"To see the quiet people put the most deep, meaningful picture on their slide show that you would've never thought would come out of that person. To see people blossom throughout the program. Once they're on their second slideshow, they're talking. They're describing themselves. It was great. People were sitting up straighter that were hunched over when they first came in."- Patient in study

STUDY OBJECTIVE

To assess the feasibility of incorporating EDI as a technique for improving existing therapeutic programs within the Cataumet rehabilitation program at Gosnold on Cape Cod, an addiction treatment services provider. This feasibility assessment is the first study to examine the utilization patterns and patient experience of participants' therapeutic use of Expressive Digital Imagery (EDI). Results of the mixed methods pilot suggest that EDI can feasibly be incorporated as a technique to enhance current, valid treatment approaches (**Figure 1**). Future research is planned to determine how EDI may impact outcomes by addressing patient self-efficacy amongst other targets on the causal pathway.

SUMMARY OF KEY FINDINGS

- Evident in both surveys and focus groups, participants felt strongly that <u>EDI had contributed to their recovery experience and outlook</u> by enabling self-expression, generating new insights and establishing connection with others.

- Using images to discuss their feelings <u>enabled individuals to take responsibility</u> for their thoughts and feelings in a distinct way which was less threatening than more traditional verbal therapies.

- EDI users reported that this <u>process of engagement contributed to increased self-esteem</u> and a sense of accomplishment.

- Participants of varied demographic background and levels of technological familiarity indicated <u>EDI was easy to learn</u> and equally as many indicated it was <u>user-friendly.</u>

- A number of participants indicated they <u>wanted broader options</u> for altering imagery and captions to enhance their use experience.

Table 1. Representative Illustration of Participant Responses by Domain	
Self-Expression	*"Sometimes I find it hard to put into words how I feel about something but with using images to help describe how you feel I think it begins to help me open up."*
Establishing Connection	*"You associate that picture with the way they feel. .. if someone says yeah, I was so sad when I was using. That only does so much. When someone can show me the utter despair and bankruptcy of—emotional bankruptcy, I can relate to that a lot more than just saying I drank or I drugged and it sucked and I was sad. The seeing it, and the processing it as it relates to yourself…It's not an abstract idea. It's right there."*
Self-Discovery	*"People took all different sorts of meaning from a photo, and meaning that I didn't even prescribe to the photo originally. Just showing that photo, I even gained something from my own photo that I hadn't originally gained to begin with."*
Verbalizing Vulnerabilities	*"I don't wanna talk about my feelings with someone, but I'll talk about a picture and the caption that I wrote. Then eventually the feelings come out... it's safer."*
Focus on Recovery	*"It was a great new way to express my thoughts and emotions more creatively. It helped to emphasize some goals that I never realized I had."*

METHODS

An independent mixed methods program evaluation was conducted to assess the feasibility of implementing and evaluating Expressive Digital Imagery (EDI) within the context of an inpatient SUD treatment program. Four focus groups (n=29) and interviews (n=60) provided in-depth and nuanced insight into the patient experiences and allowed follow up queries related to emergent themes (**Table 1**). Survey data added dimension to the focus groups (**Table 2**). The study design is illustrated in **Figure 1.**

Consented participants were eligible to participate in focus groups and/or complete the individual survey after reaching minimum of 21 days enrollment in the program. All focus groups were held at Cataumet and were approximately 60-90 minutes in length. Patients were recruited during a 4 month period and eligible for participation after 21 days of treatment with the EDI technique.

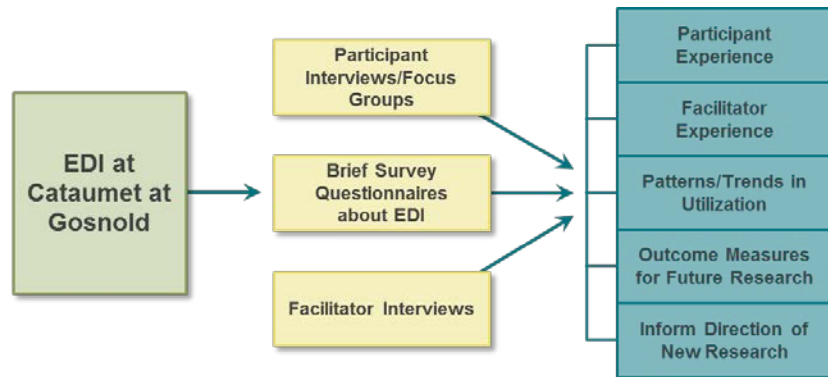Figure 1. Study Design for Pilot Feasibility Assessment of EDI

Table 2. Relevant Contributions of EDI to Patient Treatment Experience
Self-Expression
98% were able to express how they felt with EDI*
100% agreed EDI helped them to express themselves*
93% indicated EDI helped them to describe their thoughts and feelings to others*
73% felt more comfortable discussing difficult topics when the conversation focused on EDI images*
92% felt they are able to share something through their images they are otherwise uncomfortable sharing^
Self-Discovery
90% felt EDI helped them to realize new insights about themselves they were previously unaware of^
80% felt receiving feedback from others helped them to express new insights/feelings previously unknown*
85% felt discussing other peoples' images helped them to express new insights and feelings about themselves*
Self-Esteem and Sense of Self
97% felt a sense of accomplishment when creating an image*
98% felt proud of the images they created*
95% felt understood by others when sharing their EDI images*
95% felt creative when they use EDI*
Self-Efficacy and Readiness to Change
88% felt EDI helped them to be more clear about the challenges they are facing*
90% indicated using EDI helped them to feel optimistic about their recovery*
93% felt EDI helped them to engage in the program and their treatment*
90% felt EDI helped them to discover things about themselves which impact their recovery*
88% felt EDI contributed to their ability to understand what they have to do to be successful in their recovery*
Program Experience
98% enjoyed using EDI*
98% have received support and validation from others when sharing their EDI images^
93% liked sharing the images they created with EDI*
97% felt that when someone shared an image, they could relate to them*
92% indicated that seeing other peoples' images helped them to understand their own thoughts and feelings*
*Responses included Agree and Strongly Agree; ^Responses included Sometimes, Often, Always

FUTURE RESEARCH DIRECTIONS
- This research offers insight into the **role of EDI as part of an existing treatment program**.
- The pilot study **produced actionable suggestions** for the development of innovative, technology-based, patient centered self-management interventions, including application of self-expressive digital imagery.
- Results from this assessment can **advance the design and development of future research** on these important issues.