### Aaron van Dorn (00:00):

Welcome to AJP Audio for May 2024, I'm Aaron van Dorn. The May issue of the American Journal of Psychiatry is a special issue focused on the latest developments in the understanding and treatment of substance use disorders. For this month's episode of the podcast, I spoke with Dr. ReJoyce Green, an assistant professor of psychiatry and behavioral sciences at the Medical University of South Carolina in Charleston. Dr. Green and co-authors investigated predictors of substance use initiation in a large cohort of early adolescents. Afterwards, AJP editor-in-chief Dr. Ned Kalin, AJP deputy editor and special issue guest editor Dr. Kathleen Brady discuss the rest of the special issue and what brings it together.

### (00:42):

Dr. Green, your study looked at predictors of substance use initiation in a large longitudinal cohort of young adolescents, what did you find?

### Dr. ReJoyce Green (00:48):

Our study was really focused on trying to address a gap that we have found in the literature where most of the previous research is focused in on merely one or two domains as predictors of substance use initiation. So, for instance, focusing in on mental health factors or neuroimaging factors and so what we were interested in doing is comparing multiple domains. And so, we had used data from a large longitudinal study called the Adolescent Brain Cognitive Development Study and that study is following youth ages nine and 10 into early adulthood. What we found was that, overall, our rates of substance use initiation were a little bit lower than what we've seen with other epidemiological studies.

## (01:23):

So, in our sample we had just under 7,000 participants and we found that roughly 14% of them have reported initiating substance use over a three-year time period. And so, then after that what we were wanting to see is, okay, well, are there specific domains of functioning that more likely predict substance use initiation. And so, what we ended up finding was that self-report measures, so things such as demographic characteristics, mental health factors, physical health factors, these were overall more predictive of substance use initiation than other factors that are, I would argue, more burdensome or more time intensive to collect such as, say, hormones, neurocognitive factors, neuroimaging factors.

## (02:04):

And so, we thought that was interesting in and of itself but then, within that, we went to see, okay, well, what are some of the top predictors of substance use initiation and we found it was a lot of characteristics that were in the demographics, so many as I'd mentioned. So, our top predictor was actually youth with a religious preference of Mormon, they were less likely to initiate compared with youth that did not have any particular religious affiliation. We also saw other factors such as race, income that were also in our top subset of predictors of initiation. And extending beyond demographics, we also observed some factors that were in the mental health domain so, for instance, some sensation seeking, in the physical health domain, we saw things such as prenatal exposure to substance use that were associated with greater likelihood of initiating.

#### (02:43):

So, it was a variety of different factors, things that we'd argue are easily able to be collected compared to some other more time intensive measures and so that was the take home message there.

Aaron van Dorn (02:53):

You say in the paper that early initiation of substance use increases the risk of developing a substance use disorder but the overall rate of substance use among this age group is fairly low. What makes predicting substance use in this cohort important?

## Dr. ReJoyce Green (<u>03:04</u>):

That's a great question and I agree and definitely we were surprised a little bit to see the lower rates of initiation in our sample compared to some of the larger epidemiological studies. But one thing that has been shown repeatedly in the literature is earlier age of onset for substance use is associated with a greater likelihood of developing substance disorder later on. And so, what our study was really trying to capitalize is, on the first interaction that a child or adolescent has with a substance, so that first sip of alcohol, that first puff of a cigarette or a vape pen. And so, by us at being able to identify predictors of some of those first interactions, we hope that these predictors can be used in the context of prevention or early intervention efforts if we know that these are things that we're targeting that have shown an association with future use.

## Aaron van Dorn (03:49):

Your findings suggest that social factors, peer and family-related factors especially, may be a more appropriate focus for understanding the risk of substance use initiation. Why were those factors considered superior to other resource intensive factors such as neurocognitive and neuroimaging? Was it simply a question of cost and availability?

## Dr. ReJoyce Green (<u>04:06</u>):

I would say for this one, I think, unique aspect of our study is we really leveraged more advanced quantitative and statistical methods to answer our research question. And so, we used a type of statistical modeling called machine learning where we were able to essentially take a large number of factors and put them into a statistical model to predict our outcome being initiation and so we had organized our analyses to be in three different models. So, one model we only had self-report variables, or self-report factors I should say, and these included things like I mentioned with demographics, mental health, physical health, cultural environmental factors and then we had a second model where we added hormones and neurocognitive factors. The third model we added in a large host of neuroimaging factors.

### (04:48):

And so, what we saw is, when we added in these additional factors being the hormones, the neurocognition, the neuroimaging factors, those did not increase our ability to predict substance use initiation over and above our initial self-report factors. And so, what that told us is, at least within this particular age range, so again I should also mention that all of our predictors were from the baseline assessment at ages nine and 10 and then we were predicting substance use initiation after the baseline assessment through age 12 to 13.

### (05:19):

And so, at least within this age range, adding those additional more time-intensive or resource-intensive factors such as hormones and neuroimaging factors, that didn't improve our ability to detect who would go on to initiate substance use and so that's how we were able to ascertain, at least within this age range, it does seem like factors that are mostly in the demographics, mental health, physical health domain are more predictive of initiation than other more time-intensive factors

### Aaron van Dorn (05:45):

Because you're working with a relatively narrow age range from the available data sets you have, would neurocognitive and neuroimaging and hormonal predictors be more effective if you were looking at a longer age range or from a younger cohort into adolescence?

## Dr. ReJoyce Green (05:58):

Definitely. That's a great question. I think it's very much a possibility, I think these results provide some really interesting early onset evidence for some of these factors but I think it would be really interesting to replicate this like you had suggested in a older age range or over a longer period of time because, while we didn't see a strong influence of these factors at our age range, it might be once youth are maybe ages 15 to 16 or 16 to 17, over maybe a longer period where we would expect to see greater initiation rates that these other factors might come online in being more productive than some of the factors that we've observed in the demographics or mental health and physical health domains.

## (<u>06:35</u>):

So, it's not to say that I would rule out the utility of, say, hormones or neuroimaging factors in predicting initiation, it's more so at least in these very early, like I mentioned earlier, the first touch points with substance use initiation as we defined it with a first sip of alcohol, first puff of a cigarette or a vape pen, we didn't see that association there. But I think it's very possible that it could be there at later age ranges and I have to follow up as the study continues to go on and collect more data.

## Aaron van Dorn (<u>07:00</u>):

Your findings also indicated the act of participation in religion from the parents was also a strong predictor of the risk of substance use initiation with a notably strong protective effect from Mormon children, the number of Mormon participants in the sample also seems outsized. How did religious affiliation affect the initiation to substance use in your findings?

#### Dr. ReJoyce Green (07:15):

So, that's a great point and we did include a total of 17 different religious categories. And so, we tried to be as expansive as we could and inevitably that meant that some of the categories were smaller than others. And as you've mentioned, the children that identified as Mormon were on the larger side and this, I think, is partially influenced by the fact that this study collects data from 21 different sites that are positioned across different states. And so, this might be a reflection of just some of the sites that the data was collected and what religions are maybe more or less prominent in those regions. Something we've acknowledged as a potential limitation in terms of the varying sample sizes, however, we wanted to try to be as inclusive as possible to include all the different religions that are assessed.

#### (07:55):

And what we really captured here was actually was a parent report of their child's religious preference. And so, we actually didn't get into the more specific components of religiosity so, for instance, the frequency of engaging with others with similar religious beliefs or the extent to which they are engaging in different practices within the religion and so I think that would be something very interesting for future studies to examine. But at least what we were able to see at this stage is simply the identification of a child, identifying with one of these religions did end up being a top predictor specifically, as you mentioned, Mormon was protective of substance use initiation. We also observed youth with a religious preference of Jewish were more likely to initiate and, whereas, youth religious preference of Muslim were less likely to initiate.

#### (08:37):

So, we did see a combination of both risk and protective factors when it came to religious affiliation and our outcome of substance use initiation and I think it's something that is not often assessed or collected in different settings. And so, I think that was an interesting surprise on our end for us to see how robust of a predictor this was and something that might be worth considering for future studies or future practitioners in terms of assessing in some type of a clinical setting.

### Aaron van Dorn (08:58):

So, your study is looking for predictors of substance use initiation and I was wondering are there immediate clinical implications for your findings?

## Dr. ReJoyce Green (09:04):

Definitely. So, I think similar to what I had last mentioned, I think there was a combination of factors that we had found that were in the demographic domain that did demonstrate a pretty robust association with substance use initiation. So, like I previously mentioned, I think the religious piece is something that may not as often be assessed in a clinical setting but could be something that practitioners may consider capturing. Also, for instance, we had found that prenatal exposure to substance use was another one of our top predictors of substance use initiation. And so, while I would acknowledge it may be difficult for mothers to discuss this in a clinical setting, it might be possible for providers to provide some specific context as their reasons for asking such questions, for instance, knowing that, okay, we know that children that are exposed to substance use prenatally may be at increased risk for early substance use.

## (09:49):

And so, starting to engage in some of this dialogue might help promote more honest communication between providers and patients and ultimately and hopefully lead to better clinical care. And I should also say some of our top predictors are all things that we also can have relatively easy access in terms of things that are being within a medical record such as someone's potential race, their income, their religious preference, if that is assessed, so all things that we actually might have easier access to in comparison to other factors such as hormones or neuroimaging factors, things that are not as easily accessible within one's medical record.

## (<u>10:21</u>):

So, that's one domain in which I think these findings can have clinical implications. A second is thinking about some modifiable risk factors that might be a target in the context of prevention or early intervention efforts. So, for instance, we also observed that substance use availability and peer use of specifically alcohol and nicotine were also among one of our top predictors and so these are things that might be modifiable through different types of interventions or early prevention efforts. And so, I think it is something that we can consider, from both a individual level and also some of the larger systems that are at play here, how we might be able to incorporate these factors into our prevention and early intervention efforts.

#### Aaron van Dorn (11:00):

You touched on this briefly prior but what were the limitations of your study?

## Dr. ReJoyce Green (11:03):

In terms of limitations, I will say, like I had mentioned earlier, we had roughly around 14% of our sample had initiated substance use and roughly 85% did not initiate. And so, this, again, was a little bit lower

than we were expecting so I think that it was a little bit ... There was definitely an imbalance there so that might be something where future studies could look at some of these same predictors in reference to initiation outcome at later age ranges when we do expect to see higher rates of initiation. Also, as I mentioned earlier, we did include a very expansive list of religious categories and so that's something that maybe future studies can examine whether or not our findings replicate in other samples when it comes to incorporating multiple different religions and also maybe going above and beyond that in terms of the extent to which one engages with that religion.

### (11:44):

The other thing I'll also say is we had included a number of neuroimaging factors and we included these neuroimaging factors in isolation. So, specifically we're looking at brain regions and that's where we did not see an added benefit in terms of predicting our outcome of substance use initiation. But it might be that it's not specific brain regions in isolation, rather it's networks of brain regions that might be more related to initiation. That's something that we did not include in our present study and so that might be something for future studies to potentially consider how networks of brain regions rather than brain regions in isolation might be related to initiation within this age range or older age ranges as well.

Aaron van Dorn (12:22):

Speaking of future studies, what's next for your research?

Dr. ReJoyce Green (12:24):

So, I think this would be really interesting to replicate and additional samples, larger samples specifically, as I mentioned earlier, I'd be very curious to see if what we observe as our top predictors of initiation hold at later age ranges when we do expect the higher rates of initiation. And I think, if these same top predictors do hold, that would be interesting, even if they do not hold and it's a different set of top predictors, I think that would also be interesting because it would be able to show how, across this really key developmental period, there are different factors that may have more of a robust association with initiation that would be relevant to consider when we're thinking about how can we create developmentally appropriate and tailored strategies to address substance use initiation at different age ranges.

#### (13:01):

So, maybe there are factors that would be really important to consider at the earlier ages, so ages that we're looking at between ages roughly 10 to 11 through 12 to 13, maybe some of those same factors that don't have as much of an impact, say, at later age ranges when we're looking at ages, say, 16 through 18. And so, I think continued research in this area where we're able to really start to pinpoint and target down what factors are of top importance at different age ranges, well, I'd like to think, hopefully, answer the big picture question, how can we delay substance use onset in youth.

Aaron van Dorn (13:28):

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

Dr. ReJoyce Green (13:30):

Of course, thank you for taking the time to talk with me, I appreciate it.

Aaron van Dorn (<u>13:33</u>):

Up next, Dr. Ned Kalin and Dr. Kathleen Brady.

### Dr. Ned Kalin (13:36):

Hi, Aaron, it's my pleasure today to be with you to introduce a special issue focused on substance use disorders. This is an area, obviously, of high priority for psychiatry and it's also an area of high priority for the American Journal from the standpoint of updating the latest advances in the field to our readership. It's very important from the standpoint of all psychiatry and psychiatrists to take into account the comorbidity that we see with our patients who also have substance use disorders. It's my pleasure to introduce Dr. Kathleen Brady who is one of our deputy editors and who has headed up this initiative and has just done an admirable job pulling things together and getting really exciting papers and nice reviews that cover the landscape in relation to understanding mechanisms related to substance use disorders, new ideas about treatment and also important ideas about healthcare inequities and how to address those issues. So, Kathleen, why don't you go ahead and, again, thank you so much for doing this.

### Dr. Kathleen Brady (14:38):

Well, thank you, Ned. This has been just ... It's been very exciting and gratifying to be able to pull this together because I think there's just been so many wonderful advances in the field of substance use disorders both understanding the mechanisms underlying them which then lead us, I think, to the development of better treatments. And on the other side of things, we're all recognizing more and more over the past five to 10 years what a severe problem substance use disorders are for our nation and for the world and how important it is for psychiatry to really embrace its role in moving forward on the treatment and understanding of substance use disorders.

### (15:27)

So, as much as anything, I was very excited that the American Journal decided to dedicate an entire issue to this topic because I think that reflects the fact that people are really, and psychiatrists in particular, are really beginning to accept their role and embrace their role in integrating their understanding of substance use disorders and improving their understanding of substance use disorders and integrating the treatment of substance use disorders into their practice.

## (16:03):

In terms of this journal, this edition of the journal specifically, I think it's very well-rounded in that we have everything from some reviews of very basic yet critical topics, we have some opinion pieces and commentaries on important things like cannabis and cannabis use disorder and the policies around that and then we also have some database papers in really critical areas around treatment and the personalization of treatment for substance use disorders.

## Dr. Ned Kalin (16:42):

So, Kathleen, as you pointed out, there are a number of really interesting and important topics in this special issue and we'd like to hear you discuss in depth a number of these papers. And the first one that is particularly interesting, the one that's related to predictors of substance use initiation by early adolescents and these are data that were accumulated from the ABCD Brain and Cognitive Development Study. What can you say about that paper?

#### Dr. Kathleen Brady (17:09):

First of all, I think it's one of the most important papers to come out of this large. The ABCD study is a multi-site study that's the first of its kind studying children from around age 10 up until we hope 20, 25, 30 which, as we all know, is really the most vulnerable time for the onset of a number of psychiatric

disorders including substance use disorders. And this in-depth study with thousands of subjects includes brain imaging studies, cognitive testing, self-report, testing of hormonal levels, all sorts of things that is just going to be ... Oh, also even looking at social media use so this is going to be one of the richest databases, I think, that's ever been available to scientists about brain and behavior development during a very critical period in people's lives.

### (18:16):

The study by Green and colleagues, what they did was use this data set to just look at what disorders and what they found was surprising and that was that it really was some of the self-report variables and socio-demographic variables that were most important in terms of predicting who started substance use earlier and that was things like substance use availability in the environment, religion was very important, peers and peer use was important, individual temperamental characteristics such as sensation seeking were all important predictors. What were not important predictors were things, some of the more sophisticated, hormonal measures, cognitive battery and some of the imaging measures that we've might've thought would be predictive.

### (19:14):

So, in some ways, it's a little disappointing although I know some of these other hormonal and cognitive and the imaging data is going to be of an extreme value in other analyses. For this one, the message is simple and clear and that is that there are things, some of these items that they found to be very predictive of early onset substance use are things that are modifiable and are things that we can intervene on. So, it helps us to target interventions, prevention interventions in, I think, a very meaningful way.

## Dr. Ned Kalin (19:52):

Kathleen, there's an interesting paper regarding treatment also looking at genetics in relation to treatment outcomes and this is a paper first authored by Kirsten Morley. I wonder if you could tell us more about that paper and how you understand the findings.

## Dr. Kathleen Brady (20:06):

I think this is a really interesting paper that explores an important area. One of the things we know about pharmacotherapy treatments in substance use disorders is there's huge variability in response. So, sometimes you'll look at a study and it looks, overall, like there was no effect but, if you can look at meaningful subtypes, you'll find that, in one group or another, there actually was a strong effect of a certain medication. And so, there's been lots of attempts to explain this variability so that we can personalize treatments. One of the things that stands out most is, in the use of naltrexone, there are certain polymorphisms of the mu-opioid receptor that really seem to predict response and, in fact, if you don't have that particular polymorphism, naltrexone is almost certain not to work.

#### (21:04):

So, in this study, they did a head-on comparison of two effective treatments for alcohol use disorders. One is topiramate, which is an anticonvulsant agent which has also been shown to be useful in the treatment of both cocaine and alcohol use disorder, and then naltrexone, which is an opioid, a pure opioid antagonist, it actually has FDA approval in the treatment of alcohol dependence. They tried to stratify based on various polymorphisms of the mu-opioid receptor and what they found was that both treatments were effective in treating alcohol use disorder as we expected but they did not find that any of these, the genetic polymorphisms that they were looking at, were predictors of response.

#### (22:01):

So, again, in some ways, that's a little disappointing, it would've been nice to have a study that showed that there was a predictor but I think what this study models for us is just that it's going to be more and more important as we try to really hone our treatments and we try to get more sophisticated in terms of our clinical trials that looking at sources of variability and stratifying in ways where you can really meaningfully say something about the genetic predisposition to response to a medication or not is going to be really of increasing importance as we study pharmacotherapies for substance use disorders.

## Dr. Ned Kalin (22:49):

One of the issues with that paper that I noticed is that the sample size is reasonable but maybe not large enough to detect some of these genetic effects as far as guiding treatments. Is that your sense as well?

### Dr. Kathleen Brady (23:01):

Yes, that's a very good point and I think that's going to be something that will trouble us as we go further in this because, once you start subtyping and breaking your clinical trial samples into subgroups and stratifying, it gets harder and harder to find the effect. So, I think the answer to that is going to be more multi-site trials and more consortiums that work together on multi-site trials to address some of these bigger questions for the field and these questions that require bigger samples.

## Dr. Ned Kalin (23:34):

Another really, I think, interesting paper in this issue relates to understanding more about craving behavior in individuals with alcohol use or alcohol use disorder, the neural underpinnings of that. And most interesting in this paper, the authors, it's first authored by Melina Radaman, are very interested in sex differences and try to sort out differences in how the brain may be reacting differently to cues that are related to drinking or craving.

## Dr. Kathleen Brady (24:01):

Yeah, this was one of my favorite papers in this edition of the journal and, really, it's an area of great interest to me. One of the things ... I've been studying sex differences, sex and gender differences myself in the treatment of substance use disorders and the etiology and what are the predisposing factors and one of the things that a lot of groups have reported on is the fact that trauma, multiple life traumas and, in particular, early life adversity seems to be a particularly important predisposing factor for the development of substance use disorder in women as opposed to men. Now, trauma and early life trauma actually has a negative impact, obviously, on both men and women but, for women, the connection with substance use disorder seems to be particularly critical and that has led many to investigate stress response in drug and alcohol dependent men and women to see if that's what's the neurobiology that underlies this.

#### (25:09):

This group from Yale have been leaders in this field for a long time and, in this study, they were comparing men and women, their response to alcohol related cues versus response to stress related cues, personalized stress imagery and what they found was that women are much more responsive to this personalized stress imagery in terms of both their HPA axis stress response as well as the precipitation of craving and that stress imagery and recalling stressful life events for women is much more likely to induce craving and, therefore, much more likely to induce relapse. The interesting thing about this is this also has some very, very clear implications for gender-specific treatment and this same group has been looking at adrenergic agents, adrenergic blockade and they have found that that is more successful in preventing craving and preventing relapse in women as compared to men.

### Dr. Ned Kalin (26:21):

That is a really interesting point and I think a great example of how understanding the underlying neural circuits and looking at sex differences can be very important in how we think about treatments and especially treatments that seem to be more effective in either males or females. Kathleen, we have another very interesting paper in the issue that is related to alcohol consumption and use in women and I think it's really interesting because it examines menstrual cycle associations with alcohol consumption as well as progesterone and estradiol. Can you comment a little bit more on this paper and tell us why you think it's interesting?

## Dr. Kathleen Brady (27:01):

Yeah, this paper really is interesting because there's a fair amount of data mostly from human laboratory studies that have shown in both cocaine and nicotine dependence that, for women, times of the cycle when there's high progesterone and, in particular, it seems like the progesterone to estradiol ratio was really important. But when progesterone is high, craving is lower and anxiety-induced craving and just mood in general but the data in alcohol has been pretty inconsistent.

## (<u>27:35</u>):

This group did a really great job of following freely cycling women and then a smaller group of men over a 12-month period using smartphone to look at their daily drinking and then they brought them in every couple of months to really measure progesterone and estrogen levels that they found that, the same thing as we've seen in both cocaine and nicotine dependence, that during the times of the month, and it's really mostly the late luteal phase where the progesterone-estradiol ratios are particularly high, there was lower craving and lower binge-drinking for women.

### (28:14):

So, they really confirmed the findings or they extended the findings that we've seen in nicotine and cocaine dependence and extended it to alcohol and really did it, I think, in a very refined analysis.

### Dr. Ned Kalin (28:27):

That is interesting. What is your sense about potential applications?

#### Dr. Kathleen Brady (28:31):

In nicotine dependence, this has real clear implications because, with nicotine, you actually set a stop date and you premedicate so you can definitely time your stop date for women according to the menstrual cycle. I think in cocaine or alcohol [inaudible 00:28:49] medication development in this area and there are some people looking at progesterone supplementation throughout the month as a medication strategy. So, that's certainly one implication.

#### Dr. Ned Kalin (29:00):

Another paper that is related to alcohol uses a large VA cohort. This paper is interesting because it looks like it looks at the relation between treatment for alcohol use problems and then subsequent later use of opioids. What are your thoughts about this paper and what do you find interesting about it?

#### Dr. Kathleen Brady (29:18):

Well, what was so interesting ... First of all, you're right, it's a really large sample, it's almost 500,000 veterans. And they did the Audit-C screening, I think that's something that's actually in the ... It's a standard of care in VA treatment settings. And of those 500,000, they had 13% positive for Audit-C, so

they had alcohol use disorder. And then another of care but it's maybe not done quite as consistently is doing an SBIRT intervention, a Screening and Brief Intervention and Referral for Treatment when somebody screens positive for alcohol use disorder. In this case, 72% of that whole group screened positive and some got an SBIRT intervention and another group did not. What they found was those who got an SBIRT intervention, and this was screening and brief intervention targeting their alcohol use, what they found was that they were less likely to have a new opioid prescription and less likely to have an opioid diagnosis one year later.

## (30:22):

So, their conclusions were that maybe, if you decreased your alcohol use somehow through this SBIRT, the group that got SBIRT did much better, as per targeting alcohol, did better in terms of opioid use than those who didn't get SBIRT targeting alcohol. So, they speculated could it be that decreasing alcohol use does decrease opioid use or perhaps there's just some general motivation once somebody has, an SBIRT is supposed to be motivational interviewing, once somebody has a motivational interview targeting substance use that it has a more general effect but it really was very interesting.

Dr. Ned Kalin (31:04):

Can you just say a little bit more about the treatment and how long the treatment was?

Dr. Kathleen Brady (31:08):

Well, we don't even know if these people got treatment, we just know that they got screening, brief intervention and a referral to treatment. So, the only thing that they documented was that a pretty high percentage, of the 13% that were positive for alcohol, about 9% received screening, brief intervention and they were referred for treatment and the other 5% or so did not. And those that didn't get any screening or brief intervention around there, we all know they had an alcohol use disorder, those who weren't even screened, no motivational interviewing or anything like that, they were more likely to have a new opioid prescription and end up with an opioid use disorder diagnosis by the end of a year.

Dr. Ned Kalin (31:53):

But we don't know from this study whether or not those that were screened actually got other treatment?

Dr. Kathleen Brady (31:59):

No.

Dr. Ned Kalin (31:59):

Okay.

Dr. Kathleen Brady (32:00):

So, what the medical record records is whether the screening and brief intervention and referral was done. Now, with the VA system, probably a fair number of those that were referred to treatment, because treatment is easily accessible and doesn't cost them money, it's probably a fair amount of people in the VA system that get referred to treatment actually end up in treatment.

Dr. Ned Kalin (<u>32:23</u>):

I see.

Dr. Kathleen Brady (32:24):

But we don't know how long or any of that information which would be interesting.

Dr. Ned Kalin (<u>32:28</u>):

And just so I'm clear, is the screening the same as the brief intervention or was that separate?

Dr. Kathleen Brady (32:33):

The screening is actually probably what you'd consider the Audit-C, which is a paper and pencil test or a computer screen test, but they'll follow that up then a clinician comes in, verifies the items on the Audit-C and then they do a motivational interview, they use motivation enhancement. And the interview, basically, is a non-judgmental just design to point out to this individual that, perhaps, their alcohol consumption that it is above what is considered safe and try to point out in a gentle and motivation enhancing way, perhaps, how that alcohol consumption is negatively impacting their lives then they follow that up with a referral to treatment.

(33:19):

So, there is an intervention there, it's a motivational interview that really is an intervention and it's actually been shown that motivational interviewing is, a lot of people, especially on the milder end of the disorder spectrum, motivational interviewing actually does impact people's alcohol consumption even if they don't go to treatment.

Dr. Ned Kalin (<u>33:41</u>):

That sounds pretty remarkable that one session of an interview like that could have that potential impact.

Dr. Kathleen Brady (33:48):

Yeah. I know it is pretty remarkable.

Dr. Ned Kalin (<u>33:50</u>):

Yeah.

Dr. Kathleen Brady (33:51):

If we could only get more physicians and clinicians to do that regularly. It's recommended in the VA, it's a pretty standard type of intervention that most clinicians are taught how to do and should do and it's really been shown mostly around alcohol consumption. The data that supports these brief motivational interviews are really around alcohol consumption and, again, it's not the people that really meet seven criteria for alcohol dependence, it's people that are in that mild, maybe somewhat unhealthy drinking spectrum, those are the folks most likely to respond to a motivational interview alone.

Dr. Ned Kalin (34:33):

I think, as I mentioned earlier, we're really excited about having this special issue for AJP and, as you know, part of our focus has really been to include substance use disorders all the way through the publication of the journal because they're so comorbid with other psychiatric illnesses and so critical to treat. But it would really be helpful if you could summarize again the issue and what you think is really important about all this.

## Dr. Kathleen Brady (35:02):

The issue, really, I think it's wonderful in that it spans everything from some articles that talk about our improved understanding of the basic neural underpinnings of substance use disorders all the way through treatments and then policy issues related to substance use disorders. And then within that, we go from adolescent treatment to personalized medicine, some of the genetics, pharmacogenetics underlying treatment into gender differences in treatment. So, I think really does a broad swath of, really, some of the most important and interesting things going on in this substance use disorder field these days and just shows us how much promise there is for the future in this area.

## Dr. Ned Kalin (35:53):

Great. Well, thank you very much, Kathleen, and thank you for taking the leadership in relation to putting this issue together and your expertise in this area has been very helpful to me and to the journal.

## Dr. Kathleen Brady (36:04):

Well, it has been my pleasure. Thank you.

## Aaron van Dorn (36:06):

That's all for this month's AJP Audio but the APA is home to other podcasts you should take a listen to. Over on the Medical Mind Podcast, their series of women psychiatrist's caucus chats continues with the conversation of Dr. Ludmila De Faria of Georgetown University School of Medicine. You can find that and all the other APA podcasts over at psychiatryonline.org/podcasts or wherever you get podcasts.

#### Speaker 5 (36:26):

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