



ASRM 2023

The Past, The Present, and The Pipeline

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Understanding anxiety and depression before a diagnosis of infertility

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Disclosures

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References

- The prevalence of anxiety symptoms in infertile women: a systematic review and meta-analysis, Kiani et al 2020
- The psychological impact of infertility: a comparison with patients with other medical conditions Domar et al, 1993
- Incidence of depression and influence of depression on the number of treatment cycles and births in a national cohort of 42,880 women treated with ART Sejbæk CS, et al. 2013
- Parents' anxiety and depression symptoms after successful infertility treatment and spontaneous conception: does singleton/twin pregnancy matter? Tendais et al. 2016
- The prevalence of anxiety symptoms in infertile women: a systematic review and meta-analysis, Kiani et al 2020



Background

13-30%

Prevalence of **Anxiety** among women undergoing infertility treatment

9-31%

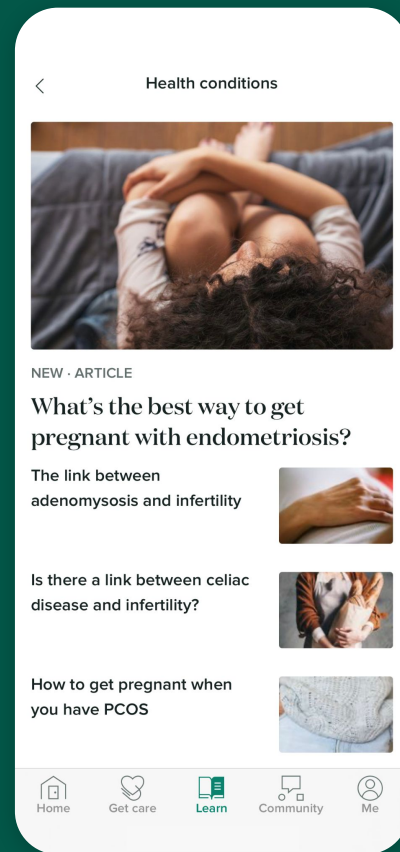
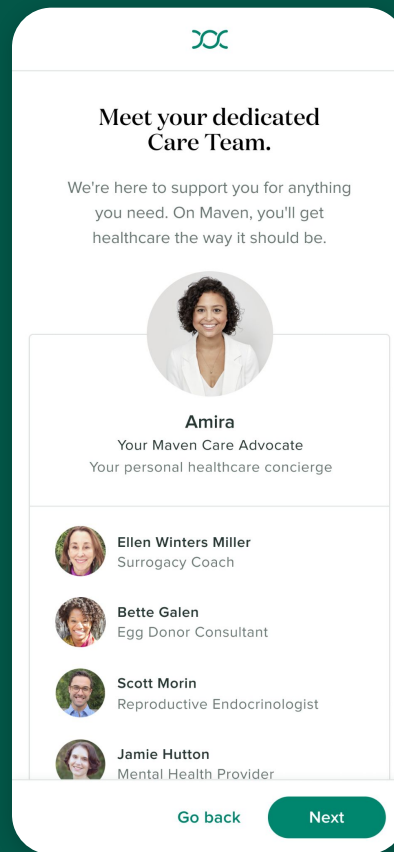
Prevalence of **Depression** among women undergoing infertility treatments

???

Prevalence of Anxiety and Depression *during* the Trying to Conceive (TTC) time period

Objective

To determine the prevalence of anxiety, depression, and associated emotional coping among users of a digital fertility platform at different stages of the fertility journey.



Methods

Study design

Retrospective cohort

Population

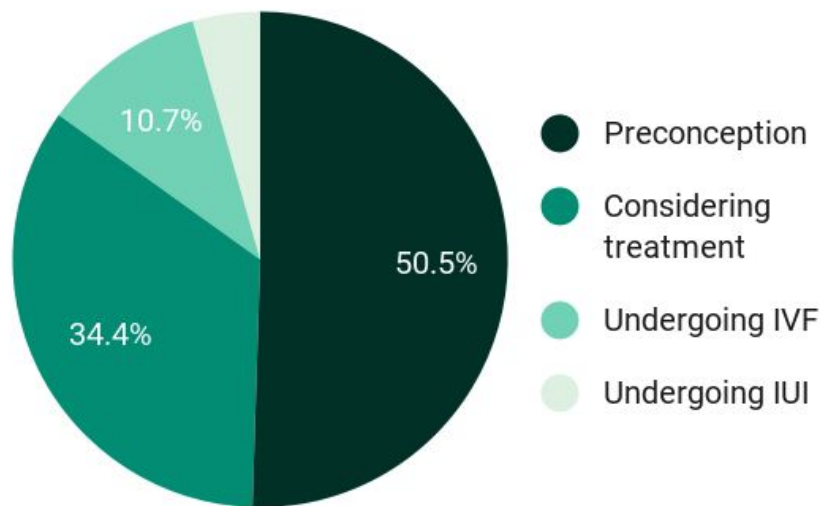
1,493 people enrolled
in the Fertility track of a
digital health platform

Statistical analysis

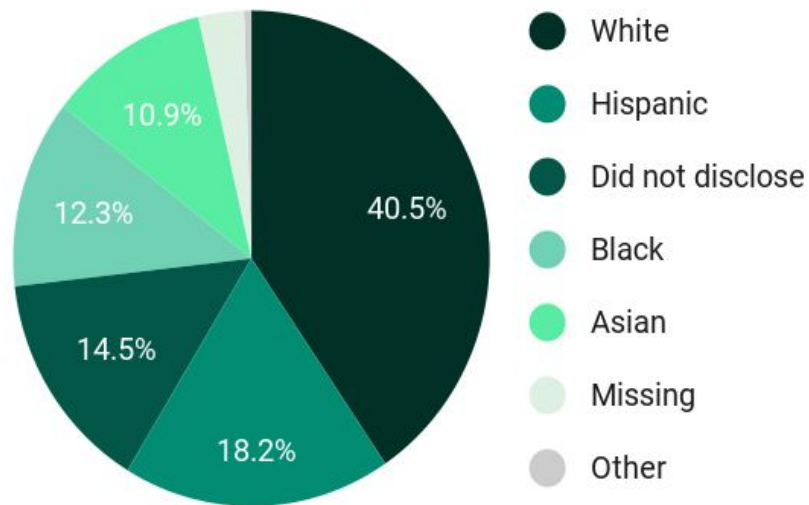
Descriptive statistics
and logistic regression

Population characteristics

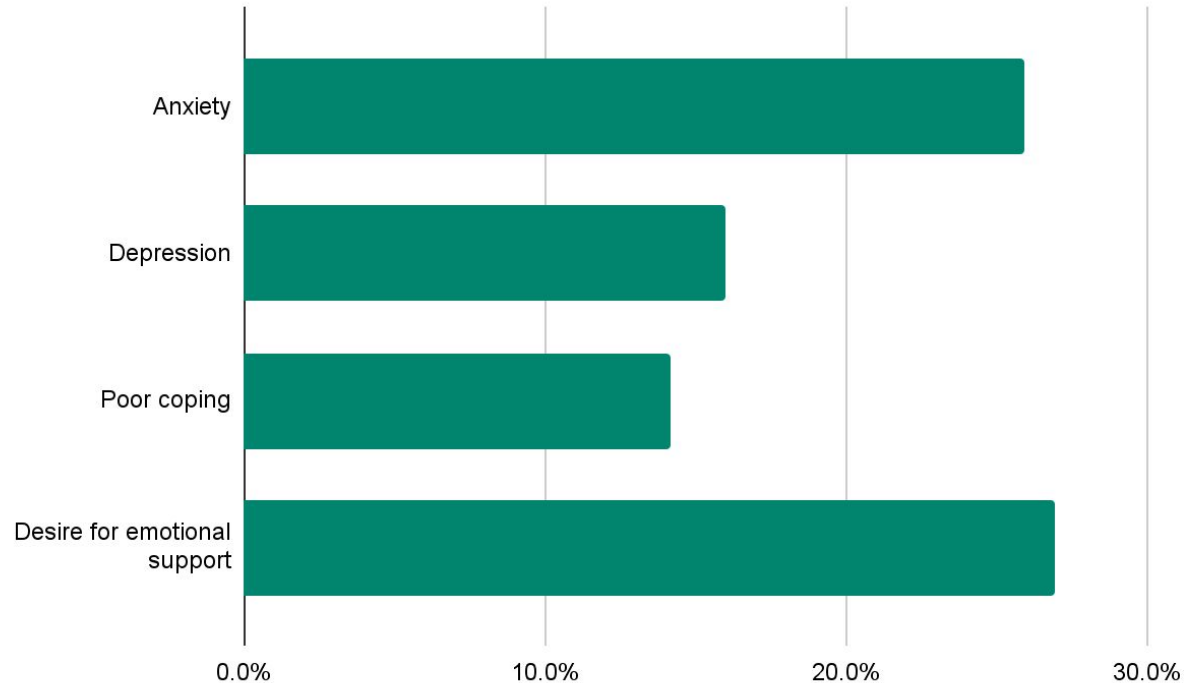
Fertility treatment status

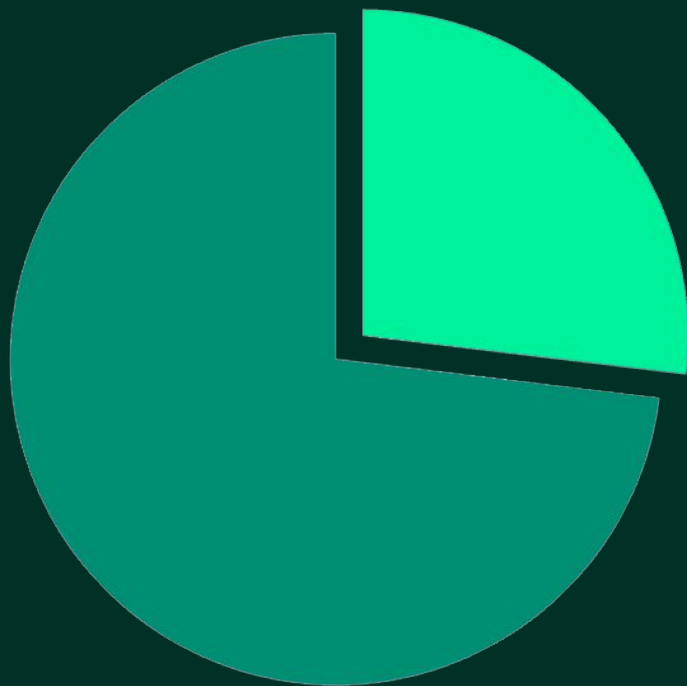


Race / Ethnicity



Mental health among those enrolled in the fertility program

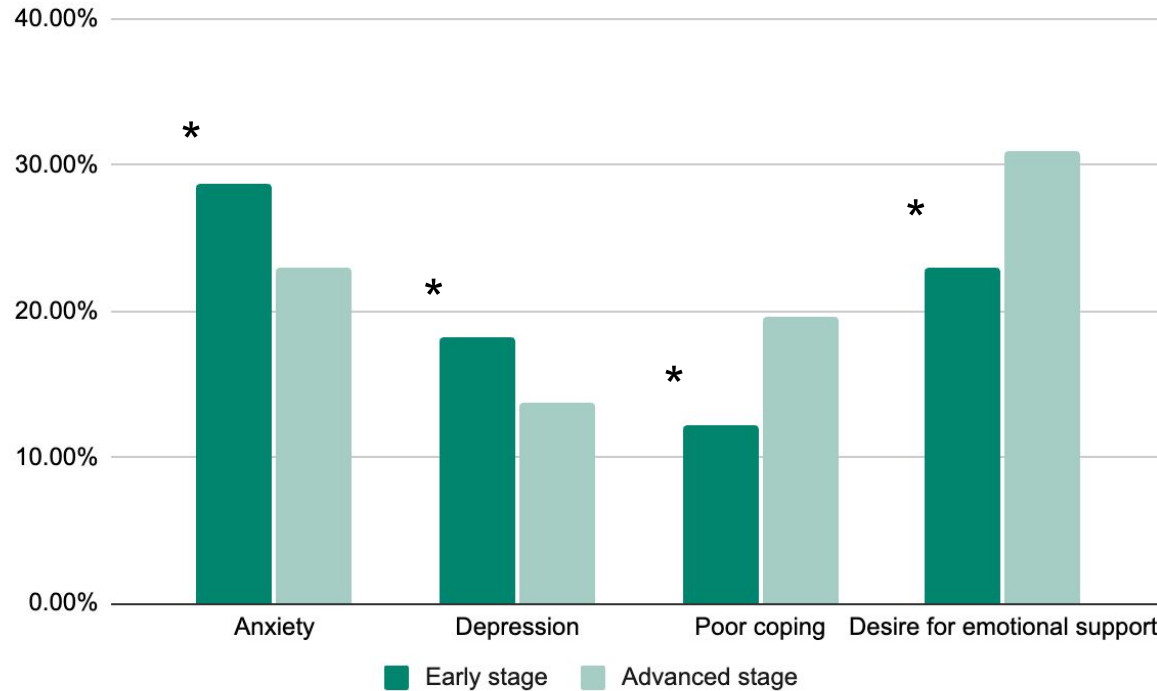




26.9%

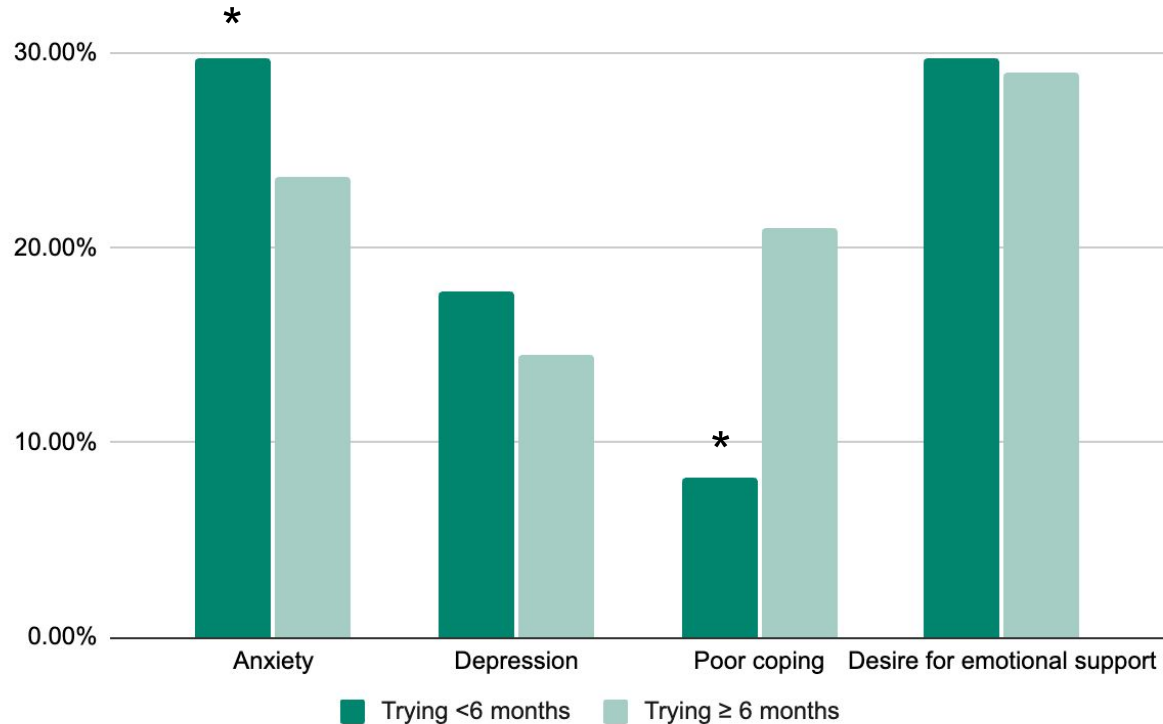
of users are interested in
receiving emotional support on
the digital platform

Mental health by stage of fertility journey



* indicates $p < 0.05$

Mental health by time trying to conceive



* indicates $p < 0.05$

Key points

26%

Prevalence of anxiety

16%

Prevalence of depression

Key points

Prevalence of depression and anxiety was **HIGHER** among those early in the TTC pathway

Future work

- Does mental health support while trying to conceive improve anxiety/depression? Does it improve maternal anxiety or postpartum depression?
- Are personalized approaches through digital services able to improve mental health status during conception window?
- Are we adding value and increasing access while promoting improved health outcomes through digital technology?

Thank you

Key message

Individuals in early stages of the fertility journey, prior to a diagnosis of infertility, were more likely to report anxiety and depression

Contact us

Email: research@mavenclinic.com

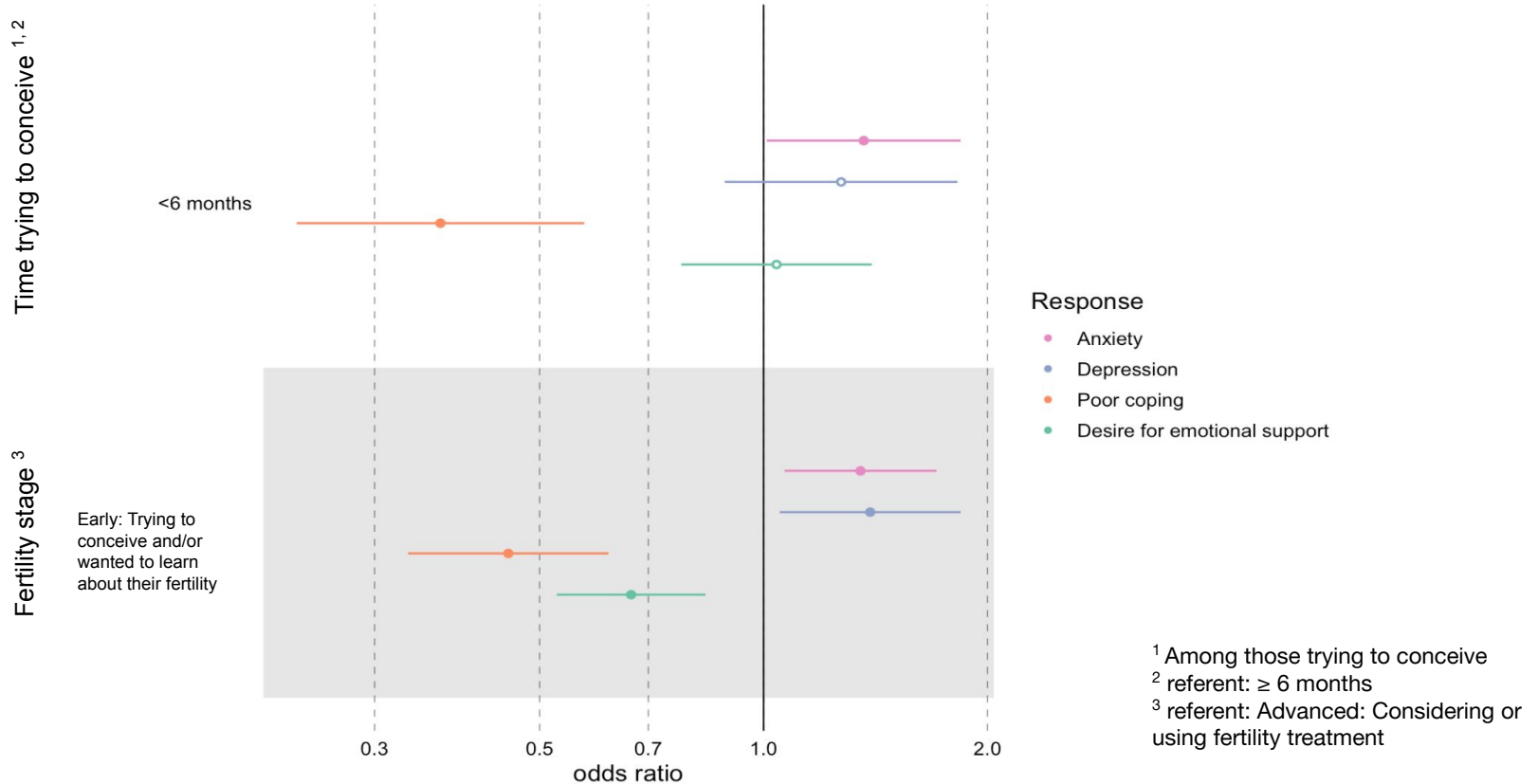
Appendix

User characteristics

	Full sample N = 271
Age, Mean (SD)	33.5 (5.43)
Race/ethnicity	White 604 (40.5%) Asian 163 (10.9%) Black 183 (12.3%) Hispanic/Latine 1271 (18.2%) Other 4 (0.3%) American Indian 4 (0.3%) Did not disclose 217 (14.5%) Missing 47 (3.1%)
Fertility treatment status	Preconception 754 (50.5%) Considering treatment 514 (34.4%) Undergoing IUI 65 (4.4%) Undergoing IVF 160 (10.7%)
Time trying to conceive	6 months or less 292 (19.6%) 7-12 months 262 (17.5%) 13-24 months 234 (15.5%) More than 2 years 303 (20.3%) N/A 393 (26.3%) Missing 9 (0.6%)
Reproductive conditions	Endometriosis 97 (6.5%) Ovarian failure 7 (0.5%) Recurrent implantation failure or loss 47 (3.1%) Tubal blockage 55 (3.7%) Unexplained fertility 189 (12.7%) Uterine fibroids or polyps 95 (6.4%) Low egg count 65 (4.4%) Insulin resistance 65 (4.4%) Abnormal sperm 140 (9.4%) No male or female reproductive conditions 788 (52.8%)

	Anxiety	Depression	Poor coping	Desire for emotional support
	<i>OR (95% CI), p</i>			
Time trying to conceive ¹				
< 6 months ²	1.37 (1.01, 1.84), p=0.04	1.28 (0.89, 1.82), p=0.20	0.35 (0.22, 0.54), p<0.01	1.04 (0.77, 1.38), p=0.80
Early vs Advanced Stage Fertility Pathway				
Early: Trying to conceive and/or wanted to learn about their fertility ³	1.35 (1.07, 1.71), p=0.01	1.39 (1.05, 1.84), p=0.02	0.45 (0.33, 0.62), p<0.01	0.66 (0.53, 0.83), p<0.01

Fertility and mental health



Abstract for reference

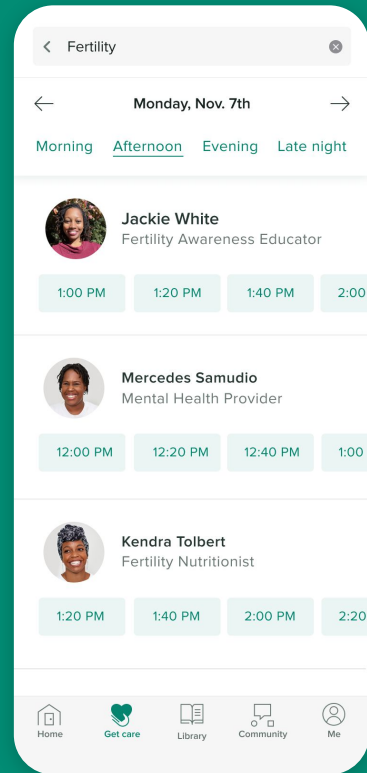
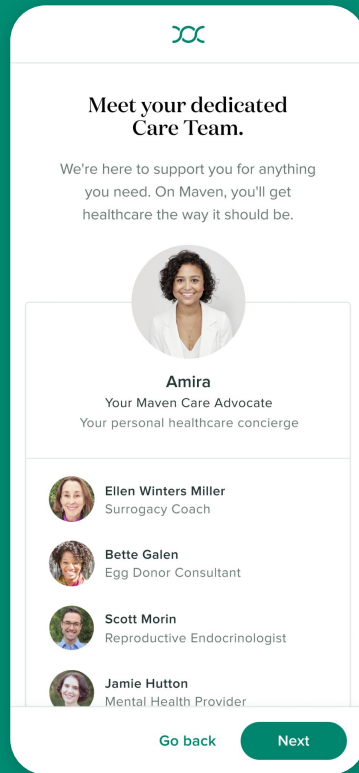
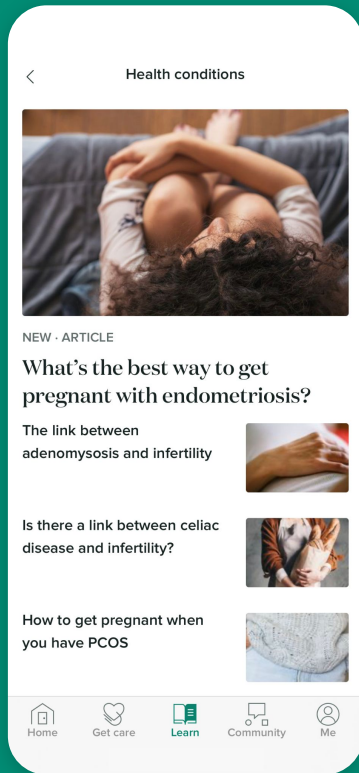
OBJECTIVE: A high burden of mental health distress is known to follow a diagnosis of infertility, but the mental health impact of earlier stages of trying to conceive remain less well described. User reported data on digital health platforms enable unique insights into mental health prior to a diagnosis of infertility. We aim to determine the prevalence of anxiety, depression, and associated emotional coping among users of a digital fertility platform at different stages of the fertility journey.

MATERIALS AND METHODS: Retrospective cohort study of 1493 individuals using a digital health platform. Logistic regression was used to determine differences in prevalence of anxiety, depression, poor emotional coping, and interest in emotional support at various stages of the trying to conceive pathway.

RESULTS: A total of 25.9% (n=387) of patients reported anxiety, 16.0% (n=239) reported depression, and 14.2% (n=213) reported they were coping poorly emotionally at some point during the fertility journey. 26.9% (n=402) wanted emotional support help. Among users trying to conceive, those who were trying for <6 months were more likely to report anxiety than those trying for ≥6 months (Table 1). Users who were not yet considering or using fertility treatment were more likely to report anxiety and depression and less likely to report interest in emotional support than those considering or using treatment (Table 1).

CONCLUSIONS: This study demonstrates a high prevalence of anxiety and depression among people trying to conceive, even prior to a diagnosis of infertility. Individuals in early stages of the fertility journey were more likely to report anxiety and depression. However, individuals who were trying longer and those undergoing fertility treatment were all at increased risk of poor emotional coping.

IMPACT STATEMENT: While mental health resources have been targeted at infertile individuals, these results suggest a need for mental health support early in the path of trying to conceive, often prior to a diagnosis of infertility. Investing in mental health support early in the trying to conceive pathway may both improve mental health and mitigate the burden of mental health distress and poor coping at later stages of fertility treatment.



Mental health among those enrolled in the fertility program

