

Why are White Nursing Home Residents Twice as Likely as African-Americans to Have an Advance Directive? Understanding Ethnic Differences in Advance Care Planning

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Extended Abstract

INTRODUCTION

Ideally, when someone in long-term care is entering a trajectory toward death, the individual, family members, and health care providers are all engaged in ongoing discussions about treatment options (Travis, et al., 2002). A part of this advance care planning process may be the establishment of one or more advance directives. Advance directives are documents that specify someone's wishes regarding treatment decisions or identify a proxy for healthcare decisions if the individual should become incapable of making decisions. The U.S. Patient Self-Determination Act of 1991 requires that persons in healthcare and long-term care institutions reimbursed by Medicare or Medicaid, including nursing homes (NHs), be informed of their rights to advance care planning and to establish advance directives. Recent studies have found that efforts to encourage advance care planning in NHs have increased markedly in the U.S. since the passage of the Act (Molloy et al., 2000).

Since the promulgation of the legislation, several authors have documented ethnic differences in advance directives (Castle & Mor, 1998; Degenholtz, Arnold, Meisel, & Lave,

2002; Kellogg & Ramos, 1995; Kiely, Mitchell, Marlow, Murphy, & Morris, 2001; McAuley & Travis, 2003; O'Brien et al., 1997; Suri, Egleston, Brody, & Rudberg, 1999). African American NH residents, in particular, tend to be much less likely to have an advance directive and are more likely to desire aggressive interventions near the end of life. This finding is robust, even when controlling for factors such as health status, other demographic factors, facility characteristics, and geographic location. Knowing more about the basis for the difference in advance directives between White and African American NH residents may point out the need for different approaches to presenting information about advance care planning or suggest where and with whom more effort should be made. Therefore, the major objective of this research is to determine the extent to which ethnic differences in advance care planning are attributable to differences in the personal characteristics of African American and White NH residents, the facilities in which they reside, and the counties in which the facilities are located. Our approach to the decomposition of the ethnic group difference allows us to identify the factors partially responsible for ethnic differences in having an advance directive, thereby contributing to the growing literature on age-related racial/ethnic differences. To our knowledge, this is the first study to consider factors that may be underlying the White-African American difference in advance care planning with a nationally representative sample of NH residents while controlling for resident, facility, and county characteristics.

Decisions about advance directives in NHs are potentially influenced by: (a) numerous personal factors such as patient diagnoses/conditions, functional ability, and education, (b) the micro-environmental characteristics of the NH, including staffing levels and patient mix, and (c) the broader social and economic environment represented by the county in which the NH is

located, as measured by county-level demographic variables. We discuss each of these three sets of factors in detail in the paper.

Much of the prior work on ethnic differences in advance directives planning has focused upon personal characteristics of the individual. For example, prior work (Bradley et al., 1998; McAuley & Travis, 2003) has shown that individuals with the following personal characteristics are more likely than others to have an advance directive: (a) more educated individuals, (b) men (O'Brien et al., 1997), (c) residents whose stay is reimbursed by Medicaid (Bradley et al., 1998; McAuley & Travis, 2003; Suri et al., 1999), (d) those with no living child (Eleazer et al., 1996; McAuley & Travis, 2003), and (e) diagnoses/conditions that are correlated with terminal decline of the NH resident, such as cancer (Castle & Mor, 1998; McAuley & Travis, 2003).

METHODS

Data

To conduct this study, we used the Medical Expenditure Panel Survey – Nursing Home Component (MEPS-NHC) matched with county-level measures obtained from the Area Resource File (ARF), where the data used for analysis include 2,665 residents in 730 NHs. The presence of an advance directive was indicated if at least one of the following four types of advance directives was found in the resident's record or chart on January 1, 1996: 1) a living will, 2) a do not resuscitate order, 3) a do not hospitalize order, or 4) limits on feeding, medication, or other treatments. In our sample, 63.4% of all White residents had at least one advance directive, but only 27% of African Americans had any advance directive. In terms of explanatory variables, two types of resident characteristics were identified, based upon from the literature: demographic measures and measures of health status and functional ability. We used measures similar to those employed by Castle and Mor (1998), discussed above, to consider

group differences in the facilities in which residents are located. County level characteristics are used to control for geographic differences.

Probit Estimates

To more closely examine the effect of ethnicity itself on the gap in the proportion of Whites and African Americans with advance directives, first, the probability of having an advance directive was modeled as a function of resident, facility, and geographic characteristics for all African American and White NH residents. Following the single-equation probit estimation, the data were subdivided into two samples: White residents and African American residents. Using these sub-samples, probit estimates of the probability of having an advance directive were estimated separately for two reasons. First, separate estimates of marginal effects reveal whether personal, facility, and county characteristics have the same impact on the likelihood of having an advance directive for the two groups. For example, a higher proportion of African Americans in the county may result in less advance care planning by all facility residents, if more local family and staff are influenced by social attitudes in favor of aggressive medical interventions at the end of life, which appear to be more prevalent among African Americans. This general effect, if found, would be apparent in the results using the full sample. However, it is also possible that being in a county with a higher proportion of African Americans may have a more profound effect on the likelihood of having an advance directive for African American residents. If this is the case, the estimated marginal effect of the proportion of African Americans in the county in the probit model for African American residents should be larger than for White residents. Second, the separate estimates may be used in conjunction with sub-sample means to determine how much of the difference in the probability of having an advance

directive between the two ethnic groups may be attributable to differences in measured average group characteristics.

RESULTS

When compared to White residents, African American residents are approximately 23% less likely to have an advance directive, when controlling for other factors that may affect having an advance directive and assuming that the characteristics of White and African American residents have the same impact on advance directive adoption. Turning to the sub-sample estimates, the experiences of African American residents and White residents are similar in some respects and different in others. Residents from both groups with Alzheimer's disease or dementia are more likely to have an advance directive, living in a facility located in a county with a higher proportion of poverty and more seniors per capita decreases the probability of having an advance directive for both. In terms of sub-sample differences, being in the NH for at least two years had no effect on the likelihood of having an advance directive for Whites but a positive effect for African Americans, suggesting that the effect of length of stay in the home on advance directives differs across the ethnic groups. There are also differences in the effect of county characteristics; being in an urban area and in an area with a higher proportion of individuals living in poverty markedly decreases the probability of having an advance directive for African Americans, while the effect is close to zero for Whites.

Of the 36.6% gap in the probability of having an advance directive between African Americans and Whites, 44% (or 16 of the 36.6 percentage points) can be explained by differences in the average characteristics of African American and White residents. Approximately half of the explained portion of the gap in advance directives is attributable to differences in county characteristics. For example, the average African American resident is

more likely to live in a rural facility (77.9%) than a White resident (69.7%) and in a county with a higher proportion of individuals in poverty (16.7% for African Americans and 12.9% for Whites), which is consistent with findings by Mor et al. (2004).

DISCUSSION

Building upon previous documentation of African American-White differences in the prevalence of advance directives among NH residents, this research was based upon a conceptual framework which emphasizes the importance of examining the personal, institutional, and geographic factors that might explain these differences. Our work goes several steps further than the prior research, by using a nationally representative sample, incorporating all three levels of potential explanatory factors, and determining the relative impact of personal, institutional, and geographic factors on the African American-White difference in use of advance directives by NH home residents.

A large portion of the explained difference comes from group differences in facility and county characteristics. Nearly all prior work on ethnic differences in advance directives has failed to include facility-level measures, and, to our knowledge, this is the first study to attempt to quantify and assess the impact of a battery of county-level characteristics. Given the impact of institutional and geographic characteristics, future research should focus on continuing to identify the underlying location- and facility-specific factors that influence differences in advance directives.

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