

## Positive Outcome of Adherence to the Reward Deficiency Syndrome Solution System Treatment Plan: A Longitudinal Study

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### Editorial

The purpose of this editorial is to update the progress of Elle foundation case study 101, for whom a reward deficiency syndrome solution system (RDSSS) treatment plan was created in 2020, and her progress tracked daily during phase one in 2021 [1]. Analysis of phase one of this longitudinal study has been reported in more than one journal submission and published in peer review [2-4]. However, we have not yet reported the results of phase 2 or 3 in peer review. The case study's daily progress during each phase is tracked for 9 months, with three months off in between phases. Phase two was observed in year 2 of the study, which was 2022. Phase 3 was observed in year 3, 2023. Phase four is currently in progress, in 2024.

In review, the RDS treatment plan developed by Blum's group which was created for this participant began with genetic addiction risk severity (GARS) Screening. Test results found: 1) one risk allele (C/T), in the single nucleotide polymorphism DRD4; 2) 2 risk alleles in the variable tandem number repeats and insertions/deletions of the 5-HTT-Linked gene (S/S); and 3) risk alleles (4R/4R) of the variable tandem number repeats of MAOA [5].

The female patient was age 62 when first administered nutraceutical amino acid therapy (NAAT), which is the KB220 amino acid nutraceutical supplements, sold commercially as brain reward in 2020. Current blood analysis lab work shows that her physical health has improved with a 90,000 reduction of hepatitis C viral load. When she started phase one, she was pre-diabetic. With brain reward, her health has improved, and she is no longer in the prediabetes state. Increases in physical health have motivated her to establish and continue wellness practices of enhanced nutrition, decrease in eating processed foods, and a minimum of 3 - 5 exercise sessions per week. Participant quit her one pack a day tobacco smoking habit.

The GARS test results informed the creation of a pharmacogenomic intervention which served as a temporary bridge to neurological stabilization [6]. When in phase two, it was discovered that quetiapine [7] which was prescribed to treat her bipolar was interfering with the dopamine agonist/dopamine and

norepinephrine reuptake inhibitor, it was discontinued. It was discovered that the case study has both dopamine deficiency and surfeit, as dopamine is either metabolized at an increased or decreased rate in the brain reward center. We began to understand that this is perhaps correlational to her manic phases. In phase three, lithium carbonate was added at 300 mg twice a day and discontinued in phase four.

Patient has learned the subtle nuance of what it feels like to be in dopamine homeostasis versus what it feels like to be out of this range. Interviewing this patient revealed that she believes that when she is outside of the range of dopamine homeostasis, she is in mental illness, created in part by her predisposition risk for disruption of both dopamine and serotonin, and drug induced epigenetic response which lowers dopamine availability. She reports that these neural imbalances affect perspective, the way she experiences life, and her emotions. She reports that neurological imbalances influence the quality of her life, interfering with her relationships making it difficult to maintain them over the long term.

She reports the experience of dopamine homeostasis is bliss because she is no longer suffering the symptomology of untreated mental health disorders, and is not bothered by thoughts of drug use, and that she is insulated from the risk of relapse [8]. As a graduate student the participant understands that pharmaceuticals typically work through “poison therapy.” disrupting the natural flow of neurotransmission in a manner which is detrimental in the long term. She understands that there can be an increased risk of relapse for addictions and comorbid mental health disorders when not managed through medication.

In phase four, the participant is currently not on daily medication. If in the future, mania in the form of racing thoughts, or attentional deficits interfere with her ability to self-manage neurobiological symptomology, a break-through emergency microdose of medication may be required. However, it is advised that she first try increasing the dosage of her KB220 by 2 - 3 extra capsules to see if this provides remedy, regaining her sense of wellbeing and inner peace.

The participant uses the RDS-severity of symptom (RDS-SOS) instrument to measure the SOS and by keeping this record she can gauge whether she is stable or at increased risk [2]. She watches the patterns, and by charting them she is looking for patterns over longer periods of time. She has developed self-management skills. She works in co-relation with Frank E. Lane, MD, a psychiatrist from Dallas, Texas who has been treating her periodically over for the past 20 years. He noticed signs of dissociation and multiplicity in 2008, but the patient left for a period of years. Upon return in 2012, she was diagnosed with post-traumatic stress disorder (PTSD). Currently the diagnosis is complex PTSD with multiplicity. Today, in phase four she is integrated and writing a memoir on her experience.

Currently at 66 years of age, considering the severity of her numerous prior mental health disorder diagnoses, it is indeed miraculous that this RDS case study wakes up sober, and sane, with the mental acuity to help regulate her neurological flux.

The reevaluation of pharmaceutical prescriptions and dosage continues. Since opinion of effective dosages were determined, in a bygone era before the new RDS paradigm was introduced or the genomic era began, scientists, practitioner and patient are determining appropriate microdoses for emergency use, to stay within the range of dopamine homeostasis.

The case study's once habituated pattern of self-medicating to decrease symptoms of cocaine craving, bi-polar I and attention deficit hyperactivity disorder has been interrupted and a new normal created. The patient is thrilled to not need medication. She has expressed concern over the RDS lifespan trajectory which can end in Parkinson's disease. She is concerned that pharmaceuticals might cause increased damage to her already complex dopamine dysfunction, which includes both hypodopaminergia and hyperdopaminergia.

The subject is extremely diligent in keeping her daily records, because she understands that relapse can be life threatening and includes the threat of incarceration. She also understands that medications which work by poisoning the dopamine neurotransmitter channel are inadvisable and may speed decline into dopamine dementia. She was diagnosed with restless leg syndrome, a symptom of pre-Parkinson's since 2015.

Fortunately, this physical manifestation of RDS or dopamine deficiency, as well as the odd facial tics around the mouth, that are so typical in cocaine addicts have improved drastically, almost going away entirely. She attributes this improvement to the healing benefits of NAAT therapy. Before beginning phase one, the patient reported that it seemed just a matter of time before she crossed the line into permanent mental decline, or dementia. It is indeed a miracle that she lives free from illicit drug use and prescription medication.

In conclusion, the patient is sane, and well-adjusted, with healthy life enhancing coping mechanisms. Elle foundation case study 101 is an example of precision genomic addiction treatment working. RDSS™ have brought this individual back from the brink of permanent mental illness to a fully functioning mental state of clarity, in which she can manage the intensity of the PhD dissertation process.

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