WHY WE SHOULD CONTINUE TO STUDY RACE . . . BUT DO A BETTER JOB: AN ESSAY ON RACE, RACISM AND HEALTH

THOMAS A. LAVEIST, PHD

For at least a century, American medical and public health researchers have used race as a marker for biology, and have documented race-associated differences in health and illness behavior. The research has often been inappropriate and has led to abuses and erroneous conclusions about the role played by race in the production of disparities in health status. Consequently, some researchers have begun to advocate the abolition of medical and public health research using race. In this essay, I argue that, although the arguments against continuing to study race have some merit, more rather than fewer studies of race are needed. Researchers should be more careful in the use of race and more conscious of the limitations of the race concept. (Ethnicity Dis. 1996;6:21-29)

KEY WORDS Race, Racism, Health, Study of Race

Why study race?

For centuries American health and social scientists have conducted research on various aspects of race. This research has always generated some controversy. However, recent attacks on race-based research have become more frequent. In fact, physical anthropologists currently do not recognize the validity of race. And, other fields have begun to actively debate the meaning and relevance of race to their research.

The argument against continuing to conduct race-based health research within the American context comes down to the position that race is not a scientifically valid biological concept. Therefore, continuing to document race differences in health bolsters pseudo-scientific racist arguments about the existence of biological differences between what we call races and the genetic inferiority of certain race groups.

It is easy to be sympathetic to this position. There is ample documentation of race-based abuses in medical research. And, the consequences of these abuses persist. However, what is needed is more rather than fewer studies of race associated health differences. The issue is not simply whether or not we should continue to study race. We should. Rather, the point is that we should do a better job of it.

Problems and prospects for the study of race

In considering the state of health research on race, what is certain is that although much effort has been devoted to the study of race, much remains unclear. Examinations of the uses of race in epidemiology, health services research, and medical sociology has led to the observation that race is included in the majority of empirical studies in those fields. Jones, LaVeist and Lillie-Blanton found that race was used in 64% of the studies in their sample of articles published in the American Journal of Epidemiology between 1910 and 1990. In an examination of medical sociology, the author and his colleagues found that 53% of the articles from the Journal of Health and Social Behavior included race. And, Williams found that race was used in 64% of the articles published in HSR: Health Services Research.
That race is so frequently included in health research would suggest that there is consensus in the conceptualization and appropriate uses of race. This is not the case. In a previous essay I examined medical and allied health dictionaries and demonstrated that there is substantial inconsistency in the conceptualization of race within the health sciences. Dictionaries ranged from purely biological definitions to attempts to incorporate the political aspects of race. "... scientific categories are our own constriction and not 'God's truth'."

This lack of conceptual clarity is, perhaps, what accounts for the finding that the two most common uses of race in epidemiology, medical sociology and health services research, are as an exclusion criterion in sample selection and as a control variable in regression analysis. These two approaches attempt to avoid the problem of a lack of conceptual clarity by treating race as a confounding variable and trying to "control for" its effects. These approaches to dealing with race do not produce new knowledge by the role that race might play in the study in question. Clearly, excluding a race group from the analysis does not produce new knowledge. And, the "control" approach in regression techniques does not either. Including a race binary variable in a regression model merely produces an adjusted mean value for the dependent variable for each race group and adjusts the coefficients for the other independent variables. This approach cannot tell us if the other independent variables operate differently among the various groups. This is necessary information if one is to design appropriate policy or program interventions to address race-associated differentials in health status.

In addition to sample selection and binary variables, the third most common methodological use of race is to report findings stratified by race without any scientific justification. These practices are commonly taught in graduate programs in epidemiology, sociology, biostatistics and health services research. This has had the effect of slowing the development of high quality research literature on race and health as was illustrated by the research of Jones and colleagues. Their research found an increase in the number of epidemiologic studies that use race as an exclusion criterion in sample selection since the 1960s. As a group, health researchers have preferred to avoid the challenges posed by the analysis of race, rather than confront the problems caused by this socio-political variable.

In spite of a lack of conceptual clarity and specificity in the appropriate uses of race, empirical studies consistently show substantial disparities in morbidity and mortality for groups that we have come to know as racial minorities. Whatever race is measuring, one thing is clear. With few exceptions, people who have been categorized as "white" have a better health profile than people who have not been categorized as "white." But, this is precisely the point. What is this variable that we so often uncritically include in analysis really measuring? Biogenetic factors? Cultural factors? Social factors?

We have races so we have racism ... we have racism so we have races

At the core of the problem with the way race is currently studied is the fact that we have not treated race with the same care and attention given to other variables. It is common to read studies that carefully define and operationalize each variable in the analysis, except race. However, there is no consensus definition of race and there is much confusion. An examination of one dictionary's definition typifies the confusion. Dorland's Illustrated Medical Dictionary defines race as:

1. an ethnic stock or division of mankind; in a narrower sense, a national or tribal stock; in a still narrower sense, a genealogic line of descent; a class of persons of a common lineage. In genetics, races are considered as populations having different dis-
tributions of gene frequencies. 2. a class or breed of animals; a group of individuals having certain characteristics in common, owing to a common inheritance; a subspecies.

This definition attempts to incorporate ethnicity, nationality, and biology into one concept. There is a tacit assumption that there is no variance in ethnicity, nationality and biology within race groups. This poses a problem for American health researchers because these fine distinctions are not generally recognized in American culture, and we don’t directly measure them in our studies. Therefore, Argentineans, Cubans and Panamanians (a linguistic group) are all categorized as Hispanic, in spite of their distinct cultural differences. Vietnamese, Malaysians and Taiwanese are all categorized as Asian, regardless of their distinct nationalities. Blacks from the Dominican Republic, Haiti and Mississippi may share physical characteristics that expose them to racism and other societal health risks; however, their cultural differences may lead them to engage in different health or illness behaviors.

Within each group variation is not limited to minority groups. For example, consider a common approach to handling race in clinical research. It is common practice to exclude racial and ethnic minorities from clinical research. This is done under the premise that the inclusion of subjects from minority groups may affect the scientific validity of the study because of uncontrolled heterogeneity between race groups. However, Italians view themselves as distinct from the Swedish, who view themselves as distinct from the Irish, who view themselves as distinct from the Polish. But, when the descendants of these distinct peoples come to the United States, they are regarded as members of a homogeneous group that is appropriate for clinical research. There is, in fact, substantial ethnic diversity among white Americans. But, these sources of variation are rarely examined. Rather, we typically measure race (usually by a visual assessment of the study subject or respondent self-report) and assume that this measure can account for ethnicity, nationality and even biology (although it is exceedingly rare that the alleged biological differences among race groups are made explicit). If there are any true biological differences between race groups, then they account for an extremely small amount of the race disparity in health status.

When we conduct analysis of the relationship between race and health status and find that one race group is at significantly greater risk for poor health, to what should we ascribe this finding? Typically, race differences in health status are attributed to some combination of biological, cultural and social factors. However, scholarship from both the health and social sciences has demonstrated that race is clearly a social, not a biological variable. The evidence in support of a biological conceptualization of race is extremely limited. Therefore, in determining to what race associated health differences should be ascribed, it seems logical to refer to the way in which race is operationalized, which is on the basis of socio-political forces. Therefore, at the core of race-associated differences in health status are social and political factors.

However, in spite of the lack of a scientific basis, the biological model remains dominant. This is particularly problematic for public health interventions because, if race differences in health status are biological then there are few tools at the disposal of public health that will reduce health disparities. Yet, we know that seemingly insurmountable disparities in the health status of black and white Americans can be surmounted with proper intervention or under the right social conditions. For example, it is well established that African Americans have substantially poorer pregnancy outcomes compared to whites. Attempts to control for social class have
failed to explain the persistent finding of poorer pregnancy outcomes among African Americans. However, a study of pregnancy outcomes among black and white military officers and their spouses, conducted by Rawlings and Weir, found no race differences in pregnancy outcomes. This is significant because military officers are one of perhaps only two categories of black and white Americans that live under essentially similar controlled social conditions (the other being the prison population). The Rawlings and Weir study is one of very few studies that has been able to really "control" for confounding social factors in a race comparative study.

**The Reality of Race**

If race is not biology, then what is it? Race is a social variable. It denotes a common socio-political history. Within the context of health outcomes, race is fundamentally a measure of exposure to health risks. Figure 1 displays a conceptual model of the link between race and health outcomes.

The model specifies race as a latent factor in which skin color (along with hair texture and other physical characteristics) is the most commonly used manifest indicator. There is measurement error associated with using physical characteristics as an indicator of racial group membership. For example, it is possible for a person with light colored skin (as measured by an objective method such as a light meter) to be black in identity, or a person with darker skin to be categorized as white. Thus, race is an abstract concept not simply defined. Race groups are aggregates of individuals who share (to a large extent) common socio-political and historical experiences and a common geographic ancestry. Observed health status differentials among race groups reflect these different group experiences. Within the context of health research, race is largely a measure of exposure to health risks, as represented along the left side of the model in Figure 1.

The figure shows that as an individual engages the social world, others categorize him or her into a race group. This process is called physiognomy, literally defined as the "art of judging human character from facial features." Once the individual has been categorized, he or she is exposed to the societally determined external health risks of that group. Examples of such risks are occupational health hazards, poor qual-
ity housing, exposure to environmental toxins, and poorer quality medical care. Such external health risks are known to vary by race.\textsuperscript{38,43} This, in turn, results in health status differences among race groups.

The right side of Figure 1 recognizes that there may also be health or illness behaviors that affect health status and may account for some of the health status differences among race groups. These behavioral differences may be ethnically or culturally related. Or, they may stem from socioeconomic or other factors impacting individuals. It is important to stress, however, that race and ethnicity are not one and the same, although there is overlap. For example, a black Dominican and a black American may share physical characteristics. This may result in both persons being at increased health risks due to living in poor quality housing.\textsuperscript{45} This is the pathway along the left side of Figure 1. However, these two individuals are from distinct ethnic traditions that may result in different dietary habits and, as a result, they would have a different dietary health risk profile. Thus, although race is a good indicator of exposure to external risks, race is less satisfactory as an indicator of cultural factors and consequently, individual behavior.

The third pathway through which racial differences in health status is produced is demonstrated by the arrow linking societal factors to health and illness behavior. This pathway shows that societal factors place constraints on an individual's ability to engage in health or illness behaviors that are protective of good health. A person's race may lead to lower socioeconomic status,\textsuperscript{62} which may lead to under-utilization of health services.\textsuperscript{63,64} In this example, illness behavior is not directly associated with either race or ethnicity. Rather, in this example, illness behavior is directly associated with social class. However, given the ways that race is commonly analyzed, one might inaccurately ascribe a finding of race differences in an outcome to a person's race group membership when it is really an effect of social class or some other social factor. This point was artfully made by Lillie-Blanton, et al.\textsuperscript{65} in her analysis that showed that African Americans are not more likely than whites to use crack cocaine, as had been previously believed.\textsuperscript{66} Her analysis showed there is no race difference in crack cocaine use once indicators of crack cocaine availability is included in the analysis. Thus, it is the greater availability of crack cocaine in segregated urban African-American communities that accounts for a greater prevalence of crack cocaine use among African Americans.

**Racism and health**

As Figure 1 demonstrates, exposure to external health risks is a primary mechanism through which race differences in health status are produced. This is also the pathway through which racism has an impact on health status. Here, two forms of racism are employed. The first form of racism is structural racism. It is defined as policy that is, intentionally or unintentionally, injurious to a race group. An example of a pathway through which structural racism affects health status is residential segregation. Mortgage underwriting policies that restrict mortgage lending from designated communities help to ensure racially segregated cities.\textsuperscript{45} Segregation, in turn, places African Americans and other groups at greater risk for poor health.\textsuperscript{44} Segregation leads to constraints on access to quality housing,\textsuperscript{46} lower earnings,\textsuperscript{47,48} and exposure to occupational and environmental toxins,\textsuperscript{41} all of which, in turn, affect health. Structural racism occurs at the group level and its effects can usually best be seen at the group level. However, the second form of racism is more individualized.

The second form of racism is individual racism. It is defined as the application of power or influence with personal prejudice. In the late 20th century, this form of racism is less frequently seen than in earlier peri-
ods; however, it is still relevant. The consequences of individual racism have been documented in medical care. Several studies have demonstrated race differences in clinical diagnosis\(^4\)-\(^5\) as well as race differences in the intensity of medical services provided for similar diagnosis.\(^5\)\(^3\)-\(^5\)\(^6\)

Finally, a third pathway through which racism affects health is through the internalization of victimization of racism. In this form racism is a social stressor. Several studies have demonstrated a link between exposure to racism and blood pressure\(^5\)\(^7\)-\(^5\)\(^9\) and mental health.\(^5\)\(^0\),\(^8\),\(^5\)\(^1\)

The future of research on race, racism and health

If analysis is conducted to determine the degree of measurement error one would expect to find in attempting to use race as a measure of biology, culture (ethnicity), or social factors, what might we expect to find? We would most likely find that race is a very poor indicator of biology, a somewhat better indicator of ethnicity (culturally determined health and illness behavior) and a very good indicator of degree of exposure to social factors such as racism.

The evidence in support of the biological concept of race is sparse. And, the cultural/behavioral conception of race is somewhat better, but less than fully satisfactory. Yet, most health research that examines race follows these conceptions of race. This is in contrast to abundant evidence of race differences in exposure to social health risks. For example, African Americans are exposed to both structural and individualized racism.\(^5\)\(^7\),\(^8\),\(^9\) Racism has been documented in housing,\(^5\)\(^5\)-\(^5\)\(^7\),\(^7\)\(^1\) education,\(^7\)\(^2\)-\(^7\)\(^4\) employment,\(^7\)\(^5\),\(^7\)\(^6\) medical care,\(^7\)\(^7\) the economy,\(^7\)\(^6\),\(^7\)\(^9\) race motivated violence,\(^8\)\(^0\) and many other areas.

The question is not whether we should continue to conduct research on race, racism and health. The volume of research demonstrating race-associated differences in morbidity and mortality makes it clear that continued research is needed. And, as the health profile of America has been generally improving, the gap between black and white Americans persists. These well-established facts evince a need for continued research. But, it is not merely a matter of conducting more studies. What is not needed is more of the same. The question is, "How should research on race and health be conducted?"

Although race is frequently included in health research,\(^1\)\(^9\)-\(^2\)\(^1\) the way race is typically handled (as a confounding variable) leaves us with much that is still unknown about the mechanisms through which the association between race (a social factor) and health status is produced.\(^9\) Future research must assign greater importance to exploring the theoretical and empirical links between racism, race and health.

It would be helpful if researchers would make explicit whether they regard race as measuring cultural factors, exposure to racism, other social factors, or biology. Even this would be a significant step toward understanding why race disparities in health exist. But, it is not enough to stop there. We must advance this research beyond proxy measures. If race is measuring culture, then we need to find better and more direct ways to measure culture. If race is measuring exposure to racism, we must learn to rigorously measure exposure to racism. And, if one contends that race is biology, then it is incumbent upon them to make explicit what the race differences in biology are. (Sickle cell disease is not such an example because there are documented cases of sickle cell disease in whites.)\(^1\)\(^1\),\(^8\)\(^2\),\(^8\)\(^3\),\(^8\)\(^4\)

Only when we move beyond race as a proxy and directly measure those concepts believed to be measured by race, will we make truly important advances in describing the true nature of racial variation in health. And, only then can we begin what is really the important work: eliminating disparities in health status.
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