Original Article

Associations Between Personality and End-of-Life Care Preferences Among Men With Prostate Cancer: A Clustering Approach

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Abstract

Context. Increased focus on patient-centered care models has contributed to greater emphasis on improving quality of life at the end of life through personalized medicine. However, little is known about individual-level factors impacting end-of-life care preferences.

Objectives. To examine whether the five-factor model of personality explains variation in preferences for end-of-life care in men with prostate cancer.

Methods. Two hundred twelve men with a prostate cancer diagnosis (mean age = 62 years) completed a measure of the five-factor model of personality—spanning the personality dimensions of neuroticism, agreeableness, extraversion, openness, and conscientiousness—and reported on end-of-life care preferences. Cluster analyses were used to partition the sample into groups with similar care preferences. Analyses of variance and Chi-square tests were used to evaluate differences in care preferences among the groups.

Results. Cluster analyses revealed three groups of participants: "comfort-oriented patients," "service-accepting patients," and "service-reluctant patients." Most (67%) were comfort oriented, preferring palliative care and opposing life support services. A subset of patients were service accepting (17%), preferring both palliative care and life support, or were service reluctant (16%), preferring neither. Service-reluctant patients endorsed significantly higher levels of neuroticism (emotional instability and negativity) than comfort-oriented patients. Comfort-oriented patients endorsed significantly higher levels of agreeableness than service-accepting patients and service-reluctant patients.

Conclusion. Findings suggest that personality traits are associated with specific health care preferences. Individuals high on neuroticism are likely to report reluctance toward all forms of end-of-life care and may benefit from in-depth information about the process and likely outcomes of receiving life support and palliative care services. J Pain Symptom Manage 2016;51:52–59.

Key Words

End-of-life care, prostate cancer, personality, health care preferences, palliative care

Introduction

Decisions about care at the end of life are arguably some of the most difficult that patients and their families are faced with over the course of terminal illness. In addition to the emotional toll, decisions about end-of-life care are further complicated by the availability of diverse medical interventions for prolonging life and by the variability in physicians' comfort and competency with initiating end-of-life care discussions.[1] An increased focus on patient-centered

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care models aimed at personalizing medicine has contributed to increased attention on shared decision-making about end-of-life care preferences and greater emphasis on improving quality of life at the end of life. These trends are evident in the recent Institute of Medicine (IOM) report[2] on "Dying in America," which highlights the challenges of providing care at the end of life tailored toward the individual patient.

As outlined in the IOM report,[2] a key component of quality end-of-life care centers around first understanding patients' physical, emotional, social, and spiritual context, and then personalizing medical care. Consequently, it is imperative to understand individual-level factors that contribute to patient preferences for end-of-life care. Arguably, personality characteristics may play an important role in the development of an individual's health care preferences, including end-of-life care preferences. Although several models of personality have been developed, the five-factor model of personality has been extensively studied and validated and is presently the most widely adopted personality framework.[3,4] The "Big Five" personality dimensions include extraversion (implying sociability, sense of agency), neuroticism (characterized by moodiness, anxiety, and sensitivity to threat), agreeableness (the concern for maintaining relationships, characterized by being friendly, helpful, and empathic), conscientiousness (self-disciplined, persistent, achievement oriented), and openness to experience (characterized by curiosity, flexibility, and a willingness to engage in atypical experiences). Few studies have explored the relationship between personality factors and health care preferences[5], particularly those surrounding end-of-life issues.[6] Given the stability of personality traits in adulthood[7] and the relationship between personality and coping among samples facing a high degree of stress (relative to those with little stress[8]), identifying associations between personality and health care preferences may offer health care providers insight into preference patterns among their patients. These findings could inform clinical practice without requiring physicians to administer a formal personality measure. People routinely draw reasonably accurate inferences about others' personality traits,[9–11] and many traits could be identified by physician observation.

Individuals high on openness and agreeableness have been seen to use complementary and alternative medicine services more readily,[12] and a large population-based study found that higher levels of both conscientiousness and agreeableness were associated with a greater likelihood of end-of-life care planning.[13] However, past research indicates that elevated levels of neuroticism may be particularly salient for health care providers to evaluate and consider when tailoring treatment. A meta-analysis of personality traits and coping responses found that neuroticism was related to a wide variety of disengagement responses and to lower use of problem-solving[8] (for a more complete review of personality and coping, Carver and Connor-Smith[14]). Consistent with past research demonstrating the difficulties associated with neurotic tendencies, Denburg et al.[15] found that poor decision-making, as measured by an experimental task, was related to elevated levels of neuroticism among older adults. Individuals with higher levels of neuroticism are often seen to fare more poorly at end of life. In a study of end-stage cancer patients, neuroticism had a significant, positive relationship with end-of-life distress, including depression, anxiety, loss of sense of dignity, and hopelessness.[16]

Less is known about how personality factors, such as neuroticism, relate to the end-of-life care preferences that may contribute to these poorer psychological outcomes. End-of-life care can consist of both life-sustaining treatment (life support measures, such as use of a ventilator) and comfort-focused treatment (palliative care), which are occasionally at odds with one another.[2] One individual may prefer comfort-focused treatment and reject life-sustaining treatment, whereas another individual may prefer both types of care. Little is known regarding the patterns of these patient preferences. This study examines patterns of end-of-life care preferences (for both life support and palliative care measures) among a sample of men with a history of prostate cancer in active oncologic care, and whether personality factors (specifically Big Five personality factors) are related to these varied preferences for end-of-life care. The trajectory of prostate cancer from diagnosis to end of life lends itself to an examination of end-of-life care preferences, as it is often a treatable illness (life expectancy typically ranges from several months to years), yet ultimately can result in death (second leading cause of cancer death in men[17]). This combination of factors offers patients and health care providers both ample opportunity and motivation for initiating end-of-life care discussions.

Methods

Participants and Procedures

Men with a history of prostate cancer in active oncologic care were recruited via the National Institutes of Health (NIH) ResearchMatch recruitment tool[18] and cancer health education Web sites. This patient group was selected for this study because of the high prevalence of disease (second highest incidence of cancer in the U.S., and second highest number of cancer