

Americans Against Legalizing Marijuana

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MARIJUANA USE AND MENTAL ILLNESS [1]

The Rise in Marijuana's THC Levels Contributes to the Mental Illness of Marijuana Users

An article published in the <u>British Journal of Psychiatry</u> states:

It is now incontrovertible that heavy use of cannabis increases the risk of psychosis. There is a dose-response relationship and high potency preparations and synthetic cannabinoids carry the greatest risk. [2]

Marijuana products today can be up to 99% THC, the psychoactive chemical in marijuana. [3] The amount of THC in marijuana has been increasing steadily over the past few decades. The exposure to higher THC levels results in a greater chance of harmful reactions including mental illness. [4]

The risk of negative mental health effects is increased about 5 times by regular use of high potency marijuana. [5] While a psychotic reaction can occur following any method of use, emergency room responders see an increasing number of cases involving marijuana edibles. Some people (especially preteens and teens) don't realize that it takes longer for the body to feel marijuana's effects when eaten rather than smoked so they consume more of the edible, trying to get high faster or thinking they haven't taken enough. In addition, some babies and toddlers have been seriously ill after ingesting marijuana or marijuana edibles left around the house. [6]

This risk applies to "medical" marijuana use also. [7]

Young people and marijuana use

Young people with marijuana dependence have altered brain function that may be the source of emotional disturbances and increased psychosis risk that are associated with marijuana abuse. The alterations were most pronounced in people who started using marijuana at a young age. The findings reveal potential negative long-term effects of heavy marijuana use on brain function and behavior. [8]

Marijuana use during adolescence is strongly linked to: an increased presence of mental illness, including depression, anxiety and psychosis; impaired neurological development and cognitive decline; and diminished school performance and lifetime achievement. [9]

Mental illnesses caused by marijuana use

Psychosis and Schizophrenia

Marijuana use can trigger psychotic symptoms (from observable clinical studies of purified THC) in 40% of people with no family history of psychosis. [10] Regular recreational marijuana users had psychotic disorders at a greater rate than any other recreational drug. More than cocaine, methamphetamine, amphetamine, LSD, PCP, or alcohol. [11]

A study discussed in a 2017 article in <u>Scientific American</u> shows that people who had consumed marijuana before age 18 developed schizophrenia approximately 10 years earlier than others. The higher the frequency of use the earlier the age of schizophrenia onset. Neither alcohol use nor genetics predicted an earlier time of inception, but marijuana did. Marijuana use during puberty is a major risk factor for schizophrenia. The more marijuana you take - and the higher the potency - the greater the risk. [12]

A recent survey of the elements illustrating marijuana as a causal factor for psychosis was published in the journal <u>Addiction</u>. [13]

Suicide

The risk for suicide attempts has been shown to be increased 7 times in regular marijuana users, [14] and for completed suicides an increase as high as 5 times. [15]

Marijuana is the Number 1 substance now found in suicides of young people in Colorado who are 15-19 years old. [16]

Depression

Identical twin studies have demonstrated a clear impact that increases depression 2 times in the twin who uses marijuana. [17] Bi-polar Disorder

A large longitudinal study showed an increased risk for symptoms of bipolar disorder. [18]

Post-Traumatic Stress Disorder

PTSD patients who used marijuana users were found to make less progress in overcoming their condition and were more likely to become violent. [19]

Anxiety

Marijuana use causes anxiety. [20]

Scientific Organization Reports

The 2016 United States Surgeon General report on addiction states that marijuana is a serious threat to the physical and mental health of our children and that its use is a major threat to public safety. [21]

The American Psychiatric Association reports that current evidence supports, at a minimum, a strong association of marijuana use with the onset of psychiatric disorders. "Adolescents are particularly vulnerable to harm, given the effects of cannabis on neurological development." [22]

The National Institute on Drug Abuse (NIDA) marijuana use has been linked to mental health problems, such as depression, anxiety, and suicidal thoughts among teens. [23]

In 2017, the National Academy of Sciences (NAS) landmark report written by top scientists concluded, after a review of over 10,000 peer-reviewed academic articles, that marijuana use is connected to mental health issues (like psychosis, social anxiety, and thoughts of suicide) and learning, memory, and attention loss (possibly permanent in some cases). [24]

THC Medicines

Marinol, an FDA approved artificial THC medicine has a warning about mental illness and its use. Marinol is used to treat loss of appetite (anorexia) in people with AIDS (Acquired Immune Deficiency Syndrome) who have lost weight and nausea and vomiting caused by anti-cancer medicine (chemotherapy). Marinol can cause serious side effects, including: worsening of mental (psychiatric) symptoms in people who have mania, depression, or schizophrenia and problems thinking clearly. [25]

Conclusion

There is no doubt that marijuana use causes or contributes to many forms of mental illness and neurological problems. [26]

References

- 1. For testimony and victim's stories on mental illness and marijuana please go to: http://momsstrong.org
- 2. https://www.readbyqxmd.com/read/29557759/cannabis-and-psychosis-what-do-we-know-and-what-should-we-do
- 3. https://herb.co/2017/03/29/thc-a-crystalline/; https://www.drugabuse.gov/publications/drugfacts/marijuana
- 4. https://www.drugabuse.gov/publications/drugfacts/marijuana

- 5. Di Forti M, Marconi A, Carra E, Fraietta S, Trotta A, Bonomo M, Bianconi F, Gardner-Sood P, O'Connor J, Russo M, Stilo SA, Marques TR, Mondelli V, Dazzan P, Pariante C, David AS, Gaughran F, Atakan Z, Iyegbe C, Powell J, Morgan C, Lynskey M, Murray RM. Proportion of patients in south London with first-episode psychosis attributable to use of high potency cannabis: a case-control study. <u>Lancet Psychiatry</u>. 2015;2(3):233-238.
- 6. https://www.drugabuse.gov/publications/drugfacts/marijuana August 2017
- 7. Edgar Ross, MD "Discourage the Use of Medical Marijuana" Department of Anesthesia, Perioperative and Pain Medicine, Brigham and Women's Hospital, and Harvard Medical School, N ENGL J 379:16 NEJM.ORG October 18, 2018
- 8. https://www.drugabuse.gov/publications/drugfacts/marijuana August 2017
- 9. <u>Paediatr Child Health.</u> 2017 May;22(2):98-102. doi: 10.1093/pch/pxx017. Epub 2017 May 3. Cannabis and Canada's children and youth. https://www.ncbi.nlm.nih.gov/pubmed/29480902

https://www.news-medical.net/news/20180116/Study-reveals-negative-long-term-effects-of-heavy-cannabis-use-on-brain-function-and-behavior.aspx

https://www.usatoday.com/story/news/nation-now/2018/10/06/marijuana-damaged-teenagers-brains-more-than-alcohol-study-finds/1539574002/

10. Bhattacharyya S, Crippa JA, Allen P, Martin-Santos R, Borgwardt S, Fusar-Poli P, Rubia K, Kambeitz J, O'Carroll C, Seal ML, Giampietro V, Brammer M, Zuardi AW, Atakan Z, McGuire PK. Induction of psychosis by Δ9-tetrahydrocannabinol reflects modulation of prefrontal and striatal function during attentional salience processing. <u>Arch Gen Psychiatry</u>. 2012; 69(1):27-36.

Morrison PD, Nottage J, Stone JM, Bhattacharyya S, Tunstall N, Brenneisen R, Holt D, Wilson D, Sumich A, McGuire P, Murray RM, Kapur S, Ffytche DH. Disruption of frontal θ coherence by $\Delta 9$ -tetrahydrocannabinol is associated with positive psychotic symptoms. Neuropsychopharmacology. 2011; 36(4):827-836.

Cannabis, a Significant Risk Factor for Violent Behavior in the Early Phase Psychosis. Two Patterns of Interaction of Factors Increase the Risk of Violent Behavior: Cannabis Use Disorder and Impulsivity; Cannabis Use Disorder, Lack of Insight and Treatment Adherence. https://www.ncbi.nlm.nih.gov/pubmed/30022956

Proportion of patients in south London with first-episode psychosis attributable to use of high potency cannabis: a case-control study Marta Di Forti, Arianna Marconi, Elena Carra, Sara Fraietta.

http://www.thelancet.com/pb/assets/raw/Lancet/pdfs/14TLP0454_Di%20Forti.pdf

Cannabis-induced psychosis on the rise in N.W.T. prior to legalization, says health dept. <u>CBC News</u>

https://www.cbc.ca/news/canada/north/cannabis-psychosis-hospitalizations-increased-1.4877853

11. Niemi-Pynttäri JA, Sund R, Putkonen H, Vorma H, Wahlbeck K, Pirkola SP. Substance-induced psychoses converting into schizophrenia: a register-based study of 18,478 Finnish inpatient cases. <u>J Clin Psychiatry</u>, 2013; 74(1): e94-9.

"Anterior Cingulate Grey-Matter Deficits and Cannabis Use in First-Episode Schizophrenia" - The British Journal of Psychiatry, 2007; 190: 230-236

"Cannabis-Related Schizophrenia Set to Rise, Say Researchers" - Science Daily, 26 March 2007

Nielsen, S. M., Toftdahl, N. G., Nordentoft, M., & Hjorthøj, C. Association between alcohol, cannabis, and other illicit substance abuse and risk of developing schizophrenia: a nationwide population-based register study. <u>Psychological Medicine</u>, 2017; 47(9):1668-1677.

Starzer MSK, Nordentoft M, Hjorthøj C. Rates and Predictors of Conversion to Schizophrenia or Bipolar Disorder Following Substance-Induced Psychosis. <u>Am J Psychiatry</u>, 2018; 175(4): 343-350.

- 12. https://www.scientificamerican.com/article/link-between-adolescent-pot-smoking-and-psychosis-strengthens/
- 13. Miller CL. The disconnect between the science on cannabis and public health campaigns. Addiction. 2017;112(10):1882-1883. https://onlinelibrary.wiley.com/doi/full/10.1111/add.13918

14. Risk

Clarke MC, Coughlan H, Harley M, Connor D, Power E, Lynch F, Fitzpatrick C, Cannon M. The impact of adolescent cannabis use, mood disorder and lack of education on attempted suicide in young adulthood. <u>World Psychiatry</u>. 2014;13(3):322-323.

Silins E, Horwood LJ, Patton GC, Fergusson DM, Olsson CA, Hutchinson DM, Spry E, Toumbourou JW, Degenhardt L, Swift W, Coffey C, Tait RJ, Letcher P, Copeland J, Mattick RP, for the Cannabis Cohorts Research Consortium. Young adult sequelae of adolescent cannabis use: an integrative analysis. <u>Lancet Psychiatry</u> 2014; 1(4): 245-318.

15. Completed

Arendt M, Munk-Jørgensen P, Sher L, Jensen SO. Mortality following treatment for cannabis use disorders: predictors and causes. J Subst Abuse Treat. 2013;44(4):400-406.

See also: Clarke MC, Coughlan H, Harley M, Connor D, Power E, Lynch F, Fitzpatrick C, Cannon M. The impact of adolescent cannabis use, mood disorder and lack of education on attempted suicide in young adulthood. World Psychiatry. 2014;13(3):322-3.

16. Go to the below Colorado website and click on the box that lists "methods, circumstances and toxicology" and then click on the two boxes for 15-19 years olds. The marijuana data will appear.

https://cohealthviz.dphe.state.co.us/t/HSEBPublic/views/CoVDRS_12_1_17/Story1?:embed=y&:showAppBanner=false&:showShareOptions=true&:display_count=no&:showVizHome=no#4)

- 17. Agrawal A, Nelson EC, Bucholz KK, Tillman R, Grucza RA, Statham DJ, ... Lynskey MT. Major depressive disorder, suicidal thoughts and behaviours, and cannabis involvement in discordant twins: a retrospective cohort study. <u>The Lancet Psychiatry</u>, 2017; S2215-0366(17)30280-8.
- 18. http://www.newswise.com/articles/view/685947/?sc=dwtn
- 19. Wilkinson ST, Stefanovics E, Rosenheck RA. Marijuana use is associated with worse outcomes in symptom severity and violent behavior in patients with posttraumatic stress disorder. J Clin Psychiatry. 2015;76(9):1174-1180.
- 20. Wolitzky-Taylor K, Bobova L, Zinbarg RE, Mineka S, Craske MG., Longitudinal Investigation of the Impact of Anxiety and Mood Disorders in Adolescence on Subsequent Substance Use Disorder Onset and Vice Versa. Addict Behav. 2012 Aug;37(8):982-5 https://www.drugabuse.gov/publications/drugfacts/marijuana August 2017

Health Effects of Cannabis and Cannabinoids: Current State of Evidence and Recommendations for Research. See:

 $http://national academies.org/hmd/\sim/media/Files/Report\%\,20 Files/2017/Cannabis-Health-Effects/Cannabis-chapter-highlights.pdf$

<u>Paediatr Child Health.</u> 2017 May;22(2):98-102. doi: 10.1093/pch/pxx017. Epub 2017 May 3. Cannabis and Canada's children and youth. https://www.ncbi.nlm.nih.gov/pubmed/29480902

- 21. Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health, November, 2016, Chapters One and two and Appendix D pp.65-66 at: https://addiction.surgeongeneral.gov/surgeon-generals-report.pdf
- 22. American Psychiatric Association, 2013 "Position Statement on Marijuana as Medicine," paragraph 1 found at: https://www.psychiatry.org/home/policy-finder
- 23. https://www.drugabuse.gov/publications/drugfacts/marijuana
- 24. Health Effects of Cannabis and Cannabinoids: Current State of Evidence and Recommendations for Research. See:

http://nationalacademies.org/hmd/~/media/Files/Report%20Files/2017/Cannabis-Health-Effects/Cannabis-chapter-highlights.pdf

25. http://www.marinol.com

26. A risk gene for cannabis psychosis, <u>Science Daily</u>, November 14, 2012 http://www.sciencedaily.com/releases/2012/11/121114083928.htm

Abbie Crites-Leoni, Medicinal Use of Marijuana: Is the Debate a Smoke Screen for Movement Toward Legalization? 19 J. <u>Legal Med.</u> 273, 280 (1998) (citing Schwartz, et al., Short-Term Memory Impairment in Cannabis-Dependent Adolescents, 143 Am. J. Dis. Child. 1214 (1989)).

Adolescent pot use leaves lasting mental deficits, Developing brain susceptible to lasting damage from exposure to marijuana. <u>Science Daily</u>, August 27, 2012, http://www.sciencedaily.com/releases/2012/08/120827152039.htm

Arseneault L, Moffitt TE, Caspi A, Taylor PJ, Silva PA. Mental disorders and violence in a total birth cohort: results from the Dunedin Study. <u>Arch Gen Psychiatry</u>. 2000;57(10):979-86.

Association with schizophrenia and other psychotic disorders such as bipolar and schizophrenia. (Miller, 2017; Cougle et al., 2015), completed suicides and suicide attempts (Arendt et al., 2013; Silins et al., 2014; Clarke et al., 2014) and violence towards others (Arseneault et al., 2000; Dugre et al., 2017; Harford et al., 2018) particularly in those who develop marijuana-induced psychosis.

Barrigón, M. Ruiz-Veguilla, M. Anguita, F.J. Diaz, J. Cervilla, M. Gurpegui. Temporal relationship of cannabis and other illegal drug use with the onset of first-episode non-affective psychosis. Schizophrenia Research, 2008; 98(2):66

Cannabis Use Mimics Cognitive Weakness That Can Lead to Schizophrenia, MRI Study Finds, Science Daily, November 2, 2012, http://www.sciencedaily.com/releases/2012/11/121102084632.htm

Cannabis use precedes the onset of psychotic symptoms in young people, study finds, Science Daily, March 3, 2011, http://www.sciencedaily.com/releases/2011/03/110301184056.htm

Cannabis-Related Schizophrenia Set to Rise, Say Researchers, <u>Science Daily</u>, 26 March 2007, http://www.sciencedaily.com/releases/2007/03/070324132832.htm

Cougle JR et al. (2015). Quality of life and risk of psychiatric disorders among regular users of alcohol, nicotine, and cannabis: An analysis of the National Epidemiological Survey on Alcohol and Related Conditions (NESARC). <u>J Psychiatr Res.</u>, 66-67, 135-141

Curtis, John. Study Suggests Marijuana Induces Temporary Schizophrenia-Like Effects. Yale Medicine. Fall/Winter 2004, http://yalemedicine.yale.edu/fw2004/news/rou

Daily Pot Smoking May Hasten Onset of Psychosis, Science Daily, December 21, 2009, http://www.sciencedaily.com/releases/2009/12/091220144936.htm

Daily Consumption of Cannabis Predisposes To Appearance Of Psychosis And Schizophrenia, Study Finds, <u>Science Daily</u>, March 26, 2009, http://www.sciencedaily.com/releases/2009/03/090325132328.htm

Di Forti M, et al. Proportion of patients in South London with first-episode psychosis attributable to use of high potency cannabis: a case-control study. <u>Lancet Psychiatry</u>. 2015;2(3):233-8.

Dugré JR, Dellazizzo L, Giguère CÉ, Potvin S, Dumais A. Persistency of Cannabis Use Predicts Violence following Acute Psychiatric Discharge. <u>Front Psychiatry</u>. 2017 21;8:176. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5613094/pdf/fpsyt-08-00176.pdf

Harford TC, Chen CM, Kerridge BT, Grant BF. Self- and other-directed forms of violence and their relationship with lifetime DSM-5 psychiatric disorders: Results from the National Epidemiologic Survey on Alcohol Related Conditions-III (NESARC-III). <u>Psychiatry Res.</u> 2018;262:384-392.

J. van Os, M. Bak, M. Hanssen, R. V. Bijl, R. de Graaf, and H. Verdoux, Cannabis Use and Psychosis: A Longitudinal Population-based Study, <u>Am. J. Epidemiol</u>. (2002) 156 (4): 319-327

Jing Han, Philip Kesner, Mathilde Metna-Laurent, Tingting Duan, Lin Xu, Francois Georges, Muriel Koehl, Djoher Nora Abrous, Juan Mendizabal-Zubiaga, Pedro Grandes, Qingsong Liu, Guang Bai, Wei Wang, Lize Xiong, Wei Ren, Giovanni Marsicano. Acute Cannabinoids Impair Working Memory through Astroglial CB1 Receptor Modulation of Hippocampal LTD. Cell, 2012, Volume 148, Issue 5, 2 March 2012, Pages 1039-1050

John McGrath; Joy Welham; James Scott; Daniel Varghese; Louisa Degenhardt; Mohammad Reza Hayatbakhsh; Rosa Alati; Gail M. Williams; William Bor; Jake M. Najman. Association Between Cannabis Use and Psychosis-Related Outcomes Using Sibling Pair Analysis in a Cohort of Young Adults. Arch Gen Psychiatry, 2010; 67(5):440-447

Long-time cannabis use associated with psychosis, <u>Science Daily</u>, March 2, 2010 http://www.sciencedaily.com/releases/2010/03/100301165726.htm

Malchow B, Hasan A, Fusar-Poli P, Schmitt A, Falkai P, Wobrock T., Cannabis Abuse and Brain Morphology in Schizophrenia: a Review of the Available Evidence. <u>Eur Arch Psychiatry</u> Clin Neurosci. 2013 Feb 263(1):3-13

Marijuana Linked to Schizophrenia, Depression - British Medical Journal, 21 November 2007

Marijuana Increases the Risk of Both Psychosis in Non-Psychotic People As Well As Poor Prognosis For Those With Risk of Vulnerability to Pyschoses - <u>American Journal of Epidemiology</u>, 2002; 156:319-327

Marta Di Forti, Conrad Iyegbe, Hannah Sallis, Anna Kolliakou, M. Aurora Falcone, Alessandra Paparelli, Miriam Sirianni, Caterina La Cascia, Simona A. Stilo, Tiago Reis Marques, Rowena Handley, Valeria Mondelli, Paola Dazzan, Carmine Pariante, Anthony S. David, Craig Morgan, John Powell, Robin M. Murray. Confirmation that the AKT1 (rs2494732) Genotype Influences the Risk of Psychosis in Cannabis Users. <u>Biological Psychiatry</u>, 2012; 72 (10): 811

Matthew Large; Swapnil Sharma; Michael T. Compton; Tim Slade; Olav Nielssen. Cannabis Use and Earlier Onset of Psychosis: A Systematic Meta-analysis. <u>Arch Gen Psychiatry</u>. 2011; 68(6):555-561

Miguel Ruiz-Veguilla, Manuel Gurpegui, Mar¡a Luisa Barrigón, Maite Ferr¡n, Esther Mar¡n, Jos, Luis Rubio, Blanca Gutierrez, Antonio Pintor, Jorge Cervilla. Fewer neurological soft signs among first episode psychosis patients with heavy cannabis use. <u>Schizophrenia Research</u>, 2009; 107(2-3): 158, http://www.sciencedirect.com/science/article/pii/S0920996408003472

Miguel Ruiz-Veguillaa, Jorge A.Cervillab, Maria Luisa Barrigónc, Maite Ferrínd Blanca Gutiérrezb, Estibaliz Gordoc Manuel Anguitac, Antía Brañasc, Jesús Fernández-Logroñoc, Manuel Gurpeguib. Neurodevelopmental markers in different psychopathological dimensions of first episode psychosis: The ESPIGAS Study. <u>European Psychiatry</u>, 2008; 23(8): 533, http://www.sciencedirect.com/science/article/pii/S0924933808015307

Miller CL. The disconnect between the science on cannabis and public health campaigns. Addiction. 2017;112(10):1882-1883.

https://onlinelibrary.wiley.com/doi/epdf/10.1111/add.13918

Trajectories of Cannabis Use and Depressive Mood Symptoms. <u>Drug Alcohol Depend.</u> 2010 Dec 1; 112(3):201-8

Philip R. Szeszko, Delbert G. Robinson, Serge Sevy, Sanjiv Kumra, Claudia I. Rupp, Julia D. Betensky, Todd Lencz, Manzar Ashtari, John M. Kane, Anil K. Malhotra, Handan Gunduz-Bruce, Barbara Napolitano, Robert M. Bilder, Anterior Cingulate Grey-Matter Deficits and Cannabis Use in First-Episode Schizophrenia. <u>The British Journal of Psychiatry</u>, 2007; 190 (3) 230-236

Psychophysiological Evidence of Altered Neural Synchronization in Cannabis Use: Relationship to Schizotypy - <u>Am J Psychiatry</u>, 2006; 163:1798-1805

Psychotic illness appears to begin at younger age among those who use cannabis, Science Daily February 8, 2011 http://www.sciencedaily.com/releases/2011/02/110207165434.htm

Rebecca Kuepper, research psychologist, Jim van Os, professor, visiting professor, Roselind Lieb, professor, Hans-Ulrich Wittchen, professor, Michael Höfler, research statistician, Cécile Henquet, lecturer. Continued cannabis use and risk of incidence and persistence of psychotic symptoms: 10 year follow-up cohort study, <u>BMJ</u> 2011; 342:d738, http://www.bmj.com/content/342/bmj.d738

Schizophrenia and cannabis use may share common genes, <u>Science Daily</u>, June 24, 2014, http://www.sciencedaily.com/releases/2014/06/140624093320.htm

Silins E, Horwood LJ, Patton GC, Fergusson DM, Olsson CA, Hutchinson DM, Spry E, Toumbourou JW, Degenhardt L, Swift W, Coffey C, Tait RJ, Letcher P, Copeland J, Mattick RP, for the Cannabis Cohorts Research Consortium. Young adult sequelae of adolescent cannabis use: an integrative analysis. <u>Lancet Psychiatry</u> 2014; 1(4): 245-318.

Skosnik PD1, Krishnan GP, Aydt EE, Kuhlenshmidt HA, O'Donnell BF, Psychophysiological Evidence of Altered Neural Synchronization in Cannabis Use: Relationship to Schizotypy, <u>Am J Psychiatry</u>, 2006; 163(10):1798-1805

Starzer MSK, Nordentoft M, Hjorthøj C. (2018) Rates and Predictors of Conversion to Schizophrenia or Bipolar Disorder Following Substance-Induced Psychosis. <u>Am J Psychiatry</u>,175(4), 343-350

Stefanis NC, Dragovic M, Power BD, Jablensky A, Castle D, Morgan VA. Age at Initiation of Cannabis Use Predicts Age at Onset of Psychosis: The 7 to 8 year Trend, <u>Schizophrenia Bulletin</u>, (2013) Mar 39(2):251-4

Wayne Hall & Louisa Degenhardt. Cannabis and the increased incidence and persistence of psychosis. BMJ 2011; 342:d719, http://www.bmj.com/content/342/bmj.d719

Wolitzky-Taylor K, Bobova L, Zinbarg RE, Mineka S, Craske MG., Longitudinal Investigation of the Impact of Anxiety and Mood Disorders in Adolescence on Subsequent Substance Use Disorder Onset and Vice Versa. Addict Behav. 2012 Aug;37(8):982-5