Demography Seminar 2019.

Delaying Medical Care: How do special health care needs of children play a role

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1 Introduction

Healthcare spending is significantly higher in the United States than similarly economically developed nations (Shi and Singh, 2019). Although government spending on health care is high, this does not necessarily translate to low costs for consumers. Individuals and families may incur high out of pockets costs as a result of lack of regulation and balance billing practices which they may not be able to manage financially (Shi and Singh, 2019). Due to concerns about medical care costs, some may forego or delay treatment to avoid potential bills. One group that may be subject to ongoing costs are families with children with special healthcare needs (Musumeci, 2018).

In order to examine the relationship between delaying medical care and specific family demographics, the National Health Interview Survey was utilized. The 2018 National Health Interview Survey (NHIS) contains a wealth of information on families with children including those with special healthcare needs. The information collected refers to the socioeconomic status, health status,access to insurance coverage, food insecurity, welfare receipt, employment, and social security income (SSI) among others. Thus, the data set is conducive to exploring associations between variables pertinent to the current research question.

The current paper will detail the research process utilized to examine the correlation between delaying medical care and the number of children in a family, the number of children in a family enrolled in special education, and the number of family members requiring assistance with daily living skills.

2 Methods

The current research sought to explore the relationship between delaying medical due to cost concerns, the number of children in a family, the number of children receiving special

education, and the number of family members requiring help with adapted daily living skills using the National Health Interview Survey- Family dataset. As this was an exploratory analysis of the data, descriptive statistics along with bivariate correlations were assessed. The data were downloaded and cleaned in Stata before being imported to R for further analysis.

The cleaning process in Stata entailed examining the variables, renaming them when appropriate, and removing missing data. A restricted dataset, including 42 out of the possible 132 variables was then imported into R. The haven package was utilized in R to view the stata dataset. The variables were then examined and changed to factor variables if appropriate.

The next step of the data analysis process entailed obtaining the means for the variables of interests. Specifically, the mean was calculated for the number of times medical care was delayed in the past 12 months due to cost, the mean number of children in the household, the mean number of family members requiring help with adapted daily living skills, and the mean number of children receiving special education or early intervention services. Next, to conduct an initial assessment of the relationships between the variables, bivariate correlations were run. Pearson correlations coefficients were obtained for delaying medical care and the three variables of interest. To aid with visual interpretation, plots were generated for the three bivariate correlations.

3 Results

The mean number of children per family in the analyzed sample was .5498 with an overall range of zero to ten. The mode for number of children was zero. The mean number of family members requiring assistance with adaptive daily living skills (ADLs) was .0529 with an overall range of zero to three. The mode number of family members requiring help with

daily living skills was zero. The mean number of children receiving special education or early intervention was .15533 within an overall range of zero to seven. The mode number of children receiving special education or early intervention was zero.The mean number of times family members had delayed medical care within the past 12 months due to cost was .1147 within an overall range of zero to 10. The mode number of times medical care was delayed was zero.

Pearson correlation coefficients were obtained for all included variables. There was a slight positive correlation between the number of times medical care was delayed and the number of children (.02), a slight positive correlation between delaying medical care and the number of children in special education or early intervention (.05) and a slight positive correlation between delaying medical care and the number of family members requiring help with daily living skills (.06). These results suggest that delaying medical care is weakly associated with all three of the included variables. The strongest association was observed between delaying medical care and the number of family members needing help with daily living skills while the weakest was between delaying medical care and the number of children.

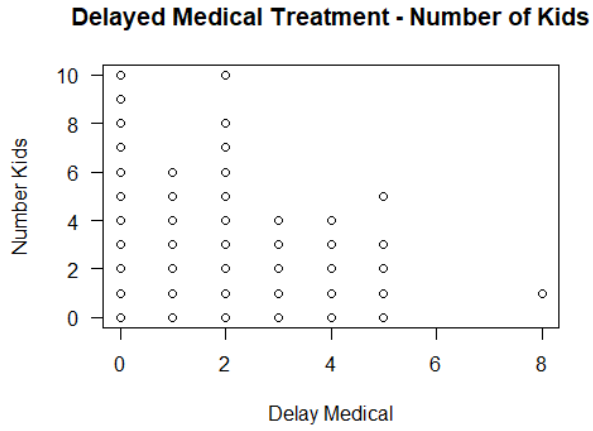

Figure 1: Delayed Medical Treatment and Number of Children.

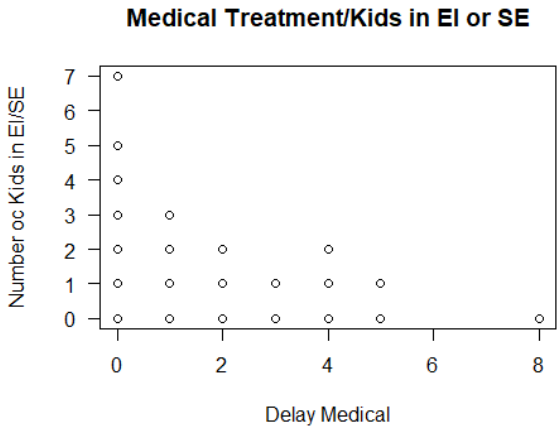

Figure 2: Delayed Medical Treatment and Number of Children in Special Ed. or EI

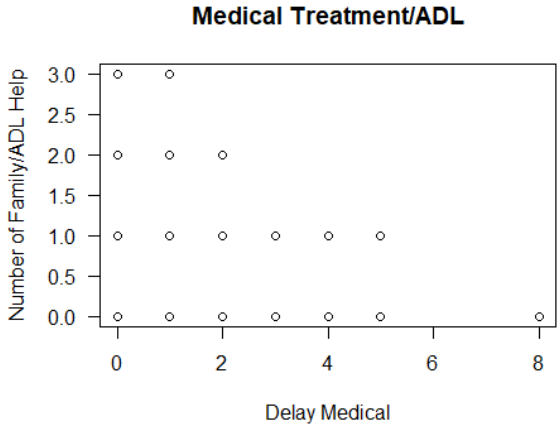

Figure 3: Delayed Medical Treatment and Number of Family Members with ADL Assistance

Bivariate Correlations	
Variables	Times Medical Care Delayed in 12 Months
Number of Children	.0285
Number of Family Members ADL Help	.0637
Number of Children in Special Ed or EI	.0577

Table 1. Bivariate Correlations

4 Conclusions

The goal of this research was to gauge the relationship between families with children, specifically with special health care needs, and delaying medical care using the National Health Interview Survey (NHIS). Analyses were conducted to find correlations between number of times that family members delayed medical care because they were worried about cost, number of family members who need help with adapted daily living skills, number of children receiving special education/early intervention and the number of kids per family. The results showed that delaying medical care is weakly correlated with the other three variables (correlations coefficients were less than 0.1). Nonetheless, there were stronger correlations between delaying medical care and families with members who required assistance with daily living skills and with children in special education compared to having children alone. While these results do not suggest a robust relationship between the variables of interest, it is still plausible that the medical condition of children in the family may be a more important factor than total number of children in determining whether or not a caregiver delayed medical care. These relationships warrant further analysis using other data as findings may have important policy implications. That is, health and social policy should take into account the presence of special healthcare needs when allocating resources.

References

Musumeci, M. (2018). Medicaid's role for children with special health care needs. Journal of Law, Medicine Ethics, 46(4), 897–905.

Shi, L., Singh, D. (2019). Delivering health care in America : A systems approach (Seventh ed.). Burlington, MA: Jones Bartlett Learning.