Revised August 2024 Assignment #1 – Core Essential Elements Answer the following questions in short answer format and be prepared to discuss them with your classmates in the virtual residency or the discussion forum.

1. Why are research ethics important for protecting human participants (subjects)

in social science research? What are some potential risks associated with collecting data from human participants?

1. What is the difference between a target population and a sample? How does

Sample-size relate to parametric (generalizable to the target population) and nonparametric (applicable only to the sample) statistical procedures?

1. Describe the following approaches to recruiting participants and designing

sampling procedures: convenience, purposive, and snowball. Why are inclusion and exclusion criteria important when recruiting participants?

1. Most organizations working with scholarly research appear to be generally in agreement with the idea that data collection processes which involve human participants operate in obedience to the condition that research be conducted in a manner that minimizes risks to human participants. Further, there is an understanding that the researcher, himself, recognize that he has an obligation to lay aside personal preferences to ensure that his sampling be done within the contours of conventional and institutional restraints, regardless of discipline or purpose.

As researchers continue to bend and flex their professional muscles to keep pace with the constantly changing conditions and norms in their fields, many may wind up acting out of the feeling of the need to try to meet newly emerging conditions designed to force them to operate under continuously evolving ethical codes that are being set to fit the changing disciplines and the time. And so, as an extension of such adjustments in the researcher’s attitude to the changing ethics, a critical question arises about how distinct a line of demarcation should exist between morality and ethics?

Liu et al (2020) submit that because of the similarity in the way that the two words “impact people’s lives,” it might be necessary to explore whether or not they are, indeed, antonymous or synonymous, or whether they merely possess elements that give them enough of an intersecting Venn diagram relationship (Correla, 2023, Ethics in Research, 121-’30; Liu et al, 2020, Teach Learn Med., pp. 345-351).

According to Liu et al (2020), the confusion between “ethics” and “morality” is probably due to the etymology of the latter. They write that because of its Latin root—“mos,”or “moris”— “[the word, ‘morals,’ denote that] a habit or behavior …is more likely related to individual principles.” To that point, they call attention to Rabelais’ statement that “science must be submissive to morals to prevent exaggeration” (translated from the French in Pantagruel). Clearly, there is truly no way to talk about “ethics” without looking, first, at whether it ever truly parts company with “morality,” or how its historical root is firmly planted in the medical sciences (Liu et al, 2020).

Today, there is one simple statement that sums up the rule of conduct expected of health care providers the world over. Liu et al write that the statement which has come to be seen as an oath of obedience to the ethical standard for health care providers is accredited to the ancient Greek physician, Hippocrates (460 and 370 BC). But Liu et al are telling us that current research is showing that the so-called Hippocratic Oath may have actually been developed by Greek physician-priests belonging to the Asclepias cult which predates Hippocrates, and who are said to have derived their doctrine from writings that originally came out of Alexandria, Egypt (Liu et al, 2020).

If this latter is the case, then, there is no denying the connection between the standard overarching mantra that guides ethical behavior in the practice of medical research through the pragmatism of a pre-Christian religion-based morality—précised simply as, “Do no harm!” (Liu et al, 2020). Yet, even if the Hippocratic Oath were believed to have been spawned purely out of a sense of necessity to close the open door to possible unethical behavior by physicians in classical Egypt or Greece, my suspicion is that there might well have been some incident or incidents that may have been morally off kilter to have necessitated the command that, above all else, the physician should strive to “Do no harm!” My suggestion is that there was probably one or more incidents of moral mis-steps that became the driver for the pronouncement of the oath, in the first place.

Liu et al suggest that “The oath is [primarily] a convention between doctors and the community.” And, in that way of thinking, the oath is an ethical principle that is obviously suggestive of a moral component in how medical practitioners ought to relate to their community—the people they serve. As such, it does take the form of an accepted principle that, over time, has come to serve as an equally useful ethical gage for all fields of researchers who collect data from human participants (Liu et al, 2020).

Maria Correia (2023) writes that, coming out of a loose application of the Hippocratic Oath, in 18th century England, Thomas Percival insisted that the ethical oath for medical practitioners in a document that became something of a manual for ethical conduct in the practice of medicine everywhere. Its central focus, then, was to, “unite tenderness with steadiness and condescension with authority as to inspire the minds of parents with gratitude, respect and confidence” (JAMA,1965, pp.1319-1320; Maria Correia, 2023). In this, the American Medical Association Code of Medical Ethics had picked up the principles bound together in Percival’s words, and peddled, first, to medical science researchers around the world, and then, to researchers in diverse fields. And, out of that, the concept of “Informed Consent” had not only emerged, but it had begun to take its place as the ruling principle for ethical conduct in every manner of research having to do with human participants, even in research outside of medicine (Barrow, J.M. et al, 2022).

Nicole Brown et al, writing in orcid.org, points to the historical fact that experts have been speaking more analytically about the role played by institutions and “research ethics committees.” They suggest that it has pretty much become the responsibility of such committees and institutions to see to it that the health and safety of their human participants are assured (Brown et al, 2020). They insist that, while a committee’s ethical imperative makes it duty-bound to stress its responsibility to protect the researcher from legal damage, as well as the institution, it also recognizes the need to always apply “situational ethics” in respect to context, “changing scientific methods. . . the academic community,” and the particular discipline in play (Brown et al, 2020; Guillemin et al, 2012; McAreavey & Muir, 2011).

My impression is that the average day-to-day consumer of what is put out by researchers usually tends to treat the bulk of that stuff as hard and fast facts about a quality in the nature or behavior of a particular target population. These consumers, especially the ones least informed, tend to see these facts as mostly set in stone, even though they may not even be facts at all. Meanwhile, I have found that despite the greater harm done to the too gullible consumer of research who are quick to take in, and act upon, just about anything given to them as “fact,” not all research is even meant to present raw facts about the character or behavior of the target population.

Indeed, while the object of some research may be to establish that there exists a certain specific fact, or set of facts, about a particular behavior, or a trait in the target population, other types of research may seek to determine how best to fit an axiom about a characteristic or behavior of a population into a research machine so as to predict whether it is possible to increase the frequency of that characteristic or behavior in the target population because of its desirability. In contrast, some research may seek to determine whether it is possible to minimize the presence of naturally or unnaturally occurring undesirable characteristics or behaviors in the target population under certain circumstances.

By that fact, then, research that is geared toward helping the researcher determine the best, most appropriate means by which to identify a particular undesirable condition that is thought to be present in the target population, may be harmful not only to the participants, but to a much larger swarth of the population from which the sample is taken. For example, if there is an outbreak of a deadly epidemic that has become the reason for the research to be done (an effort to find a treatment), separate research should be conducted simultaneously in the area of testing. In this latter case, researchers should be equally careful about not being so fast and loose in their effort to conduct the research that they might wind up side-stepping universal rules of ethics that may play down the risk of injury, not only to human participants in the sample group, but also to research-consumers regardless of the discipline or purpose involved.

From what I gather, research is conducted mostly with the intention of verifying the extent to which a trait or condition exists in support of the researcher’s theory about the target population. In order to conduct the research, the researcher must select a sample that he deems to be a close working statistical representation of the target population from which he has elected to collect and process data about the variables within his hypothesis, or hypotheses. Because of human frailty, however, a good many researchers could be inclined to give preference to outcomes that support their theories over outcomes which, while true, could debunk their theories. Simply put, there will be cases in which researchers are inclined to promote their own theories, regardless of ethical concerns. In some cases, the researcher may be faced with the question of whether the process could be harmful to the human participants who make up the sample, or to the larger population, itself.

Nicole Brown et al (2020) write that if the researcher deliberately omits data that contradict his theory, or if he or she pads the research with his own contrived data, or if he harvests data from sources considered to be unreliable by respected research organizations (e.g., AMA, CDC, APA, MLA, etc.), it could result in a research product that is injurious to “healthcare and societal interests” (Brown et al, 2020). For example, Mower & Wilson (2021) report that during the Covid pandemic, for instance, Dr. Joseph Abiodun Ladapo, surgeon general of Florida, had to be warned by the CDC against hatching up and propagating such a dangerous infodemic that it resulted in countless avoidable hospitalization and deaths. Dr. Ladapo was warned against advising Floridians not to get vaccinated against COVID-19, and not to wear masks in order to protect themselves against becoming infected with the deadly virus. At the same time, a number of television broadcasts showed that this position of the surgeon general was a position clearly designed to buttress the governor’s political talking-points regardless of the harm his claim, as a respected medical scientist, was causing to the physical and social health of the people of Florida (CBS, MSNBC, & CNN). The CDC warning to Ladapo, cited the doctor’s failure to base the health advice he was giving to Floridians on responsible scientific research.

Although certain ethical rules that apply to the natural sciences do not apply directly to the social sciences, there are those that apply to both. In Florida, the fact that the surgeon general, Dr. Joseph Abiodun Ladapo, had failed to ground his public comments, about the COVID-19 pandemic, in “responsible scientific research,” it was grossly unethical, from a medical science standpoint. It was also sociologically harmful on several levels. Since the public expectation is that the surgeon general is supposed to be the voice of reason, when it came to matters regarding public health, the political memes and false facts that Dr. Ladapo had spued out, had created the exact opposite effect. It had served as a means by which to increase the deadly contamination of distrust within the public ether, at a time when the climate was already profuse with widespread conspiracy theories against the mRNA vaccine.

The result was that thousands of terminal COVID-19 patients would wind up spending their last days in quarantined loneliness, away from loved ones because of the additional harmful sociological by-product that resulted fram the surgeon general’s statement. For, consequently, Dr. Ladapo’s contribution to the spread of the pandemic and the subsequent condition of isolation for many infected individuals from their loved ones proved to have been, neither good for the social balance, nor the public health of Floridians. So, in a sense, the state had become Dr. Ladapo’s laboratory, while the citizens became his participants—a high percentage of those who swallowed his doses of lies and wound up infected all the way to the quarantined wards (the experimental group) and a high percentage toward a lonely death. While the other participants (the placebo group), those who did not ingest the lies, with a lower rate of infection and isolation.

A similar situation to the Lapado one is that involving cardiologist Peter Andrew McCullough who suggested from the very start of the outbreak that Hydrochloroquin should be used to treat the symptoms of the diseaseHHH. Mario Correia (2023) writes that some high-profile research papers claimed that the use of this antimalaria medicine would be an effective treatment for Covid 19, while many other researchers in infectious diseases argued that its use would put the lives of patients at risk. Because this tug of war on both sides made its use seem more like a crap shoot, Lancelot, New England Journal of Medicine, and other prestigious journals removed it from their publications.

Nicole Brown et al write that in a time such as ours, in the twenty first century, where what is being researched has morphed so tremendously from what had long been prescribed by the old textbooks, and from within the ethos of past societies, what is expected in the language and behavior of the researcher must also be just as fittingly adaptable to the contemporary scene in which he or she operates (Brown et al, 2020). In today’s climate, researchers of all stripes must engage in

. . . .broader societal rethinking about equality and diversity [in the

way that they]. . .filter into the realm of social sciences research.

Movements like “Me too” and “Black Lives Matter” as well as the global climate activist strikes “Fridays for Futures”. . . . Social science researchers are, appears, no longer purely researchers, but advocates, allies, activists, and practitioners in the context of their research (Brinkmann and Kvale, 2015).

So, along with the ongoing evolution of the various disciplines, including those under the aegis the social sciences, the rule of conduct that has become anchored in the bedrock of “informed consent” must also continue in flux so as to ensure that the fresh troops of researchers, coming into the research business, today, still remain cognizant of the need to handle the community in ways consistent with the moral imperative to “Do no harm.” But, while there is that, many of the age-old common unethical forms of misconduct by researchers still remain. In many cases, certain unethical research practices, even though not harmful to the participants, per se, may be harmful, nevertheless. For example, many rogue researchers still choose to lift whole passages out of works done by others without proper source-acknowledgement. In this case, the hurt is “plagiarism,” and as such, it is an injury inflicted against original researchers, who, in such cases, may even suffer loss of income.

Further, because generalizable research findings across samples and populations, including at-risk groups, are vital tools for addressing issues of public health, and hence, of social conditions in the population, social science research becomes an inevitable by-product of research pertaining to the control of infectious diseases. In such cases, unethical conduct, during public health research, could spill over into related social science research. For example, adolescent minors who fall among sexual minorities (e.g., gay, lesbian, and transgender) are open to a whole slew of health issues such as diseases (like HIV) that trigger unpleasant social stigmas that result in unfair discrimination and societal injury.

According to the American Psychological Association (APA) “federal

regulations provide protection of research participants who fall in the class of stigmatized adolescent minors. Publications by the Office for Human Research Protection (n.d.) and the Food and Drug Administration” (Roth-Cline, M. D., Gerson, J., Bright, P., Lee, P.S. & Nelson, R. M.) show special concern for research participants who are likely to be most vulnerable.

Ordinarily, these government agencies require protection of

research participants of minor age but in some cases, they defer to the

state, and the state sometimes defers to the municipalities, and they, to the

departments. In the meantime, APA has exerted some effort to ensure that

IRBs pay close attention to whether the required data of protocols on the

“ability of youth to independently consent” are up to date and properly

contextualized to allow for the extension of the “mature minor laws” that

carry over from health care to research assure that there are only minimal

chances of risk of harm to participants. However, injury, even to such

participants could be open to risk of harm that is so extreme that even the

nod from an approving parent might not be enough to meet the government standard set for stigmatized adolescent minority participant in medical research (APA; CDC, 2015a, 2016b), and subsequently, in social science research.

1. When a researcher embarks upon a study, he often begins by conducting a “Needs Assessment.” And, out of that, he is able to identify whether there exists a gap (a problem) that has either not been bridged within the current body of related research. This gap or problem is one that pertains to a particular behavior or condition felt by the researcher to be characteristic of a given population. That population, then, is identified as the “target population” for his research as it relates to the gap or problem identified by the researcher. Whether the population is made up of humans, or not, it usually numbers into the thousands or millions. In which case, it would be well-nigh impossible for the researcher to gather data from every member of such a large population. So, he takes the standard research-approach of selecting a relatively small number of members that he determines to be truly representative of the target population. As such, this smaller group is said to be a “sample,” that reflects drawn from the “target population.” It is from such a sample, rather than from the population, as a whole, that the researcher collects data to work within the confines set by his hypotheses.

If the researcher hypothesizes, for instance, that 75% of Black twelfth graders who have been taught (K-12) almost entirely by teachers who do not look like them in the New York City public school system do not tend to submit applications for college admission. In this study, the target population would be all Black twelfth graders in this category. And, if such a population contained 30,000 students, it would be unrealistic to expect the researcher to collect data from every student in this population. Therefore, the researcher has to pick a representative “sample” of about 35 to 40 students from which to collect his data.

Parametric statistics differ from non-parametric statistics, in that, parametric statistics allows the researcher to make assumptions about the target population. Whenever parametric statistics is used, the researcher determines what his fixed sample-size is going to be, based on certain standards. Within this frame, the researcher is able to make assumptions on whether or not the sample data is normally distributed. The reason such assumptions are possible in parametric statistics is that their parameters are finite.

For example, the “mean” of the sample data based on students’ GPAs from a certain population belongs to the realm of “parametric statistics” because it is found by means of an exact calculation bound within a specific range. Whereas, in the case of “non-parametric statistics,” the parameters are not hemmed in by lower or upper bounds and are, therefore, infinite. By extension, researchers, working with this kind of statistics, are not able to make assumptions about the distribution of the sample data. Thus,” the “median,” unlike the “mean,” is a good example of non-parametric statistic, simply because it is an approximation.

1. Martinez-Mesa et al (2014) make the point that the manner in which sampling is done is very critical to the process of putting together a sample-group that is truly representative of the target population. Even though the large majority of research is conducted from samples, the preferred option is for the researcher to utilize the “census-based estimate” approach whenever appropriate (Martinez-Mesa et al).

A good example of this is that if the entire regional database of NYC Black public school students (K-12) were available, and the information on their college application rate were also available, it would probably be preferable to conduct a census than it would be to use a sample, especially if the research question had to do with that of the percentage of students within this particular racial group who become professionals. If, however, the question is, why does the larger bulk of such students tend not to apply for college admission, the “target population” would no longer just be the universal set of Black NYC public school students (K-12), but that particular subset of these students whose college-admission interest, or non-interest, is driven by one or more “affective” factors. Essentially, then, an identification of such a target population would also have to depend on these “affective” factors, and therefore, the relevant data would have to be harvested from members of the population by means of sampling, rather than by census.

Martinez-Mesa et al advise that by recognizing that the research may best be conducted by way of sampling is just the beginning. They tell us that it is also important to recognize that there are different types of sampling, and that certain types of sampling are better suited to one particular research than to some other.

They say that for that reason, “[t]he sampling strategy needs to be specified, in advance, given that the sampling method may affect the sampling size estimation” (Martinez-Mesa et al). So, without a well thought out sampling plan, the researcher runs the risk of making estimates about the number of participants that are drafted through a sampling system may wind up being fraught with “selection biases.” The question, then, is what are the available types of sampling methods that the researcher may be able to choose from.

Speaking broadly, these experts tell us that there are two major types of sampling methods. Wholly, the two types are “probabilistic” and “non-probabilistic.” Although the hope of the researcher is to select a sample that comes as close as possible to a microscopically dilated size of the target population, there is a good chance that a number of the participants selected from the target population will be null. And, by that fact, then, “the observable results are usually not generalizable to the target population ….[Yet, such] unrepresentative sampling may help answer particular research questions…” (Martinez-Mesa et al). They write that non-probabilistic sampling may take one of two forms— “convenience sampling” or “purposive sampling.”

In the first of these sampling methods, the participants are selected consecutively, in their order of appearance. This process ends up either when the pre-planned number of participants has been accomplished (“sample saturation”), or the pre-determined period of time for the sampling process (“time saturation”) is reached.

Meanwhile, Etikan, I., Musa, S. A., Alkassim, R.S. (2016) write that in a purposive sampling, the researcher “will use judgment and planning to select a sample of individuals rather than compiling the sample from readily available participants] that will benefit the study.” In conducting such sampling, the researcher will move forward only based on his full knowledge of the “purpose of the study.” And, in this way, the participants chosen will be more representative of the research-relevant characteristics that are identified in the target population. Purposive sampling is used when expert opinions in a particular area fit within the topic of interest (Etikan, I et al (2016).

Kassiani Nikolopouloti (2022), in revising the answer to the question, “What is Snowball Sampling,” in his journal, says that snowball sampling is a member of the family of non-probabilistic sampling, and in it, individual participants are selected based on how well suited they are for the research in question. Following this first tier of selection, based on the aptness of the participants, each of them is then given the task of recruiting others with similar traits. The second set, then recruit a third set, and so on. Quite aptly, then, snowball sampling is sometimes called, “chain sampling,” or “network sampling.” The process continues until the desired sample size, or saturation point, is reached.

For instance, there is a Harlem community where a number of the Black families have lived for at least four generations. Most of the public schools that serve that community are staffed almost entirely by White teachers and administrators, and this is a pattern that goes all the way back to the Harlem Renaissance, of approximately one hundred years ago. The families, living in this community, are mostly non-professional working class folk. If a researcher, studying how the city’s low Black teacher ratio, negatively impacts the professional aspiration, or lack thereof, among the current Black student population, a form of snowball sampling might prove to be useful in this type of research.

The researcher might choose to draft twelfth grade pre-graduates on the first tier. Then, he might have those participants recruit their older siblings. This group might be asked to pick their parents. The parent could be asked to pick from aunts and uncles of the original twelfth graders. Next, these might be asked recommend friends who went to school with them. The process could continue until the drafting of participants continues to snowball to saturation point. At any rate, all participants would have to be Black folk who attended school in the community and are either employed or unemployed in Harlem.

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