Check your pattern-A development solution for a development problem

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This paper is an update to Perception Development: The Cause of Substance Use Disorders (Moore, 2018). In this follow up we examine the relationships between the Affective Risk Response System (ARRS), Substance Abuse Disorders (SUDs), autonomy and dependence. These relationships in an empowerment model (Cummings, 2001) explain what works as well as undesirable outcomes and suggest new objectives. If the method and measurements discussed are accurate then we can identify and intervene on SUDs before symptoms. If so, there is a tipping point at which SUDs would cease to exist. Mistaking fear for faith will end. To understand the relationships mentioned above a closer look at the ARRS as used in the Prehab method is necessary.

In order to thrive in a risk filled world, humans continually change and habituate. Recent research defines the ARRS as a built in, highly evolved system responsible for this task. A whole new genre of literature exists describing why we do the things we do, why we are not always rational. Titles such as Fast and Slow, (Kahneman, 2011), The Blank Slate (Pinker, 2002), The Science of Fear (Gardner, 2008), Sway (Brafman & Brafman, 2008), and many others illustrate how our ARRS is either a powerful asset or tragic liability. How can the ARRS be so powerful? It has to do with fear.

The power that Ropeik (2010, p. 67.) attributes to the ARRS is hard to overstate for one reason; the ARRS generates fear, or lack thereof. Fear is no longer considered emotional or cognitive. Fear originates from the ARRS. Ropeik further explains, when combined, these universal factors compound their power and can combine with other biases becoming even more powerful (2010, pp.65-133). The relationship between the ARRS and SUDs is made possible by combining them in a model.

In the Prehab presentation (https://lnkd.in/gXs_vZz) and book (moore, 2016), some, but not all, risk response factors are arranged in a way complimentary to a progressive addiction model called MAPP (Motivational Assessment Prevention Program). The MAPP model has 5 stages of SUD risk arranged from a low risk stage 0 to a severe risk stage 4. For the first time, risk response factors are included with mental, physical and outcome progression in a model for students to self-evaluate. The distribution of risk factors and biases by stage is capitalized for the purpose of identification.

Stage 0: A low risk, stable, mature or developing Risk/Benefit process starts here. Constructive Paranoia (Diamond, 2013) happens here. New risks are encountered in the next stage.

Stage1: NEW gets attention. If students perceive the NEW as GOOD they investigate. If others seem to BENEFIT with little RISK and they know more (SOCIAL PROOF) than me; then students participate in the NEW. If NEW behavior results in outcomes interpreted as HIGH BENEFIT and LOW RISK and students believe they are in CONTROL then the behavior is repeated.

Stage 2: VALUE ATTRIBUTION and GROUP POLARIZATION combine to escalate behavior and students COMMIT to this behavior. Group dynamics change here. Students become more significant members of smaller groups in stage 2. There are usually some consequences which tend to be ignored due to EUPHORIC RECALL.

Stage 3: At this point the behavior is no longer NEW, it is now FAMILIAR. CONFIRMATORY bias reinforces the GOOD, increases BENEFIT and reduces RISK, inspiring OPTIMISM in spite of overwhelming evidence to the contrary. Groups are smaller in size and more extreme.

Stage 4: Desperate for change but clings to the FAMILIAR beyond all reason. Anything NEW is feared. The inability to change, creates a lethal cycle of PAIN AND SUFFERING and LOSS ACCEPTANCE. This cannot be overstated. Loneliness, isolation, physical and mental dependence and destructive paranoia happen here.

The relationship between the ARRS and SUDs is a natural fit. What we do not know is how many students are at which stage and if they had this information in a presentation would it do any good? A new assessment and measurement became necessary.

Ignoring the conventional SUD attributes like quantity, frequency and drug type created space for a new assessment. The MAPP assessment asks three questions. What stage were you at? What stage are you at? What stage will you be at? Combining these individual variables into one variable forms a new variable named the Temporal Assessment Variable (TAV). The TAV is a useful measurement for several reasons.

Whereas the generally accepted SUD assessments paint a picture of risk, the TAV is more like a movie tracking both risk and benefit as affected by other risk response factors back and forth over time and the entire SUD continuum. In this way, direction, magnitude and velocity of change can be seen. Another TAV advantage is that the first half of the measurement is historical and behavioral as interpreted by the client in terms of the client's experience, not someone else's interpretation. This measurement is called the Student Type Variable (STV). The last half of the TAV reflects clinical change or lack there in each client. This measurement is called the Student Outcome Variable (SOV). Take for instance the TAV 320.

If a first semester college freshman self scores a TAV of 320 they are reporting a drop in risk and behavior from a (3) to a (2) indicating some kind of intervention. In the future they plan to be at Stage 0 indicating a change in their interpretation of their own ARRS as result of the presentation. Cross indexing the first half of the TAV with the second half of the TAV for data analysis yields an amazing amount of epidemiological information. These subjective interpretations of objective scores are supported by the frequency distribution of the TAV and other measurements. The Alcohol Use Disorder Identification Test (AUDIT) (Babor & Higgins-Biddle, 2001) is a decades old, non equivalent and accepted measure that predicts nearly the exact same frequency distribution. A correlation coefficient of $r=.9999$ is typical between MAPP, AUDIT and eCHUG. The pattern remains the same, MAPP and the TAV measurement are new. Only MAPP measures clinical change over time before and after the intervention. The pattern is important because it can be used as data to populate another model.

This is the risk pattern for random samples in Western Society in terms of the TAV. 75% of a sample will be low risk. The TAV for these students ends in a 0 or 1 following a 0 or 1. 20% of the sample will be high risk. The TAV for these students ends in 0 or 1 down from a 1 or higher. 5% of the sample is severe risk. The TAV for these students ends in 2 or higher. Direction of risk, how fast and how far risk is taken can now be tracked by individual or group.

Now we have data to further define relationships. The best way to see relationships is in an elaboration model (Babbie, 2004, pp. 421-437), see below.

	High Benefit	Low Benefit
Low Risk	Stage 0	Stage 2,3
High Risk	Stage 1	Stage 4

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STV	75% of students	25% of students
SOV	95% of students	5%

Prehab Elaboration Model based on first semester college freshmen n=457 (2014) n=678 (2015)

The relationships between the ARRS, SUDs and student distribution frequency are now exposed. For the first time a 20% swing from high risk to low risk can be measured and documented in a brief, educational intervention.

Even more important is the relationship between the ARRS and the High Benefit column. How can students use risk response factors in only two stages? A majority of students seemed to be saying there is another pattern. What would a high benefit pattern look like with all the risk response factors in stage 0 and stage 1? They look pretty good and explain the relationship between autonomy and dependence.

The same risk perception factors in a different pattern afford immunity from SUDs.

Stage 0: A stable, mature Risk/Benefit is the primary starting place. Constructive Paranoia (Diamond, 2013) happens here. Habituation happens in stage 0 in this pattern as the result of COMMITMENT, FAMILIAR, GROUP POLARIZATION, CONFIRMATORY BIAS and autonomous attitude. New risks are encountered in the next stage.

Stage1: NEW gets attention. If students perceive the NEW as GOOD they investigate. If others seem to BENEFIT with little RISK and they know more (SOCIAL PROOF) than me; then students participate in the NEW. If NEW behavior results in outcomes interpreted as HIGH BENEFIT and LOW RISK and students believe they are in CONTROL and the behavior is sustainable, then the behavior is repeated in a low risk, high benefit manner in stage 0. If outcomes are questionable or risks outweigh the benefits then PAIN, SUFFERING AND LOSS ACCEPTANCE are briefly experienced before returning to stage 0. Either outcome of a new risk will result in a return to new stage 0. Habituation happens in stage 0. The elimination of stages 2, 3 and 4 prevents SUDs and promotes autonomy. Stages 2 through 4 are not necessary.

This is the ARRS pattern hidden in plain site. This is the difference between a majority of low risk students who enjoy autonomy and the minority who believe and feel they are autonomous while trapped in a dependent pattern.

This is the problem of addiction. Identical attributes in different patterns that are easy to confuse yet feel the same is the difference between autonomy and dependence, faith and fear, service and survival and finally life and death.

We cannot change risk response factors. If educated, the ARRS order can be changed, long before symptoms, habituation and tragedy. Addressing symptoms or behavior may cause harm without addressing the underlying cause. Likewise, preaching caution as prevention education backfires. Paradoxically more low risk students die or go to the hospital (Babor et al., 2010, p.69; Kreitman, 1984) by being careful rather than understanding their own ARRS and the ARRS of others.

The new objectives to rid the world of SUDs are simple from this perspective. Educate the low risk. Identify and intervene on the high risk. Promote useful change in the severe risk. These models are but crude beginnings long overdue. My hope is more will be revealed. Please contact me with any questions and comments at pm@duncanparkpress.com or visit www.prehabmapp.com.

References

Anonymous, Alcoholics (1955). Alcoholics Anonymous Publishing, Inc. New York, NY.

Cleveland, Harrington, H., Harris, Kitty S., & Wiebe, Richard P. (2010). Substance Abuse Recovery in College Community Supported Abstinence. New York, New York: Springer Publishing.

Babbie, Earl. (2004). The Practice of Social Research. (10th ed.). Belmont, CA. Wadsworth/Thomson Learning.

Babor, Thomas F. Higgins-Biddle, John C. (2001). Brief Intervention For Hazardous and Harmful Drinking, A Manual for Use in Primary Care. World Health Organization, Department of Mental Health and Substance Dependence. WHO/MSD/MSB/01.6b

Babor, Thomas; Caetano, Raul; Casswell, Sally; Griffith, Edwards; Giesbrecht, Norman; Graham, Kathryn; Grube, Joel; Hill, Linda; Holder, Harold; Homel, Ross; Livingston, Michael; Osterberg, Esa; Rehm, Jurgen; Room, Robin; Rossow, Ingeborg. (2010). Alcohol: No Ordinary Commodity Research and public policy second edition. New York, New York: Oxford University Press Inc.

Barlow, David H., Durand, Mark V. (2005). Abnormal Psychology: An Integrative Approach. (4th ed.). Belmont, CA: Wadsworth Publishing.

Brafman, Ori and Brafman, Rom. (2008). SWAY The Irresistible Pull of Irrational Behavior. NewYork, New York: Doubleday.

Correia, Christopher J., Murphy, James G. and Barnett, Nancy P. (2012). College Student Alcohol Abuse: A guide to Assessment, Intervention, and Prevention. New Jersey: John Wiley & Sons.

Cummings, Sheila. (2001). An Empowerment Model for Collegiate Substance Abuse Prevention and Education Programs. Rochester, NY: University of Rochester.

Diamond, Jared. (January 28, 2013). That Daily Shower Can Be a Killer. New York Times, Science Section, New York, New York.

Frank, Jerome D., Frank, Julia B. (1991). Persuasion and Healing. A Comparative Study of Psychotherapy. (3rd ed.). Baltimore, Maryland: The Johns Hopkins University Press.

Gardner, Daniel. (2008). The Science of Fear Why We Fear the Things We Shouldn't – and Put Ourselves in Greater Danger. New York, New York: Dutton, Penguin Group (USA) Inc.

Kahneman, Daniel. (2011). Thinking Fast and Slow. New York, NY: Farrar, Straus and Giroux.

Kreitman, Norman, M.D. , F.R.C.P., F.R.C.Psych. (1986). Alcohol Consumption and the Preventive Paradox. British Journal of Addiction (1986) 81, 353-363.

Moore, Patrick N. (2016). Prehab Leveraging Perception to End Substance Abuse. Roswell, GA: Duncan Park Press

Moore, Patrick N. (2018). Perception Development: The Cause of Substance Abuse Disorders. Journal of Addiction Science. Volume 17. London, UK.

Pinker, Steven. (2002). The Blank Slate. The Modern Denial of Human Nature. New York, NY: Penguin Books

Ropeik, David. (2010). How Risky Is It, Really? Why Our Fears Don't Always Match the Facts. New York, New York: McGraw Hill.