CONFERENCE ABSTRACT

Does a Doctor's Referral Affect Individual Behavior of Using Community-Based Services?
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Introduction:

Prior research has shown that a doctor’s referral is a powerful instrument to transfer individuals not only from primary to specialty care but also to community-based service providers. These providers are becoming increasingly important as they represent a cost-saving alternative to physicians in several services such as dietary consultations. However, little is known about the impact of doctors’ referrals on the users’ ongoing engagement with these community-based services. We address this gap by analyzing individual utilization behavior based on a recently implemented intervention in the German healthcare system in which individuals can visit community-based service providers not only with doctors’ referrals but also directly without previous consultations.

Methods:

Data was extracted from the electronic visitor record from a German community-based health service provider (hereafter, „Gesundheitskiosk“) from January 2018 to July 2019. Visitors can be divided into two groups: individuals with and individuals without a doctor’s referral to the “Gesundheitskiosk”. To measure individual utilization behavior, we first focus on whether an individual visits the “Gesundheitskiosk” more than once. Second, we focus on the return period of how often an individual revisits the “Gesundheitskiosk” to examine the extent of utilization. Results are based on multivariate analyses, including interaction terms.

Results:

1,198 individuals (500 with and 698 without doctor’s referral) visited the „Gesundheitskiosk“. The preliminary results reveal that the likelihood of visiting the “Gesundheitskiosk” more than once significantly increases by 6.1 percentage points for individuals with than without a referral (p<0.05). Based on individuals visiting the “Gesundheitskiosk” more than once, the return period to the “Gesundheitskiosk” is significantly lowered by 5.4 days for individuals with than without a doctor’s referral (p<0.05). Our interactions indicate that the effect of a referral on the likelihood of visiting the “Gesundheitskiosk” more than once is significantly reduced for male individuals and those with longer distance to the “Gesundheitskiosk” (p<0.05).

Discussions:

This work shows the power of a doctor’s referral, both on visiting a community-based service provider for more than once and on return period of revisits. Physicians’ authority could explain this behavior as it might increase
individuals’ perceived benefit to continuously engage in community-based services. Our findings may help to refine referral interventions from primary care to community-based services. Without accounting for individual heterogeneity, however, such interventions might be more effective for some groups and less for others.

**Conclusions and lessons learned:**

Our work provides important insights that interventions such as doctors’ referrals can have a powerful impact on utilization of community-based services. This suggests that a closer link between primary care and community-based service providers should be established in the German healthcare system which might ultimately reduce physicians’ workload and healthcare costs.

**Limitations:**

The data was collected in a German socially deprived area and from one community-based service provider only.

**Suggestions for future research:**

Future work should focus on crucial factors moderating the impact of doctors’ referrals on individuals’ behavior of using community-based services. It is also important to examine alternative non-medical service providers.