Reflections on the Failure of Substance Abuse/Addictions Programs: Are we "*Tilting at Windmills*"?

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> ***"I intend to do battle with them and slay them. With their spoils, we shall begin to be rich for this is a righteous war and the removal of so foul a brood from the face of the earth is a service God will bless."*** Don Quixote to Sancho as they approach the windmills:.

Over these past several years, I have read numerous research studies and newspaper articles, attended local and county level meetings, and followed state and national initiatives addressing the crisis in substance abuse & opioid addiction. From all this, two conclusions have become painfully obvious: 1) the now almost 100 year "War on Drugs" strategy has failed miserably and, 2) our prevention and treatment programs are simply not working as evidenced by their abysmally low "success" rates.

In reviewing the most recent research evidence, it would appear that the problem with current substance abuse/addictions strategies in the U.S. is that they are rooted in a mistaken guiding paradigm as to the nature of substance abuse and addictions. This fatal flaw, consequently, dooms all programs then to failure as they focus on the wrong issues and misdirected goals. Much like a modern day version of Don Quixote, it would appear that we've been wasting considerable time, funds, and resources "Tilting at Windmills". By engaging in our "righteous battle" against the drugs themselves, we have mistakenly focused on the symptom, rather than on the actual underlying problem itself.

Clearly, it is time to stop and reflect upon where and how we've failed in addressing the substance abuse/addictions problem. Only then can we begin to move forward in rethinking our strategies for reversing this growing epidemic. Where are the mistakes in our guiding assumptions that have led to not only failure, but indeed, an escalation of the problem? How do we move beyond merely seeking more funds to do still more of what hasn't worked? We need to move beyond the embracing of new, "innovative" programs which merely do the same thing in different ways; i.e. "*change without change"*. We need instead to formulate a new, transformative and research-based paradigm. Only through such a "*Copernican Shift*" in our understanding of the substance abuse/addiction problem can we ever hope to discover transformative strategies that offer hope for more effective prevention and treatment programs.

H.L. Mencken's once stated, ***"For every complex problem there is a clear and simple solution; which is wrong!".*** This seems particularly relevant to our substance abuse/addictions crisis. The problem of drug and alcohol abuse/addiction is complex and systemic. There is no single cause, nor any simple solutions. One-dimensional programs and isolated efforts simply will not work! Substance abuse/addiction is a multi-faceted problem which requires comprehensive and

well-coordinated '*prevention-through-treatment'* strategies. Even with the best of strategies, success will likely take decades to achieve.

Perhaps a few observations and reflections based upon a critical review of the current research versus current practice can serve as a catalyst to step outside our current paradigm "bubble". We need to transcend our long held, encapsulated assumptions and beliefs about drugs and addiction. Whenever an explanatory paradigm fails, particularly for almost 100 years, it's time to stop and re-think one's assumptions, beliefs, and methods. This is the process of transformative change which leads to more effective prevention and intervention strategies.

5 Primary Flaws in our Substance Abuse/Addictions Strategies

Through a process of reading the most current research evidence on both mental health and substance abuse/addictions disorders, observing current practices, and then engaging in thoughtful reflection on where the two are clearly out-of-sync, several issues have emerged in regard to our current substance abuse/addictions programs. Perhaps the sharing of these observations, reflections, and conclusions can serve as a catalyst for rethinking our beliefs, assumptions, and practices and then seeking better, more effective prevention and intervention strategies.

Five primary flaws in our current approach to substance abuse/addictions stand out as being particularly important to acknowledge and address more fully:

1. The large disconnect between the research evidence and the popular, guiding narratives regarding substance abuse and treatment practices.

2. The inadequate training of professionals in the mental health and addictions field to provide effective treatment programs.

3. The failed (indeed counter-productive) strategy of employing a judicial/law enforcement based solution to a mental health problem.

4. The direct to consumer drug marketing campaigns of the medical and pharmaceutical industries that have "brainwashed" our society into believing a "*better lives through chemistry"* myth; i.e., drugs are the answer to all life's problems..

5. The over-focus on treatment at the expense of prevention and early intervention.

The research vs. practice disconnect

In his best-selling book on addictions, "*In the Realm of Hungry Ghosts*", Dr. Gabor Mate points out that there exists a great paradox in that while the United States leads the world in scientific knowledge in many areas, it trails the world in applying that same knowledge to its social and human issues. No place is this more true than in the area of mental health and addictions.

This popular explanatory narrative of drug use as being "the" cause of addiction is simply not supported by the evidence! Studies indicate that of all people who use illegal drugs, 90% do not become addicted, overdose, or get sick. The post-Vietnam War studies found that 20-30% of soldiers used opioids regularly as a coping strategy for the horrors of war, yet only 5% of the users continued to use drugs upon returning home. Clearly, the problem goes much deeper than merely the use of the drugs themselves. Drug prohibition and abstinence strategies are flawed and largely ineffective because they are based on the '*drugs are the root of the problem'* myth.

As Mark Twain once said, ***"The problem is never that we know too little, but rather that we know so much that just ain't so!"***
Research evidence now suggests drug and alcohol abuse/addiction as being better understood if viewed as but the symptom of a much deeper problem. Symptoms are attempted solutions to an underlying problem. For example, in medicine a fever is how the body fights an infection; pain alerts us to an injury; coughing frees an obstruction in the trachea, and so forth. Similarly, the Swiss psychologist, Alice Miller has noted that addiction is a sign, a signal, a symptom of personal distress. Dr. Mate further notes that addictions "*always originate in pain, whether felt openly or hidden in the unconscious."* Thus, drug and alcohol abuse serve as "emotional anesthetics". The most important treatment focus then becomes not just abstinence from the drugs but rather, focusing on "Why the pain?" and how to relieve it and build healthier, more engaged, productive lives.

Research evidence now strongly suggests the answer to the '*Why the pain?*' question lies primarily in trauma and Adverse Childhood Experiences (ACE's). Exposure to ACE's increases the likelihood of addiction by as much as 4600% and is further associated with most mental health disorders and many physical ailments! As Dr. V. Felitti concluded from his studies on adverse childhood experiences and addiction, addiction is now better understood if seen as being ***"experience dependent" <u>not</u> "'substance' dependent"!***

Our prevention and treatment programs accordingly need to more effectively address these painful underlying childhood and life experiences. Such adverse experiences lead to the individual developing a negative, self-stigmatizing view of his or herself. Their inner voice echoes the message that he/she is 'less than' others, inadequate, bad, helpless, or worthless. They may begin to view their lives as hopeless, disconnected, and meaningless.

The motive behind drug and alcohol abuse appears now to be less about the substance and more about the individual's attempt to find some form of an emotional anesthetic for their emotional, psychosocial pain. Drugs offer a temporary, albeit counter-productive, escape from their deep wounds of spiritual emptiness, inferiority, meaninglessness, uselessness, worthlessness, and/or disconnectedness. Unfortunately, our intervention methods, both legal and mental health, tend to exacerbate this problem. Through the process of criticizing, rejecting, arresting, negatively labeling (e.g., drunk, druggie, addict, powerlessness, genetically disordered, offender, felon, etc.) we "fan the flames" of the underlying self-stigmatization and hopelessness that led to the abuse and addiction in the first place.

Consequences of the disconnection

It is not surprising to learn then that outcome studies on treatment program effectiveness consistently point to failure rates running as high as 95% when patients are followed over an 18-month to 3-year time frame. Further, as some researchers have noted, treatment programs are too often of the "one size fits all" variety failing to address unique aspects of various sub-groups. Adolescents and young adult treatment programs, for example, have historically been based on adult treatment programs. The dynamics of substance abuse and treatment are quite different for adolescents who are typically sent (by authority figures) from those of adults who seek treatment. Treatment programs need to be better tailored to the unique situations and dynamics of the various clienteles (e.g., adolescent, young adult, middle aged, ageing as well as the

variances in socioeconomic groups). A one-size fits all model of treatment is inconsistent with the research data.
Outcome research on prevention programs also indicate poor results with recidivism rates typically running in the 75% or higher range. Perhaps this is because popular prevention programs (e.g., DARE, Just Say No, etc.) have mistakenly focused on drugs and alcohol, e.g., drug education and decision making, when neither is a primary factor leading to drug use/abuse.

We have wasted substantial funds and efforts providing fatally flawed, ineffective prevention programs. There simply is no research that individuals begin using drugs and alcohol because they did not know such substances to be potentially harmful. Indeed, in what kind of "bubble" would one have to be living in today to not know the risks of drug abuse? Knowledge of drug effects and decision making skills are just not primary issues related to the substance abuse problem. The factors leading to use, abuse and addiction lie elsewhere as will be discussed later.

So why then, with all the emerging research shedding new light on the actual dynamics underlying substance abuse/addiction, are the traditional explanatory narratives and intervention paradigms still so entrenched? As Dr. Bruce Perry (neuroscientist and addictions researcher) has stated, it is those very groups that have the greatest vested interest in maintaining current belief systems that are the most resistant to absorbing new, contradictory research findings. These 'vested interests' would include the economic and professional status of, among others, the medical, pharmaceutical, law enforcement, and established addiction treatment programs.

If the model for substance abuse/addictions is built upon a flawed foundation, it cannot be "improved" by simply building it higher and wider. Rather, a totally new explanatory paradigm is required to form a new and better foundation for building more effective prevention and intervention programs. As Dr. Panksepp, a leading neuroscientist and additions expert, has stated, change requires that first the public and the addictions field rethink and transform their own beliefs and assumptions regarding substance abuse, addiction, addicts, and treatment.

The Fallacy of the 'War on Drugs' prohibition solution

The War on Drugs has also proven to be an unequivocal failure. While we have incurred enormous costs for increased law enforcement as well as for the incarceration of hundreds of thousands in our jails, the situation has only grown worse. In just the past ten years alone, we have seen heroin use increase by 500% while an estimated 120-140 people die of overdoses every day. As Dr. Mate (2010) stated, ***"if I had to design a system that was intended to keep people addicted, I'd design exactly the system that we have right now".*** Clearly, it is time to re-think our failed 'War on Drugs' and seek a better solution.

The current situation can be likened to getting your car stuck in snow during a New England winter. When you step on the gas pedal, the tires spin but you don't move. Solving the problem by stepping on the gas harder merely makes the problem worse as you sink deeper into the snow. Such is the case with our prohibition-based, law enforcement led 'War on Drugs'. The more money we invest in arresting users and dealers, the more the price increases for illegal drugs. The resultant increased potential for profits from this illegal business. in turn, serves only to attract yet more dealers. Add to this circular pattern that as prices increase for illegal drugs, addicts

must often increasingly resort to crime in order to purchase the opiates to which they are addicted. This, in turn, also increases societal costs due to growing crime rates.

An Historical Perspective

The 'War on Drugs' strategy is mistakenly based in the prohibition strategy utilizing law enforcement to seize the drugs and arrest the drug dealers and users. This is the same approach used with alcohol from 1920-33 under the 18th amendment, the prohibition era in the United States. The prohibition of alcohol was intended to solve social problems, improve health, reduce crime and reduce the tax burden of prisons and poorhouses for alcoholics. The result was quite the opposite! Alcohol consumption increased, the illegal 'bootlegged' alcohol became more dangerous to drink, crime increased, organized crime (e.g. Mafia) grew powerful, prisons and courts were overrun, and government costs increased while tax revenues were lost. Does any of this sound familiar?

Just as with alcohol prohibition, drug prohibition has not only failed, but has given rise to organized crime (e.g., Drug Cartels), increased drug use/abuse, street drugs have become increasingly dangerous, crime has increased, our courts and jails/prisons are overrun, and the costs continue to escalate. As Arnold Rothstein, one of New York's most powerful alcohol and drug dealers in the 1920's predicted, ***"Prohibition is going to last a long time and then one day it will be abandoned. I can see that more and more people are going to ignore the law…and we can make a fortune meeting this need".*** So, as another famous New Yorker, Yogi Berra, put it, "***It's déjà vu all over again***!"..

Harry Anslinger, Director of the Federal Bureau of Narcotics, initiated the 'War on Drugs' movement in the early 1930's just as the 21st amendment was being passed ending the failed alcohol prohibition era. The "scientific data" used by Anslinger to support the prohibition/law enforcement model for drugs have since been revealed to be falsified and deliberately used by Anslinger to misrepresent the issue. Not surprisingly, the 'War on Drugs' strategy has proven to be a failure just as was alcohol prohibition. Yet, today we continue to employ this costly and fatally flawed approach; once again "Tilting at Windmills'.

Ironically, the only people who seem to benefit from the prohibition strategy are the drug dealers and cartels themselves. A basic law of economics is that whenever the supply of a product decreases, the price increases. Thus, the more arrests and seizures of illegal drugs the higher it drives the price of drugs. An ever greater potential for increased profits is thereby created leading to a never ending, ever escalating, cycle in flywheel like fashion. In any business, as profits increase more and more resources and commitment ensue (Collins, 2010). Ironically, the criminal organizations/cartels involved in illegal drug production and sales are actually fueled by the fallacy of the "War on Drugs" approach, **"*You won't find any drug dealer anywhere who is in favor of legalization, it bankrupts them*!"** Pablo Escobar, Jr.. Whenever you find yourself sharing the same position as the major drug dealers, it's time to re-think your position!

It is important to also note that government data indicates that prior to the 1930's implementation of the "War on Drugs and the drug prohibition era, 75% of addicts held steady, respectable jobs, 22% were wealthy and only 6% poor. Many people (particularly women) were legally prescribed opiates by physicians that could be purchased at the local pharmacy. These prescriptions included heroin, cocaine and morphine in "syrups and were consumed daily much like a glass of

wine at the end of the day. This did not typically lead to addiction problems. In addition, the adverse physical effects associated today with drug addiction did not occur. Physical ailments and deterioration are not caused by the drugs/opioids themselves, but rather, by the various ingredients used to "cut" pure drugs to increase profits from their sale.

Possible Transformative solutions

When one has attempted the same solution to a problem for decades and the problem has only grown worse, it's time to stop. Rather than employing the mistaken strategy of perseveration, *"if at first you don't succeed try, try again"* one must instead employ the "*SORT*" strategy: Stop, Observe, Re-think, & Transform your strategic plan. As examples, we might look at Portugal's decriminalization of all drugs (including opioids) and Switzerland's decriminalization of heroin. These countries have instead shifted to placing the priority on spending for treatment rather than law enforcement. Clinics are provided where addicts can purchase low cost heroin injections. Under the supervision of medical staff, pure drugs and clean needles are made available for addicts who then also are offered counseling and treatment programs within the same facility.

In Vancouver, B.C., Dr. Gabor Mate has established the Insite clinic. This is a safe injection site clinic where addicts can bring their own drugs but receive clean needles and medical supervision. In some cases, the doctors even prescribe pure heroin for those whom methadone and Suboxone do not work. Similar safe injection clinics have been established in several European countries including Germany and the UK.

The results of decriminalization have been a significant. Portugal has experienced a major decrease in all drug use. Opioid use has been reduced by 50% in Switzerland while the USA 'War on Drugs' model has seen heroin use more than double during the same time period. The decriminalization model has resulted in crime being reduced significantly in these countries and police are reportedly no longer viewed as "the enemy" in poor neighborhoods. The Netherland's decriminalization of cannabis has made marijuana openly available. However, the per capita rate of use in The Netherlands is now only ½ of the USA rate.

Furthermore, Switzerland's decriminalization of heroin in 2007 has resulted in zero overdose deaths on legal heroin (the USA has 23 overdose deaths per day), zero people have been killed by dealers, and there has been an 80% reduction in street crime. Recently, 70% of the Swiss population voted to keep this new system that, while appearing to be counterintuitive, actually is succeeding. Addicts are no longer marginalized but rather assisted to get help. Crime has been reduced significantly and police are no longer viewed as "the enemy" in poor neighborhoods. [**Note**: decriminalization is not legalization)

The Inadequate training of professionals in the field

The research versus practice disconnect noted earlier also plays a role in the problem of the inadequate training of professionals and paraprofessionals working in the substance abuse/addictions field. The national average of addicted individual's for initial use is 12-13 years of age. Adverse Childhood Experiences are the most common etiological factors leading to their substance abuse. Consequently, prevention and treatment programs need to focus, first and foremost, on addressing the issue of "Why" the individual is self-medicating rather than on "how

to control or suppress" his/her use of drugs. This requires addictions counselors to be firmly grounded in "trauma focused" counseling/therapy models along with understanding effective strategies for promoting client wellbeing and resilience.

Recovery programs rely largely on peer support specialists (usually recovering addicts themselves). Peer support and encouragement is certainly helpful within in a larger, comprehensive program. However, it is simply inadequate for a complete treatment program. Paraprofessionals are not trained to provide the much more skilled assistance needed to uncover and heal the deeper, painful traumas and social-emotional wounds for which the drugs and alcohol are used to self-medicate.

Additionally, licensed mental health or addictions counselors also receive insufficient training in the knowledge and skills necessary for assisting clients to effectively identify and work through the deeper trauma related issues in their lives. They are also not well trained in strategies for assisting clients to build stronger personal identities and a healthier lifestyles (psychological, social, occupational and spiritual). The national standards for accrediting mental health graduate degree programs (which serve as the standard criteria among state licensure boards) do not include requirements for competencies in providing intensive, in-depth counseling/therapy skills addressing the psychosocial impacts of ACE's and trauma. Most training programs consist of but one overview course on various theories of counseling/therapy and a single course in the basic micro-skills of counseling. Training in more in-depth assessment and case conceptualization, working with early childhood trauma, and strategies for facilitating social-emotional wellbeing are typically absent.

Finally, it should be noted that national training standards for licensed mental health professionals do not include specific training in substance abuse and addictions. Thus, state licensure requirements, based on these accreditation standards, typically fail to require specific knowledge and skill in substance abuse and addictions methods. Similarly, standards for obtaining certification as an addictions specialist also fail to provide this same in-depth training. Rather, most certification programs consist primarily of drug/alcohol education (i.e. knowledge about drugs (i.e., the windmills) rather than about addressing the root causes and dynamics associated with abuse and addiction.

One or two-day overview workshops which are currently the most common means of training addictions specialists are hardly adequate. This is particularly so if the training is focused upon drug education and advocating abstinence as the primary treatment goal. Clearly, we need to rethink our professional and paraprofessional training programs in light of the research on the key role of Adverse Childhood Experiences and Trauma in the etiology and maintenance of substance abuse/addictions problems. .

Finally, we need to re-think the goals of our treatment programs. We've mistakenly focused for far too long on abstinence as the main outcome goal of treatment. We've mistakenly ascribed pathological labels to addicted individuals referring to them with terms such as "addicts" and "powerless". Such terms are counterproductive. Such labels actually serve to reinforce the addicted person's existing self-critical stance and sense of stigmatization, social marginalization, and personal inadequacy that led them to substance abuse and addiction in the first place.

Perhaps, the primary goal of treatment programs might better be understood as not "abstinence" but rather, the "restoration and redemption" of clients' lives (Mate, 2017, 2010). They need help in rebuilding their lives, increasing their mental health and social-emotional competencies, and building personal resilience factors into their lifestyles.

Such an approach would be based in the emerging mental health paradigm of resilience building, positive psychology and social-emotional wellbeing promotion. Treatment programs would seek to heal the trauma wounding and the client's subsequent negative, destructive views of self, life, and others. Treatment programs would need to place a priority on the improvement of the quality and supportiveness of the addicted client's social environments. Finally, such programs would strive to assist clients in realizing the basic psychological needs for achieving mental healthy, productive lives including hope, optimism, social connection, autonomy, meaningful contribution, and personal competence/mastery. As Johan Hari concluded from his research into the world of addiction, ***"the opposite of addiction is not sobriety. It is human connections".***

The brainwashing of our culture: Better lives through chemistry?

There is a further, largely unaddressed (indeed avoided) "*Elephant in the Middle of the Room*" issue which needs to also be brought to the forefront in the growing crisis of substance abuse and addictions. This is the "brainwashing" of our culture over the past 25 years, into believing that drugs are the 'fast food, drive-thru lane' solution for all of life's problems. As social theorist and theoretical psychologist, Dr. Amos Wilson, once noted, ***"To understand any problem in America, you need to focus on who profits from that problem, not who suffers from the problem".***

In 1992 the pharmaceutical industry lobbyists persuaded Congress to pass a law allowing the direct marketing of drugs to the consumer rather than only to qualified health professionals. There are today only two countries in the entire world that allow such direct-to-consumer marketing of prescription medications, the United States and New Zealand. Subsequently, the pharmaceutical industry's marketing campaigns have sought, rather successfully, to convince the general U.S. public that all life's problems are biochemically based and, therefore the solution to all your problems lies in the taking of a drug.

For a quarter of a century now, the general public has been constantly bombarded with Big Pharma's propaganda that, even with mental health or personal life concerns, drugs are the answer! It is impossible to open a magazine, watch a television show, read a newspaper, or surf the internet without continually viewing ads showing people happy and enjoying life thanks to "magic bullet" medications. The pharmaceutical industry spends more on marketing their products than on research and development. The pay incentives for pharmaceutical CEO's are tied to sales volume not public health! Doctors receive incentives to prescribe medications and much of their "education" on prescription drugs comes from pharmaceutical sales representatives who, like all salespeople, are paid to "sell" their product and not to provide full, accurate disclosure.

Is it any wonder then that drugs are increasingly sought out as the answer to inner pain, stress and trauma? You cannot advocate drugs as the answer to feeling depressed or anxious about

your life situation in the media and then, at the same time tell youth to "just say no!" or to "make better choices". Indeed, addicts and substance abusers (drugs and alcohol) are making the very choices our commercials have told them to make; numb your inner pain with mood altering chemicals!

Strikingly absent from the popular brain/neuroscience explanatory narrative for mental health issues is the lack of scientific support for such claims. The "chemical cure" for inner pain (depression, anxiety, trauma, stress, etc.) has been increasingly exposed for its lack of scientific support. While antidepressants and anxiety meds are routinely presented as being relatively benign and beneficial, careful attention to the wording in the ads and commercials reveal not only the potential for dangerous side effects, (e.g., suicide, aggression addiction) but also their lack of scientific support. The phrase frequently heard is that, "this disorder is '*believed*' to be caused by a chemical imbalance; such phrases implicitly acknowledge the absence of proven scientific evidence! The message heard consistently though by the general public since 1992 is that drugs are the answer!
[**NOTE:** *for a more extensive review of the scientific data exposing this "inconvenient truth" about the myth of the supposed effectiveness and safety of mental health drugs, see the books by Kirsch, Whitaker, Breggin, Moncrief, Walters, etc. listed in the references section*]

The pharmaceutical industry's marketing strategy of deliberating downplaying the addiction risks of opioids and exaggeration of benefits for health issues such as chronic pain has recently been exposed as well. Indeed, the state of Ohio is currently suing five companies for fueling the opioid crisis. As demand for these drugs increase so do the prices charged for them. Sales of opioid medication reportedly jumped from $21 million in 2011 to over $82 in 2016. And the drugs manufactured by the same companies for reversing overdoses (e.g. naloxone, narcan, evzio) have skyrocketed in price over the past ten years with increases ranging from 92 cents to $16, and $12 to $41. This combination of increased prices along with increased sales have resulted in pharmaceutical opioid related annual income rising from $21.3 million in 2011 to now over $82 million.

For decades now, youth have been constantly told, via the media, that drugs are a good choice to help someone "feel" better, "learn" better, "perform" better despite the potential dangerous side effects. Is it really any wonder then that the choice to self-medicate for emotional pain via illicit drugs (also with potential negative side effects) seems to be seen as a logical choice? Perhaps the real message is that drugs are good if a corporation profits but not if a street dealer profits. Doesn't that sound a tad hypocritical? At the very least, we need to be providing the general public (the consumers), and youth in particular, with up-to-date and accurate information on mental health medications and the marketing propaganda involved in selling the "*better lives through chemistry"* myth.

Focusing on Treatment rather than Prevention: Panacea vs Hygiea revisted

There is an old story that the simplest intelligence test consists of putting a bucket under a running faucet and handing a ladle to the individual with the instruction to keep the bucket from overflowing. Intelligence is measured by how long it takes the person to recognize that the solution does not lie in ladling faster nor with more ladles. Rather the solution is to merely reach

over and turn off the faucet! In the long term, success in addressing the substance abuse/addiction crisis must involve, first and foremost, the development of effective preventive measures. Such measures would focus on addressing the actual underlying factors leading to abuse/addiction and include both primary prevention and early, secondary identification/intervention programs.

The importance of positive, wellness promoting strategies for health has been well known for centuries. In Greek mythology Asclepius, the god of health, had two daughters, Panacea, the goddess of remedy and healing, and Hygieia, the goddess of disease prevention via hygiene and health living. While the healing of illness and the prevention of illness have both contributed to improving health in society, it is arguably Hygieia (hygiene) who has made the greatest contributions. However, the substance abuse/addictions field continues to focus primarily on treatment remedies and not sufficiently upon effective prevention.

Moreover, when prevention programs are implemented, they are usually designed on the basis of mistaken assumptions. Thus, they are doomed to fail from the outset. The standard drug prevention programs emphasize educating youth about drugs and their dangers (Drug Education) or, the teaching of "good decision making" skills and "making good choices". Both methods are once again, merely "Tilting at Windmills". Neither drug education nor decision making skills are supported by research as being major factors in drug use/abuse or addiction.

A further mistaken prevention strategy involves the occasional "*one-shot only*", high profile public relations event (e.g., a school drug awareness presentation or 'week', county and state level anti-drug rallies, community sponsored motivational speakers, etc.). While such one-time only or annual events provide communities with a "*feel good*" or "*at least we're doing something*" pay-off, they do nothing to prevent substance abuse/addiction in the long term. What is needed are comprehensive, on-going, research based, and multi-systemic approaches for this complex, systemic problem of substance abuse and addiction! Prevention programs need to begin at the early childhood level and continue, seamlessly through adolescence!

Re-thinking our Prevention Programs

As stated above, the dominant cultural narrative explaining substance abuse and addiction as based in the power of drugs to disrupt otherwise stable, happy lives is simply a myth!. But, this narrative continues to shape popular discourse and the development of drug prevention programs. The reality, however, is that the likelihood of a drug user succumbing to addiction is very small. It is estimated that 1 of every 3 adults will use an illegal drug sometime over their lifetime, but only a very small percentage will become addicted.

As the Hon. Professor Dr. Paul Hayes (Prof. of Drug Policy at the London School of Hygiene and former CEO of the UK's National Treatment Agency) has noted, what appears to most determine drug use escalating into addiction has less to do with drugs and more to so with the social, personal/psychological, and economic circumstances of the users life. The research data suggests that addiction largely occurs out of pre-existing social-emotional, and life circumstance vulnerabilities.

This idea was perhaps best demonstrated in Dr. Alexander's famous 'Rat Park' studies. Rats left alone in a cold, non-nurturing environment chose opioid laced water over pure water, But, rats in stimulating, social environments chose the pure water and not the drugs even if already "addicted" to the opioid water. These studies revealed the flaw in earlier studies on the addictive power of drugs alone. Perhaps, not only substance abuse/addiction but also what is often mistakenly termed co-morbid or co-occurring mental health disorders might be better understood as a troubled individual's various strategies to cope with a painful life situation,

Prevention programs, it logically follows, would need to focus primarily upon identifying those individuals at-risk of turning to drugs and alcohol for emotional relief. This would include, among others, those living in poverty, victims of trauma, and .young children living under adverse conditions (i.e., poverty, neglect, abuse, etc.) or experiencing discouragement from on-going academic and social difficulties. Preventing substance use, abuse, and addiction requires establishing social-emotional wellness promoting programs in schools (e.g. Social Emotional Learning), programs to help create more supportive environments in the home, school and community, and the providing of early identification and support programs for at-risk youth.

Such substance abuse prevention programs would need to begin in the pre-school years and last throughout childhood and adolescence. Substance abuse programs that only begin after the elementary school years is akin to "*shutting the barn door after the cows get out".* Remember, the average age for youth to begin self-medicating with drugs and alcohol is age 12 (grade 6) which clearly suggests the origins of their problems started well prior to this age! Consequently, the active engagement and involvement of our schools is essential for positive outcomes.

Promising Strategies for more Effective Prevention Programs

There are now several promising new programs for more effective substance abuse prevention and early intervention programs. The common denominator is that they are all less focused on addressing drugs/alcohol abuse or problematic behaviors per se, and more focused on assisting youth to develop positive personal identities within positive, supportive social environments (i.e., home, school, and community). These promising new programs are yielding very encouraging results. Research evidence regarding these new, more effective prevention programs reveal several common elements: 1) implementation beginning at the early childhood level, 2) on-going, coordinated formats that continue through adolescence, 3) a focus on building resilience and social-emotional competencies, 4) establishing supportive social environments (home, school and community, 5) providing academic and career skills assistance and 6) offering a sense of hope and optimism in their lives.

While there are no "one size fits all" programs that will work in every community, the components noted above are consistently found to exist in those producing positive outcomes. Each community will need to bring all the "players" (schools, business/organization leaders, medical/mental health/addictions professionals, and community volunteers) to the table in order to design and implement a comprehensive, well-coordinated program tailored to their community needs. However, the absence of any of these major players (parents, community leaders, law enforcement, local businesses and organizations), and particularly the schools, will likely doom any prevention initiative to failure.

Examples of promising prevention/early intervention programs include the following:

School-Based Social-Emotional Learning (SEL) programs

These school-based programs are designed to teach youth from early childhood thru high school, the social-emotional competencies associated with positive psychosocial development and career success. A recent study in Sweden found that implementing an SEL program at the elementary thru middle school levels significantly decreased drug use/abuse, disruptive behaviors, and delinquent behaviors while improving academic achievement (Klapp, et al, 2017). Similar findings on the effectiveness of SEL programs in schools have been extensively reported in publications by the New York based Center for Academic, Social, Emotional Learning (www.casel.org/research) and the European Network for Social Emotional Competence (www.enseceurope.org).

Regional Intervention Program

This early childhood based program was initially implemented in Tennessee and has since provided an effective model for other communities across the country. One of the best predictors of at-risk for delinquency, substance abuse, and school failure/drop-outs is early behavior problems. Unfortunately, most pre-school programs expel such children from their programs rather than provide the needed early intervention services (e.g., national data indicates 70% of all school expulsions occur at the pre-school level!). The RIP program provides training for parents in altering parent/child interaction patterns along with SEL programs for the children. These programs are found to not only result in improved behavioral adjustment but also decreased special education placements and improved parent/family relationships.

Iceland Youth Project

The Iceland Youth Program (IYP) has resulted in Iceland going from having the highest rate of adolescent substance abuse in Europe to the lowest. The program provides after school programs focused on recreational, cultural, music, dance, martial arts, academic activities and so forth.. In addition, the schools establish collaborative programs with parents including parent education. The results indicate substantial reductions in youth involvement with drugs and alcohol, increased positive parent/child interaction, and a 50% increase in youth involved in positive sport/recreational activities. Not surprisingly, the IYP program has now been successfully replicated, albeit with modifications to meet local needs, in over 35 countries and multiple municipalities worldwide.

Project LIFT

Project LIFT (Life Initiatives for Teens) in Martin County, Florida engages substance abusing teens already involved in the juvenile court system with an alternative to criminal sentencing and abstinence based treatment programs. The focus instead is on increasing motivation and engagement by providing positive life skills and a supportive after school environment that empowers them to become independent, productive members of their community. Project LIFT provides adolescents with a sense of personal dignity, competence, and the opportunity to make a positive contribution to their community while also learning those social-emotional and career skills necessary for long term social wellbeing.

Adolescents in the program work on sobriety as well as their underlying mental health issues while developing a passion for a skilled trade that enables them to achieve economic self-

sufficiency. In addition, the program enables them to experience themselves as valued contributors to their community. Their products (e.g. rebuilt/restored vehicles, construction projects, farming produce, etc.) are inexpensively sold or donated to needy individuals and families in the community. Outcomes indicate an almost 80% non-recidivism rate and 60% employment in their learned trade (www.projectliftmc.com).

The *Coca Cola Valued Youth, CASA START, & Life Skills Program (LST)Programs*
These programs all focused on at-risk middle and high school youth. Essential components included such things as providing teacher mentors who connect with each student daily in a supportive, encouraging role, utilizing at-risk students as tutors for younger students, social-emotional learning, after school activities, and family liaison services. Results indicated that drug use and police/court involvement decreased in the 50 -67% range.

PSL Police/FAU Community Juvenile Mentoring Initiative
This program provided a more positive, constructive option for police and court involved youth. Youth arrested for involvement in delinquent and/or drug related offenses were referred to the program and partnered with a volunteer community "mentor". The mentor was trained in developing a positive, resilience-focused relationship with the adolescent via 2-3 evening phone conversations weekly and occasionally face-to-face meetings.

The cadre of mentors was drawn from a variety of sources including the relatively large retirement population in the community, tradespeople, graduate students, faith based community, educators and business professionals. The primary focus of the mentor's interactions with their assigned at-risk teen, was to establish a positive, supportive relationship that engaged the youth in exploring his/her future goals, fostering hope, optimism and encouragement in overcoming the adverse life experiences they were dealing with and moving in a positive life direction. The program indicated a significant reduction in juvenile justice court recidivism rates and led to the program receiving Webber Seavey Award recognition for promising community police initiatives.

Summary
Creating more comprehensive and effective programs can only occur if we are willing to honestly re-think and change our own assumptions, beliefs and behaviors. A "Copernican Shift" is needed today in regard to our approach to the problem of substance abuse/addiction. Hopefully, this brief reflection upon the research-versus-practice related issues might serve as a catalyst for initiating discussions leading to a fundamental re-examination of our guiding assumptions about the crisis in substance abuse/addiction, the goals of treatment, and the focus of prevention programs. Hopefully, we can work to cease "*Tilting at Windmills*" and instead focus on the true challenge of both promoting and restoring social well-being. Continuing to do more of the same failed strategies but expecting better outcomes would indeed be insanity!

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