METHODS: Three males (ages 10-16 years), are reported with 12 - 24 month histories of cognitive decline during treatment for "Bipolar Disorder of Childhood" with valproate. All were referred with multi-year histories of explosive/impulsive aggression and multiple unsuccessful psychopharmacological regimes. The one consistent medication throughout treatment was sodium valproate. The subjects received serial neuropsychological testing, complex EEG, MRI, valproic acid, carnitine, and ammonia blood levels. Oxcarbazepine titrated to 30-50 mg/kg/day was substituted for valproate after initial testing was completed. Normative reference laboratory levels were as follows: (1) ammonia (reference interval 15-45 mcg/dl), (2) total carnitine (reference interval 34-77 nmol/ml), and (3) valproic acid (reference interval 50-125 mcg/ml).

RESULTS: Case Study 1: Male, 10 years old, ammonia 78 mcg/dl; carnitine 17 nmol/ml; valproic acid 92 mcg/ml. IQ 79 (compared to 105 one year earlier); MRI cerebral atrophy; EEG - left temporal aberrancies.
Case Study 2: Male, 12 years old, ammonia 76 mcg/dL; carnitine 14 nmol/ml; valproic acid 104 mcg/ml. IQ 89 (compared to 109); MRI normal; EEG - left temporal aberrancies.
Case Study 3: Male, 16 years old, ammonia 72 mcg/dl; carnitine 24 nmol/ml; valproic acid 125 mcg/ml. IQ 45 (compared to 65); MRI normal; EEG - left temporal aberrancies.
In all three subjects, after valproate was removed (oxcarbazepine substituted) and supplemental L-carnitine added, ammonia and total carnitine levels normalized. At one year follow up, IQ's returned to previous baselines, and MRI atrophy (Case 1) normalized. EEG aberrancies were unchanged. Patients were mood and behaviorally stable on oxcarbazepine.

CONCLUSION: Evidence of cognitive decline while on valproate warrants ammonia and carnitine level testing. If these levels are abnormal, VHE should be diagnosed and valproate should be removed as rapidly as feasible; L-carnitine supplementation (the lesser of 100 mg/kg/day or 2 grams/day) should be implemented to normalize the carnitine level.

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Using Brief Motivational Interviewing to Increase Healthy Lifestyle Habits in Overweight and Obese Adults in a Rural Family Practice Setting

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ABSTRACT: Obesity is a rapidly growing epidemic in the United States of America resulting in a multitude of comorbid conditions. Individuals living in rural areas have a higher prevalence of obesity than in urban settings. Effective treatment of obesity is needed to decrease the morbidity and mortality of this chronic disease. Using motivational interviewing (MI) techniques to address unhealthy lifestyle habits has previously proven to be effective in aiding individuals to achieve a healthier lifestyle.

OBJECTIVES: The main objective is to determine the effectiveness of brief MI used during regular office visits and with phone follow-ups on body mass index (BMI) at the initiation of the project, as well as at the 3-month follow-up. Secondary objectives are to determine the effect brief MI has on the amount of weekly physical activity, advancing the individual to the next stage on the Transtheoretical Model of Change (TTM) continuum and determining common barriers to leading a healthy lifestyle in a rural adult population.

METHOD: Participants (n = 15) were recruited using a convenience sampling method from the primary care practice. Using a pretest/posttest design, individuals were asked to complete a survey regarding their amount of weekly exercise, their perceived stage of change and their barriers to healthy lifestyle choices. A pre- and post-intervention BMI was collected. One in-office brief MI session and two monthly phone sessions were conducted, each lasting not longer than ten minutes.

RESULTS: A total of 14 participants, mostly female (67%), aged 36 to 45 years old (33%), Caucasian (73.3%), and had some college education (40%), completed the study. It was hypothesized that brief MI would result in decreased BMI, increased exercise and advancement along the TTM continuum. No significant difference in the pre-and post -intervention BMI ([M = 37.88, SD = 9.15] vs [M = 37.01, SD = 9.37]); t (27) = 0.25, p = 0.801 was found. Many participants (n = 10), however, had a decrease in BMI. The difference in weekly activity (M = 644.2 min vs M = 268.57 min) was not found to be statistically significant; t (27) = 1.40, p = 0.17. An increase in readiness to change was noted, but, was not significant (p = 0.52). Of 34 responses, chronic pain or health conditions (n = 10) and scheduling conflicts (n = 7) were the two top cited reasons for not practicing a healthylifestyle.

CONCLUSIONS: This QI project did not demonstrate statistically significant improvement in BMI, weekly exercise or readiness to change after three months of brief MI. It is important to note, however, that many individuals did experience an overall decrease in BMI. It is also promising to note that more individuals were

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participating in healthylifestyle activities more frequently post-intervention when analyzed on the TTM continuum. Further studies are needed to analyze the most effective strategies to assist individuals in rural settings to make healthier lifestyle choices.

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Lurasidone in Children and Adolescents With Bipolar Depression Presenting With Mixed Features

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ABSTRACT: Objective: To evaluate the efficacy and safety of lurasidone in the treatment of children and adolescents with bipolar depression presenting with mixed features.

METHODS: Patients 10 to 17 years of age, inclusive, with a DSM-IV-TR diagnosis of bipolar I depression, were randomized to 6 weeks of double-blind treatment with once-daily, flexible doses of lurasidone 20-80 mg or placebo. The presence of mixed features (subthreshold hypomanic symptoms) was defined as a YMRS score > 5 at study baseline. Efficacy analyses included change from baseline to week 6 in Children Depression Rating Scale, Revised (CDRS-R) score (the primary outcome), and Clinical Global Impressions, Bipolar Severity of Depression Score (CGI-BP-S), using mixed model for repeated measures (MMRM) analysis.

RESULTS: At baseline, mixed features were present in 54.2% of patients (lurasidone, n = 97/173; placebo, n = 89/170). Treatment with lurasidone (vs placebo) was associated with significantly greater reductions in CDRS-R scores at week 6 in the mixed features group (-21.5 vs -15.9; P < 0.01; effect size, 0.45), and in the group without mixed features (-20.4 vs -14.8; P < 0.01; effect size, 0.45). Likewise, lurasidone was associated with greater effect size (vs placebo) for reductions inCGI-BP-S scores at week 6 in the mixed features group (-1.6 vs -1.1; P < 0.001; effect size 0.57), and in the group without mixed features (-1.3 vs -1.0; P = 0.05; effect size 0.30). Rates of protocol-defined treatment-emergent hypomania or mania were similar for lurasidone and placebo in patients with mixed features(lurasidone 8.2% vs. placebo 9.0%) and without mixed features (lurasidone 1.3% vs. placebo 3.7%).

CONCLUSIONS: In this post-hoc analysis, lurasidone was found to be efficacious for treating child and adolescent patients with bipolar depression presenting with mixed features(assessed cross-sectionally at study baseline). There was no increased risk of treatment-emergent mania observed in patients with or without mixed features.

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Comparative Efficacy and Tolerability of Lurasidone Versus Other Oral Atypical Antipsychotics for Pediatric Schizophrenia: A Network Meta Analysis

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ABSTRACT: Study Objective: This analysis assessed the relative efficacy and tolerability of lurasidone versus other atypical antipsychotics in the treatment of pediatricschizophrenia.

METHODS: A systematic literature review identified 13 randomized-controlled trials for the treatment of pediatric schizophrenia. A Bayesian network meta-analysis compared the efficacy and tolerability of the following atypical antipsychotics: aripiprazole, asenapine, clozapine, lurasidone, olanzapine, paliperidone, quetiapine, risperidone, andziprasidone. Patients were 7-17 years old and trial duration ranged from 6-12 weeks. Outcomes included Positive and Negative Syndrome Scale (PANSS), Clinical Global Impressions-Severity (CGI-S), weight gain, all-cause treatment discontinuation, and extrapyramidal symptoms. Results from the fixed effect models

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