

RACE AND AGE DISCRIMINATION IN THE TREATMENT OF CARDIAC DISEASES IN INDONESIA

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Extended Abstract

Background

In the last years discrimination has been noted within the context of health care, showing that elderly people and immigrants are discriminated against when it comes to receiving medical treatment and access to health care services in general (e.g. Casagrande et al., 2007). Some studies, like Schulman and colleagues (1999) found that race and sex of the patients affected the physicians' recommendation to the disadvantage of the patient. Similarly, other studies have investigated age discrimination with regard to health care (e.g. Wait, 2006).

However, so far all studies that have assessed race and age discrimination in medical treatment were carried out mainly in developed countries. In contrast to the Western cultures, most developing countries have been emigration countries during the past decades (Castles & Miller, 2009). In these countries, cultural diversity is perceived as a desirable outcome, since they are not only defined by high emigration numbers then, but starting to attract international migrants, who can contribute to the welfare of the country (Balbo & Marconi, 2006). Another difference between developing countries and Western countries consists in the fact that, demographic aging will still take several decades before it emerges. Consequently, in comparison to developed countries, in developing countries a sense of personal responsibility towards the elderly is very present and strongly ingrained in cultural norms (Ramamurti, 2009; Tang et al., 2009). Given that the forms of discrimination manifested by different groups will "depend on perceived cultural norms acquired through personal experience and socialization" (Tang et al., 2009), developing countries may experience discriminatory behavior towards the elderly and migrants quite differently, than Western countries.

However, although Indonesia is a developing country, a negative discriminatory behavior towards the Chinese minority has been reported (e.g. Giblin, 2003). But in contrast to developed countries, this minority "enjoyed a higher status than the indigenous population" (Giblin, 2003).

Therefore this study investigates in the effect of race on physicians' recommendation in cardiac categorization, since the immigration population in Indonesia has a higher status than the indigenous population, which is in contrast to the immigration population in developed countries. Furthermore, this study is testing the hypothesis, if age indeed affects the physicians' recommendation differently in Indonesia, standing for a developing country, compared to developed countries.

Methods

This study was designed as a field experiment on the effect of race and age on physicians' treatment recommendation based on the experiment of Schulman and colleagues (1999). Similar to this, video recorded interviews were shown to physicians on a computer, displaying patients describing symptoms. Based on these videos a survey was given to the physicians, who had to categorize the cardiac disease, give recommendations concerning the treatment and estimate the patient's character. Twelve different videos were prepared with all possible combinations of the independent variables: race (Chinese or Indonesian patient), age (37 or 57 years old patient) and type of chest pain (definite angina, possible angina, or non-anginal). This experimental design (the different cases of the twelve different videos and the follow-up survey) was identical to the experiment by Schulman and colleagues (1999).

In order to control for other factors, which could influence the physicians' recommendation, the script of each type of chest pain, hand motions, clothing, gowns and camera position were identical. Therefore four actors representing each of the possible combinations of race and age were playing the role of the patient in order to control for the factors mentioned above. The production of the videos were made by an experienced company for video and photo production (MID Grey).

Sample and Data

The experiments were conducted in hospitals and universities of Jakarta and Semarang in 2011. Each hospital and university provided a room where the participants could first see the video and then answer the questionnaire. The physicians were randomly assigned to one of the twelve cases. In total 218 doctors and medical students, who were already working in the hospital, participated in this experiment.

Variables

Dependent Variables

The outcome variables include the right categorization based on the type of chest pain, the probability that the patient had a clinically significant coronary disease; the stress test, the physician proposed, the estimated character of the patient, the estimated satisfaction of the patient, the estimated behavior of the patient concerning the medical treatment and the estimated behavior of the patient concerning showing up for following up treatments.

Independent variables

The key variables are race and age of the patient and the physicians and all possible interactions.

Control variables

Our control variable is the video the physician has seen.

Statistical Analysis

In order to assess the differences in the physicians' responses including *all* variables a multivariate analysis was used. Therefore it was possible to test if the independent variables were significantly associated with the outcomes variables. In order to control for the video, our covariate was the variable of the video.

Furthermore, univariate analyses were performed for assessing the significance of the independent variables associated with each variable separately.

Results

The ethnicity and age of the patient, the ethnicity of the doctor and the interaction between the ethnicity of the patient and the doctor indeed have an effect on the physicians' recommendation ($p < 0.5$). Physicians estimated Chinese more likely not showing up for

follow up treatments ($p < 0.01$), but at the same time they evaluated the character of the Chinese more positive than of the Indonesian ($p < 0.05$). Old patients are estimated more satisfied ($p < 0.05$) and the probability of coronary artery disease were higher ($p < 0.05$) for them. Furthermore the cardiac categorization for young patients than older patients ($p < 0.05$) and young Indonesian patient ($p < 0.01$) were assessed more negative, which means, that they were more likely to be categorized under definitely not angina, even when the patient had angina pectoris. Also young doctors and Indonesian doctors were categorizing the chest pain of Chinese patients more negative. Old doctors in general estimated all patients more satisfied than young doctors ($p < 0.05$). Moreover Chinese doctors recommended less expensive stress tests than Indonesian doctors ($p < 0.01$).

Discussion

Based on the results race and age indeed have an effect on the physicians' recommendation in cardiac categorization. Indonesian and young doctors were more likely to refer Chinese patients not for cardiac categorization, even when the description of the patient was clear that the patient had angina pectoris. Therefore Chinese were indeed discriminated by them. Furthermore, young patients and surprisingly young Indonesian patients (but not young Chinese patients) were discriminated. Still, the findings are most striking for Chinese patients in general and young patients, since the character and behavior of them were also estimated more negatively.

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