

Outcomes Associated with Utilization of A Self-Guided Mental Health Tool During Infertility Treatment

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Background:

Nationally, 8% of adults experience symptoms of major depressive disorder (MDD) (1) and 15% of adults experience symptoms of generalized anxiety disorder (GAD). (2) In individuals undergoing infertility treatments, almost 40% experience symptoms of anxiety and 28.5% experience depressive symptoms (3). Diagnosis and treatment response of these conditions are aided by standardized screening questionnaires, GAD7 is utilized for GAD and PHQ9 is utilized for MDD. Given the frequency with which patients undergoing infertility treatments exhibit symptoms of GAD or MDD, interventions have been designed and piloted to aid in the management of the mental health toll these patients experience. Barriers to mental health treatment, such as psychotherapy, include time, finances, and access to resources. Tech-based resources are an additional treatment option that could provide benefit while reducing barriers. Thus, the aim of this study was to assess the impact of a self-guided mental health tool, Silvercloud®, in a population undergoing fertility treatment. We hypothesized that with this self-guided intervention, patients would see improvement in their symptoms as reflected by a decrease in their GAD7 and PHQ 9 scores.

Methods:

New patients at a single academic reproductive endocrinology and infertility practice were screened utilizing GAD7 and PHQ 9 to assess their baseline **score** of GAD and/or MDD. Patients with scores above 5 on both measures and/or history of anxiety and depression were offered access the Silvercloud program. Patients who engaged in Silvercloud were asked to complete PHQ9 and GAD7 questionnaires at two week intervals while engaging in the self-guided modules though 12 weeks of participation. An Anova Test was used to compare the final PHQ9 and GAD7 scores completed by participants in the Silvercloud program to patients who did not engage in the Silvercloud program.

Results:

A total of 145 patients enrolled in the Silvercloud program over the course of 12 months. Baseline PHQ9 and GAD7 scores were collected for patients who enrolled in Silvercloud and patients who did not enroll in the Silvercloud program. Patients who engaged in Silvercloud had no significant changes in their GAD7 scores after use of program compared to patients who did not use Silvercloud ($p=0.271$) (Table 1). However, patients who engaged in Silvercloud did have a significant decrease in their PHQ9 scores compared to those who did not engage in the program ($p= 0.046$) (Table 1).

Conclusions:

The Silvercloud program offers a unique opportunity for patients to work through self-guided mental health modules. Our findings suggest its benefit in an patients undergoing fertility treatment amidst the ongoing stressor of treatment. Given the ease of uptake of this program and its benefits, it is reasonable to consider expansion of this resource to other

infertility practice or clinics. Ongoing studies should assess differences in the level of engagement based on patient demographic factors as well as assess the long-term impact of these modules on GAD and MDD diagnoses in an infertility population.

References:

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			Mean Difference	Std. Error	p
PHQ9	SC User	Not SC User	-0.899	0.448	0.046
GAD7	SC User	Not SC User	-0.484	0.438	0.271

Table 1: Average Differences in PHQ9 and GAD7 Among Reproductive Medicine Clinic Patients with differences between users of Silvercloud and Non Users