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Knowledge Construction: Untapped Perspective in Pursuit for Health Equity

Begna Dugassa
Department of Public Health, Toronto, Canada
Email: b.dugassa@utoronto.ca

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Background: Racism is one of the major pathogenic social conditions that contribute to health disparity. Health disparities between blacks and whites are biological expressions of long-standing unjust social relationships. Health disparities between blacks and whites are explained not only in terms of differences in the socio-economic statuses but also by the impacts of epistemological racism. In health sciences, epistemological racism is manifested through the research questions asked, the research agendas framed, the ways in which data are collected and interpreted as well as the ways research funds are allocated. Often research questions are framed from the perspective of the researchers and the funders. Such a research mainly solves the socio-economic health problems of the researchers, funders and the dominant and leaves aside the need of the marginalized groups. **Methods:** Using Anti-racist theoretical framework I critically examine the connections between knowledge, race and health disparity between different racial groups and the pathogenicity of racism. **Conclusion:** Our health problems are unique to our culture and social realities. Research that is intended to reduce health disparities between racial minorities and the dominant groups need to frame research questions differently. Researchers need to realize that the contemporary epistemology of health sciences embodies the society that has produced it. Such knowledge has critical limitation in understanding the need of racial minorities and in finding solutions. To reduce health disparity we need to make the knowledge and experiences of different groups of people and their ways of knowing part of the educational curricula. School should prepare students to see the world primarily in their own perspective and define their needs and aspirations; facilitate conditions to widen their scope in understanding the world and solve their social problems.

Keywords: Epistemological Racism; Health Disparity; Pathogenicity of Racism

Introduction

Knowledge and power are intertwined (Foucault, 1995). The process of colonization requires both physical subjugation and complete control of the mind and soul (Dugassa, 2011). European empire builders established and maintained their privileges and powers by using their social, physical and biological sciences knowledge. They used their knowledge to validate their needs and perspectives. From the perspective of racial minorities, Euro-centric knowledge altered their identity, distorted their history, compromised their needs, worn-out their dignity and exposed them to poverty and diseases. Furthermore it has provided theoretical reasoning to the colonizers and slave owners, to perpetuate harm against them (Smith, 2002). Hence, Euro-centric knowledge cannot provide a theoretical framework to understand their needs, foster their resiliency and grant them healing.

Battiste and Henderson (2000) are indigenous scholars and they have contributed a great deal to our understanding of the colonial and political nature of education. They state that: "*An education that does not critique the connections or lack of connections in knowledge is not education but indoctrination*". The statement of these two scholars suggests that the essence and purpose of education should be examined in terms of its inclusion or exclusion practices in validating knowledge of racial minorities and the absence or presence of racial minorities in knowledge production. The statement also suggests the importance of questioning whether or not education empowers the people and helps them to solve their own problems and improve the quality of life or facilitates the on-going nature of the colonial power relation.

Education can either used to empower and prepare students to solve the social problems of society, facilitate social changes and avert health disparity, or to dis-empower, control, manipulate, legitimize social hierarchy and hinder social transformation, (Dugassa, 2011) as well as to widen health disparity. The questions we need to ask and make effort to answer them are: What we need to do, to make our teaching and learning institutions produce critical minds (Freire, 2001) and liberated voices (Hooks, 1989)? How can we make sure that the experiences and the needs of racial minorities become the center of teaching, learning and researching as well as the foundation of policy-making processes? How can we create social and physical environments that not only promote good health but also equity in health? What is required to develop an epistemology that can successfully challenge the Euro-centric epistemology designed to maintain the privilege of dominant group and to legitimize poverty and misery among racial minorities? These critical questions have received far too little attention. Much of the focuses have been placed on treating the symptoms of diseases rather than the causes.

Historically, most wars, genocide and other various forms of violence have racial dimensions (Winant, 2000). Racist ideology was and is responsible for racial slavery, colonialism,

neo-colonialism, poverty and health disparity (Williams, 1997). It supports a structure of inequality (Dei, 2000) at local and global levels (Jalata, 2001). Racist thoughts and ideas have been theorized and legalized, and they have been part of science, law, art, and business. Race has been used to stereotype and stigmatize. Race is produced and reproduced primarily by fundamental political economic and ideological structures (Moss, 1997) and is a component of the ideology of a capitalist economy (Dei, 2000). Structural inequality leads inevitably to disparities in the social well-being of people. Those people who do not have political and economic power are more exposed to diseases due to lack of adequate food, preventive health and medical services. Therefore, promoting public health for all section of society without discrimination is an aspect of social justice and an essential element of human rights principles.

Public health is defined as "*the science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society*" (WHO, 1998). The definition encompasses the concept of the organized efforts of society, which include identifying health risks and setting strategic plans to prevent diseases and promote health. To prevent diseases, promote health and improve the quality of life require aiming at producing sustainable changes at the individual, community and national levels. To achieve this, communities need to develop the capacity to identify their needs and solve them. In public health, building capacity means helping individuals and communities develop their leadership, problem-solving or team-building skills. This makes knowledge, teaching and learning critical to the success of the public health objectives and to the elimination of health disparities. That is why McKenzie (2003) argues that countering racism should be considered a public health concern.

Public health makes a difference in population health in two major ways. The first way is enquiring and identifying individuals and communities who are ill or at risk of becoming ill through studying the conditions that put them at risk. The second is through action plans—where necessary measures taken to improve the health of the population (Mann et al., 1999). One of the major reasons for health disparity to persist is the conceptual framework of public health is framed in a Euro-centric perspective (Kreiger, 2010). Scientists and policymakers are not objective and independent thinkers (Kuhn, 1970). In their works, scientists accept what they have been taught and apply their knowledge in solving the problems that dictates them. It is for the same reason that when the members of racial minorities die from cancer, cardio-vascular diseases and infectious diseases resulted from poverty, malnutrition and unhealthy living conditions, scientists choose to name the symptoms as the causes. They avoid naming the true causes of the problem.

The right to equal treatment is a fundamental human right. Racism and discrimination causes social exclusion of members of minority groups. Racial and ethnic disparities in health status persist and are even increasing in some areas. Eliminating health disparities should be a sustained, strategic priority of public health organizations dedicated to improving the health and well-being of people. Public health is not a newcomer to the field of undoing injustice. However, when it comes to undoing discrimination and health disparities it is still functioning in accordance to existing Euro-centric assumptions. As a result disparities in health not only persist and in some cases it is even increasing (Barnes, 2004).

Racism is a collection of attitudes, beliefs, behaviors and practices that contribute to the long-standing health disparities. These disparities are caused by overt and covert discrimination. Racism affects health through a complicated set of direct physiologic effects, most notably physiologic stress, and through indirect pathways such as access to goods, services and opportunities. This makes the analysis of the health effects of racism difficult, in part because race and racism are not easy to quantify. The effects of racism are in part manifested intricately, and interconnected through various pathways. The health effects of racism and race-related exposures and experiences accumulate over a lifetime.

Racism is one of the major social pathogenic conditions that contribute to health disparity. Health disparities between the racial minority and dominant group are biological expressions of long-standing race relations (Hyman, 2009). Racial minorities have more unmet health needs than the dominant groups; these include diagnostic errors, adverse effects, unnecessary tests and prolonged hospital stays (Balsa & McGuire, 2001). The direct impacts of racism are manifested through emotional stress such as anxiety, depression and lowered self-esteem, which have direct effects on biological processes such as the endocrine and immune systems (Williams, 1997). This paper examines racism as a social problem and the harmful social consequences linked to it. In doing that, it seeks to advance anti-racist discourse in health and medical sciences. Hence, in this paper I examine racism, its historical origin and its health impact on racial minorities by closely looking at the ways in which racist cultural, economic, political, ideological and epistemological systems are implicated to health disparities. In this piece, I address five major issues. First, I explain why I am interested in the connection between knowledge, race and health. Second, I explore the historical origin of racism and its consequences. Third, the issues of research in health disparity and impacts of racism in health are explored. Fourth I address the problem of representation and knowledge production in health sciences. Fifth, I elaborate the issues of representation and policy research and formulation. Finally, the challenges of equity in health services will be addressed.

Terms Defined

To prevent ambiguity and misunderstanding I define some of the concepts I use in this paper. In this paper, the term racial minority refers to people of Africa or African origin. The dominant race or group refers to people of Europe or European origin. The word epistemology is derived from two Greek words—episteme which means knowledge and logus, which means reason or study. Hence, epistemology is reasoning or studying about knowledge construction. It describes what we know, how we know, what we know and what we may regard as knowledge.

Why I Am Interested to This Topic?

As I discuss the relationships between theory and practice I want to make my position clear. The word theory comes from a Greek word "theoria" that means seeing, inward looking or envisioning. Theory gives the concept on which we describe, explain and address the health of a society. To borrow words from (Kreiger, 2010) to theorize is to use our mind's eye and systematically observe and articulate the guiding principles of actions. The production of theory is socially constructed and it

is embedded in the culture, experience and worldview of the society (Doucet & Mauthner, 2006).

Let me put my experience in perspective. I am not coming to the discussion of knowledge, race and health and pathogenicity of racism from politically neutral position—I know no neutral researcher or policy maker. I was born and raised among the Oromo people in the family of indigenous believers—Waqefaata. The Oromo Indigenous knowledge that I was taught at home is different from the teaching I received from my formal schooling. Things that are true and valid from the Oromo perspective are void in the formal education. For example, from the Oromo perspective, black and blackness represent purity and holiness. When the Oromos ask for clean water they would say bishaan guraacha—black water. If they want to say Holy God, they would say Waaqa Guraacha—Black God. However, in European literature, black and blackness represent bad things —Black Death, black market, black list and others. The Oromo emblem is represented in three different colors -black, red and white. Although the Oromo concept of blackness and whiteness is different from that of Europeans, however, the concept of red and redness is the same or similar. Red represents love and aurora (Dugassa, 2011).

The differences in concepts are not limited to color representation. The Oromo concept of health is intertwined with personal peace, peace with the neighborhood, and the natural environment as well as divine power. The Oromo concept of health is wider than that set forth by the WHO, which defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". As peace and health are central to the Oromo thinking, the Oromo concept of excellence is built around these core ideas. The Oromos value more collective work and peacemaking and team workers are regarded well than others. However, the Euro-centric schooling promotes more about individual's efforts than collective achievements.

Understanding certain phenomenon using a different paradigm of thinking can have significant implications. As Goldberg (1999) argued, power is exercised epistemologically in naming and evaluating social issues. Researchers conduct their studies based on the research questions they ask, and policy-makers rely on the mission and objective of the institution. For example, in Canada, native Canadians suffer from diabetes more than any other racial groups (Hanely et al., 2003). Clinical science researchers have conceptualized that these group are genetically defective in metabolizing carbohydrates (Hegele et al., 2003). They have found the gene that is responsible for carbohydrate metabolism. At the conceptual level, these researchers took themselves to be the standard group (those who can effectively metabolize carbohydrate), and categorized those who cannot as having defective genes. Such research victimizes the victims—who had been conditioned to abandon their eating habits. At the same time, the data produced frees the Canadian government from being responsible for caring for native Canadians. If the native Canadians were politically, socially and cultural dominant over others, the idea of what constituted the standard eating habit in Canada would have been totally different. If the native Canadians were the dominant group, they would have been the researchers and in that case those who can metabolize carbohydrate more effectively would have been seen as having defective genes.

As an African-Canadian and public health practitioner and researcher, I made a political choice to examine race in the relation to knowledge construction and its impact on the health of racial minorities. I have observed the lives of racial minorities studied and theorized within the dominant lenses. Racial minorities experiences are measured within survey designed by the dominant group within the Euro-centric perspective. Racial minorities are expected to fit into the dominant theories and experiences.

As a public health practitioner running educational workshops, I repeatedly note that the Canada's Food Guide, which is available for me to share with my African-Caribbean and Asian participants, is designed by and for the dominant group. For example, discussing the importance of calcium for bone, teeth development, and immune system; I encourage them to drink milk. Then I find that many of them are lactose intolerance. When I talk about the relationships between consumption of sodium and blood pressure among the blacks, very often the question that follows the discussion is why the regulatory agencies are not mandating the reduction of sodium in foods. This is even clearer when I discuss about vitamin D deficiency and in relation to skin color. In Canada, USA and many European countries, blacks are one of the groups that are at risk of vitamin D deficiency (Reis et al., 2008). Due to their skin pigmentation, blacks synthesize vitamin D slowly. This means that in the northern hemisphere where sun light is inadequate, vitamin D deficiency is more common among blacks as compared to the dominant group. Canada's Food Guide does not take such physiological differences into consideration.

Through teaching, learning and researching we can solve our social problems. Our social problems are usually unique to our culture. Teaching, learning and researching are conducted with a specific paradigm of thinking or epistemology. If we teach, learn and conduct research in the Euro-centric paradigm, we learn to see black and blackness in negative terms—as a result the poverty and misery in which the black people live are seen as natural and acceptable and consciously or unconsciously we convince ourselves that there is no need to make efforts to address them. Racism produces falsehood and consequently distorts and undermines the needs of racial minority groups. It also legitimizes the Euro-centric knowledge as universal and impartial knowledge. Racism persists because the Euro-centric paradigm of thinking is ingrained in the teaching, learning and researching of Western societies. It is part of the culture, legal system and the way of life in the Western World. Black and white children learn this paradigm of thinking in schools. To reduce health disparities, we need to ask the following questions and make an effort to answer them: Does the paradigm of thinking or epistemology influence the research questions we ask, the ways we collect and interpret data and set up policies? If the answer is yes, why do we not teach our children in multiple paradigms of thinking and prepare them to interrogate racist epistemology and promote equity?

Race and Racism: An Historical Perspective

It would be difficult to examine the health disparities resulting from racism without understanding the construct of race and the construction of the racist mindsets. It is argued that race is a social construct rather than a biological classification (Omi & Winant, 1993; Lopez, 1995). Although race is a socio-political construct, racism is real in terms of material and social consequences (Dei, 2000). Race is used to classify people based on skin color, geographic origin, ethnological background and

culture. The term racism refers to an ideology that legitimizes the domination of one group of people over another, and justifies both social avoidance and discrimination of certain groups. Historically, racism created norms that assigned racial minorities different social and economic statuses and differential treatment.

The racist paradigm of thinking influences our daily activities in several different ways. It determines whose knowledge and culture are used to validate, subsidize and commercialize. It determines whose health problems are worth of careful investigation and whose require little or no attention. It determines whom to feed and what to feed, whom to shelter and whom not to shelter. It decides the value of individuals' work, who should live in certain neighborhoods, and who should perform and be responsible for certain jobs. Racist thinking influences who should have access to higher education and research institutions, and participate in policy-making processes. Racist thinking is a socially constructed and it is subjected to both reconstruction and demolition.

When European colonizers met the indigenous people of Africa, Asia, North and South America and Australia, they exhibited racist mindsets and they started to question whether or not indigenous people possessed souls, could be offered salvation, whether or not they were educable, and whether or not they could be offered schooling (Smith, 2002). Hall (1992) argues that categorizing and classifying is not simply descriptive; it is also evaluative. Problems of classification arise when people begin to evaluate others solely on the basis of their worldviews. Categorizing depends heavily on societal experiences, values, and social norms. Indeed, racism goes beyond the categorization of people; it is about the power relations that it creates.

Understanding that race and racism are a social construct, it is important to examine how and why they are constructed, and why the idea of such social construction remains unchanged. William F. Tate IV (1997) suggests that for a theory to become acceptable, it must be consistent with other representations or belief systems that reflect the prevailing cultural ethos of people. Belief systems are mechanisms by which humans setup social norms and values. People use their believes to integrate these artificial or symbolic models rather than on the basis of genetic modes to classify people. Racism places considerable emphasis on racial differences in determining policy and interpreting events.

It is reported that white economic gains are made at the expense of black and indigenous people losses resulted from racial discrimination (Goldberg, 1999). Racist ideas serve the politically dominant group in maintaining profit, power, and privilege. As with race, "knowledge" is also a social construction. Even the research processes, as well as the subjective experiences of researchers, that are considered to be neutral, are currently the subjects of much debate. It is argued (Okolie, 2002) that there are different ways of knowing the world; however, the present educational system is dominated by a Eurocentric way of knowing. This knowledge does not validate the knowledge of racial minorities. This pushes aside the knowledge of all other less powerful social groups into the periphery and even categorizes them as "outsiders" or "others".

It is argued that the past informs the present and the present informs the future (Said, 1999). Our present social conditions are the web results of the social constructs of the past, and the social status of our children and grandchildren are established or determined by the current social constructs. Along the same lines, Freire (1992) argues that tomorrow is the pure repetition of today, or that tomorrow is something "predated". To transform society and overcome all systems of oppression and inequality, we have to relentlessly interrogate the dominant knowledge and social structure. Otherwise, as Freire (1992: p. 101) himself clearly states: "*The future of which we dream is not inexorable. We have to make it, produce it, else it will not come in the form that we would more or less wish it to*".

History repeats itself. Racism is something that human beings have constructed and it has been passed on from generation to generation through the educational system. If the history of racism is left un-examined critically and not challenged at all levels, it will continue perpetuating the damage it has been doing for centuries. Critical education is a useful tool to unlearn such mindsets. Let us now explore the connection among research, knowledge, and health disparity.

Research in Health Disparity

Knowledge is a social construction. Science and ethics of the society influence construction of our reality. According to Johnsson (2009) science is descriptive and it deals with what it can be accomplished. However, ethics is normative and it deals with what should or ought to be carried out. Theory influence practice and practice influence theory. Jonsson (2009) describe the relationships between theory and practice as "*one lacks full meaning without the other*". Einstein's famous statement says, "*it is the theory that determines what we can see*". Reconfirming that theory determines what we see and do Einstein's another statement says, "*we cannot solve problems by using the same kind of thinking we used when we created them*" (see Brainy Quote). These cite make clear that science is influenced by the theory, ethics and value of the society. The ways research agendas are framed, data are collected, interpreted and the ways social policies are framed are not value free. In a racist society, it is unlikely to find a neutral science. However, the Euro-centric knowledge presents the term "science" as a universal body of knowledge through which we can only come to the truth and explain all the phenomena.

Anti-racist educators argue that scientific knowledge is a cultural product and that there are no fundamental differences between science and other forms of knowledge. Scientists, therefore, are the social cadres who work as knowledge producers and validators within the arena of cultural and ideological norms. The construction of social disciplines such as economics, health, science, law, education and others reflect the dominant values, norms, and social needs of the politically dominant group. Critical race theorists (Bank, 1995, 2002) and feminists (Mohanty, 1990) argue that the way public problems are defined influence the ways laws and policies are constructed and interpreted. Decolonizing pedagogical practices insist on making a critical analysis of the ways in which experiences are named, constructed, and legitimated in academia.

Most of the contemporary anti-racist literatures categorize racism into three levels: personally mediated, institutional and internalized. However, the fourth category of racism, which manifest at an epistemological level has discussed by few authors such as Scheurich, and Michelle (1997). Institutional racism is responsible for differential access to goods, services and opportunities. Institutional racism explains the differences in the socio-economic status of people. Personally mediated racism explains differential assumptions about the abilities, mo-

tives, and intent of people from their racial backgrounds. This includes physical disrespect such as teacher devaluation and disease misdiagnoses. Internalized racism is acceptance of negative messages about ability and intrinsic worth. Epistemological racism is the deep negative assumption about racial groups. Epistemological assumption is deeply rooted in the culture and worldview of the society. It determines whether or not the issues that are relevant to certain racial groups are recognized as a problem and whether the causes of the problems are named.

Health disparity is biological expressions of unjust race relations' or manifestation of unmet needs caused by discriminatory practices (Hyman, 2009). Most of the researches in health disparity and unmet needs can be categorized into two areas. The first category looks at the ways racism affect health through social determinants of health. The second category is a direct biological process where racism causes unwanted psychological stress, alters endocrine, immune and nerves system. Although it is well known that the philosophical underpinning of health research is to solve the outstanding health problems that the society faces, until recently researchers and practitioners never questioned whether or not their prejudice against racial minorities are implicated to the health disparity.

Racism and prejudice are attitudes and cognitive processes. Hence, knowledge produced in a racist culture cannot be value free. However, science is presented to us as a neutral and objective knowledge, which dictates how the public should understand the world. Guilfoyle and colleagues (2008) write about prejudice in medicine. These authors are physicians and they are courageous enough to state that the currently emphasized evidence-based medicine, clinical treatment and health policy development are not based on value free research. For example, Kumanyika (2006) argues that racial minorities have higher rates of nutrition-related health problems. This is not by accident—it is resulted from a complex interplay of cultural impositions—eating habits, economic exploitation—poverty and marginalization of the need of racial minorities. Kumanyika suggests the need to develop unique nutritional assessment methods, dietary guidelines and other nutrition interventions for racial minorities.

Impact of Racism on Health

It was reported that in the United States, health disparities among racial groups have continued during the past twenty years despite socio-economic gains. The difference in life expectancy between whites and blacks was reported to be 6.0 years in 1997. The differences are even greater in males. Black males are expected to live 67.2 years as compared to 74.3 years for white males (Olivia 1999). In addition to health discrepancies existing as a result of socio-economic differences, they too exist amongst groups of similar socio-economic status along racial lines (Kendall & Hatton, 2002). The theoretical explanation for such disparities, in terms of socio-economic status, does not account for this. The disparities are explained in terms of inferior medical care and discrimination in quality, quantity, and access to health services (Dries, 1999).

The WHO concept of health is wider than that used by biomedical sciences. If we conceptualize health as "*a state of complete physical, mental, and social well-being*" it can never be met unless racial inequity is resolved. Even if we conceptualize health exclusively from a biomedical perspective, health determinants are believed to consist of a web of "causation". These health determinants include geographical, biological, environmental conditions and health behaviors that are also dependent on socio-cultural and socio-economic factors. Social and economic statuses are important to achieve better health. As argued here, racism affects these health factors. If racism persists in our society minority groups cannot have the state of complete physical, mental and social well-being. If the research issues that are relevant to racial minorities are left without careful investigation and working solutions are not found, health disparities will persist. According to Williams (1997), African Americans have death rates that are higher than those of whites. For example, people who originate from a given geographic region have a body system that is better adapted to certain biological, chemical, and physical agents than the others. Williams shows that biological and geographic origins have their effects on health via mediating variables such as socio-economic status, and demographic characteristics such as age, gender and marital status.

The pathogenic effect of racism is mainly noticeable as it shapes socio-economic status of racial minorities. Fanon (1968) discussed the social status of colonized people in relation to the colonizers stating that, "*you are rich because you are white, you are white because you are rich*". Socio-epidemiological studies have shown the link between socio-economic-environmental conditions and the health status of individuals and groups. It is a well-established historical fact that racially discriminatory laws and practices have enabled profit ratios to be maintained or increased both at micro and macro levels (Goldberg, 1999). Mann and his colleagues writing on the role of respect for human rights in public health made it clear when they said:

> Discrimination against ethnic, religious, and racial minorities, as well as on account of gender, political opinion, or immigration status, compromises or threatens the health and well-being and, all too often, the very lives of millions. In its most extreme forms, prejudice or the devaluation of human beings because they are classified as "others" has led to apartheid, ethnic cleansing, and genocide. Discriminatory practices threaten physical and mental health and result in the denial of access to care, inappropriate therapies, or inferior care.
>
> (Mann M. Jonathan et al., 1999)

The history of public health shows that there is always a close relationship between socio-economic status, environmental factors and physical health. The ability of a population to maintain a given standard of health is always directly related to its capacity to maintain and control the material means of production (Rosen, 1993). Colonial expansion, driven by racism, was key in bringing about the destruction of vital social and ecological structure that usually enabled people to maintain quality of life. It also destroyed the social well-being of local populations on an unprecedented scale.

Health care professionals, researchers, and policy-makers have believed that access to health care is at the center of eliminating disparities in health for racial, ethnic, and social class groups (Cooper et al., 2002). However, in Canada, where health care is accessible to all its residents, this has not brought about the elimination of disparities in health status for racial minority groups. Those populations that live in poor social conditions are at a disproportionate risk of injury and ill health (Auer & Ragnar, 2001).

Racism is an important social factor, which leads to the development of epistemology and it shapes and reshapes social structures. It is racism, rather than race, that is responsible for differences in social status and lack of accessibility to higher education that we observe in our societies. It is the obligation of public health students and political leaders to address society's interests and make efforts to ensure conditions in which all people can be healthy. If we do not contribute to public health knowledge, to initiate discourse needed to ensure optimum conditions whereby all people may live healthy and dignified lives, the idea of equity remains just a theory. A question of interest, at this point, is "*what portion of current health disparities between the dominant groups and black communities are attributed to social status, income, and education*?" and, "*what portions of such disparities are attributed to epistemological racism in health and medicine*?" These questions are remained unanswered, and are recommended for future research exploration.

Representation and Knowledge Production in Health Sciences

> Scholars and researchers less centered in the mainstream tend to have different epistemologies, in part because change and reform, rather than maintenance of the status quo, more frequently serves their social, cultural, political and economic interest.
>
> (Banks, 2000)

The impact of interrogating the epistemology of health and medicine, as well as representation and knowledge production, is enormous. Historically, the construction of knowledge in science is a cultural product. Science that has developed the standards and boundaries of what is acceptable and unacceptable knowledge and practices (Garvin, 2001) is not value-free. The culture and ideology of a society defines what knowledge-based science we should seek. The infamous Tuskegee syphilis research, that I will briefly discuss later, was conducted on African Americans is one of the many examples of epistemological racism.

Traditionally, contingent relations between institutions, groups, and social classes define the reliability of newly acquired knowledge. Research agendas are, in a large measure, set by those who have chosen careers in investigation. Individual and institutional curiosity depends on socio-economic status and political perspectives. People's views and research initiatives depend largely on their particular cultural, ethnic, and conventional filters. Diversity is needed to set an appropriate comprehensive research agenda—an agenda that targets the needs of minorities that the dominant researchers consciously or unconsciously are often reluctant to address.

The major goal of human beings is to live a life of "good" quality and health. Individuals and institutional investigations, however, tend to do research on problems that they see threaten their own quality of lives. Peoples' cultural and racially ethnic backgrounds filter these perceptions (Cohen, 1997). Recognizing all of these realities leads to the theory that finding solutions to specific health problems, or even being able to conceptualize those problems, requires a research work-force that is racially and ethnically diverse. Establishing such diverse learning and teaching conditions should be the priority of higher education.

For example, a statement from the American Sociological Association made clear the importance of collecting data and conducting social scientific research addressing issues of race. According to this statement, failure to conduct research of this kind seriously affects our society's progress towards equity (American Sociological Associations, 2003). In the same light, denial of representation in teaching/learning is problematic. While being treated with respect and dignity, racial and cultural differences within our society must be noted. Denial of equal representation would simply result in the maintenance of inequalities.

One of the ways to challenge epistemological racism is by having a racially diverse human agency. For example, as a result of affirmative action programs, US universities produced black doctors to address, the health needs of their communities. According to Ready (2001) and Cohen (1997), minority doctors are more likely to practice in underserved communities and address the health-care needs of the minority and disadvantaged patients than other doctors. They better understand their cultures, beliefs, and concerns. The work of Ready (2001) Cohen (1997) suggests that racial and ethnic diversity in health and medical schools is needed to ensure that minorities are not excluded from leadership and decision- making processes.

In health science literatures, it is well documented that the health professional's attitude toward the patients determines the type and the quality of treatment that patients receive. Very often health professionals' attitudes towards patients depend on their cultural resemblance between them. Vulnerable populations who live in disadvantaged socio-economic situations will benefit most from dealing with minority health professionals (Ready, 2001). It is clear that racial minority health professionals communicate better with racial minority patients. This significantly improves towards the quality of services that such patients receive.

By recognizing and respecting that there are different ways of knowing, we can effect a positive change in teaching/learning practices and in doing so broaden health and medical science knowledge, and improve health care efficiency. Student diversity enhances the teaching and learning of health and medicine for all students and such inclusive schooling is one step towards preventing health disparity. The other area where equity in health can be achieved in our community is through representation in leadership. Racial and ethnic diversity in health and medical schools is needed to ensure that minorities participate in research and in policy-making decisions. Again, here higher education can play a crucial role in bringing theory into practice via appropriately training future health practitioners, researchers, and policy-makers.

Education is the center for knowledge production and dissemination. In general terms, it has been widely accepted that access to education is an important measure in the fight against colonialism and racism. To increase the effectiveness of health care in our society, we need to improve the cultural competence of health professionals. Cultural competence is understood as a set of congruent attitudes, behaviors, and policies that come together in a system- individual, or among professionals—that enables effective work in cross-cultural situations (Brach & Fraserirector, 2000). Arguably, this culturally competency of the professional depends on the social and cultural knowledge of patients.

There are good reasons to attest that health, and medical sciences, because it represents the society that produced it and they are not neutral. It is reported that racist ideas prioritize and

influence the kind of science that is actually studied and the kinds of effects that necessarily follow. The case of sickle cell anemia, which mostly affects people from geographic regions in which malaria prevails, provides a striking example of prioritization in research. Historical evidence in sickle cell research clearly shows that sickle cell anemia was being ignored, and that less significant diseases were funded and researched (Barash, 1998). This makes clear that research agendas are framed in accordance with the dominant interests. Until recently the research agenda in health sciences are less about the impact of the disease than it is about social and medical politics (Michaelson, 1987).

It is well known that medicine had been racialized. In the past, medicine used terms such as Drapetomia (irrational and pathological desire of slaves to run away) and Dysaethesia Aethopica (rascality) (Bhopal Raj, 1997). For example, when pregnant black women suffer from iron and calcium deficiency and crave clay, the term Cachexia Africana is used to explain the cause of the problem which is thought of as mental and cultural inferiority, rather than imposed poverty (Gonzalez et al., 1982). The Tuskegee syphilis study is another good example of race-oriented health science. The Tuskegee syphilis study examined the natural course of syphilis in 600 poor black Americans in Alabama, denying them effective treatment and causing many deaths (Gray, 1998).

Foucault (1976) suggests that historical analyses reveal the rules of current practices. As discussed above racist medicine considered the aspirations of brave men and women to live free and independently as merely pathologic desires, which Linda Smith refers to as "disciplining the colonial mind" (Smith, 2002). The numbers of black students dropping from high school are reported to be high, but Dei (1996) argues that they have not dropped out; rather, they have been pushed out. The numbers of black prisoners are disproportionately high in both Canadian and US. Here it is important to ask how many of the imprisoned are a result of racism in policing, and/or judging; how many of them imprisoned for resisting individual, institutional, societal and epistemological racism. Essentially, the desire of racial minorities to be free from racist hegemony has been criminalized. It is important to ask how many of these men and women would have been part of a higher educational system and would have contributed to the ongoing knowledge production and the social, economic and cultural transformation of our society.

A recent HIV/AIDS vaccination experiment is another example of the political nature of medicine. The experiment looked into developing a vaccine against type-B HIV though it is not the major cause of AIDS worldwide. Type-A and C HIV are common in sub-Saharan Africa, India and China, whereas type-B is widespread in North America, Europe, and Latin America. Though 95 percent of AIDS patients are infected with either type-A or C, the vaccination experiment was conducted against type B HIV—conducted along global racial and political power relations. When the result of the experiment was reported, the vaccine appeared to be 78.3 percent effective in blacks and 68 percent effective in Asians and only about 4 percent effective in whites (Eaton, 2003). This displeased the stock market. Soon after the findings of the vaccination trial were reported, the company's stock value dropped by 85 percent, implying that a white company was not willing to finance a project that only works for blacks and Asians (USA Today, 2003).

Racism determines whom to feed and whom to leave to starve. It also determines relief agenda-settings, determining what to feed people and whom to feed in cases where perhaps relief foods are needed. As a result of the colonial legacy, many people in several African countries are affected by famine. The US government offered genetically modified foods to several African countries (Associated Press, 2002), despite the fact that the health effects of genetically modified foods (GMFs) are not well known.

Representation and Policymaking

As Lorde (1984: p. 11) states "*The master's tools will never dismantle the master's house*" to positively effect change in our society and eliminate health discrepancies, it is important that we provide an alternative to the Euro-centric ways of knowing. As far as we know, the Euro-centric knowledge maintains an interest in Euro-centric issues; it upholds the social, economic, and ideological interests of the societies that have produced it. The concept of policymaking is even more interesting when we examine it in terms of race relations. When it comes to policy-making, knowledge can be used for purposes other than that for which it was initially pursued. Though knowledge is power, power is more important than knowledge in policy-making. As argued before in this paper, science is a cultural product and it protects the interests of the dominant group. When it comes to policymaking, the application of information produced by researchers is used for political and ideological purposes. Policymaking takes into consideration the culture and institutional structures, and the processes underlying of decision-making. It takes place in negotiation with the dominant actors. Hence policymaking is more about political ideology than science.

In policy-making, understanding given phenomena and recognizing explicit values are influenced by the ideology (Garvin, 2001). The political nature of knowledge construction clearly guides the use of the acquired knowledge in the policy-making process. In policymaking, evidence and information are judged, and even the broad definition of what constitutes evidence is looked at from the perspective of socio-cultural and ideological constructs. Let me offer a specific example. In Canada, the provincial government provides social assistance to low-income families. In general, the assistances that the low-income families receive are geared to the number of family members. However, given that shelter is the major expense, individuals receive more money if they live in separate housing rather than when they live together. In order to have their own apartment many poor individuals prefer to live separately. This has contributed to an increase in the number of single parents among black communities. If this social policy were designed from the perspective of black communities, couples that live together and raise young children would have been rewarded and those who choose to be separate would be penalized. If that were the case, Canada would have reduced the number of single parents and prevent public health issues that go with it.

Evidence and knowledge in policymaking are another area where epistemological racism manifests itself. An agent, without intending to discriminate, might apply reasonable decision-making rules that in practice lead to unequal treatment of members of minority groups. Balsa and McGuire (2001) argue that the dominant employers do not observe true productivity of the minority groups. This results from the epistemological view that racial minorities are required to serve the dominant group

(Fredericks, 2009). It is also reported that health professionals do not cater to the true health needs of racial minorities. Culture and ethnicity have been shown to affect the interpretation of health conditions and other aspects of health care. In addition racial and cultural discordant physician-patient relationships affect symptom communication and recognition.

Many scholars such as Abma, 2002; Smith, 2002; Foucault, 1976 forcefully argue that, knowledge production is not a neutral enterprise; it is a sociopolitical affair in which the power to establish a dominant meaning plays a crucial role. For these scholars, knowledge representation refers to the ways in which researchers present their findings and share their information. This is more than a matter of style. Representation includes the choice of order used to connect parts and items, the portrayal of people, and the perspective from which the account is told.

Epistemology toward Equity in Health Services

Constructionist theory suggests that knowledge is not essentially obtained by objective means but constructed through social discourses. In such thinking no single point of view is universally valid (Jones, 2006). Feminist scholars (Doucet & Mauthner, 2006) have developed three major powerful arguments. The first point is all observations and fact-findings are value tinged and the initial judgment play critical role whether or not we conduct rigorous inquiry. Second, all scientific evidences are sensory evidences. Third, knowledge is not acquired individually but by communities and science communities are epistemological communities. The anti-racist, indigenous and feminist scholars emphasize the critical importance of epistemic agency and equal representation in teaching/learning and researching the complex social problem of our world. They propose that to bring a meaningful change in our world, the ways in which we obtain knowledge about our social reality and the procedures of research inquiry should be diverse and compatible.

For this reason, under the epistemology of equity in health, I promote the need to examine how studies in health and medicine are conducted. Specifically, I suggest scholars to examine the following: 1) how research methods are framed; 2) how structures of knowing are planned; 3) how the knowledge produced is validated; 4) who contributes to the knowing process; 5) how research agendas are prioritized; and 6) how inclusive is the knowledge that is produced.

According to Scheurich and Young (1997), racism is a complex social problem, which they categorize into individual, institutional, societal, and civilizational racism. By civilizational racism they imply that the ways assumptions are constructed about the nature of the world, and the way that experiences are framed, are confined to a specific group. According to these authors, most of the members of a given society are not conscious that their views of the world are based primarily on their own experiences. They do not know that their acquired knowledge is not the only truth. These assumptions are deeply embedded in how these members think, in the ways they define "the world", or in the ways they categorize and conceptualize events. For this reason, Euro-centric civilization constructed the world from its own perspective and assumptions, categorizing other knowledge as unimportant and as uncivilized and subordinate—a so-called secondary culture. The dominant group made their home the center of the universe and they conceptually framed all other thoughts as invalid knowledge. They created or constructed "the world" in their own image, their own ways and from their own social historical experience.

Scheurich and Young (1997) consider civilizational racism to be one of the worst forms of racism. For centuries civilizational racism was invisible to both the colonized and the colonizers. It is invisible to their lenses and is the one that many people participate in without consciously knowing or intending to do so. The current knowledge in health sciences is the products of sum of centuries old research works planned to solve the needs of the dominant group. Such knowledge unravels and serves the dominant group. As we know, the life expectancy of blacks is shorter than the life expectancy for the whites. The logic I am trying to employ, at this point, is that euro-centric knowledge theorized and made the African knowledge and culture inferior to the Europeans, and discounted their health needs both with and without awareness.

Most of the contemporary academic discourses are influenced by racist discourse. Several discourses provided legitimacy to the European colonial policy that affected social well-being of colonized people in a social Darwinian theory. Darwin's theory was a powerful tool for the colonizers. They believed that the colonized and enslaved people were inherently weak and therefore, at some point, would die out. Darwinian social theory suggests that the shorter life expectancy of colonized and enslaved people is due to their natural weakness, not racism, exploitation and discrimination.

Foucault (1977) argued that knowledge is used as a tool of domination, which is at work in schools as part of science, art, and history. As such, dominant societies situate themselves as the epistemological authority placing their community at the center and the rest at the periphery. Because of institutional racism, racially disadvantaged groups have fewer educational opportunities, have poorer housing options, work for lower pay, and live and work in high health-risk occupations.

As education plays a central role in coping with socio-economic and environmental changes, it is timely to interrogate the teaching, learning, and researching process. Education should promote individual and community interest in solving social, economic, environmental, and health problems. The future educational system should promote the idea that to learn is to construct and to reconstruct, as well as to critically observe the word and the world. The decoding of the world, in turn, always precedes the decoding of the words (Freire, 1970). Thinking critically and examining the practices of yesterday and today makes possible the improvement of tomorrow's practices. It is important to make use of history to guide the future.

It is important to realize that knowledge is used for the distribution of power. Slavery, colonialism, and neocolonialism and health disparities are intrinsically linked to racial thinking. As we know from animal science studies, the way farmers care for animals depends on the products that they intend to harvest from them. Often as they intend to harvest a high quality and quantity of products, they compromise the health needs of these animals. As in the past, the current capitalist economic theory is dominated with seductive terms such as "efficiency", "productivity", and "profitability". It is important to question whether or not the idea of efficiency, productivity, and profitability discount the health needs of racial minorities. We need to critically examine how research agendas are framed and prioritized, and how the concept of efficiency, productivity, and profitability influence research agendas in health and medicine.

There are good reasons to argue that education can take a

central role in coping with change. The conventional methods in which public health have been used were through health education that encouraged people to live a healthy lifestyle and encouraged behavioral changes. Lately, it has been shown that life experiences that reinforce a sense of inferiority, powerlessness, and hopelessness severely limit the degree to which certain preconditions for health behaviors can be met (Sanders-Phillips 2002).

Racist ideas are part of science, law, art, and business. As such, education, which is supposed to be about choice and critical inquiry, has been used as an insidious device to indoctrinate people into accepting and supporting the attitudes and outlooks of the dominant group (Ozmon, 1999; Dugassa, 2011). Winanat (2000: p. 179) writing on the objectives of conventional education said: *If the inequality among racially defined group was to be overcome, then this would require not only interracial solidarity, but also race-conscious programs designed to remedy the effects of discrimination.*

Indigenous, anti-racist and feminist scholars have provided us the background to rethink about pedagogy and research methods. The ideas of these separate disciplines are that research should not just advocate for tolerance between races and genders, but that it should help us create the conditions needed to prevent discrimination and exploitation. It has been argued that the educational plans for students and teachers' expectations of them might not be based on students' performance but rather on the status rankings of racial and ethnic groups (Li, 1988). White teachers knowingly and unknowingly spend more time with white students than racial minority groups. It is also known that some white teachers devalue the knowledge and experience of racial minorities. The logic I am employing is that in a socially stratified society, the research objective, its methodology, and the results of research must be widened. Only through such research we can begin to see beneath the appearances created by an unjust social order, and see the true reality of how this social order is in fact constructed and maintained.

Power and politics always influence education and intellectual work. The process of research, as well as the subjective experiences and worldview of researchers, influences the objective, the methodology, and even the interpretation of the research results. Institutions of a society serve the material, political, and ideological interests of the society. Science and scientists are bound to the social, economical, and cultural norms in which they function. Banks (1995) argues that academic and public opinion leaders construct knowledge about race; in turn, the ideas, assumptions, and norms of the culture in which they are a part influence them. Higher education and its research, and teaching and learning practices should be critically scrutinized to make sure they serve as a means of empowering all student body and community at large. However, the current higher education system that was founded on the Euro-centric knowledge is mainly re-enforcing the existing hegemonic power relations.

Science and scientists are bound to the social, economic, and cultural norms in which they function. For example, there are substantial divisions between European, American, and third-world scientists when it comes to the impact of Genetically Modified Foods (GMFs) on health. Many of third world countries are facing enormous challenges to guarantee food security to their citizens. In those countries scientists are intended to increase their yield and accept biotechnology that would increase yields. European scientists disapprove biotechnology in a fear of known and unknown risks. The position of American scientists lies between the two groups. This clearly shows the political nature of science and policymaking.

The processes of research as well as the subjective experiences of researchers are currently subjects of much debate. We know that most of the research that has transformed our material world has been done with profit in mind. Such objectives compromise and exploit the health needs of workers and racial minorities. It is from this perspective that the dominant racial groups often devalue the work done by racial minorities.

Discussions and Conclusion

Racism is a major global social problem. As it is part of many academic fields, it is embedded in the epistemology of health sciences and medicine. The ways in which health and social policies are set, as well as the way research agendas are framed, are not value-free. Representation is essential in defining research agendas, in prioritizing research topics and in the policy-making processes. If there is no inclusion, racial minority groups and those on the bottom layer of the social structure will suffer and health disparities will persist.

Critically examining the racist practices of the past and present is essential to pave the path to an improvement of future practices. Change is needed in teaching and learning processes, and higher education can be central to social transformation. Understanding its central place in society, higher education needs to examine teaching, learning, and researching practices. Higher education needs to practically implement the idea of empowerment in its teaching learning processes—as Freire (1970) reaffirms, "*to learn is to construct, to reconstruct and critically observe the word and the world.*"

In the past, excellence has been defined according to Eurocentric perspectives: the mind set is that there is only one way of knowing the world, and implying that the Euro-centric way is that way. Such mindsets reinforce the notion that Europe is the world's center; the rest of the world lies in the periphery. Sadly, this became the ideological "reasoning" for racism, slavery, colonialism, neocolonialism, and imperialism. Higher education can help to redefine the concept of excellence that centers on all diverse knowledge and experiences. To prevent health disparity different types of knowledge, experience and ways of knowing should be centered and education should provide students with a wider scope of understanding the world and facilitate conditions for students to define their needs and aspiration.

This paper has raised five major issues. The first issue is that racism is a social construct that is intended, consciously or unconsciously, to subordinate individuals and groups of people based solely on skin color, cultural background or geographical origin. Race emerged as a social construct useful not only for classifying humans, but also for justifying the exploitation of so-called inferior groups. The conceptualization of race has been largely shaped by cultural, economic, and political considerations, and has served important ideological functions in society. It is conceivable that racism articulated the relations between slaves and slaveholders, and serfs and feudal lords, (Goldberg, 1999) defining a specific social-economic status that had impact on the social well-being of people.

The second issue raised is that racism affects health because it affects the social determinant conditions. Disparities in health between different racial groups is mainly determined by so-

cio-economic factors rather than by biological differences. These disparities can be effectively tackled by appropriate social reform. The third point is that racist epistemologies prioritize the kinds of issues that are to be studied, defining them in accordance with the kinds of effects that necessarily follow. Racist epistemology affects how research agendas are set. Though knowledge is not value-free political power is even more important in the policy-making process. Knowing this can lead us to the point where the idea of equity can only be achieved if there is representation of racial minorities in conducting research and in the policy-making process. Researchers acquire the knowledge tool to conduct research from higher education. It seems clear to me that higher education is at the center, and that it can be vital in helping to create social change.

Last, physiologically human beings strive for quality of life and this motivating factor can be used as a tool to measure the absence or presence of racism and equity within our society. Academia is the site of political struggles for socio-economic-political transformation: it is one of the locations where ideological contests take place, including the anti-racist struggle. To effect social transformation and prevent health disparities, higher education must be accessible to racial minorities, and excellence should be redefined and the standpoint of racial minority groups should be taken into consideration. Research goals must be defined within the perspective of the marginalized people rather than from the perspective of profitability.

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