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CONFERENCE ABSTRACT

Predicting Behavioral Health Demand and Provider Workforce in Integrated Primary Care

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Introduction

Demand for behavioral health services continues to be unmet in the United States [1]. One promising forum in which to promote access to and utilization of behavioral health services is through integrated primary care [2,3]. Despite the growth of service delivery in this model, there remains a significant shortage of providers [4,5] and an insufficient workforce threatens sustainability. As such, it is critical to use prediction modeling to estimate behavioral health demand and determine the necessary workforce to meet this need.

Theory/Methods

Patient data from three Michigan Medicine integrated pediatric primary care clinics were analyzed for Fiscal Year 2018 (FY18), a 12-month period from July 2017 through June 2018. These clinics serviced a combined 17,433 unique patients during FY18. All clinics employed a co-located model of behavioral health care in which pediatricians refer patients to co-located psychologists for behavioral health services. Behavioral health referrals and treatment initiation rates were examined as indicators of behavioral health demand and compared with the psychologists' clinical expectations, billing practices and utilization rates to predict the full-time equivalent (FTE) psychologist workforce necessary to meet new demand each year.

Results

Across the three clinics 946 patients were referred to 3.41 FTE psychologists for behavioral health services, representing 5.4% of all patients with clinical encounters during FY18. Of the patients referred 516 (54.5%) initiated treatment within 12 months of referral. Patients attended an average of 2.8 behavioral health visits in FY18. Based on the average billing rate per visit, a 1.00 FTE psychologist at Michigan Medicine needs to complete 788 visits per year to meet clinical expectations. Accordingly, 1.86 FTE (M= 0.62 FTE per clinic) was required to meet the new behavioral health demand alone in the three clinics in FY18.

Discussions

These figures do not account for demand from patients who were referred in previous years and received services in FY18. This residual demand is substantial and increases for each clinic every year from inception of the integrated care model.

Conclusions

Psychologists within the three integrated clinics allocated the majority of their clinical effort to managing new behavioral health referrals throughout the year. This is despite only 5.4% of the patient population being referred, a relatively low rate considering some estimates suggest up to 25% of primary care patients present with a diagnosable behavior health problem each year [6]. An increase in the referral or treatment initiation rate may necessitate a change in workforce or model of service delivery to ensure sustainability.

Lessons learned

These results indicate traditional models of behavioral health care may be insufficient and integrated care models should be considered to meet the high patient demand for services.

Limitations

Using these results to project behavioral health demand and workforce supply may not be useful for practices utilizing dissimilar models of service delivery or billing practices.

Suggestions for future research

Future analyses will examine factors potentially contributing to referral failure (e.g., insurance coverage, wait time, lack of interest, etc.) as well as changes in residual demand.