Non-Inferiority of a Relational Agent – Woebot – to reduce symptoms of depression relative to CBT skills group: A randomized controlled trial among adolescents seeking outpatient mental health care

**Objective**
Among adolescents seeking care for depression and/or anxiety from a children's hospital (CH) investigate the feasibility and face validity (i.e. a-4 weeks of service to W-GenZD) of an interactive relational agent compared to CBT Skills Group – delivered by a clinician via telehealth, the gold-standard intervention for adolescent depression and anxiety.

**Methods**
After CH's clinical stage visit, adolescents (13-17 years) intended to standardize outpatient mental health care were screened and randomized to W-GenZD or CBT Skills Group. Assessments were at baseline (BL), 4-weeks end-of-treatment (EOT) and 8-weeks end-of-study (EOS), and included:
- Patient Health Questionnaire (PHQ-8)
- Working Alliance Inventory–Short Form (WAI-SR)
- Client Satisfaction Questionnaire (CSQ-8)

**Participants**
N=140; Woebot (n=71) vs. CBT (n=69) on average 14.60 (1.20) years old; 58% female sex at birth (girl/remaining, 45% white, 34% African American, 92% non-Hispanic, and 60% heterosexual.

**Results**
- **W-GenZD** and **CBT Skills Group** appeared to have similar:
  - Intervention feasibility and satisfaction
  - Intervention adherence
  - Therapeutic working alliance, including affective bond, with either W-GenZD or the CBT Skills Group therapist

- W-GenZD was non-inferior to CBT Skills Group in reducing PHQ-8-measured depression at 4-weeks end-of-treatment.

**Conclusion**
W-GenZD yielded reductions in depressive symptoms that were non-inferior to those yielded by clinician-delivered CBT skills group via telehealth, among adolescents seeking outpatient mental health care.

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**References**

**Woebot**
Evidenced-based digital psychotherapeutic interventions may equal or surpass the gold-standard approach to in-person cognitive behavioral therapy, e.g., Woebot. It is not intended to diagnose, monitor, treat or prevent any disease. It may be considered as an adjunct to clinical care, but does not replace clinical care.