Review

A COVID-19 Call to Action: Addressing Race, Racism, and Health Equity in the Wake of a Global Pandemic

Tiffany Joffrion Grant *

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A COVID-19 Call to Action: Addressing Race, Racism, and Health Equity in the Wake of a Global Pandemic

Tiffany J. Grant *

Research & Data Services, University of Cincinnati Libraries, Cincinnati, OH, USA
* Correspondence: joffritm@ucmail.uc.edu; Tel.: (513) 558-9153

Abstract: Historically, the attribution of biology to race has shaped societies and manifested in innumerable disparities and irreparable harm, especially in communities of color. From the earliest days of the United States to the present day, the dehumanization and "othering" of African Americans have caused deep racial inequities that have been perpetuated and embedded in American culture. The early months of the COVID-19 pandemic underscored the deep racial inequalities in the US, especially in health outcomes for communities of color. Structural racism has played a critical role in exacerbating disparities, with Black, Hispanic, Latinx, and Indigenous populations experiencing higher rates of severe disease and mortality. The interconnectedness of racism with the Social Determinants of Health concomitant with higher rates of chronic illnesses like diabetes and hypertension, increase vulnerability to severe COVID-19. Health disparities are compounded by implicit biases in the medical field, a lack of diversity among healthcare providers, and historical medical mistrust among marginalized groups. Underrepresentation in the medical field, biomedical sciences, and academia hinders efforts to address health disparities effectively. This review seeks to raise awareness of how the concepts of race and racism have resulted in racial hierarchies that perpetuate systems of oppression and impede efforts toward racial and health equity. This review will discuss how addressing these issues requires targeted efforts to increase diversity in healthcare and biomedical fields, improve cultural competence, and foster trust between medical professionals and communities of color. Achieving health equity demands addressing the root causes of disparities with an equity-focused mindset.

Keywords: Structural racism; health disparities; social determinants of health; medical mistrust; health equity; COVID

1. Introduction

COVID-19 has presented irrefutable evidence of racial inequities in the United States, and these inequities in concert with the COVID-19 pandemic, have converged to perpetuate the cycles of disparity that have profound and lasting impacts on communities of color. Throughout the pandemic data analyses indicates that people of color experience higher rates of disease and death than white people when data is adjusted to account for differences in age by race and ethnicity, [1] and structural racism has been identified as a factor in COVID-19 associated health disparities [2]. One study analyzing data from 2,026 counties across the US, found that counties with higher death rates also have a higher proportion of Black residents. This same study also showed that for every 1% increase in Black residents, there was a resulting 0.9% increase in deaths from COVID-19 [3]. Similarly, high death rates from COVID-19 have plagued Hispanic, Latinx, and Indigenous communities, and racism has been called out as a factor perpetuating these disparities [4,5].

Termed a synergistic epidemic, or syndemic, where "two categories of disease are interacting within specific populations," COVID-19 has connected with systems of oppression, and biological

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and social factors to ravage communities of color [6]. The syndemic theory, first posited in 2010 by Singer, asserts that syndemics emerge disproportionately, and cluster among certain populations, particularly those made vulnerable by social conditions. A syndemic "involves a set of enmeshed and mutually enhancing health problems that, working together in a context of deleterious social and physical conditions that increase vulnerability, significantly affect the overall disease status of a population" [7] The Social Determinants of Health have played a major in influencing the impacts of COVID-19. Healthy People 2030 has defined SDoH as conditions in the social environment in which people are born, live, learn, work, and play that affect a wide range of health, functioning, and quality of life outcomes and risks [8]. SoDH are divided into five categories, and these include economic stability, educational access and quality, healthcare access and quality, neighborhood and built environment, and social and community context. Adverse SoDH such as poverty, limited education, limited access to quality health care, overcrowded housing, food insecurity, and racism have been shown to have a greater impact on health than genetics or access to healthcare services and are key drivers of racial health inequities [8]. Adverse SoDH contributes to the prevalence of chronic illnesses such as diabetes, asthma, and hypertension in communities of color. These illnesses are associated with oppressive and racist structural factors and have been implicated as major factors in disparities in the rates of severe disease and death from COVID-19 in these communities.

Health equity and equitable health systems help improve overall preparedness and the public health response to pandemics like COVID-19. However, it is difficult to envision achieving health equity without first tackling the issue of racial equity. McNeely states that "health equity, which references fairness and social justice, 'exists only when people have an equal opportunity to be healthy" [9]. This "equal opportunity" does not exist for all people, as people of color face many barriers to quality healthcare due to poverty, implicit and explicit bias from the medical community, and lack of trust in medical professionals. Although race is predominately a social factor, the inaccurate and egregious attachment of biological consequences to race, has led to maltreatment of people of color for centuries. A 2016 study reported that medical students and residents held "false and fantastical" beliefs about biological differences between blacks and whites, resulting in a racial bias in pain perception, and these biases resulted in inadequate treatment recommendations for black patients' pain [10]. When there is a lack of race concordance between patient and physician, patients of color are more likely to experience microaggressions during interactions with their physician, causing damage to the relationship between patient and provider [11]. During medical encounters, perceived racial discrimination is most common in Blacks and Native Americans, at 12.3% and 10.7% respectively, while only 2.3% of whites reported similar perceptions [12]. A recent study identified epistemic injustice, or the discounting of knowledge and lived experiences regarding their bodies and health, as the main manifestation of racism in the health care setting. These experiences lead to isolation and were associated with exacerbation of existing medical mistrust and poor patient-clinician communication [13]. Patients who experience discrimination from their doctors are less likely to trust them, causing delayed medical care, decreased compliance, and prolonged suffering. Additionally, medical mistrust, a consequence of systemic racism, has deep historical roots and is a key driver in the health status of communities of color, and was a key contributor to COVID-19 vaccine hesitancy during the COVID-19 pandemic [14].

Although COVID-19 case and death rates in the black community decreased over time, the vulnerabilities of the community revealed during the early months of the pandemic forced the acknowledgment that racism and health disparities are intrinsically linked. Called out as a public crisis, racism is the common thread linking the health inequities that drove the disparities in case and death rates. Although not an opportunistic infection in the classic sense, COVID-19 inexplicably behaves like one taking full advantage of the vulnerabilities caused by racism, ravaging the bodies of individuals already battling chronic illnesses and environmental harms, unleashing a more severe and deadlier course of disease. We must acknowledge the impact that racism has on health equity. While COVID-19 did not reveal racism, it did reveal the undeniable legacy of oppression resulting in disparity and sweeping health inequities among communities of color perpetuated over centuries. To ignore the existence of structural racism is to ignore the root cause of these disparities, thus

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perpetuating cycles of oppression, chronic disease, disparity, and premature death. Discussing racism is a way to bring awareness and to underscore its impact throughout society. Thus, this review will explore the historical influence of racism in shaping our society, highlighting its profound and far-reaching negative effects on the health of people of color—effects that were brought into sharp focus during the COVID-19 pandemic. This review will then issue a call to action and put forth suggestions for targeted efforts to increase diversity in the healthcare fields, improve cultural competence, and foster trust between doctors and patients to bring us closer to achieving health equity.

2. Origins and Legacy of Scientific Racism and Racial Hierarchies

The earliest definitions of race came from 17th century French physician and philosopher, Francois Bernier and the 18th century Swedish biologist Carl Linneaus. Both used geographical location and physical appearance to make racial distinctions to divide humanity into distinct groups. Although Bernier did not rank the races, he notably described the European race as "the first race" and indicated that those within the race were within areas of "high civilization" which included all of Europe. Also included in the first race were other areas of the world with populations similar in physical appearance to the Europeans, and his descriptions of the other races were described as deviations from the European "norm" [15]. In their descriptions of the races, both Bernier and Linneaus asserted that the physical differences that separated the races resulted from differences in biology between the races. This correlation of race with biology was not only faulty but dangerous as it provided false scientific justification for the belief that certain races were intrinsically superior or inferior, and this pseudoscientific link has supported and reinforced discriminatory practices and social hierarchies for centuries. Racial descriptions made by Bernier and Linneaus inevitably created a hierarchy within humanity placing those of European descent at the top and all other races below, inadvertently paving the way for scientific racism which has had centuries-long devasting and deadly consequences.

It must be noted that while Bernier and Linneaus established a racial classification system, their descriptions only reinforced the prevailing Eurocentric view that Europeans were superior. Claims of racial superiority by Europeans have consistently been used to justify the exploitation and maltreatment of people of color. "For much of the period from the 15th century till now, during which Europeans and Africans have been connected through trade, empire and migration, both forced and voluntary, Europe has viewed the people of Africa through the distorting veil of racism and racial theory. In the British case much of the jumble of stereotypes, pseudo-science and wild conjecture that coalesced to form racism arose from the political battles fought over the slave trade and slavery, during the last decades of the 18th century and the first decades of the 19th [16]. Racism, the biological need for self-preservation, and the desire for superiority invented hierarchical classifications of race that viewed those of African descent as subhuman.

The notion that Africans were less than Europeans justified numerous atrocities against the citizens and descendants of citizens of Africa, including most importantly, the Atlantic Slave Trade which removed Africans from Africa and transported them to other countries where they were forced into slavery. Dehumanization of Africans by European slave traders helped to justify slavery, particularly in the United States where the founding fathers had declared that all men were created equal [17]. Thus, slavery in the United States suggested that humanity ended at the shores of Africa, and European-descended American colonists were free to enslave Africans and those of African descent. In the United States "race" became a mechanism for identifying nonwhite individuals, further distinguishing "races" of savages (Native Americans) and those deemed subhuman (people of African descent) [18]. Pseudoscientific theories of race helped to establish "legal categories based on the premise that black and Native Americans were different, less than human, and innately, intellectually, and morally inferior—and therefore subordinate—to white individuals" [17]. These pseudoscientific theories provided the foundation for scientific and medical racism that further justified slavery in America. Notably, Samuel Cartwright, chairman of a Louisiana State Medical Association committee and respected doctor, notoriously promoted pseudoscientific and racist

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medical theories through his fabrication of diseases that explained resistance to slavery as pathological. Most infamous are his drapetomaia and dysaethesia aethiopica that he claimed caused slaves to flee from captivity and laziness, respectively. Cartwright contended that enslaved people were created to be subservient, and became mentally ill with either drapetomaia or dysaethesia aethiopica when they were allowed too much kindness or independence. Ironically, the punishment and cure for this disease was corporal punishment. Equally appalling is his assertion that the skin of blacks was thicker and less sensitive than white skin, and skin insensitivity was a symptom of dysaethesia aethiopica. Thus, to cure the disease, slaveowners were to lather the skin of the slave and whip them [19]. Cartwright's explanations of his fabricated diseases reinforced the justification for slavery, and his false claims about the skin of Black individuals have had enduring harmful effects.

Although the Emancipation Proclamation outlawed slavery in the United States in 1963, oppression took on another form with legalized discrimination brought on by Jim Crow laws in the southern United States. Jim Crow laws imposed extensive restrictions on the freedoms of blacks, limiting educational opportunities and economic advancement and prohibiting voting rights, reasserting the racial hierarchy and reaffirming white superiority. The laws institutionalized racial segregation, discrimination, and disenfranchisement, profoundly shaping the social, economic, and political lives of blacks Americans. As early as the 1870s, states began to pass laws banning the integration of blacks and whites [20]. In 1883 the US Supreme Court ruled that the the Civil Rights Act of 1875 which was signed into law by then President Ulysses Grant and designed to guarantee black Americans equal access to public accommodations, unconstitutional. Through this landmark decision the Court ruled that the 14th Amendment equal protection clause applied only to states and not to private citizens or businesses [20]. The impact of this ruling cannot be overstated, as it fundamentally altered the trajectory of civil rights in the United States and placed black Americans in mortal danger. The legalization of discrimination had devastating and lasting impact on black Americans, as the Jim Crow Laws reinforced stereotypes that dehumanized them and considered them unworthy of equality. These laws imposed systematic barriers that denied black Americans access to quality education, healthcare, housing, and public infrastructure, creating and perpetuating cycles of poverty. The legacy of Jim Crow shaped racial inequalities in wealth, education, criminal justice, and access to resources, and it continued for more than half a century until the Civil Rights Movement of the 1960s.

3. Racism, Redlining, and the Legacy of Inequality

The Civil Rights Act of 1964 effectively reversed Jim Crow Laws, but the impact of the racial segregation imposed by them had implications beyond the Civil Rights Movement. Discrimination against Black Americans during the Jim Crow era created systemic barriers to quality housing, employment, education and healthcare. Although the Civil Rights Act of 1964 granted access to previously forbidden resources and spaces, Black Americans still experienced disproportionately higher rates of poverty, lack of education, diminished opportunities for employment, insufficient housing, and racism. The Jim Crow era practice of redlining is one of the most pervasive examples of systemic racism that has led to generational disparities in access to housing, education, and healthcare. Redlining was the practice of financial lenders denying or limiting mortgage lending based on the neighborhood's racial makeup. New, affluent, and racially homogenous neighborhoods were outlined in green, while Black and poor white neighborhoods were outlined in red. Those areas within the red lines were considered undesirable and unworthy of granting mortgage opportunities. The lines, whether green or red, were partly based on the belief that a minority presence would undermine property values and that areas with a population of minorities were intrinsically unsafe safe [21]. Greenlined areas received investments for infrastructure including schools, grocery stores, parks, access to quality healthcare, parks, recreational facilities, and public transportation, and their property values increased over time. Redlined areas went without such investments resulting in deteriorating or lack of infrastructure, underfunded schools, lack of safe recreation facilities or spaces, increased and prolonged exposure to environmental hazards, food deserts, and limited or no access

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to quality healthcare. The lines ensured that areas would remain homogenous, guaranteeing that neighborhoods remained either white and rich, or poor and predominately black or nonwhite [21,22].

Homeownership is a common mechanism to build generational wealth, as it allows families to build equity and pass down property that has appreciated in value over time [23]. The systematic exclusion of Black Americans from homeownership prevented this avenue of wealth building during the Jim Crow era, and it has had lasting implications. Decades after the Civil Rights Act of 1964 was passed, the generational impact of legacy and remnants of Jim Crow Laws and Redlining remain evident, as individuals and communities of color still experience higher poverty rates, low(er) educational attainment, and live in low-income, disadvantaged neighborhoods [24]. The impact of Jim Crow laws on the SDoH are still prevalent today, as data shows that previously redlined areas are still predominately black, and their inhabitants continue to face systemic barriers that lead to poorer health outcomes compared to white populations [21,24]. The segregation of black Americans has resulted in the inability to acquire wealth and thus to find themselves on par with the socioeconomic status of the white majority in the US. Residential segregation and poverty are associated with many SDoH that result in poor health and poor health outcomes. Individuals living in poverty also contend with insufficient housing, environmental exposure to pollution and toxins, limited access to quality health care, employment and education, and increased risk and rate of chronic diseases.

The historic discrimination and racism faced by black Americans have manifested in poor health and health comes within the community, and the compounding nature of adverse SDoH, has resulted in extensive health disparities that have critical health implications on the population [25]. The United States National Institute on Minority Health and Health Disparities has designated health disparity populations that are characterized by patterns of poorer health outcomes, indicated by the overall rate of disease incidence, prevalence, morbidity, mortality, or survival in the population as compared with the general population [26]. Racial and ethnic minorities and individuals with low socioeconomic statuses are counted in the population designation indicating that black Americans experience profound health disparities in comparison to whites. A 2024 analysis that examined how people of color fared compared to White people across 64 measures of health, health care, and social determinants of health found that Black, Hispanic, and American Indian or Alaska Native people fare worse than White people across the majority of examined measures of health and health care and social determinants of health [27]. A review examining racial health disparities through the SDoH model found that minorities experience worse patient care and health outcomes in every clinical area studied [25]. In comparison to white Americans, black Americans have a greater prevalence and earlier onset of chronic illnesses such as hypertension, arthritis, and cancer, and are twice as likely to develop diabetes or die from cardiac arrest [28], and while genetics may play a role, the environment and adverse SoDH are driving factors as well.

Poverty shapes the environment people live in and is a driver of unhealthy choices that have profound and devastating health implications. Hypertension is a critical risk factor for the development of cardiovascular disease, and evidence suggests environmental conditions of pollution and socioeconomic status contribute to an increased risk of developing hypertension [29]. Food deserts in poor neighborhoods drive food insecurity and unhealthy eating patterns contributing to obesity which is a mediator of chronic diseases. Obesity is one of the strongest risk factors for developing type II diabetes, and the correlation between the two is driven by lifestyle and environmental factors creating a significant public health challenge. The prevalence of chronic diseases like diabetes, obesity, and hypertension, combined with acts of discrimination often faced by the black community are major contributors to the disparities observed in the community. These disparities establish a vulnerability within the community that is easily exploited in times of crises.

4. COVID-19 the Perfect Storm

Merriam Webster defines a perfect storm as a critical or disastrous situation created by a powerful concurrence of events [29,30]. The syndemic brought on by COVID-19 in the backdrop of systemic racism, economic inequities, and long-standing health disparities in the Black community

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exposed and exacerbated the unequal burden of disease, lack of health care access, and social determinants of health that have historically plagued the black community. COVID-19 has illuminated how racial inequities across multiple institutions in the United States have converged and unleashed a storm that has ravaged the country and decimated communities of color across the United States. The early impact of COVID-19 on communities of color has underscored how pre-existing social inequities amplified the impact of the pandemic and synergistically contributed to the higher infection rates, severe illness, and mortality seen in the Black community.

On 20 January 2020, the US confirmed its first case of COVID-19 from samples taken on 18 January 2020, in the state of Washington [31], and it soon became clear that there were racial and ethnic disparities in COVID-19 case and death rates. The staggering death rate of people of color from COVID-19 magnified their vulnerability as they experienced case and death rates that were significantly higher than their percentage in the population [32]. The increased prevalence of hypertension, diabetes, and obesity in marginalized communities concomitant with social and environmental conditions of overcrowded and multigenerational housing, jobs as essential workers preventing them from sheltering in place, and the need for public transportation placed these communities at heightened risk for exposure to COVID-19 and worse outcomes if infected [33].

Numerous studies demonstrated how adverse SoDH significantly impacted the health outcomes of black Americans early in the COVID-19 pandemic. A scoping review, assessing geographic inequalities in global COVID-19 mortality rates, found that 91% of the studies assessed demonstrated that COVID-19 mortality rates were higher in high poverty areas in comparison to the rate in more affluent areas [34]. Spatial analysis assessing racial differences in COVID-19 disparities in the US found that areas with high Black populations had higher income inequality than the national median, and areas with high Black and Hispanic populations had a higher percentage of young people (< 65 years) living without health insurance. These same areas were also correlated with high rates of COVID-19 [35]. Another study identified a significant association between the percentage of black residents in a county and COVID-19 death rates, and this impact was dependent on the number of adverse SDoH in the county [3]. Researchers found that the number of health care providers in a racially advantaged zip code had an inverse impact on the number of COVID-19 cases, but racially disadvantaged zip codes had far fewer health care providers further perpetuating the disparities in COVID-19 in these communities [2]. COVID-19 provided irrefutable evidence of the vulnerabilities of the black community already suffering from high burdens of chronic illness brought on by racism and adverse social determinants of health. These findings emphasize the critical need for targeted interventions to address the root causes of health disparities and foster a more equitable mindset.

5. A Call to Action

Although disparities in cases and deaths have narrowed and widened over time, the underlying structural inequities in health, health care, and social and economic factors that placed people of color at increased risk at the outset of the pandemic remain. The COVID-19 pandemic and the social and racial unrest of the summer of 2020 have ushered in an era of awareness that is centered on diversity, representation, and equity and is aiming to reduce racism and its impact across multiple sectors. Achieving health equity is challenging when faced with racial and health disparities, but targeted interventions can aid in overcoming these barriers. Fostering efforts to increase diversity in the healthcare and biomedical fields is an essential step in the effort to decrease health disparities among people of color (Peek 2023). Evidence suggests that racial concordance between doctors and patients results in better population health, increased life expectancy, increased adherence to medication guidelines, improved communication, and increased screenings for chronic diseases [36–39]. These studies suggest that cultural similarities instigate more effective communication, trust, and confidence and mitigate implicit biases between doctors and patients.

Historically, people of color have been largely excluded from the medical and biomedical fields, thus, the numbers of Black physicians has increased by only 4% in the last 120 years [40]. After constant rejection from American institutions, James McCune Smith, the first Black American to practice medicine in the US, was forced to earn his medical, master's, and baccalaureate degrees at

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Glasgow University in Scotland before returning to the US to practice medicine in 1837 [41]. Although the percentages of minority healthcare workers are increasing, they remain well below their respective percentages in the general US population. Recent data from the American Association of Medical Colleges, indicates that only 5.7% of US doctors identify as black, while blacks make up 12% of the US population [42]. The same data show that Hispanics, Native Americans, and Native Hawaiian or Other Pacific Islander constitute 6.9%, 0.3%, and 0.1%, of the US physician workforce, respectively. A recent study indicated that although the healthcare population is becoming more diverse, people of color are found most often in entry level or low paying jobs [43]. Like the medical field, increasing diversity in the biomedical fields has also been problematic. Although minorities earn 10% of biomedical science PhDs, they represent only 2% of the medical school and basic science teaching faculty [44]. The diversity of the biomedical workforce is only 13% whereas the percentage in the general population is a combined total of 30%, indicating significant underrepresentation of minorities in these fields [45].

Academic institutions have a level of responsibility and accountability to the communities in which they reside, thus there is a critical need for academic institutions to proactively implement efforts to recruit, retain, and train culturally competent biomedical professionals of color. In his presidential address to the Association for the Study of Higher Education, William Zumeta suggested that there is a social contract between higher education and the support of the public the institution is a part of, in that as the needs, values, and expectations of the public changes, the institution must adapt and respond accordingly [46]. The COVID-19 pandemic concomitant with the death of George Floyed prompted many academic institutions to reexamine their diversity efforts and incorporate more intentional efforts to promote diversity and inclusion in the education space. The academic response should be two pronged focusing both on recruitment and retention of students and faculty of color to foster inclusion and promote belonging to the biomedical fields. Where there is such disparity between education, socioeconomic status, and health, universities are a social responsibility to provide opportunities that will level the field for those most impacted by these disparities in their own community. Academic institutions are well positioned to improve the pipeline of the biomedical workforce into their communities through intentional efforts to provide early exposure of K-12 students to the sciences. Collaboration between academic institutions and schools in predominately black communities can help to foster a sense of belonging and science identity among students in these schools, preparing them for potential biomedical career opportunities. Early engagement with science helps to demystify complex concepts and equips students with critical thinking and problem-solving skills helping them overcome barriers and perform more confidently. However, these types of programs require investment from multiple sectors, including the government, nonprofit organizations, and others that specialize in developing curricula and have an equity minded focus.

As investment in predominately black communities has historically been minimal, it is essential for the health of these communities that investments in infrastructure prioritize equitable access to quality affordable housing, healthcare, and food. To ensure long-term sustainability and improve the overall health of these communities, community investment must focus on providing accessible healthcare and targeted programming to raise awareness on common health issues, such as diabetes and hypertension. Finally, any improvement in racial health outcomes must acknowledge the root cause of health inequities. None of what has been stated is new information, but there is a reluctance to acknowledge racism as the culprit for health inequities among communities of color. Instead, race is often used as a proxy for racism, and without context, many would believe that health inequities seen in the black community and other communities of color are the fault of those in community. There is danger in correlating race with biology as it perpetuates harmful cycles of dehumanization, abuse, and exploitation facilitated by racism. Thus, intentional efforts to shift the focus from race to racism are necessary in the fight for both racial and health equity.

6. Conclusions

Achieving health equity requires an equity-focused mindset that is willing to acknowledge and call out racism as a root cause of health disparities in the black community. We must acknowledge

that while race creates divisions, there is no need for hierarchies among these divisions, as we are all human. To dismantle systemic racism and its impacts on health outcomes, we must begin to reframe our thinking on race and move forward with a more humanistic view that is inclusive and seeks more equitable outcomes for all races. This review aims to catalyze conversations and actions to address health inequities and advocate for systemic change to build a more equitable society. The COVID-19 pandemic has resulted in tremendous suffering and loss across the globe, and while this is incredibly devasting, it would be even more so if we did not act on the knowledge gained.

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