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BACKGROUND

In the US, eating disorders affect an estimated 30 million individuals including 0.5-3.0% of children and adolescents. Despite recommendations for a triad of medical, psychological, and dietary support, few patients receive such treatment. The paucity of providers equipped to manage these disorders in less population-dense areas serves as a significant barrier to care. While studies have demonstrated a correlation between limited geographic access to care and worsened eating disorder severity at presentation, limited data exists evaluating the association between distance to care and continued service utilization.

PURPOSE

To determine whether distance to care predicts loss to follow-up amongst adolescents and young adults (AYA) receiving treatment for an eating disorder.

METHODS

- Design: Secondary data analysis
- Population:
 - 10-25-year-old AYA evaluated from 2004 to 2008 (inpatient & outpatient)
 - Met DSM-IV criteria for AN, BN, or EDNOS
 - At least one follow-up visit at institution
- Distance to Care: ArcGIS software
 - Zip code centroids, Euclidean distances, network travel distances, travel times
- Data Analysis: STATA/IC 15.1
 - Predictor, outcome, interaction variables defined a priori
 - Descriptive and inferential statistics
 - Time-to-event analyses: assessed impact of distance to care on time to loss to follow-up
 - Cox proportional hazards regression model & Kaplan-Meier curves: estimated hazard ratios and provided visual representation of survival analyses

Sample Demographics (n= 235)	
Age, Years	15.6 ± 2.6
Assigned Sex at Birth	F 90.2 % M 9.8 %
BMI (initial)	17.6 ± 3.5
%IBW (initial)	86.4 % ± 15.5 %
Premorbid Obesity	23 %
Ever Admitted	38 %
Eating Disorder Diagnosis	AN-BP 4.3 % AN-R 34.5 % BN-P 14.0 % EDNOS 44.3 % EDNOS BED 3.0 %
Psychiatric Diagnosis	61.3 %

Table 1: Sample Demographics



Fig 1: Map of Network Travel Distances from Patient Primary Residence Zip Code Centroids to Treatment Facility

RESULTS

- A total of 202 AYA were evaluated
- Median Euclidean distance from zip code centroids to institution was 17.5 mi (IQR 7.9-25.4)
- Median Network Travel Distance was 20 mi (IQR 11.7-32.6)
- AYA traveling a network distance ≥ 17.5 mi were 74% more likely to be lost to follow-up (HR 1.7; p 0.005; 95% CI [1.2-2.6])
- AYA were 10% more likely to be lost to follow-up for each 1-year increase in age (HR 1.1; p 0.02; 95% CI [1.0-1.9])
- AYA with co-morbid psychiatric diagnoses were 49% less likely to be lost to follow-up (HR 0.5; p <0.001; 95% CI [0.4-0.7])
- AYA with prior hospitalizations for eating disorder management were 38% less likely to be lost to follow-up (HR 0.6; p 0.01; 95% CI [0.4-0.9])

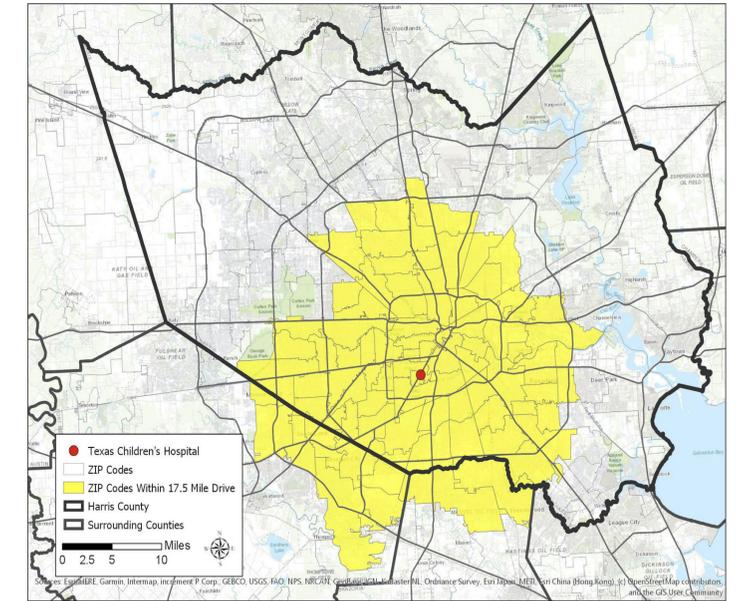


Fig 3: Heat Map of Houston Zip Codes with Network Travel Distance < 17.5 Mile Distance from Treatment Facility

LIMITATIONS

- Data: Older database, DSM-IV, centroid inaccuracy, sample size, missing data
- Analysis: Time-dependent covariates

CONCLUSIONS

- Loss to follow-up in AYA with eating disorder:
 - Associated with greater network travel distance and age
- Next Steps :
 - Reproduce data with modern sample considering other social determinants of health
 - Examine impact of distance on long-term outcomes
 - Examine impact of telehealth services on loss to follow-up

ACKNOWLEDGEMENTS

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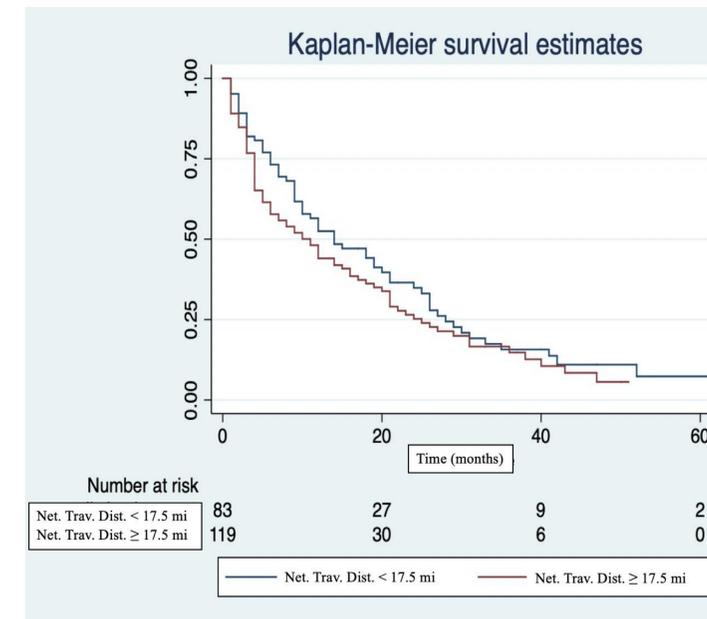


Fig 2: Kaplan-Meier Survival Curves of Time to Loss to Follow-Up for Travel Distances < or ≥ 17.5 Miles