Oh, absolutely. I want to do this study again. I want to... I'm super curious.

Aaron van Dorn (13:05):

Yeah, be interesting to see the snapshot. So what's next for your research, speaking of going forward?

Dr. Evan Krueger (13:11):

This study really sort of inspired me to do more research in this area. So I've become really interested in helping to figure out how to accurately assess sexual and gender identities, which are fluid and also concealable in research studies. Because if we aren't accurately "capturing" sexual and gender minority folks in our research studies, then we aren't able to set benchmarks or to measure population disparities in mental health or health behaviors very well or at least very consistently. I am also interested in exploring some of those underlying causes of our findings or the reasons why we might see changes in identity over time.

(13:49):

And to be clear, I think identity change is a part of healthy development. We saw here that people across the age continuum, yes, it tended to be concentrated among younger folks, but across the age continuum, we saw that people across the age continuum do change identities over time. And I think it's wonderful that despite all the political rhetoric I mentioned, people and particularly young people feel more able to explore and express their identities in ways that haven't been possible before. If we can better understand the why behind identity change then we can better identify how and when to provide appropriate supports for individuals.

Aaron van Dorn (14:26):

Well, Dr. Krueger, thank you for taking the time to speak with us today.

Dr. Evan Krueger (14:29):

Thank you very much. I really enjoyed the conversation.

Aaron van Dorn (14:31):

Up next, Dr. Ned Kalin. Dr. Kalin, welcome back to AJP Audio for August, 2024.

Dr. Ned Kalin (14:36):

Thank you, Aaron. It's a pleasure to be here.

Aaron van Dorn (14:37):

Earlier in this episode, I spoke with Dr. Krueger about the impact of sexual identity continuity, and change on the mental health and substance use of sexual minority adults. What can you tell us about that article?

Dr. Ned Kalin (14:47):

Aaron, this is an interesting paper that attempts to understand some of the stressors that individuals with sexual minority gender identification go through. And basically what this paper is looking at is in individuals that identify as sexual minorities, what impact, if any, is there when they actually change their sexual identities on their mental health? And this was a sample that was collected from 2015 to 2018. It's what's called a national probability sample. The period of followup was about two years. What the investigators found that most of the individuals that identified as a sexual minority remains stable in their sexual identity over that two year period, roughly 91% is what they described. Half of the individuals in this group identified as being consistently monosexual and the other half identified as being consistently plurisexual. 9% of the individuals actually reported changing their sexual identity over this two year period, and 75% of that 9% were females.

(15:58):

And the outcomes were a bit different for females or males that changed their sexual identity. For females that reported sexual identity changes compared to those females that had stable sexual identities over that time period, they reported lower social wellbeing scores and also some increases in mental distress and problematic alcohol use, although those were not found to be statistically significant effects.

(16:24):

On the other hand, in the males that reported a change in their sexual identities compared to males that remained stable, they had increases in problematic alcohol use and other drugs. So this suggests that in addition to the stresses and strains that individuals who identify as sexual minorities have, and also the increased psychiatric illness that's been associated with that, further stress appears to be associated with actually changing one's sexual identity. And that results in some of the changes that I just talked about.

(16:57):

There's a really good editorial accompanying this paper by Dr. Walter Bockting from Columbia University, where he provides a very thoughtful discussion related to the importance of using a developmental perspective in studying gender identity and how the information from this paper and other work can be really useful in improving the mental health of folks that identify as a sexual minority.

Aaron van Dorn (17:21):

Amstadter and colleagues have a paper looking at the differences of impact of post-traumatic stress disorder between male and females in a twin sibling study in Sweden.

Dr. Ned Kalin (17:28):

This is another interesting paper. It also, interestingly enough, has to do with sex differences in a very different way. This is looking at the heritability of post-traumatic stress disorder and trying to ask the question whether or not the amount of likelihood of developing PTSD is heritable and whether or not

that differs by males and females. So males and females can have different patterns of heritability. In part, this was motivated because it's well known that females have a greater likelihood of developing PTSD. It's about a twofold greater risk than males do. So this is a very large sample. It was from the Swedish registries, which is a tremendous resource for a lot of the research that's been done looking at long-term effects and family issues and things like that in relation to psychopathology.

(18:20):

And in this sample, what the investigators used were twin pairs. By using twin pairs, one can estimate heritability. Theoretically, if the twins are monozygotic, they ought to be very, very, or a hundred percent concordant for whatever the trait is that one has. So twin pairs, monozygotic and dizygotic. But also what was really important in this study is that they included sibling pairs. So sibling pairs that were not twins were also included as comparators. And the reason for this is because this allows one to ask the question whether there's something unique about the environment for a twin having another exact twin, or dizygotic twin that might confer risk. So it's an unusual design by including these sibling pairs in the comparison. So they had about 16,000 twin pairs, about 376 sibling pairs. They were all born between 1955 and 1980.

[NEW_PARAGRAPH]And what they found was that in this group, the lifetime prevalence of PTSD was much higher in females than it was in males, which is consistent with the literature. It was about 28% in females and about 12% in males. So about a twofold increase is what we would predict from literature.

(19:34):

They also found that monozygotic twins had the highest correlation between themselves for both having PTSD, which would be expected based on heritability. Heritability estimates, interestingly enough, were found to be greater in females than males. And this is what one of the questions was. And in this case, heritability in females is roughly 35% as compared to 28%. Now, that may not sound like a lot, but it's significantly different. So this then suggests that females may have a greater heritable risk than males do to develop PTSD and could be one of the reasons, not certainly all the reasons, but one of the reasons why females may have a greater lifetime incidence of PTSD. It turns out also that there's some evidence from this study to suggest that the actual genes involved in conferring the risk to some extent may differ across the sexes as well. So not only may there be differences in the risk in males versus females for heritability, but also some of the genes that might be involved in the heritability might be different across sexes.

Aaron van Dorn (20:40):

Up next, we have an article from Hilbert and colleagues looking at cortical and subcortical brain alterations and phobias.

Dr. Ned Kalin (20:45):

Phobias are among the common psychiatric symptoms and disorders. And actually, we're all sort of genetically programmed to be afraid of certain things. So for example, many people, as you know, will report being afraid of not liking blood or not liking the dark or not liking heights. And that's because we've evolved to be afraid of those things that are naturally potentially dangerous. However, when those fears become excessive, we call them phobias, because it's not only that I'm afraid of something, it's that I now start avoiding situations where that might occur. And people that have phobias, again, these can range from being relatively harmless, "Ooh, I don't like spiders and I'm not going to touch a spider," which many people wouldn't, to, "Ooh, I don't like spiders, and I'm not going to go into the basement and I'm not going to go into the attic, and I'm not going to go into the bedroom where I saw a spider last week at all," where it's much more, in a sense, function impairing.

(21:45):

So they looked at individuals, a very large cohort of individuals that had a range of different severity in phobias and asked the question, are there differences in brain structure in individuals with phobias as compared to control individuals that didn't have phobias? Now, one caveat in this study is that in the roughly 1400 individuals that had phobias, they also allowed them to have anxiety and depression, and that is because phobias are commonly associated with what we call internalizing disorders or anxiety and depression. So in an interpretation of the data, that also could be a factor in some of the findings that were found.

(22:21):

Basically what they found was that there are some differences in brain structure that they identified in all individuals with phobias, and they also then looked at individuals that had different types of phobias. So some people have animal phobias, other people have blood or injection type of phobias, and they did actually find some differences between these as well. But I would take those findings with a little more caution because the sample sizes were small.

(22:50):

In conclusion, what they found was that individuals with phobias do have some alterations in brain structure, and there seem to be some alterations that are more specific to animal phobias versus blood injury types of phobias. But again, I'm not sure what this exactly means. And because there are a number of other factors involved, including the patients having anxiety and depression, it's hard to know exactly how to interpret those findings.

Aaron van Dorn (23:18):

Bommersbach and colleagues looked at the national trends in emergency department visits in self-harm and suicide attempts. What did they find?

Dr. Ned Kalin (23:24):

This is an important and interesting demographic study, basically trying to understand what's occurring in ERs in relation to patients coming in with either suicide attempts or self-harm attempts that are related in some way to self-injury or wanting to kill oneself. I don't need to tell you this, but I'll remind all of us that suicide is a tragic and all too common problem worldwide and the United States. In 2022 it was estimated that almost 50,000 individuals committed suicide. Understanding this data is really important from the standpoint of not only the amount of visits that are occurring in US ERs, but also the trends over time, which is one of the foci of this study.

(24:11):

And what the investigators found was that from 2011 to 2020, which was the period of analysis, there was the 3.5 fold increase in the percent of patients that visited ERs or emergency departments with suicide attempts and self-harm behaviors. And that actually in 2020 constituted about 2% of all visits to emergency room departments. When you look at the numbers, the numbers are going from about 1.4 to 5.4 million visits over that time period. So quite an increase.

(24:45):

What's important to keep in mind is that the highest group that was showing up in ERs with these behaviors were young adults and adolescents, which points to our need to readdressing the mental health needs of individuals this age of youth. But the greatest increases over that 10 year or so period

were seen in individuals that were 65 years or older, suggesting that we need to pay a lot more attention to our elderly and aging population and the stresses and strains that they face.

(25:16):

Now, one of the really important takeaways from this study, in addition to what I've told you, is that when they looked at how many of the individuals that presented to the ERs received an intervention or were involved with mental health providers, it was strikingly low at only 16% of those individuals. So this really speaks to the need to dramatically increase our workforce from the standpoint of individuals that are trained to work with folks that are struggling with such significant, impactful, and potentially tragic issues.

Aaron van Dorn (25:49):

Finally, Zhao and colleagues have a paper looking at the impact of a parent's psychiatric diagnosis and the behavioral and psychiatric outcomes of their children.

Dr. Ned Kalin (25:56):

Again, we're back to the Swedish registries, which I mentioned earlier in an earlier study. And again, this is just a terrific resource because of the demographic, genealogical and medical data that they have kept over many, many years. This is a database that was actually used up to a 44-year follow-up period. And it consisted of, believe it or not, over three million individuals that were in this database. All the individuals that were studied were born between 1970 and the year 2000 over that 30-year period. And they were all raised with their biological parents. So you had to be raised by your biologic parents to have your data used in the study. And what was assessed was the psychiatric behavioral and functional outcomes and the offspring of parents that did and did not have documented psychiatric illnesses. So again, asking the question, if you have a parent with a psychiatric illness, is your risk significantly increased to have a psychiatric illness?

(26:54):

And if so, what type of illness might that be? So what they found is that there were one million individuals, offspring that were actually exposed to having at least one parent that had a psychiatric lifetime diagnosis of either schizophrenia, bipolar disorder, depression, anxiety, alcohol, or other drug related problems. And what they found was the good news is that most of the children that were raised by parents with psychiatric illnesses did not have a psychiatric illness. However, having said that, there was still a two times greater increase if you are a child of a parent with a psychiatric illness of developing one. With this increased risk, the question then becomes, is there any specificity that we can make predictions about? So if my parent had depression or someone else's parent had bipolar disorder or someone else's had schizophrenia, would that predict the likelihood of me having that specific problem or a more general problem?

(27:52):

And what they found was that in general, with the exception of two illnesses, the predictive value of what your parent actually had was not very high in relation to what you're going to develop. It was a much broader risk for you. But where they did find a specificity was for offspring of schizophrenia parents, those offspring, in fact, had about an 8.5 increased risk of developing schizophrenia.

Aaron van Dorn (28:14):

Wow.

Dr. Ned Kalin (28:15):

And offspring of individuals with bipolar disorder about a 5.8 or almost sixfold increase in developing that illness. That's opposed to parents that had anxiety and depression where the risk was around two to develop anxiety or depression if your parents actually had that. So just to summarize, most children of parents with psychiatric illnesses do not develop problems, but there's still an increased risk. Increased risk is overall about twofold, and the highest specificity of transmission of the type of illness from parent to child is for schizophrenia and bipolar disorder.

Aaron van Dorn (28:50):

Well, Dr. Kalin, thank you once again for joining us.

Dr. Ned Kalin (28:52):

It's my pleasure, Aaron. Thank you.

Aaron van Dorn (28:54):

That's all for this month's AJP Audio. But be sure to check out the other podcasts on offer from the APA. In the most recent Psychiatric Services From Pages to Practice, Dr. Lisa Dixon and Dr. Josh Berezin and speak with Dr. Sharon Hoover about strategies to invest in mental health provision in schools. That and much more can be found at psychiatryonline.org or wherever you get podcasts.

(29:12):