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REWARD DEFICIENCY SYNDROME SOLUTION PATIENT CLAIMS "DOPAMINE HOMEOSTASIS" PROVIDED THE NEUROLOGICAL STABILITY TO BEGIN FOCUSING UPON HEALING PSYCHIC FRACTURE ASSOCIATED WITH CHRONIC POST-TRAUMATIC STRESS DISORDER DISSOCIATIVE MULTIPLICITY

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ABSTRACT

Introduction: This Editorial provides an update to the Elle Foundation Research Institute 100's Family Genomic Series, including Case Studies 101-104 and 106. Our proband in Case Study 101 is in -year 6 of a 10-year longitudinal Reward Deficiency Syndrome Solution case study. This case report provides an update for years 4, 5 and 6. Genomic era applications provided insight for neurological stability referred to as dopamine homeostasis to a multi-generational family with a variety of Reward Deficiency Syndrome symptomology and DSM-5 Mental Health Disorder clusters.[1-3] Review of the Elle Foundation Research 100s series in family genomics is an easy way to introduce the Reward Deficiency Syndrome Paradigm,[4-5] to those who received their practitioner training in the traditional era, before the Human Genome Project[6] and World-Wide Gene Association studies[7-10] changed global perspective on precision addiction medicine.[11] **Method:** Reward Deficiency Syndrome (RDS) Solutions (RDSS)[12-13] were administered, including but not limited to: 1) the Genetic Addiction Risk Severity or GARS test;[14-17] 2) neuro-logical analysis of genetic predisposition to inform the creation of personalized nutraceutical amino acid therapy (NAAT)[18] and pharmacogenomic interventions;[19-20] 3) a RDSS treatment plan[21] which considers individual genome, personality traits,[22] intelligence (IQ) and mental health disorder clusters diagnosed by DMS 5 criteria;[23] 4) RDS Solution Focused Brief Intervention therapy,[24] which includes an introduction to the RDS paradigm assisting patients in a reorientation of understanding of their mental health disorder challenges; and 5) new psychological tools for assessment of the severity of their symptoms (RDS-SOS) and development of improved self-management skill to achieve dopamine homeostasis.[25] **Results:** The proband created a foundation for recovery and flourishing.[26] through her dedication to daily practice of Reward Deficiency Syndrome Solutions, treatment plan compliance, daily charting of severity of symptoms, and adherence to Precision Addiction Management (PAM).[27] revealing greater recovery resolve.[28] We found increased self-management skills which allowed her to self-monitor, taking necessary steps to regain dopamine homeostasis and maintain it.[29]. Awareness Integration Therapy.[30-31] was extremely helpful in reducing distress from Post-Traumatic Stress Disorder with Dissociative Multiplicity.[32]

KEYWORDS: Reward Deficiency Syndrome (RDS), Reward Deficiency Syndrome Solution (RDSS); RDS treatment plan, RDS solution focused brief intervention therapy (RDS-SFBI), Genetic Addiction Risk Severity (GARS), RDS-Severity of Symptom Scale (RDS-SOS), Awareness Integrative Therapy, Nutraceutical Amino Acid Therapy (NAAT).



INTRODUCTION

In recent decades, research scientists have begun exploring Reward Deficiency Syndrome as the common neurogenetic trait of all addictions.[33] Additionally, many mental health disorders are known to share the common transdiagnostic symptom of dopamine deficiency. Over the past few years, research studies investigating genetics,[34] within nuclear families have become increasingly more common in literature.[35] Inspired by a decade long review of the life-time body of work of Dr. Kenneth Blum and a 2019 publication by Floridian Addiction Recovery Expert, Lyle Fried, titled ***"Hypodopaminergia" and "Precision Behavioral Management" (PBM): It is a Generational Family Affair,"*** , a series of research studies were created to investigate family genomics in mental health disorder and intergenerational trauma patients.[36]

The Elle Foundation Research Institute's 100's Series in Family Genomics began in 2020 and is ongoing.[37]

ELLE FOUNDATION RESEARCH INSTITUTE'S CASE STUDY 101

Prior publications detailing research study design and providing proband progress updates of EF Case Study 101 can be reviewed in the following articles: 1) ***"Reconceptualizing Addiction: Integrating the Sciences of Addiction and Reward Deficiency Syndrome (RDS): Part 2: Case Report"***;[38] 2) ***The Future is Now for Precision Genomic Addiction Medicine as a Front-Line Modality for Inducing "Dopamine Homeostasis" in Reward Deficiency Syndrome (RDS);***[39] and 3) ***"Positive Outcome of Adherence to the Reward Deficiency Syndrome System Solution Treatment Plan: A longitudinal Study"***.[40] This Editorial provides updates of The Elle Foundation Research 100's Series in family genomics, including and beyond our Case Study 101 proband, who is currently in year 6 of a ten-year longitudinal case study, which is one of several genetic case studies of a multi-generational family in the 100's series.

Early in her post graduate doctoral journey, Elle Foundation Founder, and author, Elizabeth Gilley intuited the importance of upgrading the addiction-recovery and mental health industries through the integration of new fields of science.[41-42] Informed scientists working in addiction medicine have high regard for Reward Deficiency Syndrome (RDS) science.[43] which relies upon genetic screening.[44-45] The genomic era of precision addiction medicine began with the Human Genome Project (HGPI), continuing through World-Wide Gene Association studies.

The synergy of combined neuroscientific and alternative healing modalities which include: 1) genomic applications to address the neurogenetic and neurobiological causal influences of RDS psychopathology;[46] 2) nutraceutical and pharmacological interventions; 3) Awareness Integration Therapy;[47] and 4) Eastern Alternative, Western Alternative, and Indigenous African wellness practices,[48] are unparalleled for spiritual and psychological thriving as demonstrated in this longitudinal case study of a Reward Deficiency Syndrome mental health disorder cluster patient.[49]

In brief review, EFRI Case Study 101 is ongoing. Previous peer review case reports and updates have been published regarding years one, two and three. Case Study 101 involves a ten-year longitudinal study of our proband, EF 100's series participant 101 who is currently charting her daily experience with RDS solutions, symptoms, treatment plan compliance and pharmacogenomic intervention, in year 6. Her progress in years 4 and 5 will be discussed in further detail in the Methods, Discussion, and Results sections of this Editorial.

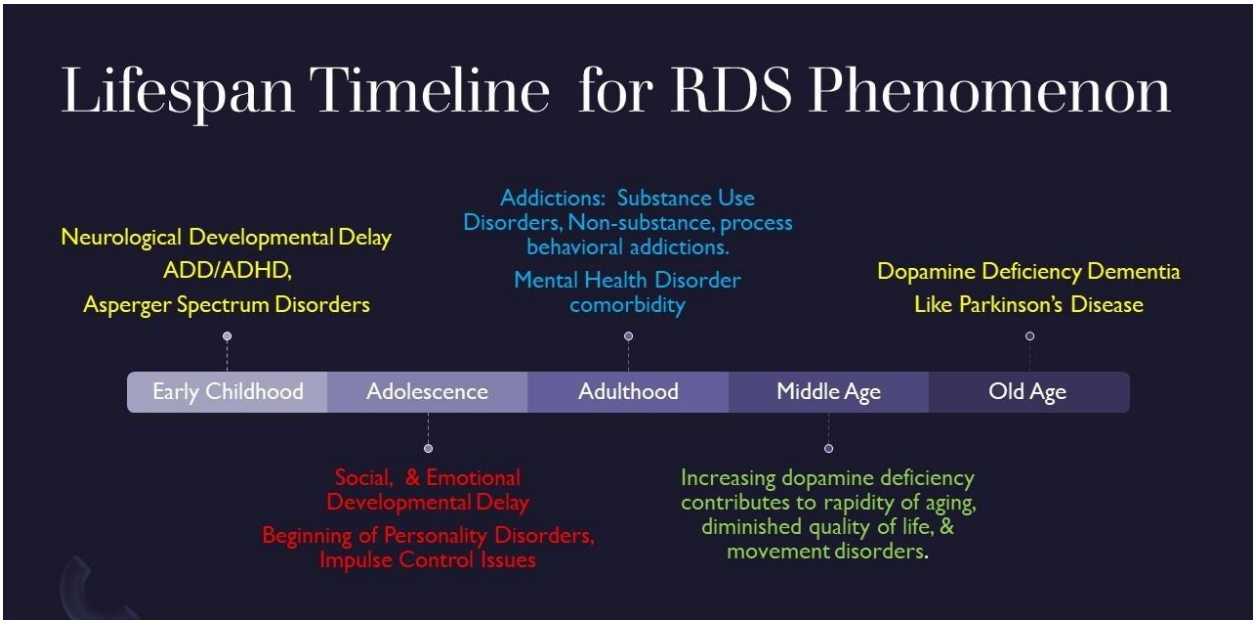
ELLE FOUNDATION RESEARCH INSTITUTE CASE STUDY 102

Foundation Case Study 102 previously reported in publication titled ***"Reward Deficiency Syndrome phase two addiction treatment targets the unique needs of the individual's brain: Project Reconceptualizing***

Addiction: The Elle Foundation Case Study 102"[50] compares and contrasts genetic variance.[51-52] and experiential history, especially trauma, in both our proband and her biological sister, EF 100's series Participant 102. As both participants are now in the mid to late 60's, consideration of early on-set development of Parkinson's Disease which has been observed in untreated RDS patients at the end of their lifespan is being investigated

A RDS treatment plan has been designed for participant 102, based upon genomic and experiential history [53-56]. This RDS treatment plan includes brain imaging for diagnostic purposes of potential Post-Traumatic Stress Disorder. Her early developmental adverse environmental conditions included psychological abuse, bullying and body shaming, in a young family influenced by unresolved intergenerational trauma. Presently, she is highly functioning, well-adjusted with strong psychological boundary skills, and thriving.

When necessary continuing Wellness Treatment plans for RDS over the lifespan typically include immunology nutritional enhancement and consideration of need for treatment of fatigue, anxiety, anhedonia, depression, dysphoria and dopaminergic depletion issues which sometimes manifest as involuntary movement, mobility and cognition challenges, and prevention of early onset dopamine dementias like Parkinson's Disease, or Alzheimer's Disease.[57]



Graphic Illustration #1: Lifespan Timeline for Reward Deficiency Syndrome Phenomenon.

ELLE FOUNDATION RESEARCH INSTITUTE CASE STUDY 103

The introduction to Case Study 103 was published by the title ***"The Reward Deficiency Syndrome (RDS) paradigm – RDS is the phenotype: Addiction and Mental Disorders are endotypes: Elle Foundation Research Institute's 100's series, Family Generational Genomic Case Series Study #103***[58] This study compares the lineages of both sisters, beginning with their mother. Two familial lines are traced in this expanded nuclear family. The family tree begins with Participant 103 at the top. She is mother, grandmother, great-grandmother or sister, to the other 7 participants. The lineage of our proband, Participant 101 expands to 4 generations while the lineage of her sister Participant 102 temporarily spans 3 generations.

Search of the literature reveals many theories on the etiology of addiction. Cognitive Behavioral Psychologists debate the influential roles of behavior,[59] thought,[60] choice or free will,[61] repetitive behavioral patterns, and maladaptive coping mechanisms. Some believe it is not a disease.[62-63] Others state it is a disease of choice.[64] It has been suggested that the family of origin is a possible cause of addiction.[65-66] Traditional era theorists suggest that the concept of compulsion is useful to explain addiction.[67]

The advancements gifted to humanity by the Human Genome Project and World-Wide Gene Association studies reduce the theories mentioned above to the level of fringe theories from a by-gone era, yet each contributes in its own way to enlarged perspective and the very foundation of psychological science. It is no wonder that we, the recovery world of scientists, practitioners, and patients, are confused and losing the war on addiction. The last century of traditional treatment focused mainly on the mind, the psychological realm of being. In the current century, the genomic era of addiction medicine extends focus to consider genetics, epigenetics, physiological, and neurobiological causal

influences.[68-69] There is indeed a neuroanatomical basis of addiction.[70]

Brain imaging equipment.[71-73] developed by neuro-physics engineers provides evidence that reinstatement of substance use begins on molecular and cellular levels, in subconscious portions of the brain, long before using thoughts pop up in conscious awareness.[74-75] The need to redefine addiction is long overdue.[76-77] Genomic scientists understand addiction as an endotype of Reward Deficiency Syndrome. The need for a biogenetic model for diagnosis and treatment of RDS expressions which are impulsive,[78-79] addictive and compulsive behaviors was recognized in 2000. RDS Consortium scientists have spent several decades investigating the real phenotype Reward Deficiency Syndrome, discovering various routes patients use to gain dopamine, sometimes thought of as sub-phenotypes.[80] before being diagnosed as mental health disorder endotypes.

Generational gene association studies of dopaminergic polymorphisms reveal phenotypes of reward dependence behaviors.[81] This is certainly one benefit of GARS testing.[82] Another benefit is genetic risk prediction and neurobiological understanding.[83-84] Biomarkers for vulnerability for substance use include blunted dopamine release.[85] The global scientific community recognizes genetics,[86] epigenetic, familial.[87-88] and other environmental influences for drug use risk. Different RDS phenotypes display predictable behavioral patterns such as a patient's preferred method of increasing dopamine.[89]

Case study 103 demonstrates this very concept.[90] Some family members preferred stimulant use to gain dopamine surge. Typical mental health disorder cluster manifestations of the patient who prefers taking the stimulant route to lessen dopamine deficiency may include comorbid Attentional Deficit Hyperactivity Disorder.[91-92] Post-Traumatic Stress Disorder, and of course Cocaine or Stimulant Substance Use and Tobacco Use Disorders.

Some participants in 103 preferred the glucose pathway to gain dopamine which includes Alcohol Use Disorder.[93-94] and Eating-Disorder.[95] like binging and purging.[96] Note the higher the Genetic Addiction Risk Score, which ranges from 4 to 22,[97] the more likely an individual is to have multiple substance addictions, and multiple behavioral process addictions. Some may seem harmless when manifested in the form of work addiction, or exercise addiction. Risk scores in the mid to upper range are problematic in that they indicate a complex interaction between pain mechanisms and disruption of numerous neurotransmitter channels, which are customary for those who choose the opioid route to dopamine surge.[98-101]

Some 103 participants displayed behaviors which resembled novelty and thrill seeking, like gambling.[102] risky sexual practices.[103] which may have been mistaken for sex addiction by practitioners without continuing education in the RDS paradigm. Addictions can be considered masked forms of obsessive compulsive-impulse disorders which are typical in Reward Deficiency Syndrome.[79]

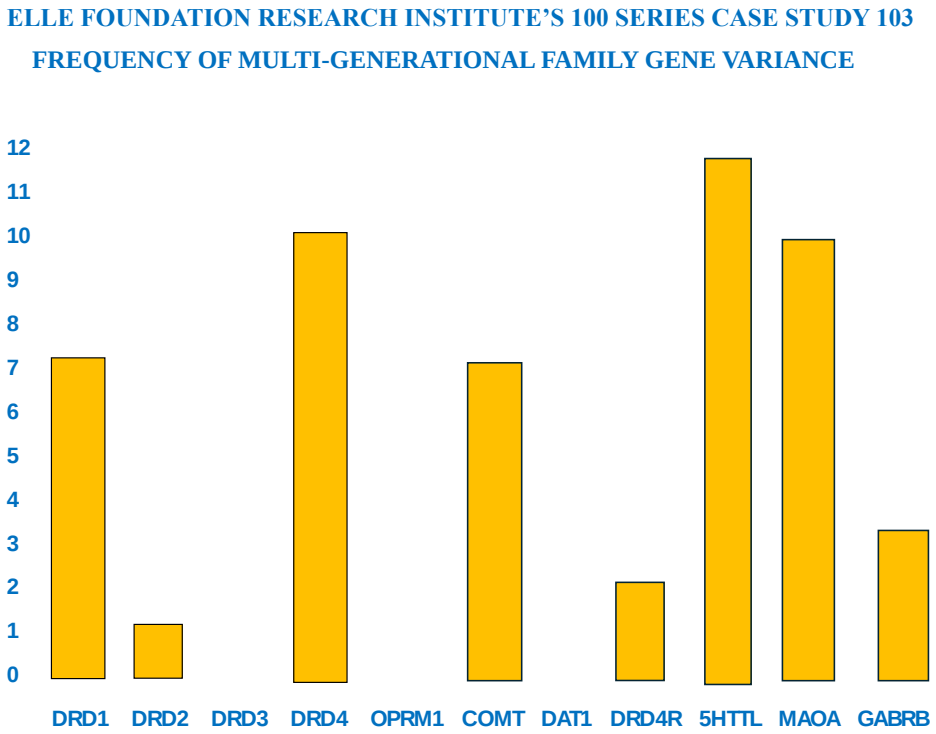
The Elle Foundation Genomic Neuro-Psychologist notes include the following. ***"More obvious obsessive-compulsive disorders (OCD) manifestations in this case study include repetitive hand washing, and ritual cleaning practices which sometimes alleviate stress, decrease discomfort, ease that feeling of wanting to jump out of your own skin. Each of these maladaptive behavioral patterns has its' origin in the patient's need to control uncontrollable situations, suppress intolerable feelings, craving, anhedonia [104] and stress reactivity[105]***

Addiction is more about the desire to be numb and reducing pain, for those who have RDS, than it is about seeking pleasure. Most of these participants share commonality of feeling experiences such as unrelenting emotional pain, despair [106], deep psychological wounds, masked feelings of unworthiness, unlovability, neglect, degradation, betrayal, and intentional assault. Most participants in Case Study 103 display some degree of impulse control challenge. All experience dopamine deficiency [107] A majority of the eight participants have experience of depression [108-109], anhedonia, trauma, obesity.[110-111] anxiety, harm avoidance, and attachment disorder, in many of its forms of expression.[112-113]

We noted a possible genetic anomaly in the GABRB 3 gene, identifier rs764926719, risk allele 181, present in participant 104, the daughter of our proband, and 105, the elder grandson of our proband. This dinucleotide repeat is not present in our proband. GABRA2 and GABRB3 gene -variances are correlational to early trauma and future development of addictions, as well as increased risk for Post-Traumatic Stress Disorder.[114] We are currently investigating possible etiology, to determine whether this genetic variance is inherited from 104's paternal line of ancestry, or more spectacularly, a spontaneous genetic adaptation in response to environmental assault.[115]

"We know that both proband and daughter experienced early adverse experiences, in the forms of sexual assault, abandonment, neglect and attachment disorder. Participant 104 was assaulted in utero, intentionally, by her maternal great-grandmother. She also developed in an embryonic environment polluted by cocaine [116-118]. Both participants 101 and 104 experienced a series of adult traumas in the forms of sexual and psychological abuse and currently suffer Parental Alienation Syndrome.[119] one of the most hurtful and severe forms of intergenerational trauma. Their PTSD diagnoses are chronic and extremely complex .[120]

Graphic Illustration #2 reveals the frequency of genetic risk for the multigenerational family as a collective. Individual risk for each of the 11 alleles can range from zero to two. A collective family score of 12 indicates that the 5-HTT-Linked Serotonin gene has the largest RDS risk score presentation within the family sample. This gene is known to be correlational to increased levels of serotonin within the synaptic regions between neurons. The family collectively has ten risk alleles for the DRD4 gene variance which is correlational to increased risk for novelty or thrill-seeking, high-risk behaviors, recklessness and impulsivity. The family also has ten risk alleles for the MAOA gene variance which is correlational to increased metabolic rate of decomposition or degradation of dopamine, norepinephrine and serotonin molecules leading to increased potential of deficiency for these three neurotransmitters.



Graphic Illustration #2- Family Genetic Addiction Risk Screening (GARS) Results.

The DRD1 gene with risk allele G, within this family sample as a collective is 7. The G allele is correlational to better performance of tasks requiring higher levels of cognitive control. This suggests more efficient D1 receptor mediated dopamine signaling supporting focused cognitive processing. The risk allele also plays a role in stroke recovery, improving chances for recovery success. The COMT gene rs4680 G allele is correlational to lower dopamine levels in the prefrontal cortex which shapes stress response, cognition, pain sensitivity and emotional regulation and which can potentially create neurological vulnerabilities. The family collective score for the COMT gene is 7.

Two individuals have a single gene risk allele of the DRD4R gene which is very rare. This genetic variance is most associated with increased risk for ADHD, altered cortical development in attention networks and behavioral traits such as impulsivity/novelty seeking and greater sensitivity to social reward cues. Three individuals within this family have the GABRB3 gene variant risk allele, which is associated with the GABA neurotransmitter, and is correlational to potential impairment of inhibitory signaling, hyperexcitability and altered neurodevelopment especially in relation to Autism.

Due to the complexity of trauma and RDS mental health disorder clusters experienced by both our proband and her daughter, Elle Foundation Research Institute needs case study supervisory guidance and therapeutic consultation assistance, from experts current in both traditional and genomic psychiatry.[121-122] For case study participants 101 and 104, the availability of Reward Deficiency Syndrome Solutions means having both traditional and genomic psychiatric resources available, resources which are not currently available to the population at large. This pathology will be investigated in **Elle Foundation Research Institute's Case Study 106**, which is still in development.

Precision genomic addiction medicine addresses genetic, epigenetic and neurological causal influences, to stabilize brain chemistry. The patient can then be unencumbered to focus upon psychic fracture, using psychological tools to assist in healing dissociative multiplicity from chronic Post-Traumatic Stress Disorder complexity.

The Elle Foundation Research Institute's role in the 100 series family genomic case studies is to make cutting edge precision genomic era resources available to a multi-generational family of individuals with unique genomic challenges and varying presentation of Reward Deficiency Syndrome endotypes including addictive behavioral expressions and mental health disorder clusters. It is the participant's prerogative to utilize these tools, to develop skills to self-manage severity of symptoms. It is the participant's role to create their wellness plan and drive the engine recovery.

ELLE FOUNDATION RESEARCH INSTITUTE CASE STUDY 104

While Elle Foundation Research 100's series case studies 101, 102 and 103 have been retroactively observational, this is not the case for Case Study 104, which is a forwardly observational 20-year longitudinal study in Reward Deficiency Syndrome prevention. This study was introduced under the title ***"Stopping Addiction Before It Begins: The Future is Now".***[123]

We have an update on Case Study 104's youngest participant, 106, now 6 years old. He is at high risk for neurodevelopmental issues, like dopamine dysregulation in Reward and Autism Spectrum Disorder .[124-125] due in part to causal influences such as polymorphic gene variances.[126] a diet too rich in sugar.[127] and caffeine, electromagnetic frequency pollution and environmental stimulation overload.[128]

Included below are psychologist notes from forward observation of Case Study #104, Participant #106. **"*Although he was mostly nonverbal in his earliest years, he can name the different types of large construction vehicles, and he knows what they are used for. He can identify and name at least 30 different dinosaurs, which adults can't usually do. He loves to paint pictures and walls. He knows how to use a fishing rod and has caught fish. He can operate a little car remotely, make it turn a flip in the air, and land vertically, standing up on its rear."***

"When he struggled to develop English language skills, he had no difficulty making up his own language. His mother understood or intuited his meaning telepathically. He struggled to count from one to ten, while playing hide and go seek, yet he easily mimicked the rhythm of counting, voice inflection, tone, and cadence, while using other syllables, in place of spoken numbers. Currently he has no difficulty speaking English. He is shy. He prefers to listen when in public. He loves math, science, and art. He likes to learn, to help around the house, to build things. He is displaying heightened mechanical skill development."

Genetic screening and neurological analysis inform proper protocol for personalized medicine.[129-130] Like his maternal grandmother, our proband, he also has two of the "S," or short versions, of the risk alleles of the variable tandem number repeats and insertion/deletions of the 5-htt-linked serotonin gene.[131] If you would please visualize a scale ranging from negative ten to positive ten. An average person might experience mood level zero, as a default setting, which is neither depressive nor elevated. With two S versions of this serotonin gene, he has increased level of the serotonin neurotransmitter in the synaptic space between neurons, meaning serotonin is readily available for easy transport along the neural network. His serotonin default setting may be a two on the scale, elevated neurochemically to the range we experience has happiness, and joy for living.[132]

When developing personalized medicine, it is important to note that individuals have varying degrees of vulnerability to neurotransmitter receptor and transporter density in their brain. For example, in participant #106, this shows up as dopamine deficiency.[133] which is the experience of anhedonia.[134-135] While neuroscientists define this as lack of pleasure, patients in Elle Foundation Research report this experience as stress which builds in intensity, before they snap. Patients elaborate explaining their experience of anhedonia is like needing something but not knowing what it is they need. It is the experience of feeling like something is off, or wrong. Perhaps psychologists might consider redefining Anhedonia as an undercurrent of continuous stress, building frustration which can become explosive dysphoria.[136-140]

Elle Foundation Research Genomic Neuro-Psychologist Notes add ***"It produces a tantrum which begins on the molecular and cellular levels in subconscious portions of the brain. This neurological event begins before the conscious mind becomes aware. Adult RDS patients have reported this explosive dysphoric rage can create the impulse to throw their phones. One even punched her computer so frustrated by technical interruptions, she experiences hatred for Microsoft word software updates."***

"Imagine the experience of mood change from bliss to anhedonia/dysphoria.[141-142] repeatedly throughout your life. At some point children with RDS will experience something that makes them feel better: sugar, caffeine, a video game, the thrill of a new toy. As they mature into adolescence, experiences which create exhilaration may come in the form of seeking the first cigarette, skipping school, tasting your first beer, smoking your first joint, having sex for the first time. While these behaviors appear normal along the developmental tract, for young people becoming increasingly under sway of peers, neurogenetic polymorphisms of RDS increase motivation beyond normal curiosity, and include extenuated concepts of needing and wanting in degrees that can give rise to pathology."

"In early adulthood the individual has increased exposure to behaviors, thoughts and substances which produce even larger quantities of dopamine surge, relieving Anhedonia. For some this may be shopping spree, retail therapy, an affair at the office, gambling at the casino, cocaine, even heroin. They may obsessively clean the house, wash their hands, repeatedly check to make sure they turned off the stove and locked the door. None of these are intentional misbehavior or antisocial pathologies. These heartbreakingly downward cycles are not due to impure spiritual thoughts, lack of morality, or character flaws."

Reward Deficiency Syndrome begins with genetic variance.[143] becomes more problematic over the lifespan particularly due to altered varying dopamine disruption of mitochondrial voltage dependent anion channel turnovers.[144] This is extremely complicated not only on the molecular and cellular levels, but equally complex on the sub-atomic level, involving ionic wash which ignites action potential. It is far simpler to reflect upon the variables of family dysfunction, early adverse conditions, social and environmental assaults, like experience of intentional infliction of harm.[145]

Participant # 106 should never be prescribed Selective Serotonin Reuptake Inhibitors (SSRIs).[146] as this could pharmaceutically induce mania or Serotonin Syndrome.[147] He should avoid caffeine, sugar, nicotine, stimulant and cocaine use.[148] RDS solutions provide effective treatment for both dopamine deficiency and serotonin surfeit. We start with enhanced nutrition, eliminate dietary and environmental toxins, build a healthier brain with amino acid supplements, teach self-soothing technique.[149-150] and other age-appropriate coping mechanisms. More in depth genetic screening will be administered as new information becomes available through the National Institutes of Health, and World-Wide Gene Association studies. With this brief update of the Elle Foundation Research Institutes 100's series, Case Studies 101-104, we shall now focus upon our proband and her journey from addiction and mental health disorder cluster to wellness, thriving and professionalism. The last update was published in 2024, and covered years 3 and 4. This editorial updates proband progress in years 4 and 5, and early into year 6, continuing in the Methods Section.

ELLE FOUNDATION RESEARCH INSTITUTE'S CASE STUDY 101

Approximately 20,000 genes comprise the human genome. No single gene causes addiction. Combination of genetic variances, called polymorphisms which interact with environmental influences, often initiating RNA transcription or epigenetic override, are causal influences for future development of addiction. The neurogenetic and neurobiological syndromes involved in Reward Deficiency Syndrome produce less than optimal performance along seven neuro-transmission channels. These neurotransmitters include dopamine, serotonin, norepinephrine, GABA, glutamate, endorphins and acetylcholine.

Key Neurotransmitters Involved in Reward Deficiency Syndrome

Neurotransmitter	Role in Reward Circuitry
1. Dopamine	Core driver of motivation, reward, and reinforcement; central deficit in RDS.
2. Serotonin (5-HT)	Regulates mood, impulse control, and satiety; interacts with dopamine pathways.
3. GABA	Main inhibitory neurotransmitter; modulates dopamine firing in the ventral tegmental area (VTA).
4. Glutamate	Main excitatory neurotransmitter; shapes learning, craving, and reward prediction.
5. Endorphins / Enkephalins (Endogenous Opioids)	Produce pleasure, reduce pain, and regulate dopamine release.
6. Norepinephrine	Governs arousal, stress response, and attention; influences reward sensitivity.
7. Acetylcholine	Supports learning, attention, and reinforcement signaling in the nucleus accumbens.

Graphic Illustration #3 provided by Artificial Intelligence

Every neurotransmitter influences every other neurotransmitter, hormone, or enzyme influencing the delicate balance of neurotransmission in a neural network of hundreds of billions of neurons, both in our brains, and elsewhere in our bodies. Our skin is an envelope containing saline water which is home to 50 trillion cells. Our DNA governs the creation, construction and function of new cells, including neurotransmitters. It is important to note that while each individual neurotransmitter channel is relevant, what is more important is the interactive balance of all neurochemicals.

One theoretical basic assumption, called a neural axiom, asserts that while even a single neuron can influence neurochemical balance in the brain, what is far more relevant are the 100,000 neurological events, called

action potentials, which occur every second. As advanced as our science is today in 2026, considering the wealth or bounty of information derived from international scientists working on the Human Genome Project, and the World-Wide Gene Associations studies, providing correlative evidence of gene variance involvement in addiction and mental health disorders clusters, now defined as Reward Deficiency Syndrome, the bottom line is that our two quart sized brains, are not big enough to comprehend the majestic living brain. Reward Deficiency Syndrome Consortium Scientists are contributing enlarged perspective of the role of genetics and genomics.

METHODS

Reward Deficiency Syndrome (RDS) Solutions (RDSS).[151] which include but are not limited to: 1) the Genetic Addiction Risk Severity or GARS test;[152] 2) neurological analysis of genetic variance and how these influence neurotransmitters and predisposition for RDS risk; combined with; 3) consideration of epigenetic override, sometimes referred to as epigenetic insult were used to inform the creation of personalized medicine ;[153-155] 4) Nutraceutical Amino Acid Therapy (NAAT).[156] and pro-dopamine regulation[157-158] are introduced to help stabilize and heal the brain; 5) Based upon GARS informed neurological analysis, .[159-160] temporary pharmacogenomic interventions[161] were evaluated for appropriateness to help the patient achieve dopamine homeostasis;[162-163] 6) a RDSS treatment plan was created for the individual's genome, personality traits,[164] intelligence quotient (IQ), and DSM-5 mental health disorder; 7) The patient was administered the Reward Deficiency Syndrome Solution Focused Brief Introduction therapy, which explains the RDS paradigm, reorientates patients to view their addictive and mental health disorder challenges through a genomic lens, rather than a traditional twelve step lens. 8) The patient is assisted in achieving dopamine homeostasis: 9) new psychological tools for assessment of the RDS severity of symptoms (RDS-SOS) are individualized.

Results of genetic testing using the GARS revealed our proband has: 1) A single nucleotide polymorphism (SNP) on the DRD4 gene, identifier rs180095 with one C risk allele;[165] 2) Two S risk alleles on the 5-Htt-Linked, variable tandem number repeats and insertions/deletions, identified as rs47795541; and 3) Two 4R risk alleles of the MAOA, variable tandem number repeats and insertions/deletions, identified as re768062321 on chromosome X.

Single Nucleotide Polymorphisms (SNP) of the DrD1-4 and longer strands the D4D4R alleles, have different expressions, or versions of adaptive mutation, called alleles. These variances influence dopamine production in a variety of ways, correlating to deficiency (hypo-dopaminergia) or surplus (hyper-dopaminergia). Gene variances can influence the volume or density of receptor sights, and the effectiveness of transport genes which move neurochemicals along the neural network. Gene variances can influence the metabolic rate of neurotransmitter decomposition. Gene variances can influence the reuptake of dopamine by the cell body, and the amount of dopamine available in the synaptic regions between cells. But so can pharmaceuticals through various mechanisms of action. Recent research has involved investigating the influence of agonist versus antagonist mechanisms of action on dopamine.[166]

GARS informed neurological analysis facilitated the creation of a pharmaceutical regimen to serve as a temporary bridge to achieving dopamine homeostasis, which is personalized for her unique genome. Our proband's neurological challenges include: 1) genetically induced dopamine deficiency; 2) induction of dopamine surge called hyper-dopaminergia from self-medication; 3) resulting in epigenetic insult, through RNA methylation, which plays a crucial role in transcription and gene expression regulation, which in this case lowers the availability of dopamine; 4) neurobiological syndromes involving other neurotransmitters, and 5) neurological imbalances caused by pharmaceutical treatment from traditional trial and era ineffectiveness.

A personalized Reward Deficiency Syndrome Solution System Treatment Plan was created which considered individual genome, personality (INFJ), intelligence (IQ148), and previous American Psychiatric Association Diagnostic and Statistical Manual for Mental Disorders (DSM), 5th TR Edition, diagnoses. Traditional era psychiatric mental health disorders included the following: 1) Substance Use Disorders for Cocaine,[167] Alcohol, Nicotine;[168-169] 2) Attention Deficit Hyperactivity Disorder (ADHD);[170-171] 3) Bipolar 1; and 4) Post Traumatic Stress Disorder.[172-174] Precision genomic addiction/mental health disorder perspective reframes these disorders based upon genetic insight, viewing the endotypes through a genomic lens, identifying the real phenotype as Reward Deficiency Syndrome, and treating symptoms of mental health disorder endotypes accordingly.



Graphic Illustration #4: RDS Solution Treatment Plan Model.

Reward Deficiency Syndrome Treatment Plan model can serve as a generic basis for the development of personalized medicine, informed not only by genetic testing but by brain imaging to identify targets for intervention and assessment of brain injury from trauma.[175]

The proband was administered Reward Deficiency Syndrome Solution Focused Brief Intervention (RDS-SFBI) therapy.[24] which includes introduction to the RDS paradigm, assisting in the patient's acclamation to genomic era perspective. This is a reorientation, likened to putting on a new pair of glasses, with a genomic lens rather than the twelve step lens, through which to view their personal mental health disorder challenges. RDS-SFBI therapy also provides new psychological tools for daily assessment of severity of symptoms. The Reward Deficiency Syndrome Severity of Symptom scale is a tool each patient personalizes according to individual need.[39] We begin with the original Chronic Abstinence Scale.[176] and create a unique RDS-SOS scale tool for every client.

Genomic Neuro-Psychological Notes: **"*Case Study 101's challenge extends beyond substance and behavioral addictions and the chronic abstinence symptoms of craving, restlessness, thoughts of drug use (including sugar, caffeine, nicotine, alcohol and illicit drugs), anxiety, increasing frustration, anhedonia, dysphoric outbursts, which are common for patients who use addiction to numb physiological and psychological discomfort from ineffective treatment of comorbid mental health disorders. She also monitors symptoms of impulse control, obsessive compulsivity, mood swings, depression, mania and racing thoughts associated with dopaminergic dysfunction of Bipolar 1. She monitors severity of symptoms from attention deficit hyperactivity disorder (ADHD), as well as Post-Traumatic Stress Disorder (PTSD) symptoms. This teaches the patient to check in with herself psychologically, to learn to accurately evaluate her mental state leading to an improved understanding of her underlying neurological challenge*."

"Case Study 101 currently evaluates 47 symptoms daily. As she becomes increasingly self-aware, she decided to record pre-Parkinson's symptoms of involuntary movement and verbalizations. She noticed that when she is fully present in the moment, she does not make involuntary sounds. She discovered the solution or answer to involuntary movement and verbalizations is Mindfulness, being fully present in this moment now[177]

SEE APPENDIX 1 FOR THE REWARD DEFICIENCY SYNDROME SEVERITY OF SYMPTOM (RDS-SOS) INTRODUCTION AND RDS-SOS SCALE MODEL

"RDS-SFBI therapy and the RDS-SOS tool are designed to help the client gage whether she is maintaining dopamine homeostasis. These have assisted Case Study 101 in her remarkable transformation from being a patient in crisis, having to rely upon decisions of doctors for her survival, to an empowered woman, confident in her skills for self-awareness, self-management.[178] and self-reliance. She has demonstrated her ability to achieve and maintain homeostasis. In doing so, she can now turn her

attention to focusing upon resolving more severe pathology from PTSD."

"She has advanced to the next stage of treatment in which she created a new wellness treatment plan, adding application from positive [179], and integral psychology and wellness practices to increase the quality of her life and to thrive [180]. She has also expressed a desire to return to Adult Children of Alcoholics, a twelve-step fellowship which focuses upon healing from dysfunctional family dynamics and intergenerational trauma.[181-183]

DISCUSSION

Single Nucleotide Polymorphisms (SNP) and longer strands of the repeat, insertion and deletion gene segments have different expressions, or versions of adaptive mutation, called alleles. These variances influence dopamine production in a variety of ways, correlating to deficiency (hypodopaminergia) and surplus (hyperdopaminergia). Gene variances can influence the volume or density of receptor sights, the effectiveness of transport genes which move neurochemicals along neural networks, and the metabolic rate of neurotransmitter decomposition. Pharma-ceuticals can influence dopamine availability, influencing the reuptake of dopamine by the cell body, and the amount of dopamine available in the synaptic regions between cells.

Literature review reveals the influence of agonists and antagonists on dopamine availability. For example, Ropinirole is a mild dopamine agonist, usually prescribed in the .25-.50 milligram range, for pre-Parkinson's Disease, symptom Restless Leg Syndrome. This is less than 1 mg. This gently encourages the production of dopamine. A dopamine antagonist such as Quetiapine, more commonly known as Seroquel, is typically prescribed in dosages ranging from 20 mg to several hundred milligrams. Its mechanism of action renders neurotransmitter receptor sites unusable.

Consequences of blind acceptance of prescriptions by traditionally trained psychiatrists can have devastating results, which may include strokes, TIA's, pharmaceutically induced mania, even death.[184-185] Dosages of medication established in the traditional treatment era are not necessarily considered appropriate in the genomic era of addiction medicine. Trial by error medication management is no longer considered the higher standard of excellence in personalized medicine for patient care. Genomic applications use neuroscience to inform the proper pharmacogenomic intervention.

Participant 101's neurotransmitter profile includes: 1) dopamine deficiency (hypo-dopaminergia).[186] 2) more complex dopamine dysregulation which may also include hyperdopaminergia; 3) serotonin surfeit (hyper-serotonergia); and 4) increased metabolic decomposition of dopamine, norepinephrine and serotonin. Degradation of the molecule prohibits its ability to fit on a neurotransmitter receptor site or incite action potential thus rendering it impotent.

Case Study 101 discovered that her mania was in part pharmaceutically induced and eliminated antidepressants which increased her genetically elevated high levels of serotonin in the synaptic region. We hypothesize that years of stimulant substance use, and the interaction of certain pharmaceuticals intended to reduce mania and depression, contributed to her neurological instability. Withdrawal from prescription drugs to treat Bipolar, mimicked Bipolar symptomology. Even nonbipolar patients who are given lithium show symptoms of bipolar when detoxing from lithium.[187]

The traditional practitioner preference of using dopamine antagonists[188] has been reevaluated and it is known that in many cases a mild dopamine agonist is preferable to gently restart dopamine availability.[189] Dopamine antagonists stop dopamine production. For a patient with dopamine deficiency this is counter intuitive, demonstrating the urgency of need for traditional practitioners to upgrade their education with continuing education in genomic era applications. The new field of science called psychiatric genomics is an upgrade of traditional psychiatry.

RDS patients with clusters of mental health disorders including addiction require neuroscientific treatment for underlying neurogenetic and neurobiological challenges in the form of a phase two treatment, to achieve dopamine homeostasis, preferably after detoxification and 30-day inpatient behavioral modification twelve step treatment. Learning to both achieve and maintain dopamine homeostasis can be a lengthy process, but it is prerequisite for psychological intervention to be successful.

RESULTS

Case Study 101 proband has demonstrated her ability to achieve and maintain dopamine homeostasis.[190] She has used cognitive psychological tools to assist in learning mastery of her thoughts.[191] She recognizes unconscious or subconscious thoughts which can be problematic and distressful when revisited. She is choosing to focus upon positive edifying thoughts, and to use self-control to overcome mental mismanagement, by practice of mental mastery.[192]

She remains hopeful that neurological stability will become her new normal default setting. She has made remarkable progress by addressing chronic PTSD with dissociative multiplicity. This mental health diagnosis was hard for the patient to accept. It seemed unreal, unfathomable. It is extremely rare. The DSM-5TR does not supply remedy.[193] There is no self-help manual available to patients to assist them in healing from Dissociative Multiplicity. Although much has been written about Post-Traumatic Stress Disorder, in literature, perception of the disorder is mainly from a

researcher or doctor's point of view. She is curious about the perspective of other patients and wondering what insights they may provide.

She demonstrates behaviors which reflect edification rather than maladaptation.[194] She has become more engaged, more in control, more selective in the mastery of self, choosing wellbeing, rather than seeking to be numb. Rather than tuning out, she tunes in. This is the art of recovery from a complexity of issues very few ever escape. She has benefitted from Awareness Integration Therapy.[195] and daily mindfulness meditation.[196] to improve integrative awareness, unity from Dissociative Multiplicity and inner harmony.

Her personal wellness plan utilizes genomic applications, neuroscience and traditional and integral psychologies, to enhance wellbeing and to thrive. She is a definitive example of brain plasticity.[197-198] She re-creates her living brain daily.[199] Daily wellness practice includes feeding her brain living enzymes in the form of nutraceutical amino acids.[200-201]which have greatly increased her physical, mental and psychological health. Other wellness practice include: 1) Acupuncture,[202] 2) mindfulness meditation; 3) yoga;[203] 4) walking in nature; and 5) exercise,[204] in the forms of cycling.[205] swimming, and bungee cord aerobics.[206]

Psychologist Notes: ***"She is dedicated to reducing intake of processed foods, while increasing her intake of eating healthy living foods in Ayurvedic diet. She still struggles but is dedicated to prioritizing restorative sleep at night. She does allow herself the luxury of taking a nap when she is tired or gets massage to relax her body. While she is passionate about her altruistic work, experiences fulfillment through academic accomplishments, she admits to feeling lonely often."***

"She experienced a lifetime of feeling unloved and unworthy. She used to experience self-hatred but is learning to love herself. She wishes that those she loves reciprocated love and included her in their lives. She does have one uncle who loves and adores her. They speak daily, sharing the common bond of being cast out, and looked down upon by other members of their family.[207] She accepts that she has lost her biological family, her daughter and grandsons. She is dedicated to saving space for the universe to gift her with a new chosen family. She easily bonds with others who have known loss and hardship."

"She has not only suffered from addictions and mental health disorders, but she has also suffered from the very treatment provided. Her family's reaction to treatment failure was to blame her, to think she was not trying, or behaving purposefully to hurt them. In our current era, there is evidence of some individuals enjoying making it harder for those who are suffering, denying money when they are hungry, adding social and familial contempt and disdain to their shame.[208-209] She shares the commonality of heartache from parental alienation syndrome with other women who had their children taken and conditioned by caretakers to withhold love, severing the maternal bond throughout the lifespan."

"Thankfully she has invested in the development of psychological tools which help her to overrule negative feelings about herself. She realizes that others create their own reality, and that their opinions of her have no basis in truth about her own worth, but instead are indications of the inner landscape of the person projecting. With an IQ of 148, the average person is 50 IQ points beneath her. She has learned it is easier to not engage. She does however reach out to kindred spirits in recovery fellowship, who share her love for art. She stays in touch with former classmates and friends from childhood over the internet. She says she has found her "tribe" but it's tiny. She fits in perfectly with artists and intellectuals, and others with the rare personality type INFJ, the humanitarians. In this case scenario, traditional era psychological personality types are on point.[210] She feels in alignment with her humanitarian altruistic purpose."

"She desires spiritual growth.[211] but rejected the religion of her developmental programming decades ago after studying historical records and other religions. She gravitates towards Native American spirituality, Buddhist philosophy, Eastern energetic wellness practices such as Reiki, Gi-gong. Considering religion, she has abandoned her southern Baptist and Methodist creed. She is a proclaimed mystic, inclined to believe in gnostic versions of Yeshua, rather than the Roman Christian version of Jesus Christ, created at the Council of Nicene in 400 A.D. later adapted and augmented by the Vatican."



Graphic Illustration #5 The Science of Wellbeing.

When interviewed about her favorite aspects of the first years of this Reward Deficiency Syndrome Solution journey, she states:

"Looking back over the past five years, my first spectacular moment was getting to speak with Dr. Blum on the phone. I asked him if I could be a participant in one of his studies. I told him I had been studying his work and that I thought his protocol would help me. He did not say yes. He did not say no. But by the end of the 30-minute phone call, I was inspired to create for myself the best treatment plan I could imagine!! What genius, he motivated me to take full responsibility for my own recovery. He planted the seed of possibility and I watered it. He then directed me to the laboratory for Genetic Addiction Risk Score screening. When I got the GARS results, I was hooked. I had to know more. I have been studying neurogenetics in the genomic era ever since."

"There is more, I absolutely love and rely upon Dr. Blum's nutritional amino acid therapy. I feel like I have bathed in oxygen. When I mix the enzymes with green juice, or apple, and carrot, I use it sublingually, allowing the juice to be absorbed under my tongue. This way it bi-passes the digestive track and goes straight to my brain. The sensation is mental clarity. It is exhilarating, powerful yet calming."

"The Reward Deficiency Syndrome paradigm education was a blessing. I was glad to let go of the shame for treatment failure. I welcome neuroscientific perspective and felt relieved, hopeful that finally I might find the answers that were not in the practitioner layperson world. Achieving dopamine homeostasis, the first time was easy, and I felt so good. I remember thinking this is what it is supposed to feel like inside my head. I grieved that my neurological imbalance had distorted my moods, thoughts, actions, perceptions and relationships for 60 years. The RDS-SFBI therapy taught me how to work the treatment plan and maintain dopamine homeostasis. If I lapsed in protocol compliance, I learned to get back on course quickly and re-achieve dopamine homeostasis. The RDS-SOS tool is personalized for me and my issues. It helps me see what is going on that I might otherwise not realize. High numbers are red flags for high risk (SOS!) and low numbers show me this treatment is working. I have been practicing for five years now."

"I have graduated to the next phase, turning focus to wellness and thriving. I choose to keep a gratitude journal of good feelings, happiness, joy, bliss, peace, sense of wellbeing, time spent in meditation and communion with spirit. Reflecting upon where I was in year one and where I am today is obviously miraculous! My life has changed. Life is beautiful today. I experience bliss, rather than self-hatred, I am thriving, not dying. I am empowered."

In the beginning of this case study in year one, this participant stated that she did not know which was worse, the complexity of her addictions and mental health disorders or the available treatment offered.[212-217] Without RDS Solution System science, Case Study 101 would not have been able to stabilize from her mental health disorders to address and begin healing from Chronic Post Traumatic Stress Disorder with Dissociative Multiplicity. This work is in progress.

She says there are blessings in dissociative skill sets. Just as there are gifts in ADHD and Bipolar 1. She relies upon both her ADHD gift of hyperfocus and her Bipolar gift of rapidity of cognition. As a former participant in ibogaine research, which provided life review, expanded her consciousness, and spiritual ethereal connection, she feels the best is yet to come. Exhilarated by thoughts of coming full circle, she prepares for using sacred plant medicine rituals for integration of fracture, self-empowerment, spiritual enhancement through integral, transpersonal, existential and psychic realms.[218-219] We predict continued recovery progress and success over the remaining four years of this ten-year longitudinal study.[220-221]

These results of the Elle Foundation Research Institution 100 case study series in family genomics apply only to the individuals involved in this unique set of circumstances and may not be assumed to be generalizable to the greater population at large. Potential limitations may exist in the validity and reliability of patient self-report, participant samples of convenience and possible researcher bias. Further research is required and is ongoing or in development through EFRI 200s and 300s series.

CONCLUSION

Contributions to global science and humanity at large made by the Human Genome Project and World-Wide Gene Association studies are exponential.[222] The National Institutes of Health (NIH).[223-226] and the National Institute of Drug Abuse (NIDA) continue genomic era exploration of genetic and epigenetic influences and biomarkers of addiction and mental health disorder.[227- 228] Dr. Nora Volkow, Director of NIDA has led the investigation of neurocircuitry and neurobiology of addiction.[229-231] She has announced increased funding for the study of neurobiological markers and research informed by lived experience.[232-240]

Recently, American Psychiatric Association, Future DSM Strategic Committee chairwoman, Maria Oquendo announced plans for the new DSM 6th Edition, which will be called ***The Diagnostic and Scientific Manual*** to reflect its upgrade, aligned with the latest scientific evidence and new standards of care. The future edition will include new sections on context, biomarker and transdiagnostic criteria for a more relevant holistic patient evaluation. However, until the new sciences of genetic psychiatry, and psychological genomics are fully integrated with mainstream traditional addiction and mental health treatment, the gap between science and practice is still engorged.

RDS science may be the most beneficial cutting-edge genomic science on the planet for those who still suffer from chronic abstinence symptomology after 30-day inpatient twelve step treatment for substance abuse disorders, and mental health comorbidity.[241-244] The Elle Foundation is proud to help carry the message and bridge the gap between traditional perspective and genomic era perspective.[245-246] We recognize practitioner provider need to transition from traditional era perspective to genomic era perspective.[247-248] and the potential role of the Elle Foundation to assist you in doing your part as practitioners to bridge the gap.[249-252]

The Elle Foundation provides resource referrals for concierge genomics, including genetic screening services and neurological analysis for informed pharmacogenomic intervention. We offer consultation services to help corporate treatment chains, upgrade their licensure status and marketing appeal through RDS paradigm accreditation. We will even assist you temporarily in outsourcing Phase Two Reward Deficiency Syndrome treatment, developing your own referral network for continuing care, and helping you create Phase Two RDS treatment in house, expanding your product line.[253-257]

A search of the literature reveals tens of thousands of research studies supporting RDS science, and genomic and neuroscientific era applications. When treatment is comprehensive, addressing neurogenetic and neurobiological causal influences in addition to recovery through traditional cognitive-behavioral- psycho-social-spiritual motivation, we, the recovery industry of scientists, practitioners, and corporate bodies, have potential to change downward spiral trajectory and the revolving door of ineffective treatment of symptomology, rather than causal influence. The therapeutic power of genomic era applications in Elle Foundation Research 100's family genomic series is testimony to the world, there is hope. Indeed, there is a better way.

THE FUTURE IS NOW

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Appendix 1: The Reward Deficiency Syndrome – Severity of Symptom (RDS-SOS) scale.

INTRODUCTION

The reward deficiency syndrome severity of symptoms scale is a tool for the client to use to begin learning self-awareness and self-management technique. Each client is responsible for creating their own personalized RDS-SOS scale of symptom variables. Begin with this model. Add or subtract symptoms as necessary. Personalize it for yourself. Include symptoms associated with your mental health disorder cluster, including substance use, behavioral addictions, impulse control, obsessive-compulsive issues, bipolar, ADHD, PTSD, etc. To the right of the symptoms, add the numeric range of zero to ten.

When numeric values are low, you are most likely experiencing ease in your daily challenge. When symptoms are moderate, consider these are clues of recognition that these areas require your attention. High level is cause for alarm to send out an SOS. High levels indicate neurological dysfunction or a neurological storm which drives the engine of relapse.

This instrument introduces 2 new terms, anhedonia and dysphoria. These are RDS symptoms which relate to the phenomenon or experience of dopamine depletion and neurotransmitter deregulation. Hedonia is generally defined as pleasure, enjoyment and comfort. Anhedonia is the opposite negative effect. Anhedonia feels like suffering. Sometimes it is extremely stressful, as in one's inability to mitigate pain. Other times it is subtle, a lack of ease. You may experience Anhedonia as a sensation or feeling that something is not quite right. You may experience it as awareness you are not comfortable in your own body.

The combined experience of both anhedonia and dysphoria can signal great trouble. One analogy likens anhedonia to an invisible gas leak, while dysphoria can be viewed as the explosion caused by lighting a match. The resulting neurological storm is the straw that broke the camel's back. It is the tipping point in which you just cannot take "it" anymore. The "it" includes symptoms of chronic abstinence, untreated Reward Deficiency Syndrome, neurological imbalances which show up in the cerebral cortex, on both cellular and molecular levels where relapse is initiated.

Please do not think of relapsing as a failure. It is an indication that you are not in dopamine homeostasis. This RDS-SOS scale increases awareness of psychological, physiological and feeling state fluctuations, which alert the patient to increasing high risk, for both the prediction and prevention of relapse or the neurological storms, of neurochemical imbalance. Be patient with yourself as you learn to reorientate thinking to RDS perspective. Psychological symptoms can help you become aware of changing neurochemical balance.

Abstinence is not the only variable involved in assessing recovery success. Many do not even believe it is the most important variable. The harm reduction model weights improvement along several domains to access recovery success. For many, recovery is balance, a resting state in the middle, moderation between the extremes of active addiction and complete abstinence.

YOU ARE THE MASTER OF YOUR OWN DESTINY. CHOOSE WISELY

REWARD DEFICIENCY SYNDROME SEVERITY OF SYMPTOM (RDS-SOS) SCALE

Symptom				Low			Moderate			High		
Nicotine Use	0	1	2	3	4	5	6	7	8	9	10
Nicotine Craving	0	1	2	3	4	5	6	7	8	9	10
Alcohol Use	0	1	2	3	4	5	6	7	8	9	10
Alcohol Craving	0	1	2	3	4	5	6	7	8	9	10
Cocaine Use	0	1	2	3	4	5	6	7	8	9	10
Cocaine Craving	0	1	2	3	4	5	6	7	8	9	10
Sugar Abuse	0	1	2	3	4	5	6	7	8	9	10
Sugar Craving	0	1	2	3	4	5	6	7	8	9	10
Caffeine Abuse	0	1	2	3	4	5	6	7	8	9	10
Caffeine Craving	0	1	2	3	4	5	6	7	8	9	10
Anhedonia	0	1	2	3	4	5	6	7	8	9	10
Dysphoria	0	1	2	3	4	5	6	7	8	9	10
Anxiety	0	1	2	3	4	5	6	7	8	9	10
Restlessness	0	1	2	3	4	5	6	7	8	9	10
Impulsiveness	0	1	2	3	4	5	6	7	8	9	10
Irritability	0	1	2	3	4	5	6	7	8	9	10
Depression	0	1	2	3	4	5	6	7	8	9	10
Sleep Disturbance	0	1	2	3	4	5	6	7	8	9	10
Fatigue	0	1	2	3	4	5	6	7	8	9	10
Hyper Stress	0	1	2	3	4	5	6	7	8	9	10
Emotional Outburst	0	1	2	3	4	5	6	7	8	9	10
Panic	0	1	2	3	4	5	6	7	8	9	10
Frustration	0	1	2	3	4	5	6	7	8	9	10
Agitation	0	1	2	3	4	5	6	7	8	9	10
Itchiness	0	1	2	3	4	5	6	7	8	9	10
Hives	0	1	2	3	4	5	6	7	8	9	10
Rash	0	1	2	3	4	5	6	7	8	9	10
Binge Eating	0	1	2	3	4	5	6	7	8	9	10
Food Allergies	0	1	2	3	4	5	6	7	8	9	10
ADHD	0	1	2	3	4	5	6	7	8	9	10
Brain Fog	0	1	2	3	4	5	6	7	8	9	10
Bipolar Mood Swings	0	1	2	3	4	5	6	7	8	9	10
Racing Thoughts	0	1	2	3	4	5	6	7	8	9	10
PTSD-Physiological	0	1	2	3	4	5	6	7	8	9	10
PTSD-Psychological	0	1	2	3	4	5	6	7	8	9	10
OCD	0	1	2	3	4	5	6	7	8	9	10

Isolation	0	1	2	3	4	5	6	7	8	9	10
Worry	0	1	2	3	4	5	6	7	8	9	10
Using Thoughts	0	1	2	3	4	5	6	7	8	9	10
Calling to Re-Up	0	1	2	3	4	5	6	7	8	9	10
Pain Intensity	0	1	2	3	4	5	6	7	8	9	10
Anger	0	1	2	3	4	5	6	7	8	9	10
Fear	0	1	2	3	4	5	6	7	8	9	10
Negative Interactions	0	1	2	3	4	5	6	7	8	9	10
Involuntary Movement	0	1	2	3	4	5	6	7	8	9	10
Involuntary Vocals	0	1	2	3	4	5	6	7	8	9	10
COLUMN SUBTOTALS											
TOTAL RDS SEVERITY OF SYMPTOM SCALE TOTAL Do not include zero column +in your total											

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