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Untangling Cultural Differences in Behavioral, Physiological, and Psychological Symptoms of Dementia and Alzheimer's Disease

John S. Avant
University of Nevada, Las Vegas, avantj3@unlv.nevada.edu

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John S. Avant

University of Nevada, Las Vegas

Author Note

John S. Avant, Department of Psychology, UNLV

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Abstract

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; 4th ed. Revised; American Psychiatric Association) and (BPSD) there are many behavioral, physiological, and psychological issues that have been correlated with the progression of the Alzheimer's disease and other dementias. Examples of these issues include; emotional regulation problems, variations in eating behavior, and an advancing decline in memory. Though certain symptoms of the disease seem to be widely universal, current literature shows that a number of disparities do exist. There are several differences between and within populations suffering from Alzheimer's disease and dementia that are influenced by various factors such as; culture, genetic predisposition, lifestyle, beliefs about aging, early life events, beliefs about treatment, and geographical region (Alzheimer Association 2012; Ayako et al., 2012; Flaskerud 2009). Untangling these differences is the first step to; providing a more culture-oriented awareness, tearing down the "flawed" misconceptions that exist within cultures, and ultimately improving the current diagnosis and treatment rates.

Keywords: Alzheimer's Disease, Culture, Dementia, US minorites

Introduction

Dementia is an umbrella term that depicts a multitude of diseases and conditions that can result when nerve cells die or cease to function normally. Death or dysfunction of these brain cells can cause changes in an individual's memory, behavior, and ability to think clearly (Alzheimer's Association 2012). Dementia rates are predicted to increase at an alarming rate in the least developed and developing regions of the world despite mortality resulting from malnutrition, poverty, war, and infectious diseases (Kalaria et al., 2008). Prevalence of different causes of dementia (infectious, nutritional deficiencies, traumatic brain injury, endocrine conditions, cerebrovascular disease, seizure disorders, brain tumors, substance abuse) varies substantially across cultural groups and geographic regions (Flaskerud 2009).

Alzheimer's disease is the most common type of dementia according to the Alzheimer's Association (2012). Alzheimer's disease is defined as a neurodegenerative disease that progressively damages and ultimately destroys the brain tissue of the individual affected. This tissue loss results in maladaptive and detrimental physiological and behavioral symptoms. Individuals suffering from AD eventually lose the ability to perform basic daily functions, such as walking and swallowing (Ayako et al., 2012). A number of early warning signs and symptoms have been reported such as short term memory loss, personality changes, psychiatric symptoms and neurological signs (Murray et al., 2011). The recognition of these symptoms can be influenced by demographic, socioeconomic and cultural factors (Karim et al., 2011)

Epidemiological studies suggest that differences in prevalence of AD among populations may be more related to geographic region rather than genetic vulnerability. Flaskerud (2009) reported that differences in rates found in epidemiological studies may be due to different

etiologies, research methods, diet, life expectancies, education levels and other behavioral and lifestyle factors. Collectively, studies suggest that African Americans, Asian Americans, Hispanic Americans and Whites may have differing perceptions of dementia (Laditka et al., 2012) The goal of this paper is to investigate the disparities that exist among the 3 most prominent minority groups in the United States, focusing heavily on the cultural differences that separate each ethnic group.

African American Culture

Research suggests that older African Americans are about twice as likely to have Alzheimer's disease and other dementias as non-Hispanic older whites (Potter et al., 2009). It has been reported that the prevalence of AD is higher in African Americans than in Africans living developing countries such as Nigeria. These finding demonstrates how differences in geographic location and culture can influence the prevalence of AD. Increased prevalence rates may be explained in part by age, education, coexisting medical conditions, or *(occurrence of the)* apolipoprotein E (APOE) genotype, which predisposes an individual to Alzheimer's Diseases (Griffith & Lopez, 2009).

Despite these statistics, African Americans are usually underrepresented in studies examining the molecular, environmental, and pathophysiologic factors related to AD (Holston 2005). One analysis of ethnic participation in clinical trials for AD concluded that non-whites constituted only 3.6 % of the sample studied (Griffith & Lopez 2009). Similarly, the Alzheimer's Association (2012) stated that missed diagnoses are more common in African Americans than among whites. Also, a 2006 study of Medicare beneficiaries found that 9.6% of non-Hispanic whites and 12.7% of African Americans were diagnosed with AD (Griffith & Lopez 2009). Although rates of diagnosis appeared higher among African Americans than whites, the

difference was not as great as was expected based on the estimated differences found in prevalence studies.

The question that remains unanswered is; why does this group that has such a high prevalence of developing AD or other dementia seem to be so poorly accounted for regarding he diagnosis rates and lack of representations in clinical trials? Differences in, time of onset, prevalence rates, and risk factors between and within populations with AD and other dementias are a few of the reasons that call for a further examination of social and cultural factors influencing the disparities that exist.

Early Onset & Risk Factors

Clark et al. (2005) suggested that African Americans and other non-white minorities may have an earlier occurrence of Alzheimer's disease compared with their non-white counterparts. The available literature seems to suggest that there are 2 possible causes that might explain the premature onset of Alzheimer's disease and other dementias seen among African Americans. One of the positions suggests that a genetic predisposition, specifically the gene ApoE4, plays a role in the triggering early onset of AD within the African American community (Flaskerud 2009). A second and more accepted belief is that because African Americans have higher prevalence rates of diseases that are correlated with the development of AD, such as Diabetes Mellitus, these risk factors help contribute to the early pathogenesis of AD.

Supporting the idea that genetic factors play are large role in the onset of AD, Enwefa & Enwefa (2004) reported that studies continue to suggest a greater familial risk of AD in African Americans. Similarly, Flaskerud (2009) reported that first degree relatives of African Americans with AD have a greater cumulative risk of dementia then whites do. The presence of ApoE4 as a determinant of risk for AD may differ between whites and African Americans or Hispanic

Americans. Flaskerud (2009, p. 522), stated, "Genetic links would implicate family inheritance and the influence of ancestry/ethnicity on the occurrence of AD." However, some studies argue that other factors modify the effects of ApoE4 on dementia risk across diverse populations. These factors include culture and socioeconomic factors; early life experiences, such as immigration, poverty, and nutrition; and vascular process, such as atherosclerosis, lipids, and metabolic, inflammatory and immune response, and other genetic factors.

However, despite some evidence of racial differences in the influence of genetic risk factors for AD and other dementias, genetic factors do not appear to account for these large prevalence differences across racial groups. Instead, health conditions, such as high blood pressure and diabetes that increase one's risk for AD and other dementias are more prevalent among African American communities (Alzheimer's Association, 2012). Interestingly, early onset may be related to the higher rates of risk factors associated with the disease, including diabetes mellitus and hypertension (Griffith & Lopez, 2009). A combination of genetic factors and health conditions seems to be the most likely explanation in deciphering the disproportionate prevalence of AD

Cultural Differences

Interpretations and beliefs about Alzheimer's disease and dementia among the African American community as well sociocultural barriers can help account for the delay in diagnosis and treatment. African Americans tend to interpret symptoms indicative of AD such as memory loss and functional decline (e.g., difficulty with complicated tasks or trouble communicating) as normal signs of aging (Griffith & Lopez, 2009). Additionally, a national telephone survey found that significantly more African American adults (59.9%) believed that Alzheimer's is a term for normal memory loss compared with (32.7%) of white adults (Connell, Scott, and McLaughlin,

2007).

Often in African American elders, neuropsychiatric symptoms are overlooked due to fear of stigmatization or are misjudged as emotional responses to economic constraints and social biases (Holston, 2005). Behavioral symptoms can be subtle, overt or both, making identification and association to traditional behavioral changes of AD difficult and complex (Smith-Gamble et al., 2002). Misconceptions about the causes and symptoms of AD are only a partial cause for the delay in diagnosis and treatment within African American communities, but understanding and identifying these beliefs can help increase the awareness and aid in an earlier diagnosis.

Asian American Culture

The category label "Asian American" is anything but homogenous it consists of immigrants and their descendants from a large number of countries with widely varying histories, cultures, and traditions (Jones, 2006). Among being one of the fastest growing racial groups of the United States; Asian Americans are also one of the most diverse groups, including at least 43 different ethnic groups who speak more than 100 languages and dialects (Kramer, 2002). There are limited studies of dementia in Asian Americans, but what is known suggest that prevalence rates are similar to those of white Americans (Flaskerud, 2009). The results of an experiment conducted by Jones, Chow and Gatz (2006) suggested that while these communities share a keen awareness of AD, beliefs regarding the disorder may be influenced at least as strongly by folk wisdom and culturally acceptable partial truths as by scientific information.

Unlike African Americans, the disparities that are seen in the recognition and diagnosis of Asian Americans seem to rely more heavily on differences in belief about aging, and treatment than genetic and environmental factors. (Jones, 2009) The biggest drawback seems to be that very few studies have been conducted examining the social and cultural aspects of Asian

Americans with AD or other dementias. Because most successful interventions for AD rely upon early diagnosis and implementation (Jones, 2009), it is important to understand the factors influencing dementia care-seeking behaviors.

Cultural Differences

Culture influences the Asian health belief system and has an effect on the diagnosis and treatment of mental disorders (Kramer, 2002). Asian Americans, like many other older adults share difficulty in distinguishing between memory problems that are a normal part of aging and those that signal the onset of AD. According to Jones, (2005) Asian Americans exercise a combination of respect for elders and parent, stigmatization of mental illness in their cultures, and cultural acceptance of memory loss as a normal part of aging. As a result, cultural norms may lead Asian Americans to accept as normal a more significant degree of impairment than most, thus delaying diagnosis for a family member with AD until its symptoms become unmanageable.

As implied by the statistics above, there is incredible cultural variability between groups and heterogeneity within groups. Key factors in examining the cultural differences that exist among Asian Americans include, language, religious and spiritual beliefs and traditional beliefs about mental health. Kramer (2002) reported that in a traditional belief system, mental illnesses are caused by a lack of harmony of emotions or, sometimes by evil spirits. Mental wellness occurs when psychological and physiologic functions are integrated. Some elderly Asian Americans share the Buddhist belief that problems in life are most likely related to "transgressions" committed in a past life (Kramer, 2002).

It's important to note that in Asian communities, the use of traditional medicine is the rule, not the exception (Chung, 2002). While some of these traditional treatments may help

patients with psychiatric conditions, they can mask or worsen symptoms thereby clouding the initial diagnostic picture. There are several ethnic groups classified as "Asian American", it will be beneficial to examine general belief systems and coping behaviors of 3 distinct Asian American cultures.

Japanese Americans believe that mental illness is caused by evil spirits; often thought not to be a real illness (Kramer, 2002). However, their primary treatment method will actually consist of avoiding seeking help from a professional and will try many traditional sources of care before, if at all, seeking professional help. Similarly, Takeda (2012) reported that (unlike in the United States) in Japan there are many complementary and alternative medicines (CAM for dementia). CAM includes off-label use drugs, Chinese herbal medicines, natural supplements, and food. This trust in off-label, non-pharmacological remedies are a great example of how cultural beliefs can affect the treatment options for different ethnic groups.

Kramer (2002) reported that Chinese Americans are likely to hold the belief that mental illness, such as AD, is caused by a lack of harmony of emotions or by evil spirits. They often try traditional herbs and acupuncture first; healers may be used concurrently to get rid of evil spirits. Korean Americans believe that mental illness is caused by ancestral spirits coming back them because of past bad behavior or payback for something done wrong in the past. This group is likely to deny problems, resulting in helplessness and depression, might use shamanism as a treatment.

Jones (2005) found that, with respect to prevention and treatment, participants produced a combination of accurate and partially accurate information. While there is evidence that some non-pharmacological approaches (e.g. mental stimulation, nutritional supplements) may reduce one's risk of AD, in some cases participants' faith seemed to go beyond what the evidence

supports.

Hispanic American Culture

In 2012 data in the United States indicated that Hispanics were about one and one-half times as likely to have Alzheimer's disease as whites (Alzheimer's Association). It was also reported that from the ages of 75-84 and 85+ Hispanic Americans had a higher proportion of elderly with Alzheimer's Disease than their African American and white counterparts. Similar to African Americans, Hispanic American are often diagnosed at later stages of the disease, with many of them experiencing a delay of up to seven years before their symptoms are evaluated (Griffith & Lopez, 2009). Delayed diagnosis may cognitive impairment at the time of diagnosis.

Hispanic culture is characterized by values that shape behaviors and give substance to the development of identity (Kramer, 2002). More specifically, these values also influence the care of elderly people. Respect underlies most social interactions and is relevant to the treatment of the aged population. Age connotes status, and younger people are expected to behave deferentially toward their elders. This type of cultural expectancy might have negative effects on the recognition of symptoms related to AD and other dementias. A study that supports this idea showed that 67% of Hispanic caregivers dismissed the symptoms of Alzheimer's Disease due to age (Griffith & Lopez, 2009).

Conclusion

In minority and non-minority individuals, adherence to "folk model" explanations of AD (supporting the belief that the disease is due to psychosocial stress or to the process of normal aging) may potentially influence clinical care and outcomes of patients with dementia (Griffith & Lopez, 2009). Beliefs about dementing illnesses also may differ among ethnic groups. Differences include beliefs that dementia is a normal form of aging or that dementia is a form of

mental illness or a culture specific syndrome known as "worriation" and spells. There may be beliefs that dementia is unavoidable, a result of fate, an imbalance in the body, and/or a retribution for sins of family or ancestors (Kramer, 2002).

Though certain cultural aspects has been reported to exist between certain groups, more research is needed isolate and identify differences that cause the disparites seen in Alzheimer's disease. Furthermore, the awareness of Alzheimer's disease and other dementia's can be greatly impacted if physicians and caregiver's of the elderly understand that not all warning signs and symptoms are universal, across cultures.

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