using digital screens such as TVs. However, there is a proliferation of digital screens in children's daily lives both at school and at home. The purpose of this study was to examine factors that contribute to children's screen-time, including their demographic characteristics and whether or not they have screen-time at school. METHODS/STUDY POPULATION: In total, 59 children (3.3 ± 0.4 years of age; 47% female) enrolled in 3 child care centers participated. Center directors reported school screen-time; 1 center was classified as not providing screen-time and 2 centers were classified as providing screen-time. Parents reported child's age, sex, and maternal education as a proxy for socio-economic status. Parents reported child's out-of-school screen-time by responding to the question "During the past 30 days, on average how many hours per day did your child sit and watch TV or videos outside of school?" Additional questions queried how many hours per day did the child "use a computer or play computer games," "play video games," "use a smartphone," and "use an iPad or tablet." Children's height and weight were collected using standard clinic procedures and body mass index (BMI) was calculated. *T* tests were used to examine differences in screen-time by age, sex, and school screen-time. General linear models were used to examine the influence of school screen-time (1 = no screen-time, 0 = between 1 and 60 min/day of screen-time), age, BMI, and maternal education on out-of-school screen-time and time spent with each device. Logistic regression analysis was used to examine likelihood of meeting screen-time recommendations based on the same characteristics. RESULTS/ANTICIPATED RESULTS: Parent-reported total screen-time was 6.3 ± 3.6 hours/day (h/d); specifically, 2.5 ± 1.1 h/d watching TV, 1.5 ± 2.2 h/d using a smartphone, 1.1 ± 0.9 h/d using a tablet, 0.8 ± 1.0 h/d on a computer, and 0.5 ± 0.7 h/d playing video games. Based on total screen-time, 15% of children met AAP recommendations; based on TV viewing only, 52% met AAP recommendations. The 4-year-old children viewed more screen-time overall compared to the 3-year-old children including on TV, computer, and tablet ($p < 0.05$), but there were no sex differences. In fully adjusted linear models, out-of-school screen-time was lower among those who had no screen-time at school ($p = 0.02$) and higher among older children ($p < 0.01$). Computer use was higher among older children ($p = 0.02$). Older children and those with lower maternal education were less likely to meet clinical recommendations based on TV viewing ($p < 0.05$). There were no observed associations with likelihood of meeting clinical recommendations based on total screen-time. BMI was not a significant predictor of screen-time. DISCUSSION/SIGNIFICANCE OF IMPACT: The majority of children exceeded AAP screen-time limits, with screen-time sharply higher among older children, and the associations did not vary by weight status. Children who attended schools that allowed screen-time had higher amounts of out-of-school screen-time. Pediatricians and healthcare providers should query parents on children's screen-time practices at home and at school and offer strategies to help families meet the clinical recommendations.

2208

Patient satisfaction with the Michigan Surgical and Health Optimization Program (MSHOP): A mixed methods study

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OBJECTIVES/SPECIFIC AIMS: This project has 2 overarching objectives: (1) to investigate the acceptability of the Michigan Surgical and Health Optimization Program (MSHOP) among referred patients, and to describe individual motivations behind enrollment Versus nonenrollment; and (2) to identify patient and program related factors associated with adherence and LOS and readmission rates. METHODS/STUDY POPULATION: Hypothesis—(1) MSHOP participants will report overall satisfaction with the program. Individuals that are satisfied with the program will be likely to perceive the program as effective. Subjects that declined MSHOP will be more likely to perceive their outcomes as immutable. (2) MSHOP patients will have shorter hospital stays and fewer readmission compared with patients who declined MSHOP. Methods—this study will use both qualitative and quantitative methods to investigate patient experiences and program efficacy. First, a convenience sample of patients who were referred to the MSHOP within the previous 12 months will participate in structured interviews to assess program acceptability, patient satisfaction with individual components of MSHOP, and perception of program efficacy. Interviews will also include patients who declined to enroll in MSHOP. Interviews for these subjects will include questions that assess why patients chose to decline enrollment. Second, there will be a retrospective cohort study comparing hospital outcomes among patients who enrolled in MSHOP Versus those who chose not to enroll. Analysis—interviews will be recorded and transcribed for thematic analysis to identify patterns associated with satisfaction or dissatisfaction with the MSHOP. Multivariate regression will be used to determine effect of MSHOP participation on postsurgical length-of-stay and 30-day readmission rate. Demographics and procedure type will be included as covariates. RESULTS/ANTICIPATED RESULTS: In total, 28 interviews have been transcribed, and are in the initial stages of thematic analysis. Interviews have thus far suggested that patients have been satisfied with MSHOP and would recommend the intervention to other patients. Retrospective data regarding hospital length of stay for MSHOP patients from September 2014 to December 2016 has been acquired and is being processed. The characteristics of patients that tend to participate more actively in MSHOP will be explored. We anticipate that active participation in the MSHOP will be associated with shorter hospital stays and fewer readmissions. DISCUSSION/SIGNIFICANCE OF IMPACT: This study will be one of the first to characterize patient perception of MSHOP, in particular its use of tracking step counts and breathing exercises to promote a form of prehabilitation that is easier to integrate into daily life. This project will investigate MSHOP's effect on patient outcomes, as well as explore factors that may associate with better patient adherence and outcomes. This would help further optimize the MSHOP as an intervention.

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Mobile enhancement of motivation in schizophrenia: A pilot trial of a personalized text message intervention for motivation deficits

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OBJECTIVES/SPECIFIC AIMS: Motivation deficits are one of the strongest determinants of poor functional outcomes in people with schizophrenia. Mobile interventions are a promising approach to improving these deficits, as they can provide frequent cues and reinforcements that support goal-directed behavior. The objective of this study is to describe the intervention protocol and initial effectiveness of a personalized mobile text message intervention, Mobile Enhancement of Motivation in Schizophrenia (MEMS). METHODS/STUDY POPULATION: This pilot study will examine the effects of MEMS compared with a control group using a randomized design. Up to 40 outpatients with a schizophrenia-spectrum disorder will be recruited. All participants will set individualized recovery goals to complete over an 8-week period; those randomized to receive MEMS will also receive 3 sets of personalized, interactive text messages each weekday to reinforce and cue goal completion. Before and after the 8-week period, participants in both groups will complete validated measures of motivation, quality of life, and functioning. Both groups will also report their goal attainment after 8 weeks. RESULTS/ANTICIPATED RESULTS: It is anticipated that those in the MEMS group will demonstrate greater goal attainment and improvements in motivation, quality of life, and functioning compared with the control group. DISCUSSION/SIGNIFICANCE OF IMPACT: This project will test the initial effectiveness of a novel intervention for improving one of the most debilitating aspects of schizophrenia.

2253

An analysis of how consumer physical activity monitors (monitors) are used in biomedical research

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OBJECTIVES/SPECIFIC AIMS: To analyze how consumer physical activity monitors are currently used in biomedical research. METHODS/STUDY POPULATION: Searches were conducted in Ovid Medline, PubMed Medline, clinicaltrials.gov, and NIH RePORTER using search terms including Fitbit, Jawbone, Apple watch, Garmin, Polar, Microsoft band, Misfit, Nike, Withings, and Xiaomi. Results were quantitated by category: condition/topic, intervention, enrollment status, study type and design, age, grant mechanism, and primary outcome. RESULTS/ANTICIPATED RESULTS: Fitbit is used >80%. There are 127 clinical studies using Fitbit devices listed in clinicaltrials.gov. In total, 48 have been completed while 79 are ongoing. Some studies have already published their findings; 40 papers cited in Ovid MEDLINE report use of a Fitbit device. NIH is now funding research that uses consumer physical activity monitors, and the NIH RePORTER shows the number of grants using Fitbit is rapidly increasing. DISCUSSION/SIGNIFICANCE OF IMPACT: The current state and potential growth of this technology is transforming biomedical research and is enabling us to ask new and more granular questions about activity and sleep in health and disease.