Great Plains Sociologist

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The Great Plains Sociological Association publishes the *Great Plains Sociologist* (GPS) as a general sociological journal. We publish articles of general interest to sociologists in the region and beyond. The organization primarily seeks to serve sociologists from the Great Plains; however, that does not limit material published in the journal by author or subject.

Great Plains Sociologist

The official publication of the Great Plains Sociological Association.

Call for Papers

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The Great Plains Sociological Association publishes the *Great Plains Sociologist* (GPS) as a general sociological journal with articles of general interest to sociologists in the region and beyond. Topics should be of interest to a wide audience of sociologists. We are interested in publishing research articles, theoretical essays, teaching and learning research and ideas, book reviews, visual sociology projects, etc.

Guidelines for Publication

The following guidelines are for authors who wish to submit work to the GPS for publication.

1. Topics should be of interest to a wide audience of sociologists. This does not imply that a majority must agree with the findings or discussions. Quality of work is the single deciding factor in whether an article is published, not popularity of findings.

2. Manuscripts should be in the range of 15 to 25 journal pages, including tables, charts, etc.

3. GPS will consider many types of manuscripts for publication. We publish traditional research articles that empirically test hypotheses derived from social theory as well as thought pieces explicating ideas, investigating specific topics, and pedagogical articles that focus on teaching techniques or experiences.

4. Save articles submitted for review as Word documents and email to the Editor. Upon acceptance, author(s) must submit full contact information for each contributing author, including a brief biographical sketch.

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5. Email manuscripts to the journal Editor. The Editor will send it to at least two reviewers for comments and recommendations. The journal Editor also reads submissions and has responsibility for the final decision to publish or not. The Editor and reviewers may recommend (1) to accept a manuscript as is, (2) to rewrite and resubmit the manuscript, or (3) to reject it.

6. To preserve anonymity, please attach a cover page to the manuscript that contains authorship, address, and institutional affiliation. The next page should contain the title of the article only. When sent out to reviewers, the Editor will remove and retain the authorship page to assure anonymity. Please omit author citations in the reference page and text.

7. Manuscript format should follow American Sociological Review (ASA) standards, including in-text and bibliographic references.

Editor's Note

This issue provides us with some very interesting articles with wide variation in research topics. The issue begins with Richard Braunstein's "Case Studies in the Development of Reliable and Valid Social Problems Source Data" where he demonstrates how statistical data on Native American populations in South Dakota is often not reliable nor valid and proposes possible solutions. Next up is "Tsunami 2004: India and International Impacts, International Disaster Management." Tania Arseculatne, Austin Ritch, and Russell Wicklund's India's preparations developed prior to the 2004 tsunami, what worked and what didn't work as well, and possible changes to be made to these preparations for future earthquakes and tsunamis. In Trenton Ellis and Breanna Bass's article "Bullying Victimization as a Predictor of Suicidality among South Dakota Adolescents: A Secondary Data Analysis Using the 2015 Youth Risk Behavior Survey," the authors explore victims of bullying and how bullying can be a possible predictor of suicidality for South Dakota teens. Nicole Lounsbery's article, "Why Do High-Achieving Women Feel Like Frauds? Intersecting Identities and the Imposter Phenomenon" examines how the imposter phenomenon impacts high-achieving women at the intersections of race, class, gender and parental educational attainment. Marina Makarova's research focuses on Russian and Polish student cultures of cheating, surveying students at two universities in "Factors of Academic Misconduct: Polish and Russian Students' Attitudes." And last, Brie Willert's Graduate Student Writing Contest Winner "How Does Class Status Influence Perceptions of Individuals Mental Health." Willert investigates the ties between SES and mental health.

As always, we're looking for papers to include in *GPS*. Research articles, pedagogical issues, teaching ideas, visual sociology, and any other kinds of scholarly works focusing on Sociology are invited including letters to the editor!

I hope you enjoy this issue of the *Great Plains Sociologist*.

Laura

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Index of Articles and Book Reviews

Article

Case Studies in the Development of Reliable and Valid Social Problems Source Data

Rich Braunstein

KEYNOTE ADDRESS FOR THE 2016 GREAT PLAINS SOCIOLOGICAL
ASSOCIATION ANNUAL CONFERENCE

INTRODUCTION

In his book *Damned Lies and Statistics*, Joel Best communicated that statistics are primarily social products (not social measures). Though Best focuses on the natural and mostly innocent forces that can distort data, he suggests that statistics must be approached with the skepticism of a good investigative reporter, asking questions of who created them, why were they created, what was their intended purpose, and how accurate they are (Best, 2012). The skills of thinking about data in this way are essential. Some statistics, he reports, are born bad. That is, from the start, reported statistics are sometimes based on little more than guesses or unreliable initial formations. Best's commentary on statistics that are not much good from the start illustrates the rather salient concern he raises for the adaptation or mutation of statistics that occurs downstream. Poor initial statistics and source data result from sometimes unsophisticated and at other times intentional manipulations (Best, 2012). Either way, bad statistics are powerful: They can be used to stir up public outrage or fear; they can distort our understanding of our world; and they can lead us to make poor policy choices.

Source data is of particular concern to the present work. To be clear, source data is the underlying data from which statistical analysis is conducted and public policy decisions are made. Best noted that often the validity of source data is overlooked because the underlying math appears too simple to worry about. Typically, simple-form source data is rooted in counts, averages, percentages, and rates that are included in

inferential and explanatory statistics.   Best noted that we tend to take more offense to their application in advanced quantitative approaches and less offense to the shortcomings of their more simple form (Best 2012). It is at this initial level of source data that is of concern in this paper.

Examples of unreliable and/or invalid source data in public discourse and policy debate are plentiful. Without the capacity to inventory all instances of how data born bad are treated, the current paper focuses on a narrow set of concerns in the area of Native American criminal justice. This project is designed to illustrate the costs associated with bad source data and, more importantly, to consider pathways forward to overcome challenges associated with the reliance on invalid, unreliable or missing source data.

From the outset, this paper takes the position that the calculation of costs and benefits in the creation of source data has been particularly harmful to our capacity to generate reliable and valid source data. Regardless of whether this calculation is done explicitly or implicitly, the effects have been disruptive to social problems discourse. In the end, the inevitable tradeoff between the costs and benefits of acquiring good source data too often result in reduced effectiveness of social problems definitions, research, and advocacy.

Allowing for the possibility that carefully crafted cost benefit analyses can produce good source data, the high cost of acquiring valid and reliable source data commonly inhibits productivity in social problems research. This problem is exacerbated in social problems involving populations with small numbers, insofar as the relative cost of good data collection can seem greater than the potential benefits to small populations. This is clearly the case in Native American criminal justice research where limited resources inhibit the development of accurate source data from which to evaluate concerns emanating from this marginalized population.   Moreover, the problem is worsened by researchers, journalists, community advocates and policy makers who accept incomplete and inaccurate measures as facts without the requisite skepticism necessary to arrive at productive social problem definitions and remedies.

The case studies from Native American criminal justice reported here involve fundamental rights and, in one instance, an issue of considerable national controversy over the past few years. The first case relates to the demographics of community policing efforts in Rapid City, South Dakota, as the Rapid City Police Department works to improve its relationship with the Native American community. The second case relates to the concern for disparate sentencing of Native Americans in the federal court system. The third case is concerned with the development and maintenance of representative jury pools in the U.S. District Court of South Dakota's Western Division where many of the federal sentences described in the second case study are determined. In sum, this paper takes up Joel Best's challenge for researchers,

community organizers and policymakers to improve standards in the identification and collection of source data.

CASE STUDIES

CASE ONE: RAPID CITY DEMOGRAPHICS

This case begins with a simple question: How many Native Americans live in Rapid City? An accurate answer to this demographic question is essential for a wide range of social problems areas involving the Native American community in Rapid City. In the way of illustration, here are sample social problem questions that rely on Native American population source data:

1) Are Native Americans subject to more traffic stops than Whites by Rapid City police officers?
2) Is intra-racial crime victimization a greater problem for Native Americans than Whites in Rapid City?
3) Are the 6th Amendment rights of Native American defendants properly supported by the jury management system in Rapid City?

The challenge of acquiring an accurate population estimate of Native American residents in the municipal context is rooted in some well-known facts. To begin, we know that the U.S. Census is subject to both over counting and under counting error (U.S. Census 2010). The understood and reported on counting error of the U.S. Census is based on the following observations, all of which apply to the Native American community in Rapid City:

- Undercounting is more likely in communities with low rates of homeownership.
- Undercounting is more likely in communities with higher rates of multigenerational households.
- Undercounting is more likely in communities with lower rates of employment.
- Undercounting is more likely in communities with fewer than 100,000 residents.
- Undercounting is more accurate among those mailing in census forms than those taken door-to-door.
- People of color and low-income people are less likely to mail in a census form.
- People of color and low-income people are less likely to be at home and accessible to door-to-door census takers.

These qualifications are largely ignored in public discussions of social problems involving the Native American community in Rapid City. A typical approach to framing the problems of Native Americans and other racial or ethnic minorities in the criminal justice system begins with a comparison of the group's population percentage in a community, as represented by the U.S. Census Bureau's most recent estimate, and the group's percentage of arrests, incarcerations, or victimizations. This much was the case in Rapid City with media reporting of a study done by the Rapid City Police Department (RCPD) by Braunstein and Schantz (2015). We all know the image of a bar chart depicting the low percentage of a minority group's population and their high rate of arrest (or other outcome of concern). In Rapid City, a leading news agency (an ABC affiliate KOTA) reported these numbers in this way on television and website broadcasts as 12% Native American population compared with 59% of Native American arrests. Alongside these disparate bars in the image were the statistics for the White community. Here it was reported that 80% of the community was White and that Whites accounted for 35% of arrests – essentially the inverse of the Native American statistics. The trouble with these population figures, and the resulting community dialogue of them, is that they are not correct.

This U.S. Census Bureau is transparent about counting error. In 2012, the U.S. Census Bureau reported "[W]hile the overall coverage of the (2010) census was exemplary, the traditional hard-to-count groups, like renters, were counted less well...Because ethnic and racial minorities disproportionately live in hard-to-count circumstances, they too were undercounted relative to the majority population." Adding to this, the U.S. Census Bureau (2012) also reported 5% undercounting of Indian Country residents. These thoughtful qualifications issued from the U.S. Census Bureau confirm there is error in the counting of urban Native Americans in Rapid City and additional error in the counting of rural Native Americans in neighboring tribal communities. Complicating the estimates, at any given time there are resident and transient populations of Native Americans in Rapid City. As such, an attempt to estimate the population for Native Americans through consideration of both the resident population from the U.S. Census Bureau (including its margin of error) and the transient population from the Department of the Interior's labor and tribal residence estimates (including its reported margin of error) can result in more precise population estimates for this unique minority racial group.

In a study contracted by RCPD, an effort was made to improve the population estimate of Native Americans living in Rapid City and to overcome the shortcomings of reporting on the single race estimates by the U.S. Census Bureau (Braunstein and Schantz 2015). The effort to revise the population of Native Americans in Rapid City began with the U.S. Census Bureau estimate of single race Native Americans in the 2010 census. This estimate was 12.4%. It continued by counting 50% of the U.S. Census Bureau estimate of multiple race individuals. This added 2.05% to the revised estimate.

Another 7.8% was added to account for the transient population of Native Americans.[1] The estimate of the population then added .62% to adjust for the U.S. Census Bureau undercount of "hard to count" Native residents in Rapid City.[2] Another .62% (or 5% undercount adjustment) was added for the historic resistance of Native Americans to participate in U.S. Federal Government surveys, effectively doubling the adjustment for the undercount of Native Americans based on (1) socioeconomic factors noted by the U.S. Census Bureau and (2) historical trust concerns of the Native American community.[3]

The sum of these percentages estimated that the Native American population of individuals living in Rapid City was 23.49% of the city's population. This revised percentage was nearly twice the U.S. Census Bureau estimate commonly reported in applied research, media presentations, and advocacy statements regarding the general welfare of Native Americans in Rapid City. Still, the RCPD report did not complete the work of estimating the actual demographics of Rapid City. Similar adjustments would have to be made for the Black, Hispanic, and Asian community members before we could have a more fully accurate estimate the percentage for the White community and for the purposes of comparison.

Even with more accurate population estimates, however, it is important to keep in mind that there are persuasive objections to the use of comparisons between a racial group's population percentage and their percentage, for instance, of arrests. The intent of this discussion of improving population source data is not to advocate for these comparisons. While this point is somewhat tangential to the current thesis, it is sufficiently important to note that a far more reliable indicator of disparities in community policing data comes through stratification – that is, looking at each racial group individually and examining percentage outcomes for arrest, victimization, citations, and other involvements. On this point, it is more productive to compare the percentage of Native Americans arrested for a specific crime to percentage of Whites arrested for that same crime to determine if a crime (or other outcome) is problematic for specific racial groups.

Regardless of what methods are used to analyze social problems data, there is little doubt that reliable population source data is essential to intentional efforts to define and remedy social problems. A primary example of this comes from Braunstein and Schantz (2015) regarding police profiling of Native American community members. We know from RCPD traffic stop data that 24.1% of traffic stops from October 2013

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[1] This percentage was estimated at 10% of the 53,602 residents estimated to live on the three reservations bordering Rapid City, as reported by the U.S. Department of the Interior (2014).

[2] This was calculated as 5% of the total population of Native Americans, adding another .62% to the resident population total for the city.

[3] See, generally, Caldwell, J. Y., Davis, J. D., Du Bois, B., Echo-Hawk, H., Erickson, J. S., Goins, R. T., Keemer, K. 2005. "Culturally competent research with Native Americans and Alaska Natives: Findings and Recommendations of the First Symposium of the Work Group on Native American Research and Program Evaluation Methodology." *Native American and Alaska Native Mental Health Research: The Journal of the National Center*, 12(1), 1-21.

through December 2014 involved Native Americans (Braunstein and Schantz 2015). Depending on which population estimate of the Native American community in Rapid City we use, this represents either a substantial overrepresentation of Native Americans in traffic stops or a slight underrepresentation. In the first formulation, where the single-race U.S. Census Bureau statistic is used, there is an 11.7% overrepresentation, which is nearly double the population estimate of 12.4%. In the second formulation, where the revised population estimate is used, there is a .61% underrepresentation in traffic stops of Native Americans. For a community and police department at odds over racial profiling, the difference between these two disparities is substantial.

Ultimately, statistics will not resolve the conflict over police profiling. The discussion of how to address perceived or actual discrimination, however, will be very different depending on what source data is adopted and used as a benchmark for progress in the relationship between stakeholder groups. For this reason, it is essential to engage in an intentional effort to calculate the most accurate population source data possible. In the context of policing in Rapid City, this effort has evolved to include both police administrators and a representative group of community leaders. The working group that has emerged from the effort to better deliver policing services and improve the relationship of stakeholder groups has been a critical step forward for Rapid City. Taking a page from Joel Best, given that relevant statistics are social products rather than discoverable truth, perhaps it is best to leave their conceptualization and construction to the societies of scholars and practitioners who are experts in their areas. This has clearly worked in Rapid City, where careful efforts to mine the police department's data to guide discussion and policy responses have been both collaborative and successful (KEVN 2017).

CASE TWO: FEDERAL JURISDICTION IN INDIAN COUNTRY

The second case involves federal sentencing of Native American defendants. This case is helpful to describe a common liability in Native American criminal justice research and practice; namely, resource scarcity. In 2003 the U.S. Sentencing Commission took up a study of Native American criminal justice in response to concerns raised that Native American defendants are treated more harshly by the federal sentencing system than if they were prosecuted by their respective states (U.S. Sentencing Commission, 2016). As part of this study, an ad hoc advisory committee was formed, and the Commission's research staff was assigned to provide analytical support to the committee.

The effort was initiated after public hearings of the U.S. Sentencing Commission detailed the perception that jurisdictional arrangements in Native American criminal justice created structural disparities that resulted in Native Americans serving more time in federal prison for the same crimes committed by non-Natives in state courts (U.S. Sentencing Commission, 2016). On the surface, there was a question of more stringent

federal sentencing than state sentencing and higher expectations of time served in federal corrections than state corrections. Below the surface was a question of the subtler impact of the presence of federal jurisdiction over major crimes in Indian Country and of inter-state variation in jurisdictional arrangements that impact state sentencing – one of the two principal data points at issue in this case. This second question is important because of the nature and design of Public Law 280, which gave the federal government jurisdiction over major crimes committed in Indian Country. Public Law 280 created a structure whereby tribes in some states could hold concurrent jurisdiction with state government and some states where tribes would hold concurrent jurisdiction with the federal government. In some cases, a single state has variation within the state, where some tribes in the state share jurisdiction with the state government while other tribes in the same state hold jurisdiction with the federal government. A study from South Dakota, finished just before the U.S. Sentencing Commission's Ad Hoc Advisory Group on Native American Sentencing Issues was convened, reported that South Dakota state judges believed that Native Americans were sentenced to longer sentences than Whites in state court because of the presence of federal jurisdiction in the state (Braunstein and Feimer 2002). Knowing this, the U.S. Sentencing Commission was challenged to develop a research design that would control for jurisdictional variation (e.g., the impact of different criminal justice systems with full federal, partial federal, and full state jurisdiction over major crimes in Indian Country). While it can be argued that a more complete data set with structural control variables is the best way to meet the information needs of an advisory group studying the impact of federal jurisdiction, the resource-driven result was a narrower focus on pre-existing data limited to federal and state sentencing alone. As such, no data for control variables were introduced in this research, and the analysis failed to show any of the stark differences that were communicated to the U.S. Sentencing Commission at its public hearings on the subject. The federal-to-state comparisons employed simply did not question the impact of the presence of federal criminal jurisdiction in Indian Country in the United States.

The reason for this omission was communicated plainly. When prompted to develop competent source data, the U.S. Sentencing Commission's research division responded that the effort would be too expensive. The fact that Native Americans are less than 3% of the U.S. population frustrated the effort at data collection and research design stages. Here, budget and staff capacity limits of the Commission's research division clearly inhibited their study of a small population phenomenon. If the problem addressed impacted a larger population, perhaps the resources necessary to develop a more valid research design, collect the requisite source data, and complete a careful investigation could have been justified. In any case, the Commission decided to exclude contextual and control variables that were needed in their 2003 effort to properly address the impact of federal jurisdiction on Native American justice concerns.

The results have been predictable. So, little was done in the 2003 effort that another call was made in 2015 to begin the effort anew. This was largely because by 2013, as reported by the U.S. Sentencing Commission (2016), the number of Native American offenders in the federal system had increased by 27.2% over the five-year period of 2008 to 2013. Moreover, in 2013, a state with the most federal jurisdiction, South Dakota[4], had the greatest disparity for Native American defendants between federal and state sentences, and a state with the least federal jurisdiction, Oklahoma[5], had the least disparity.   While it is irresponsible to conclude from this simple observation that one is causally related to the other, the absence of careful study of the impact of federal jurisdiction on Native American sentencing disparities and related structural factors has yet to be done. Supporting this view, the 2015 U.S. Sentencing Commission Tribal Issues Advisory Group (TIAG) concluded, "sentencing data currently does not exist to conduct meaningful sentencing disparity analysis" (U.S. Sentencing Commission TIAG 2016:15). This is well known in 2003. In 2017, we are still waiting on reliable source data to advance analysis in this area. While we wait, the disparate conditions of Native American criminal justice continues largely unabated in the United States, creating perhaps the only context in which a class of individuals is subjected to longer sentences and higher percentages of time served, by law, because of race-related characteristics.

CASE THREE: REPRESENTATIVE JURY POOLS IN U.S. DISTRICT COURT OF SOUTH DAKOTA'S WESTERN DIVISION

The third case of Native American criminal justice presented here involves the representative quality of a federal court's jury pool. In 1968, the Jury Selection and Service Act (JSSA) declared that it was "the policy of the United States that all litigants in federal courts entitled to trial by jury shall have the right to grand and petit juries selected at random from a fair cross section of the community" (JSSA 1968). This case, like the one before, introduces the question of what source data are necessary to test whether this constitutional requirement is met.

Specifically, this case presents a question of the capacity of the U.S. District Court of South Dakota's Western Division (Western Division) to maintain a representative jury pool. Keep in mind from the above discussion that 57.5% of all cases in U.S. District Court of South Dakota involve Native American defendants (USSC 2016). Additionally, the Western Division has the highest proportion of Native Americans of all four divisions of the U.S. District Court of

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[4] South Dakota is one of several states to have full federal jurisdiction, meaning that 100% of Indian Country in South Dakota Tribes is subjected to the Major Crimes Act and, as a result, federal jurisdiction.

[5] Oklahoma is a unique case in that there is a large Native American population but no Indian Country within the state borders and, as a result, no federal jurisdiction over major crimes.

South Dakota, amounting to just under 50% of the entire Native American state population (see Figure 1). In summary, the federal courts in South Dakota have the highest proportion of Native American cases in the United States and most of the cases involving Native American defendants in this court come out the Western Division.

Figure One: Native Adult Population by Divisions of the US District Court of South Dakota
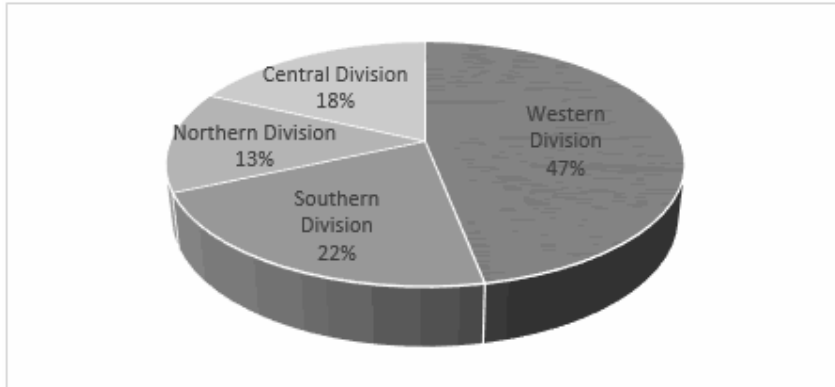
Source: Braunstein and Schantz 2015

We also know that while Native Americans make up approximately 24% of the Western Division's population, they make up only 6% of the division's 2013 jury pool of qualified jurors. Moreover, the percentage of Native American jurors who actually serve in criminal trials is far lower, though this is not the focus of the JSSA (only that the jury pool need be representative). A casual assessment of these disparities strongly suggest that the Western Division is not accomplishing its mandate to provide a representative jury system. A more detailed assessment, employing comparative disparity analysis typically required by courts in cross-sectional claims, demonstrated that there was a 75% difference between the Native American population's presence in the Western Division and their presence in the Western Division's qualified jury pool (Braunstein 2016). A 0% difference would mean that nearly 24% of the division's jury pool was Native American, as reflected by their estimated population presence, and a 100% difference would mean that there were no Native Americans in the jury pool. Clearly, a 75% difference between population presence and presence in the qualified jury pool is too high to serve the interest of jury section from a random and representative cross-section of the community.

These facts are well known by the United States District Court Clerk, Joseph Haas, who attributed the disparate conditions to resource limitations

associated with the Court's jury management system. According to Haas (2016), most discretionary funding available to the Court to improve the representational quality of its jury pool is dedicated to compensating and incentivizing those assigned to actual cases – that is, to get jurors to the court when they are assigned to a jury. Nevertheless, the constitutional mandate on all federal courts is to produce a representative jury pool to insure the fairness and justice of trials within the system. The essential question in the formation of representative jury pools in the federal court system is whether the distinctive group's representation in the jury pool is reasonably related to the number of the distinctive group members in the community. In less technical terms, whether there is a significant difference between the distinctive group's presence in the jury pool and the community in which they live (*Duren v. Missouri* 1979).

The development of a representative jury pool in the U.S. District Court of South Dakota's Western Division is complicated primarily by two factors very much at issue in social problems research. The first of these two factors is the distribution of Native American county population within the Western Division. The second is the lack of validity of voter registration records used as population source data by the Western Division. In a perfect world, we would like to believe that each county in the Western Division had a normal distribution of racial group residents and that voter registration is representative of Native community presence in these counties. This would make the selection of a representative jury pool simpler than it actually is. However, race in the Western Division and in South Dakota more generally, is not normally distributed. Figure 2 presents a histogram representing the distribution of Native county population in South Dakota. The graphic includes an expected curve of what a normally distributed population might look like. In other words, it presents a line under which all county populations would fall if the distribution was somewhat normal (note that it does not present expectations of a perfect bell curve given the large number of South Dakota counties with very low Native populations). The fact that more than 30 out of 66 counties have extremely low Native populations biases the distribution of state Native population downward (away from having Native county populations).

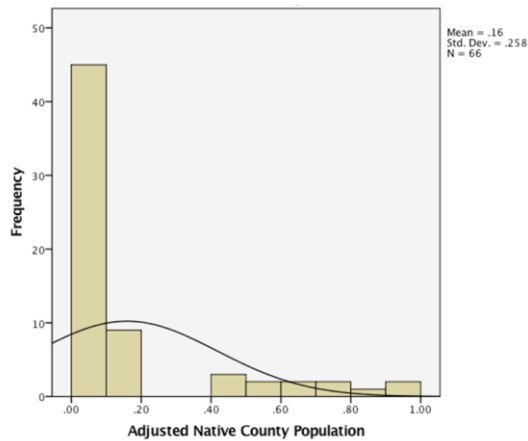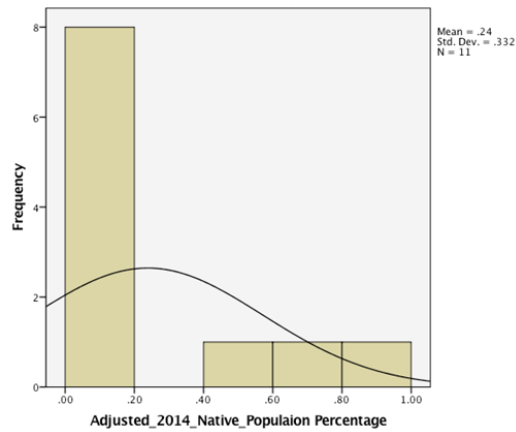**Figure 2: Native Population Histogram for All South Dakota Counties**   **Figure 3: Western Division Counties Native Population Histogram**

Source: Braunstein and Schantz 2015

A similar condition exists in the Western Division, where the distribution of race is more bifurcated. Here, counties are either a high percentage Native American or, more frequently, a very low percentage (see Figure 3). The bifurcation of Native population in the Western District makes it difficult to represent reliably Native Americans in counties with larger Native populations. Here the law of large numbers, where high percentage Native counties cancel out low percentage Native counties, does not apply because of the large number of counties with low Native populations (represented by the "spike" on the left of Figure 2). To overcome this bifurcated distribution, court administrators would need to over sample in counties with lower Native American populations and under sample in counties with higher Native American populations rather than assuming all is equal and drawing a similar number of community members from the lottery system used for the selection of the jury pool.

Variation in the response rates and resource capacities of White and Native communities in western South Dakota must also be considered when planning representative institutional structures. Reluctance of a minority group to participate can also negatively affect representative selection and, as we know from the discussion from the first case study, disproportionately impact hard to reach communities.[6] Understanding and appreciating the circumstances

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[6] For discussion of United States Census Bureau under counting of 'hard to reach populations,' *see* http://www.census.gov/newsroom/releases/archives/2010_census/cb12-95.html; a relevant observation includes "(w)hile the overall coverage of the census was exemplary, the traditional hard-to-count groups…were counted less well…Because ethnic and racial minorities disproportionately live in hard-to-count circumstances, they too were undercounted relative to the majority population."; *Also see* https://www.census.gov/content/dam/Census/about/about-the-bureau/Groves_Senate_Testimony_2-23-

of contemporary Native communities and their effect on behavior patterns, including complying with or responding to U.S. Government requests, requires knowledge of their history and the pain and distrust that remains today. These historically traumatic dynamics continue to affect Native people today (Caldwell, et.al. 2005) causing lower response and participation rates than non-Natives.

Through no fault of their own, federal court administrators in the Western Division begin their work structured by uneven population distributions requiring more sophisticated sampling techniques and suffering from historical distrust. Compounding these challenges is the Court's reliance on voter registration data as the single source of population data for representing the Native community. The cross-tabulation of 2012 voter registration percentages of adult county residents and Native American county population percentages showed resulted in a linear relationship between the percentage of Native Americans in a county and the percentage of citizens registered to vote where, as the percentage of Native American county population increases, voter registration decreases. South Dakota counties with low voter registration percentages tend to have moderate or high Native county population percentages. Conversely, none of the counties with high percentages of voter registration include counties with high Native populations (see Table 1).[7]

As a result of this trend, the Western Division had the lowest voter registration in 2012 and 2014 of all the U.S. District Court of South Dakota's divisions (Braunstein 2016). This was expected because the Western Division had more than twice the Native American population than any other Division (an estimated 38,125 or 46% of the entire state's Native population).

To better meet the needs and constitutional rights of the Native American community, it is necessary to supplement voter registration data with other forms of public data (e.g., driver's license, Social Security number, tribal enrollment, housing records, or some combination of these). The requirement exists because voter registration is generally not a valid proxy for population data, and its fit becomes even

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10.pdf for reference to efforts that "(r)educe the undercount, especially the differential undercount which disproportionately impacts hard to count communities."

[7] In terms of the statistical significance of this relationship, the Chi-Square value was significant at the highest statistical level ($p<.01$), suggesting these observations are extremely unlikely to have resulted from chance. Similarly, the statistical correlation between these two measures is moderately strong (-.435) and statistically significant at the $p<.01$ level, reinforcing our findings from the cells of this cross-tabulation table. This analysis shows that, in South Dakota, voter registration trends are not race-neutral. The analysis shows that Native county population percentage is an effective indicator of which South Dakota counties have both high and low voter registration.

Table 1: Cross-Tabulation of County Native Population and 2012 Voter Registration Percent of Above 18 County Residents

	Low Native County Population	Moderate Native County Population	High Native County Population	Total
Low County +18 Voter Registration	3 12.50%	14 58.30%	5 38.50%	22 36.10%
Moderate County +18 Voter Registration	8 33.30%	3 12.50%	8 61.50%	19 31.10%
High County +18 Voter Registration	13 54.20%	7 29.20%	0 0.00%	20 32.80%
Percent Native Population Total	39.30%	39.30%	21.30%	100%

Source: Braunstein and Schantz 2015

worse in the context of populations with low historical voter participation rates. Its use has in federal courts has added to a substantial social problem where Native Americans, who are already disadvantaged by a disparate federal court system, are not adequately involved in the trial of their peers. Here, poor source data is compounding the negative effects of federal jurisdiction in an already disparate criminal justice context.

There are, however, reasonable fixes that the Western Division could employ without violating the Court's commitment to equal treatment for all living within the Court's jurisdiction. These include, but are not limited to, the use of supplemental data to acquire a more accurate knowledge of Native Americans living in the Western Division and a more sophisticated data management system that updates each year and does not delete confirmed data for potential jurors every two years.[8] The unfortunate reality is that, to date, insufficient resources are committed to the task. Again, we find resource limitations at the core of the problem.

CONCLUSION

The troubling realization that summarizes these cases of Native American criminal justice is that they are not instances of limitations imposed by complexity or human cognition. In the simplest terms, these are source data problems limited by resources, not possibilities. The bottom line is that the potential gains to be made from capturing and recording better quality data too often pales against the costs of ensuring

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[8] Currently jury pool source data is collected every two years, at which time the previous data is expunged from the system and a follow-up response protocol for those contacted by the Court but who do not respond.

that quality. As is argued here, this is particularly the case where a small population of marginalized community members is at issue. To be sure, the path forward requires the commitment of additional public and private resources. It may be that much-needed resources will come from collaboration rather than through additional public agency expenditure, and the case of Rapid City community policing is a model for the successful collaboration that open and transparent working groups create. The paper delivered here has (hopefully) demonstrated that this additional investment is needed to support the fundamental rights of citizens, institutional priorities, and informed/productive public discourse.

In the context of Native American criminal justice, as in many other areas of social problems inquiry, we must engage in primary investigations of the relevance, timeliness, existence, coherence, completeness, and accessibility of our source data (De Veaux and Hand 2005). This is a necessary step in the 21st century, given what we know about the shortcomings of public agency budgets and the reliance of community discourse on reports and analysis of source data. The remedy is not an easy one. Often public agents and community members involved in the administration and review of source data are unaware that the datasets and findings they rely on are incomplete. This may be due to the effective use of the data for some other purpose than the task at hand and the belief that, as a result, the data is valid for secondary application. A simple reminder of the case of using voter registration data as a proxy for population data demonstrates that data that can be perfectly valid and reliable for one application (i.e. voter management) can create a host of social problems when used for another unintended, purpose (i.e. jury management). The compulsion to use pre-existing data is understandable. The alternatives typically demand more resources and engagement. In the cases noted here, alternatives involve municipalities and community leaders conducting their own population studies rather than using a nationally designed census effort that touches on the municipal level but lacks reliability in smaller population settings. The U.S. Sentencing Commission design of original research takes into account the subtle effects of federal jurisdiction rather than relying on blunt, acontextual outcome measures, and, the development of a dynamic jury management system capable of identifying, tracking, and contacting community members.

In the private sector, these challenges seem to have been overcome by the desire to generate profits and sustainable business practices. Models abound in the for-profit world that can support the effort to improve source data collection efforts for use in public policy, administration and advocacy. Examples of this include Adobe's data integration strategies to know more fully customer needs (Adobe 2016) and the analysis by the United Parcel Service (UPS 2016) of the relative cost of left turns vs. right turns by their drivers. The discussion of data mining and integration from Adobe (2016) has valuable insights for the federal jury management systems where it is important to first identify and then to stay connected to a hard to reach population through the

integration of multiple data streams. Causal analytics, as in the case of the UPS study on driving paths that reduce cost, time, and pollution have considerable research design insights for the U.S. Sentencing Commission's attempt to identify the case of growing sentencing disparities for Native American defendants. Once again, the challenges of overcoming source data that are "born bad" is not a challenge of our cumulative capacity to address social problems.

For now, the current research treats the need for enhancements in source data collection as a necessary adaptation to current practices in the social problems area. This effort corresponds with progress made to identify and implement best practices in much of what we do in the public, private, and nonprofit sectors in our 21st century society. The social problems research subfield, starting with Huff in 1954 and continued through the work of Best and others in the past decade(s) has alerted all of us to the need to overcome the problems associated with shortcuts taken in the collection and analysis of primary and secondary source data. The responsibility to do better is with all of us in the research community, public administration, the media, and in community advocacy.   It begins with a healthy and much needed skepticism for the collection of source data and ends with collaboration among public and private stakeholders committed to developing a social product with greater validity and reliability than we have seen in the cases noted here and the analogous cases throughout the social problems domain.

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Article

Tsunami 2004, India and International Impacts, International Disaster Management

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ABSTRACT   This article studies the international impacts of the 2004 tsunami event in India. Among the four main phases of emergency management, what are the local and international impacts of the 2004 tsunami event focusing on India? The study is divided into two main categories: Natural Aspect; and Cultural and Administrative Aspect. Within the Natural Aspect are the natural cascading events leading up to and following the event and the requirements/intensity levels for qualifying to compare with the actual data of the event. Within the Cultural and Administrative Aspect are the man-made international impacts such as economic, cultural, and political. India was of continued interest in the affected region due to its unique response to international aid attempts and cultural impacts. The methodology of data collection was primarily based upon case studies but also broken down into a pre- and post-event administrative restructure of the national Emergency Operations Plan. The conclusion will discuss the classification of the event as a whole in the eye of emergency, disaster, catastrophe, or complex humanitarian crisis.

Overview

On 26 December 2004, an earthquake 155 miles off the coast of Sumatra, Indonesia, caused one of the worst natural disasters in modern history. More than 1,000 times as powerful as the 1995 quake in Kobe, Japan, it registered 9.0 points on the Richter scale and lasted four minutes. The

resulting tsunami that spread across the Indian Ocean
caused widespread devastation and left more than
298,000 dead. (Reuters 2005).

TSUNAMI 2004

A *tsunami* (pronounced "soo-nah-mee) is a series of waves generated by an undersea disturbance such as an earthquake. Tsunamis are often mislabeled as "tidal waves" although the height that a tsunami attains before striking a coastal area is influenced by the local tides at the time of impact. (Coppola 2015:61).

On December 26, 2004, a magnitude 9.1 earthquake occurred off the west coast of northern Sumatra in the Indian Ocean triggering a tsunami (ISDR 2006; Williams 2005). The tsunami affected 12 countries in south and southeast Asia as well as the northeast African coastal regions (Williams 2005). It was completely unexpected and caused massive devastation across the Asia Pacific region wiping away homes, buildings, infrastructure, water and electricity supplies, crops, irrigation, fishery infrastructure, valuable assets, and small businesses (ISDR 2006; Mulligan et al. 2012). The five most affected countries include Indonesia, Sri Lanka, Thailand, India, and Maldives (ISDR 2006).

The tsunami killed over 280,000 people (ISDR 2006) destroying close to 1,500 villages in the coastal areas. The tsunami also left I.7 million people homeless, 14,100 missing (USGS National Earthquake Information Center), and approximately 6 million people in need of emergency medical, water, and food aid. In the aftermath of the disaster, the affected areas faced public health challenges due to contamination of freshwater with sewage and salt water (ISDR 2006).

EARTHQUAKE

Tsunamis are most commonly produced by earthquakes; a "rapid uplift or subsidence of the seafloor" caused by an earthquake or an underwater landslide caused by an earthquake (Keller and DeVecchio 2016:102). Usually, a magnitude 7.5 or higher earthquake is needed to produce a damaging tsunami. The upward or downward movement of the seafloor displaces the mass water from the sea bottom to the sea surface (Keller and DeVecchio 2016).

India's pre-2004 preparedness was notably low in all departments. A great deal of preparedness planning has gone into volcanic preparedness around the world, most notably in the area of the world called the Pacific Ocean's "Ring of Fire" an area surrounded by many subduction volcanoes. India, however, is not in this ring and, therefore, has not benefited from the same preparedness measures as nations in this ring. India, however, does have a coastline facing the Indian

Ocean it is exposed to the potential hazards of the large number of fault lines and rift valleys that crisscross the ocean floor. These features of the ocean floor can often indicate plate activity that could create, under the proper circumstances, a devastating thrust much like the one the world saw in 2004 off the coast of the Indonesian peninsula which generated the large tsunami traveling at the speed of sound that raced towards the island of Sri Lanka and the main coast of India.

Figure 1: Map of India's plate tectonic activity.

USGS. Pacific Coastal and Marine Science Center, "Tsunamis and Earthquakes"

The wave generated by the 2004 event was generated had a low speed (900 km/hr) but a high amplitude (-30-50 m) resulting in great damage to the surrounding area.

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IMPACTS ON INDIA

India is vulnerable to natural disasters such as floods, droughts, cyclones, earthquakes, and landslides killing approximately 4,000 people and affecting about 30 million people annually (Government of India Ministry of Home Affairs 2004). Although tsunami is not a frequently encountered disaster in India, the 2004 tsunami had significant impacts on certain parts of India and its habitants. The tsunami affected mainland coastal states such as Kerala, Pondicherry, Tamil Nadu, Andhra Pradesh, and the Andaman and Nicobar (A & N) Islands in the Bay of Bengal (Murty et al. 2006; ADPC 2015). The height of the wave ranged between 4 to 12 meters (10th anniversary update 2014) and affected about 2,260 km of the coastline (Murty et al. 2006).

The devastation killed around 11,000 people, displaced 112,500, and over 5,600 are still missing (Bahadur, Lovell, & Pichon 2016; USGS Earthquake Hazards Program; Murty et al. 2006). Seventy-five percent of the deaths occurred in the Tamil Nadu area. Additionally, over 500 children were orphaned (Murty et al. 2006).

The tsunami destroyed approximately 1,089 villages and 172,000 houses (Murty et al. 2006). In the port of Chennai, the fishing fleet was affected, and some boats were overturned and some washed ashore within the harbor. Overall, about 63,000 boats were damaged (Murty et al. 2006). Additionally, 200 square kilometers of agricultural land was affected by salt water (Murty et al. 2006). The affected population was mostly from the lower economic classes and in fishing villages. Therefore, they had no insurance coverage or had only limited life and personal accident insurance coverage. The total damage in the affected areas was $575 million with a total loss of $649 million (ADPC 2015). Out of that, the total impact in Andhra Pradesh, Kerala, Tamil Nadu, and Pondicherry was $45 million, $101 million, $815 million, and $52 million respectively (ADPC 2015).

RESPONSE TO NATURAL DISASTERS

Response is defined as the activities that follow an emergency or disaster (Johnson 2000). "The following three types of response actions may take place during the pre-disaster period: warning and evacuation; pre-positioning of resources and supplies; and last-minute mitigation and preparedness measures." (Coppola 2015). Post-disaster activities are prioritized: "Once disaster response begins, the priority is saving lives. This activity may continue for days or weeks depending on the disaster's type and severity" (Coppola 2015), often leading into the recovery phase. These activities include searching and rescuing casualties, providing shelter, medical care, and food for the victims, attempting to alleviate the situation, reducing secondary damages, and working towards speedy recovery (Johnson 2000). Thus, active emergency assistance is critical to minimize the

impacts to human life, their health and safety, and the functioning and integrity of physical structures (Lindell et al. 2006). However, to send immediate response teams to minimize the impacts local and international communities depend on agencies such as U.S. Geological Survey (USGS). USGS's responsibility of natural hazard response entails providing timely access to accurate and relevant geospatial products, services, and imagery. The latter are necessary to record and analyze the severity of the event, distribute timely information about the event, and to facilitate immediate and proper response to a hazardous situation (U.S. Department of the Interior 2012).

CLASSIFICATION OF NATURAL DISASTERS

There are three levels of hazard events: disasters, catastrophes, and complex humanitarian crises. Response- generated needs are a major factor in defining an event's classification. Detecting a hazard is fundamentally a sociological risk perception that is deeply rooted in the immediate culture. An international disaster, as defined by the United Nations is "a serious disruption of the functioning of society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources" (United Nations International Strategy for Disaster Reduction 2007). As discussed in the preparedness level pre/post event section, tsunami-affected areas in India were not able to manage the consequences of the tsunami on state or provincial level response units. Rather, the affected areas had to rely on national governments to manage the consequences. Since the national government was able to manage the consequences of the tsunami without depending on international response entities, the 2004 tsunami can be categorized as a national disaster. Catastrophes in general have much larger impact zones than disasters because of cascading events. Convergence of resources during catastrophes is less concentrated than in disasters because the impact is broader. Response in disasters, however, is much faster than in catastrophes. A Complex Humanitarian Crisis (CHC) differs further from either a disaster or a catastrophe. In a CHC, the impacts emerge slowly and erratically. Long-lived impacts are persistent and, therefore, the needs are prolonged. These needs do not end until societal intervention to relieve the needs and impacts occurs. Impacts of CHCs are incremental as they spread and linger. Response tends to meet fewer human needs and thus a delayed implementation related to cultural issues from related to international cooperation. A generic style of emergency management is best for both disasters and catastrophes but not for CHC's, however, an all-hazards approach should streamline response. This is why we chose to categorize the Indian tsunami of 2004 event as a disaster.

PREPAREDNESS LEVEL PRE AND POST EVENT

The 2004 tsunami caused massive destruction across the Asia Pacific area. As a result, many affected countries depended heavily on local and international aid in an unprecedented manner (ISDR 2006). In the immediate aftermath of the calamity, local governments worked with local sectors (general public, militaries, private sector, civil society organizations), the World Bank, the United Nations, the Asian Development Bank, the International Federation of the Red Cross and Red Crescent Societies, non-governmental organizations (NGOs), foreign militaries, foreign countries, and other stakeholders (Williams 2005; Margesson 2005). The aforementioned groups collaboratively assisted by donating money, resources, time, energy, and expertise (Williams 2005; ISDR 2006). However, India refused to accept aid from foreign countries (Bhaskar 2005; East Asian Strategic Review 2006) because if felt it was in a position to handle the disaster on its own compared to other countries in the region that were affected on a larger scale. Furthermore, India also had immediate and generous support on the national level (Bhaskar 2005).

In India, the Central Relief Commissioner (CRC) in the Ministry of Home Affairs is responsible for coordinating relief operations for natural disasters ("Disaster Management in India" 2004); Murty et al. 2006). Each ministry, department, and organization in India nominates a nodal officer (senior officer) to the crisis management group headed by Central Relief Commissioner. Each nodal officer prepares emergency support and relief plans to manage disaster situations pertaining to their own sectors. The group meets regularly to reevaluate the preparedness and relief plans to improve efficiency in hazardous instances ("Disaster Management in India" 2004).

The Indian Ministry of Home Affairs hosts an emergency operations center to assist the Central Relief Commissioner. The emergency operations center collects and disseminates information pertaining to natural disasters and relief and it closely works with local governments of the affected states. The center also interacts with other state ministries, departments, and organizations involved in relief and keep an updated record of disaster-related concerns at all levels ("Disaster Management in India" 2004). As a result, during the 2004 tsunami, the Ministry of Home Affairs was prepared to coordinate responsibilities, mobilization of resources, and logistics (Murty et al. 2006).

The nodal institutions monitor and carry out surveillance for natural disasters. The National Disaster Management Authority has identified the importance of upgrading the early warning systems for tsunami as well as other disasters. The authority also highlights that the nodal institutions responsibility in identifying the existing technological gaps and developing methods to upgrading the systems in a timely manner (National Disaster Management Authority 2009).

RESPONSE

National militaries play a critical role during disasters, including the 2004 tsunami. Militaries possess the resources and logistical expertise necessary to maintain communication, they provide security, and they distribute relief supplies to the victims of natural disasters (Williams 2005). The Indian army, air force, and navy (Indian Tri-Services) played a significant role immediately after the 2004 tsunami disaster (Murty et al. 2006). The duties of the Tri-Services included rescue and evacuation of victims, creation of temporary shelters, disposal of the dead, transportation, water, food, medical supplies, and ensuring the safety of the tribal people in the Andaman and Nicobar Islands (Murty et al. 2006; Bhaskar 2005). Approximately 5,500 army personnel were involved in the relief efforts. The air force also transported over 10,000 tons of relief supplies by air to the affected areas. The Indian military services also assisted neighboring countries such as Sri Lanka, the Maldives, and Indonesia by transporting relief supplies to them (Bhaskar, 2005; East Asian Strategic Review 2006). Sixteen naval vessels, 21 helicopters, and 1,800 troops were used in these efforts (East Asian Strategic Review 2006). Additionally, India also joined the international military assistance core groups led by the United States (East Asian Strategic Review 2006).

The government of India released $156 million from the National Calamity Contingency Fund providing Tamil Nadu with $56 million in aid, Andhra Pradesh and Kerala with $22.2 million, the Andaman and Nicobar Islands with $44.4 million, and Pondicherry with $7.8 million. The chief minister of Tamil Nadu announced a compensation of 100,000 rupees, approximately $2,200, to the family of every deceased person. The government also established two regional logistic coordination centers and eight relief supply hubs in different areas of the country. Out of the 881 relief camps, most of the campsites were government and public buildings and tents. The campsites housed about 604,000 displaced people. In some cases, the local residents refused to have medical facilities housed in buildings because they feared that the buildings might collapse. However, these problems had existed prior to the earthquake. At the time of the 2004 tsunami, the government had neither a policy for how temporary shelters would be assigned to the affected persons nor the designs, material, or infrastructure for constructing those (Murty et al. 2006).

The government also deployed medical teams immediately after the event. These teams treated approximately 27,000 people and included physicians, psychiatrists, general medical officers, health specialists, nurses, paramedics, and medical personnel from the Indian army and navy. The affected areas received medical supplies worth $444,000. (Murty et al. 2006).

In any disaster situation, individual communities are the first responders who manage the aftermath of a disaster and develop relief processes before

outside assistance arrives ("Disaster Management in India" 2004). Similarly, in India local community members supported search and rescue efforts as well as relief efforts. Television broadcasts disseminated information about affected areas. Such awareness brought large numbers of volunteers and organizations into the affected areas. Most of the NGOs and other groups were formed after the disaster, but some of the NGOs that were involved were formed after the 2001 Bhuj earthquake. Civil organizations provided food and shelter in a well-organized manner, especially in the Pondicherry and Tamil Nadu areas. In Kerala, where the government response was slow, the community members took the initiative in providing relief to the needy (Murty et al. 2006). Inmates of a correctional facility in Tihar Jail, New Delhi, donated $1,675 to the national relief fund. Additionally, the staff of the jail also donated one day's wages to the fund (Goodman, Ramgopal, and Holloway 2015).

Although India seemed to have developed a good response system for disaster management that impressed the international community, it responses to the 2004 tsunami still were somewhat chaotic. In the Andaman and Nicobar Islands, the central government completely handled response efforts (Margesson 2005; Murty et al. 2006) and evacuated people to a relief campsite in Port Blair. The slow evacuation process placed victims in considerable difficulty. As a result, the government attracted harsh criticism for interfering with other relief efforts (Margesson 2005). The national authorities were also accused of interfering with the work of trained relief workers in other parts of the country, and the relief workers themselves have been accused of stealing relief supplies (Williams 2005). Although there were reported instances of looting in Sri Lanka and Indonesia, there were no formal reports in India.

India only accepted help from international organizations (East Asian Strategic Review 2006). International organizations provided relief supplies as well as helped local communities rebuild roads and public places. These organizations also assisted locals to restart farming and small businesses (MercyCorps 2014).

CULTURAL ASPECT
Unlike in the affected mainland coastal states of India, indigenous people in the Nicobar and Andaman Islands were aware of pre-signs of the 2004 tsunami. The islanders had the traditional knowledge to interpret birdcalls and the behavior of marine animals. At the first indication of these signs, the natives fled to higher grounds seeking safety (Rego undated; Grassroots organizations 2005).

Gender also played a role in the disaster. In India, deaths of women outnumbered men. Data indicate that only 1,883 men died while 2,406 women did.

In the Cuddalore district of Tamil Nadu, out of the total 537 deaths, 391 were women and only 146 were men. In Pachaankuppam, a village of Tamil Nadu, the only people to die were women. This imbalance between the number of deaths among the two genders had several causes. Usually, women are not socialized to swim or climb trees, both methods for possibly surviving a tsunami. Also, as traditional housewives, women stay at home to look after their children while men go out to work. Moreover, at the time of the tsunami, women were waiting on the shore for fishermen to bring in the catch. Some women died while trying to save their children and elderly relatives (Rego undated; Grassroots Organizations 2005).

The death of men also affected women in a variety of ways. Women experienced threats to their personal safety in resettlement camps. Tamil Nadu and Kerala stationed women fire and police officers as well as women doctors in relief camps to provide security for female victims (Grassroots Organizations 2005). Women also were burdened with more household responsibilities, and young orphaned women were sometimes forced to marry widowers and extended family members. Orphaned school-attending girls had to stay home to take care of their siblings, and in addition to domestic work, elderly women in Nagercoil of Tamil Nadu had to start collecting firewood to earn a living as most of their caregivers died in the tsunami (Rego undated; Grassroots Organizations, 2005).

SOCIAL RESPONSIBILITIES

Post-disaster response actions included providing immediate medical treatment to the victims, but according to Ashra (2005), regardless of physical injuries, a majority of victims would suffer from some form of trauma or anxiety after the disaster. After a tsunami, 50% of survivors suffer from mental health issues and 5% to 10% may suffer from serious mental health issues. Therefore, providing suitable psychological assistance is necessary to stabilize the victims. According to Rajkumar, Premkumar, and Tharyan (2008), Indian tsunami survivors preferred social and cultural coping strategies such as displaying grief and sorrow publicly, and seeking comfort in religious beliefs and practices rather than formal mental health services. This study suggests that responses to tsunami trauma should be based on socio-cultural beliefs and practices of the communities and focus more on existing community coping mechanisms. In addition, the involved mental health professionals should possess a cultural understanding about the affected community (Rajkumar, Premkumar, and Tharyan 2008). Furthermore, the study suggests that professional treatment might not be necessary until the grieving period is over. Identifying and treating victims with acute mental stress issues should be a focus after the grieving period.

TOURISM AND BUSINESS CONTINUITY

In our contemporary world, tourism and travel have become more available to a greater number of people because of the globalization of goods, technologies, and ideas. The overall global standard of living is ever increasing, and to maintain this standard of living, a stable level of safety and security must exist to maintain a growth environment. Business entities will be anxious about investing in areas or resources that have a tendency to suffer from volatility, instability, and/or unrest. At any point in the business model or supply chain, these issues can spell disaster in the profit-driven business world. Even at the local business level, interruptions caused by events like these can be long lasting and devastating to livelihoods thus affecting the local economy and socioeconomic structure of the area.

> Thousands of western tourists were also victims of the tsunami, transforming the event into a truly global disaster. Noting that the tsunami served to highlight the dependency of many of the affected regions on tourism and, hence, the vital importance of attracting tourists back to those regions, it suggests that, although attention will undoubtedly be focused on the management of the crisis, tourism played a positive role in that it united the world in its response to the needs of the communities devastated by the tsunami (Sharpley 2005).

To a hotel business, prestige is everything. The immediate impact of the tsunami to a local hotel owner is apparent with the obvious physical damage; however, it is usually the un-seen aftermath that is much worse that the initial destruction. For example, even after the physical damages have been repaired, people will remember the tsunami when planning their next vacation and rethink staying in an affected area out of fear of reoccurrence. "Any crisis that almost or actually involves substantial loss of life creates a panic or demonstrates an industry weakness or trend will take longer to recover" (Fink 1986). This has considerable implications for tourism, which depends so heavily on the creation of a sense of safety and security as well as confidence in the tourism industry players. However, in the aftermath of a crisis or disaster, destinations also can turn the media exposure to good effect and capitalize on the free publicity. The media and the Internet can be used by tourism authorities to provide balanced and up-to-date information about the situation." (Sausmarez 2005). More commonly, often locally owned businesses will rebuild only to fail later due to lack of business traffic. This in turn will cause them to close up and attempt to recover costs by selling out. Unfortunately, those who are interested in buying businesses in these kinds of situations typically will pay only a fraction of what the owner has invested because

of the perceived higher risk area. Many times these businesses will end up abandoned leaving the owner financially destitute and the surrounding area properties devalued. These compounding factors at the local level describe the possible origins of disaster-based slums and impoverished areas that have come from once flourishing districts.

> While damage to infrastructure or tourist facilities and loss of life may have an impact on tourism, it is the intangible aspects of a disaster or crisis that are the most serious. Negative media coverage, a tarnished destination image and loss of visitor confidence will result in a fall in tourist arrivals and the consequent loss of business, revenue and market share (Sonmez et al. 1994).

Businesses may pull their investments and relocate to safer regions or sectors to ensure a quicker return on investment. One positive is that this may remove some larger competition for the local businesses; however, this relocation also includes removal of the business infrastructure that helps support local businesses through a larger provider pool to the market. This localized downsizing creates large groups of unemployed people in short amount of time, thus flooding the job seeking market. Those who can find work typically do so in an underemployed and underpaid state. These shifts in resource allocation and business placement greatly affect the global economy. Businesses must find new market venues and maintain their operating levels of profit margin while acclimating and optimizing to their new business environment, which may include a new geographic area, a new political climate, or new codes placed on their own businesses and or on businesses that feed their own.

Trade routes between centers of commerce often become relief supply lines for affected areas, putting on hold normal operations to make room for more essential needs and efforts. This "pause" in international and regional trade also has magnified effects on the economy and local markets of both the directly affected areas and the region in which the trade is conducted.

COLLABORATION ATTEMPTS

India is a member of the Regional Consultative Committee (RCC), a committee that was established in 2000 to promote consultation and cooperation on reducing disaster risk. RCC brings 26 countries in the Asian region together to attain common goals related to disaster risk reduction, to identify ways to put policies into practice, and to promote regional collaboration. The 12th committee meeting held in 2015 was about implementing actions outlined in the *Sendai Framework for Disaster Risk Reduction* (SFDRR). The members were in agreement that RCC is capable of providing technical support to implement actions highlighted in SFDRR. The committee would also facilitate information sharing among the member countries. RCC emphasizes "improving business resilience against disasters and protecting livelihoods and productive assets by safeguarding supply chains" (Asian Disaster Preparedness Center 2015). In the period in-between, the member countries would work towards improving their disaster management strategies at the local and community level, and they would focus on integrating the needs of vulnerable groups (Asian Disaster Preparedness Center 2015).

All Indian states are responsible to assist the Meteorological Department of India to provide the necessary infrastructure to establish and upgrade meteorological monitoring systems. In this effort, collaborating with the World Meteorological Organization (WMO), the Pacific Tsunami Warning System, and other regional and global institutions is suggested for favorable outcomes (National Disaster Management Authority 2009).

Non-Governmental Organizations (NGOs) also play a significant role in disaster response and mitigation. In India NGOs focus mainly on specific issues such as "livelihood, community organization, community asset creation, women group formation" in order to expedite social and economic resilience (Behera 2002, p.3). NGO focused initiatives help the Indian government with large-scale infrastructure reconstruction projects. As a nationalist government India plays a critical role in the response and recovery process. Such interventions exert pressure on the government and increase tension between the government and the public. In such instances, NGOs covers the existing resource and capacity gap in the recovery process. However, there is still room for NGOs to reform their policies to take a community-oriented approach. NGOs should also address the need of vulnerable groups who often struggle to cope and recover from disaster impacts (Behera, 2002).

RECOMMENDATIONS

Bahadur, Lovell, & Pichon (2016) conducted a study to understand the effectiveness of India's preparedness for disasters. According to the report by Bahadur, Lovell, and Pichon (2016), India's disaster risk reduction plan should be changed to align closely with *Sendai Framework for Disaster Risk Reduction.* Moreover, they also propose that the responsibilities of nodal institutions that are in charge of managing disaster reduction should be clarified. They should focus on all phases of disaster management as opposed to their present emphasis on response and relief efforts, develop innovative strategies to fund risk management efforts, and when conducting risk assessments they should consider different socio-economic groups such as the poor and women. They also should conduct assessments and gather data to track the progress of disaster risk reduction and identify additional risks that can result from climate changes.

National Disaster Management Authority (2010) identifies the importance of establishing State Disaster Response Forces (SDRF) for every Indian state. Such groups will enable individual states to improve their state-level coping capacities and capabilities to respond to emergency situations without completely relying on assistance from the Central Government. The SDRF can be set up involving the existing police forces in each state. These state level forces can be trained by the experts in the National Disaster Response Forces (NDRF) (National Disaster Management Authority 20 I0).

Allocating sufficient funding for mitigations and preparedness efforts is another recommendation. Even by 2016, there was still a lack of funding for putting the disaster-risk reduction plans into operation in India. Although there are funds available for response efforts, those funds are not to be used for disaster mitigation efforts. Additionally, the state disaster management entities and authorities do not have adequate funding to conduct demonstration projects, risk-awareness programs, and training programs (Bahadur, Lovell, & Pichon 2016). Therefore, different states of India should be given enough decision-making powers to invest available funding based on their local requirements, while also working to maintain and improve infrastructure necessary for effective response and recovery. Infrastructure that needs monitoring includes bridges, docks, emergency housing, and airport runways. The government should provide adequate funding to conduct projects and programs to educate people on disaster risk management.

In order to increase the effectiveness of tsunami education in India, focus should be given to capacity building and professional training. Capacity building at all levels is recommended, especially in areas of research and development (National Disaster Management Authority 2010).

Faculty members who are involved in earthquake and tsunami-related research and education, architecture, and engineering from different universities and institutes should be brought together to develop comprehensive modules to develop mitigation methods (National Disaster Management Authority 2010). These modules can be used to train a target group who can train other personnel at state levels. It is also important to train masons, plumbers, carpenters, and electricians based on local requirements. Technical training institutes should revise their curriculums to incorporate global practices of mitigation and include better hands-on experiences (National Disaster Management Authority 2010). Educating these workforces with different types of materials and certification models would enable them to increase the quality of their work and successfully contribute to any construction project undertaken by the government.

CONCLUSION

India is currently more prepared than in 2004 for tsunami events. New agencies were formed, both foreign and domestic that did not exist prior to the event. At present there is better involvement from NGOs and local communities. India is maintaining international disaster management strategies and resources. Early warning system are being implemented. New structure and zoning codes are being enforced. However, there are areas that need improvement. Resource management on a needs-based priority must be addressed. Infrastructure and pre-existing maintenance should be an ongoing method of reconstruction. Emergency management resources and awareness fundraising needs more local and international support. India's emergency management administration could be improved with representation of special needs groups and vulnerable populations.

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Article

Bullying Victimization as a Predictor of Suicidality among South Dakota Adolescents: A Secondary Data Analysis Using the 2015 Youth Risk Behavior Survey

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ABSTRACT Bullying is a form of peer victimization with a well-established link to suicidality among adolescents in the United States (Holt et al. 2015). Few studies focus explicitly on examining bullying at the state-level, including South Dakota. We argue that state-level data are valuable for policymakers wishing to better understand adolescent bullying and suicidality at a local level. Using a secondary data analysis of 2015 Youth Risk Behavior Survey data from South Dakota and U.S. samples, this study provided a description of bullying victimization and suicidality in South Dakota and tested bullying victimization as a predictor of suicidality among adolescents in the state. Three key findings are worth noting: 1) South Dakota displayed significantly slightly higher bullying victimization relative to the nation, 2) bullying victimization was significantly associated with higher suicidality among South Dakota adolescents, and 3) suicidality was highest among adolescents experiencing both forms of bullying (bullied at school and cyberbullying) tested in this study. While we speculate regarding explanations of this finding (e.g., more frequent bullying, traditional/cyberbullying interactions), further research is needed to better understand how these two forms of bullying produce increased adolescent suicidality.

INTRODUCTION

Bullying is a widespread form of peer victimization among adolescents (youth between 12 to 19 years of age) in the United States. According to the United States Centers for Disease Control and Prevention's (CDC) Youth Risk Behavior Survey (YRBS), about 24% of high school students in the U.S. experienced some form of bullying victimization in 2015 (CDC 2015). Bullying victimization is linked to a variety of negative outcomes including: lower school engagement and academic achievement, depression, substance use, depression, and suicidality (Espelage and Holt 2013; Holt et al. 2015; Lad, Ettekal, and Kochenderfer-Ladd 2017; Luk, Wang, and Simons-Morton 2010). Mental health professionals advocate the use of a public health approach to address bullying – a model that first requires those responding to understand the scope and consequences of the problem (Hertz, Donato, and Wright 2013; WHO Violence Prevention Alliance 2017). However, much of the data and research on bullying victimization available is at the national level and thus may not accurately reflect local conditions – especially in states which are less demographically representative of the U.S. population. By some estimates, bullying victimization may impact anywhere from 20% to 56% of young people (Hertz, Donato, and Wright 2013). More localized data and research provide those responding to bullying with a better understanding of the scope and consequences of bullying victimization in their locale, which is useful for informing an effective response.

This study used a secondary data analysis of data from the CDC's 2015 Youth Risk Behavior Survey to better understand bullying victimization and its association with suicidality (defined as either suicidal ideation or attempts) within the state of South Dakota. Toward this effort, we aimed to accomplish two goals: 1) describe the scope of bullying victimization and suicidality in South Dakota relative to the U.S. and 2) test bullying victimization as a predictor of suicidality among adolescents in South Dakota.

REVIEW OF LITERTURE

BULLYING DEFINED

Bullying is a form of peer victimization where children are targets of physical and verbal harm by other children. Bullying also involves an imbalance of power where those who have real or perceived higher power victimize those with less power (US HHS 2017). This imbalance has the ability to change based on a number of social dynamics, including the involvement of bystanders and potential development of bully-victims (those who bully and are victimized by bullying) (CDC 2014). Bullying victimization, the experience of being bullied, is often a repeated experience or "has the potential to be

repeated, over time" (CDC 2014:2). While the term "bullying" is often used as a single kind of phenomenon, there are several types of bullying which may occur via different venues, including traditional ("in person") bullying and cyberbullying.

The United States Department of Health and Human Services (US HHS 2017) identifies three types of bullying: verbal, social and physical bullying. Verbal bullying is when someone says something negative toward another person. This would include any form of teasing, intimidation, racist remarks, name-calling, or even threats of harm. Social bullying, also known as relational bullying, is designed to ruin or hurt someone's social reputation or relationships. Often people that are socially bullied are purposely socially excluded, may have rumors spread about them, and consequently have few friends because the person bullying persuades others to avoid the victim. Lastly, physical bullying involves physically attacking someone to cause short- or long-term damage. This typically would entail hitting, tripping, pushing, or even damaging personal property (US HHS 2017). Verbal and social bullying may or may not be "traditional bullying" (sometimes called "school bullying") or that which manifests in a school or other in-person environment (Schneider, O'Donnell, and Coulter 2012). Unlike physical bullying, verbal or social bullying can occur electronically.

While traditional bullying typically occurs on school grounds, playgrounds, or the bus, cyberbullying, alternately "electronic bullying," is yet a different form of peer victimization. Cyberbullying is a form of behavior that aims to intimidate or threaten an individual or a specific group via electronic communication (US HHS 2017). This would typically include the use of electronic technology such as cell phones, e-mail, social media sites (e.g. Facebook, Twitter, Instagram) and text messages (Hinduja and Patchin 2010). Like traditional bullying, cyberbullying may include verbal bullying as well as social bullying. One significant difference between traditional bullying and cyberbullying is that unlike traditional bullying which may occur in one central location (e.g., school), cyberbullying is decentralized and perhaps thus more difficult to escape (Görzig and Frumkin 2013). This gives rise to a somewhat panoptic experience where bullying victimization may occur at any time and even "on-the-go" via smartphones or other mobile devices (Görzig and Frumkin 2013). With the advent of new forms of electronic communications (e.g., Facebook, Snapchat, Facetime, virtual reality), researchers are only beginning to understand how these forms may be used by adolescents to victimize one another. Regardless of type or medium of bullying victimization, it is clear that the resulting harms may be extreme enough that they may contribute to an adolescent considering ending his/her own life.

BULLYING & SUICIDALITY

Suicide is the second leading cause of death for teenagers in the United States (VanOrman and Jarosz 2016). The suicide rate among teens (ages 15-19) is around 8.7 per 100,000 and varies depending upon a variety of related variables (e.g., gender,

poverty, sexual orientation) (CDC 2017; Silenzo et al. 2007; VanOrman and Jarosz 2016). Though suicide has a number of complex and interrelated predictive factors, the association between bullying victimization and suicidality is well-established.

In this study, suicidality includes both suicidal ideation (thoughts of suicide) and suicide attempts (Holt et al. 2015). Probably one of the most comprehensive contemporary studies on bullying and suicidality was conducted by Holt et al. (2015). Holt et al. (2015) used a multilevel meta-analysis of 47 studies published from 1990-2013 to test the relationship between bullying victimization and suicidality. Holt et al. (2015) examined three types of predictors commonly employed in bullying and suicidality studies of adolescents, including: bullying perpetration, victimization, and bully-victim – incidents where a person is both a perpetrator and victim of bullying. Ultimately, Holt et al. (2015) found that all three were significant predictors of suicidality across the studies analyzed with bully-victims being most strongly associated with suicidal ideation and bullying victimization predicting significant positive moderate effects on suicidal ideation (Holt et al. 2015). In addition to Holt et al. (2015), other researchers focused more specifically on examining the medium of bullying (traditional vs. cyberbullying) as a predictor of suicidality. Hinduja and Patchin (2010) found that both traditional bullying and cyberbullying are significantly associated with suicidality, while other studies suggest that adolescents experiencing victimization across both mediums may suffer the highest levels of psychological distress, including suicidality (Schneider, O'Donnell, and Coulter 2012). Though the correlation between bullying victimization and suicidality is well-established, theorizing the causal link between the two is more elusive in the literature (Steger, Chen, and Cigularov 2013).

Most studies of the bullying-victimization and suicidality association focus on theories that explain suicidality as a resulting from the deleterious psychological consequences of bullying victimization (Barchia and Bussey 2010; Hay and Meldrum 2010). Social psychological theories focus more strongly on the social alienation/low belongingness experienced by victims of bullying, notably the concept of social support, or the support (including emotional, instrumental, informational, and appraisal) people feel they receive from others (Rothon, Head, Klineberg, and Stansfeld 2011). Social support is primarily conceptualized by past research as support from family, schools, and peers (Holt and Espelage 2007; Zhang et al. 2016). Social support is identified as a key moderator between victimization and psychological distress, including suicidality (Barchia and Bussey 2010; Holt and Espelage 2007; Zhang et al. 2016). Scholars familiar with early research on suicide by Emile Durkheim may notice some validation of his ideas in these findings. Specifically, it seems Durkheim's ideas about heightened risk of suicide for those who experience less social integration (see "egoistic suicide") is reflected in the moderating role played by social support in the bullying victimization/suicidality association (Durkheim 1897/1953).

Given the operationalization of bullying victimization and suicidal ideation in this study, it is difficult to suggest or make claims about causality and thus impossible to really test any specific theory of the association. However, the clear link established by past studies between bullying victimization and suicidal ideation suggests the likelihood of similar findings among adolescents in South Dakota. Hopefully, this study will serve to describe the prevalence of bullying victimization and suicidal ideation within South Dakota as well as the possible association between the two. This information is valuable for understanding the scope and consequences of bullying victimization at a local level.

METHODS

Since 1991 the United States Centers for Disease Control (CDC) has monitored health risk behaviors of U.S. adolescents (youths 12 to 18 years of age) through their Youth Risk Behavior Surveillance System (CDC 2015). A central feature of the CDC's risk surveillance is a biannual Youth Risk Behavior Survey (YRBS) of "9th through 12th grade students in public and private schools in the United States" (CDC 2015). National YRBS data are available for download via the CDC website, while state level samples may be requested using the "data request form" provided on the same website (CDC 2015). Nearly every state in the United States and some U.S. territories participated in the 2015 YRBS high school survey, with the exception of Washington, Oregon, and Minnesota (CDC MAP 2017). However, not all state questionnaires mirror that of the national instrument. South Dakota, for example, is one of the 25 states that do not collect data on adolescent sexual orientation (Gifford 2017). Among the health-risk behaviors assessed by the YRBS at the state and national level are those that "contribute to unintentional injuries and violence" (CDC 2015), including bullying victimization and suicidality – the two key variables examined in this study. Despite some variation between the South Dakota and national questionnaires, the questions measuring bullying victimization and suicidality were the same. Before specifying these variables and the limitations of the YRBS, some basic demographics of the two samples used in this study are provided.

SAMPLE

Demographically, the South Dakota and national samples display similarities in distributions of age and sex of respondents but noticeable differences in their racial and ethnic makeup. Table 1 displays some general demographic characteristics of the South Dakota and national samples. Distributions of sex were fairly even across both samples, though the percentage of females (51.1%) was slightly higher than males (48.9%) in South Dakota. Regarding distributions of age, South Dakota and U.S. samples were also

very similar. Most respondents in each sample, around 75%, were between 15 and 17 years of age. The U.S. sample was slightly older ($\bar{x}$ = 16.04 years old) than the South Dakota sample ($\bar{x}$ = 15.84 years old), but this was a negligible difference relative to the more pronounced differences in race. The South Dakota sample included 37.7% more respondents who identified as White and 1.8% more respondents who identified as American Indian/Alaska Native, while the U.S. sample included just over 9% more Black or African American respondents and over 13% more Hispanic/Latino respondents. General relationships between race and ethnicity, bullying, and suicidality among U.S. adolescents are not well established, though there is some research suggesting slightly lower bullying victimization among Black adolescents (Spriggs et al. 2007; Wang, Ionotti, and Nansel 2009). Across racial/ethnic groups, bullying behavior (victimization and perpetration) is more strongly related to peer and family dynamics than race or ethnicity (Spriggs et al. 2007).

Table 1. 2015 YRBS Sample Demographics from South Dakota and U.S. Samples

	South Dakota	United States
Sex		
Female	670 (51.1%)	7,757 (50.0%)
Male	641 (48.9%)	7,749 (50.0%)
Age		
12 years old or younger	11 (0.8%)	43 (0.3%)
13 years old	1 (0.1%)	17 (0.1%)
14 years old	225 (17.1%)	1,684 (10.8%)
15 years old	299 (22.8%)	3,817 (24.5%)
16 years old	318 (24.2%)	4,033 (25.9%)
17 years old	331 (25.2%)	3,833 (24.6%)
18 years old or older	127 (9.7%)	2,131 (13.7%)
Race / Ethnicity		
American Indian/Alaska Native	37 (2.9%)	163 (1.1%)
Asian	29 (2.3%)	627 (4.1%)
Black or African American	23 (1.8%)	1,667 (10.9%)
Hispanic/Latino	25 (2.0%)	2,365 (15.5%)
Native Hawaiian/other Polynesian	3 (0.2%)	100 (0.7%)
White	1,051 (82.6%)	6,849 (44.9%)
Multiple - Hispanic	53 (4.2%)	2,756 (18.1%)
Multiple – Non-Hispanic	52 (4.1%)	739 (4.8%)
Total Sample Size (N)	1,312	15,624

MEASURES

The primary goals of this study were to provide insights into bullying victimization among adolescents in South Dakota, including describing the prevalence of bullying victimization and testing its relationship to suicidality. Across both the South Dakota and U.S. questionnaires, the 2015 YRBS included two measures of bullying victimization as well as four measures of suicidality. Table 2 details YRBS questions used to measure the independent variable of bullying victimization and the dependent variable of suicidality.

Table 2. 2015 YRBS Variables Measuring Bullying Victimization and Suicidality

Variables	Response Options
Bullying Victimization	
Q 24. During the past 12 months, have you ever been bullied on school property?	1. Yes 2. No
Q 25. During the past 12 months, have you ever been electronically bullied?	1. Yes 2. No
Suicidality	
Q 27. During the past 12 months, did you ever seriously consider attempting suicide?	1. Yes 2. No
Q 28. During the past 12 months, did you make a plan about how you would attempt suicide?	1. Yes 2. No
Q 29. During the past 12 months, how many times did you actually attempt suicide?	0 times 1 time 2 or 3 times 4 or 5 times 6 or more times
Q 30. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?	1. Yes 2. No

Bullying victimization was assessed with two questions assessing both traditional bullying (question 24) and cyberbullying (question 25) victimization, both with "yes" or "no" response options. One limitation of these questions is that they do not measure frequency, intensity, or duration of bullying activity, valuable information for testing

different dimensions of the bullying victimization-suicidality relationship. Frequency of bullying victimization is associated with higher risk of suicidality (CDC 2014). Despite these limitations, we were able to produce new insights from the two bullying victimization measures by combining the two questions to identify respondents who were not bullied, only bullied at school, only cyberbullied, and bullied both at school and cyberbullied. Combining these variables resulted in the ability to test for any variations in suicidality by type of bullying victimization.

Table 2 also presents the more robust four-question assessment of suicidality. These measures of suicidality are reflective of other commonly utilized suicidality scales, including the Columbia-Suicide Severity Rating Scale (C-SSRS) – a scale with well-established validity and reliability for assessing severity of suicidality (Posner et al. 2011). Like the C-SSRS, the YRBS measures are also arranged in a gradation of severity (e.g., "seriously considered suicide") to higher severity (e.g., suicide attempts, suicide attempt injury). This scaling permitted testing the relationship between bullying victimization and a gradient of less severe (i.e. suicidal thoughts) to more severe suicidality (i.e. suicide attempts) among adolescents.

LIMITATIONS

Methodological limitations of this study stem from the sampling used by the Centers for Disease Control as well as the measures employed. First, approximately 3% of the U.S. school-aged population is homeschooled (NCES 2017). The YRBS samples from public and private schools, so homeschooled adolescents are not included in this study. Second, the questions utilized by this study to observe bullying victimization and suicidality are certainly not complete measures of either variable. Bullying victimization, for example, does not measure frequency, duration, severity, or other important dimensions. Additionally, establishing causality between bullying victimization and suicidality is difficult since these two variables are measured indirectly via two separate sets of indicators. In other words, questions asking respondents whether their suicidality was influenced by bullying victimization would be more useful in establishing time-order and, therefore, causality. Finally, questions are also self-report and thus the extent of underreporting or over-reporting of these behaviors is difficult to determine.

FINDINGS

Using 2015 Youth Risk Behavior Study data from both the South Dakota and national samples, two sets of analyses aimed to accomplish the goals of the study. These analyses included: 1) describe bullying victimization and suicidality in South Dakota, including comparisons with the national data and 2) statistical analysis testing

bullying victimization as a significant predictor of suicidality among adolescents in South Dakota.

SOUTH DAKOTA IN A NATIONAL CONTEXT

The first goal of the study is to describe bullying victimization and suicidality in South Dakota within the context of the nation. When compared with the nation, the South Dakota population is whiter, more rural, more Christian, slightly less educated, and has a slightly lower median income ([US Census 2017](); [US Census 2010](); [Pew 2017]()). Although these demographic differences do not specifically predict any state/national differences in bullying victimization and suicidality, they do demonstrate that the state is certainly not as demographically representative of the nation as other Great Plains states like Texas or Colorado. Thus, data from the state and national surveys were used to describe prevalence of bullying victimization and suicidality at each level. Additionally, one-sample z-tests for proportions were employed to conduct comparisons of state and national differences. These descriptive data and the comparison between state and national data are useful for better understanding the prevalence of adolescent bullying victimization and suicidality in South Dakota relative to the nation.

Table 3 displays the frequencies of bullying victimization among adolescents from the 2015 South Dakota and national YRBS. Respondents were categorized according to the form of bullying victimization experience, including: 1) bullied at school, 2) cyberbullied, and 3) bullied at school and cyberbullied. When compared with

Table 3. Frequencies of Bullying Victimization among Adolescents from the 2015 South Dakota and 2015 National Youth Risk Behavior Survey

	South Dakota	Nation
Bullied at school	145 (11.2%)	1,506 (9.8%)
Cyberbullied	84 (6.5%)	808 (5.2%)
Bullied at school & cyberbullied	143 (11.1%)	1,439 (9.3%)
Subtotal Bullied (in any form)[*]	372 (28.8%)	3,753 (24.4%)
Subtotal Not Bullied	919 (71.2%)	11,649 (75.6%)
Total (n)	1,291 (100.0%)	15,402 (100.0%)

[*]Significant difference between state and national proportion, $p < .05$

the national data, South Dakota displays a higher percentage of victimized youths across all three forms of victimization. Though none of these state-level proportions were significantly higher when isolated by victimization form, a one sample z-test of proportions revealed that the combined victimization percentage of South Dakota of 28.8% was significantly higher than the national population proportion of 24.4% (+4.4%, $p<.05$). The 4.4% higher percentage of bully victims in South Dakota does not reflect higher suicidality.

While bullying victimization was slightly higher among South Dakota adolescents relative to the U.S., the reverse was true for suicidality. Table 4 outlines descriptive data from the state and national YRBS for four measures of suicidality: 1) considered suicide, 2) made a suicide plan, 3) attempted suicide, and 4) injurious suicide attempt. Each question was "yes/no" apart from the "attempted suicide" measure, which was recoded from an ordinal variable measuring the number of suicide attempts to a dichotomous variable measuring only whether respondents attempted suicide. Once again, a one-sample z-test of proportions was used to test for significant differences between the state and national proportions. Overall, the proportion of South Dakota adolescents reporting suicidality across all measures is slightly lower, however, the only significant difference of proportions was for respondents who made a suicide plan. Around 12.6% of adolescent respondents in South Dakota reported making plans for suicide, which was significantly lower than the national percentage of 15.4%. This result was somewhat surprising since the South Dakota suicide rate is highest among those 15-24 years of age, which is "more than double the national rate, 25.0 vs. 11.1, respectively" (Kightlinger et al. 2017:6).

Table 4. Frequencies of Suicidality among Adolescents from the 2015 South Dakota and 2015 National Youth Risk Behavior Survey

	South Dakota	Nation
Considered Suicide	217 (16.8%)	2,808 (18.2%)
Made Suicide Plan*	163 (12.6%)	2,331 (15.4%)
Attempted Suicide	99 (8.5%)	1,203 (9.5%)
Attempt Injury	38 (3.3%)	399 (3.2%)
*Significant difference between state and national proportion, $p < .05$		

BULLYING VICTIMIZATION AS A PREDICTOR OF SUICIDALITY

Apart from delivering descriptive data on bullying victimization and suicidality within South Dakota, the substantive hypothesis tested in this study was that bullying victimization is a significant predictor of suicidality among adolescents in the state. Four different chi-square tests of independence were employed to test for significant association between forms of bullying victimization (not bullied, bullied at school, cyberbullied, and bullied at school and cyberbullied) and each measure of suicidality (considered suicide, planned suicide, attempted suicide, and injured by attempted suicide). Table 5 summarizes the descriptive data from these chi-square tests and indicates whether associations were significant. Two findings are highlighted here: 1) bullying victimization appears to have a significant positive association with suicidality and 2) suicidality appears to vary by form of victimization.

As indicated by Table 5, bullying victimization was found to be a significant predictor of suicidality among adolescents in South Dakota. Specifically, chi-square tests of independence found that bullying victimization was a significant predictor of considering, planning, and attempting suicide at the $p<.01$ level. Bullying victimization was not a significant predictor of injury from a suicide attempt, which only included respondents who had attempted suicide. This could be because there is no association, a result of the stochastic nature of injury from attempts, or perhaps because over 20% of cells in this chi-square fell below an observed frequency of 5 – a violation of chi-square assumption that decreases its predictive power. Measures of association were also calculated for each significant relationship using Cramér's V. Chi-square tests between bullying victimization and considering suicide, planning suicide, and attempting suicide yielded Cramér's V values of .315, .314, and .313 respectively. These values indicate moderate associations between bullying victimization and these three expressions of suicidality. Examining variation in suicidality across forms of bullying victimizations reveals further insights.

Combining the two measures of bullying victimization from the 2015 YRBS provided the ability to examine variations in suicidality across different victimization experiences. Table 5 displays that suicidality varied dependent upon the forms of bullying victimization experienced by respondents. While most victims reported no suicidality, those respondents who reported that they were "not bullied" expressed the lowest prevalence of suicidality across all types of ideation. Conversely, respondents who experienced both forms of victimization (bullying at school and cyberbullying) had the highest levels of suicidality. When examining those who "considered suicide," for example, about 10.2% of adolescents who were "not bullied" reported considering suicide. The percentage of non-victims who considered suicide was thus less than half of the 22.6% of respondents who were bullied at school and the 28.6% of respondents victimized solely via cyberbullying. Experiencing both forms of victimization seems to present the highest risk for suicidality with 46.4% of respondents who were bullied at school and cyberbullied reporting that they had strongly considered suicide in the last 12 months. With the exception of those injured by suicide attempts, the prevalence of considering, planning, and attempting suicide was highest for respondents experiencing both forms of bullying victimization. Some variations in prevalence of suicidality exists between adolescents who were only bullied at school versus those who were experienced only cyberbullying, but the difference in suicidality was largest and most consistent between those who experienced one form of bullying (bullied at school or

Table 5. Crosstabulations of Bullying Victimization by Suicidality, 2015 South Dakota Youth Risk Behavior Survey Data

Suicidality		Not Bullied	Bullied at School	Cyberbullied	Bullied at School & Cyberbullied
		Bullying Victimization			
Considered Suicide[*]	Yes	94 (10.2%)	33 (22.6%)	24 (28.6%)	64 (46.4%)
	No	825 (89.8%)	113 (77.4%)	60 (71.4%)	74 (53.6%)
	Total	919 (100.0%)	146 (100.0%)	84 (100.0%)	138 (100.0%)
Planned Suicide[*]	Yes	62 (6.8%)	31 (21.2%)	15 (17.6%)	54 (38.6%)
	No	852 (93.2%)	115 (78.8%)	70 (82.4%)	86 (61.4%)
	Total	914 (100.0%)	146 (100.0%)	85 (100.0%)	140 (100.0%)
Attempted Suicide[*]	Yes	43 (5.3%)	9 (7.1%)	7 (8.6%)	36 (26.7%)
	No	775 (94.7%)	117 (92.9%)	74 (91.4%)	99 (73.3%)
	Total	818 (100.0%)	126 (100.0%)	81 (100.0%)	135 (100.0%)
Injured by Attempt[+]	Yes	13 (31.0%)	3 (33.3%)	4 (57.1%)	17 (47.2%)
	No	29 (69.0%)	6 (66.7%)	3 (42.9%)	19 (52.8%)
	Total	42 (100.0%)	9 (100.0%)	7 (100.0%)	36 (100.0%)

[*]Indicates association is significant at the p<.01 level
[+]Injured by attempt included only those who reported attempting suicide.

cyberbullying) versus both. Suicide attempts were over three times as likely among victims of both bullying forms (26.7%) versus those experiencing one form (7.1% for bullied at school and 8.6% for cyberbullied). Though we cannot pinpoint the exact cause of the difference given the limitations of the data, these findings indicate that while either type of bullying victimization appears to increase risk of suicidality , being bullied at school and cyberbullied appears to substantially increase this risk.

DISCUSSION

In addition to providing descriptive data, the findings produced by this study yielded two important observations about adolescents in South Dakota: 1) overall bullying victimization was slightly higher in South Dakota relative to the nation in 2015, and 2) bullying victimization is significantly associated with suicidality, but adolescents who experience traditional bullying and cyberbullying victimization appear to demonstrate the highest risk of suicidality.

Relative to the nation, South Dakota adolescents demonstrated significantly higher bullying victimization and little difference in suicidality. Though the overall proportion of bullying victims was significantly higher in South Dakota, this difference was only 4.4%. Since data were cross-sectional, it may be useful for future research to repeat these tests for preceding and subsequent years to understand whether this is a consistent pattern or perhaps a spurious single year fluctuation. If a significant trend is established, researchers may then wish to investigate variables that contribute to this difference.

Similar to past findings, data analysis from the 2015 South Dakota YRBS demonstrates bullying victimization as a significant predictor of suicidal ideation among adolescents in the state. Since this finding is congruent with the panoply of earlier bullying and suicidality research, we were not surprised by this observation.   Given findings of previous studies, we also expected to observe differences in rates of suicidality between adolescents victimized by one form (traditional bullying or cyberbullying) versus both forms of bullying (Schneider, O'Donnell, and Coulter 2012). We did not expect such drastic differences in suicidality between one-form versus two-form victimizations. In some cases, groups experiencing both forms of victimization demonstrated two and three times the prevalence of suicidality versus those experiencing one form. This study is limited in explaining the nature of these differences. Are those experiencing both forms of bullying simply victimized more frequently? Do these forms of victimization work together in some way to magnify the psychological distress of either form? As technology evolves and adolescent social lives increasingly are integrated into the online world, stakeholders (e.g., education professionals, mental health professionals, researchers) must prepare to respond to new manifestations of bullying victimization. Further study should focus on better understanding the different forms cyberbullying may take and how cyberbullying might be employed simultaneously with traditional bullying to victimize youth.

CONCLUSION

Advocates for addressing the problem of bullying victimization and suicidality among adolescents propose the use of a public health approach (Hertz, Donato, and Wright 2013). The first step in a public health approach for addressing problems is to define the problem, including the "magnitude, scope, characteristics, and consequences," via collecting and analyzing data (WHO 2017). Data on bullying victimization, suicidality, and their association include a patchwork of studies across various states and the national level, which ultimately exclude an analysis specifically of South Dakota. Though not without its limitations, this study is a contribution toward addressing this shortcoming.

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Article

Factors of Academic Misconduct: Polish and Russian Students' Attitudes

Marina Makarova

ABSTRACT The main factors of students' cheating, such as individual and contextual factors are considered in this article. The institutional level of contextual factors exercises the most significant influence on academic misconduct and corruption in the academic field. There are factors of social microenvironment and normative backgrounds, which assume such forms of behavior as considered normal and obvious. In 2015 surveys of students from a Russian and a Polish university were conducted. Polish and Russian students have the same attitudes about cheating, which in both countries is part of the student culture. There are many similarities in the individual factors of cheating and plagiarism. In both universities, humanities students, unemployed students, and students with better academic results are less likely to engage in cheating. Students who perceive their studying as a formal way for getting a diploma and do not care about grades are more prone to cheating in both universities. However, students in Poland are less involved in all forms of misconduct. We also concluded that their attitudes about cheating and plagiarism are more honest: a smaller percentage of Polish students reported that it is sometimes difficult to study without cheating and plagiarism compared to Russian students. Contextual factors of academic honesty, such as the implementation of ethical codes and other components of an integrity system, are gradually implemented into Polish higher education.

In the past few years, questions of academic ethics have been widely discussed among scientists and educators. Different forms of academic fraud and cheating appear to increase in all countries and threaten the development of quality education. Faculty

members and researchers' misconduct includes different forms of conflict of interest, falsification of research results, plagiarism, etc. Multiple forms of academic misconduct among students include bringing notes to tests, using devices during exams, plagiarism, theft and sale of examination papers, bribery, forgery, etc. Cheating is defined generally as "any action that violates the established rules in education and research especially during test or exams and writing papers" (Eckstein 2003:105). Sometimes academic dishonesty is broadly defined as any fraudulent action or attempt by a student to use unauthorized or unacceptable means in any academic work (Pavela 2007:98). Researchers concluded that cheating is a very popular practice in modern universities around the world. Brown, Weible, and Olmosk (2010) found that 49% of students in undergraduate marketing classes admitted cheating in 1988 versus 100% of the students in an undergraduate management class in 2008; a national survey published in Education Week found that 54% of the students surveyed admitted to Internet plagiarism and 76% admitted to cheating, and the Center for Academic Integrity found almost 80% of the college students surveyed admitted to cheating at least once (Jones 2011:141). Smyth and Davis (2004) indicated that 74% of college students had observed cheating, and 45% of these students admitted to such practices.

THE MAIN APPROACHES TO THE FACTORS OF CHEATING

Our primary concern was investigating the factors leading to student cheating. Most of the reasons for cheating are connected to contemporary social processes. McCabe and Trevino (1993) found that the main factors of students' cheating are individual and contextual factors. Students' social status and their individual features such as gender, year of study, students' achievements, college characteristics, working situations, area of study, etc., determine individual factors. For instance, some researchers concluded that male students from large state universities are more prone to cheating than female students from small private colleges (Brown and Emmett 2001:531). According to Elias (2009), younger, traditional students (ages 25 or below) are more likely to engage in cheating than older, nontraditional students (ages 25 or above). Wei et al. (2014) concluded that undergraduate students are more prone to cheating because more than graduate students, they are "concerned about their performances as assessed by grades or class standings" (296). Some researchers indicated a relationship between cheating and academic performance represented by GPA (Burrus, McGoldrick and Schuhmann 2007). Harding et al. (2007) indicated that seniors reported being somewhat less likely to engage in college-level cheating than did first-year students.

Certainly, the differences in social status are relative and determined by social, cultural, and national categories, so it may vary in different countries and even in different regions of one country. Some scientists noted social-psychological features including personal characteristics like low self-control, laziness, dishonesty, irresponsibility, a tendency to conformity, and anxiety caused by external pressure can come together leading to different forms of academic misbehavior (Bolin 2004:106). Theories of goal orientation identify students' main purposes for academic tasks. For instance, Anderman (2007) identified two general groups of students based on their achievement goals: mastery-oriented students who are interested in truly mastering the task and performance-oriented students who were concerned "with how their abilities compare with other students" (92-93). They concluded that mastery-oriented students were less likely to engage in academic cheating. Vansteenkiste, Lens, and Deci (2006) and Lang (2013) also describe two types of motivation that are pertinent to our research. Intrinsic motivation is focusing on mastering skills and getting knowledge; extrinsic motivation is seeking "to pass exam in order to win an award or avoid a punishment" (Lang 2013:45-46). Students with intrinsic motivation are usually less likely to cheat than students with extrinsic motivation because of their self-determination and inherent interest in studying and obtaining new knowledge (Anderman et al. 2006:92-93).

Some researchers refer to the moral reasons for academic misconduct. Harding et al. (2007) use the theory of planned behavior for cheating analysis. They noticed that the decision of whether to cheat is an ethical one "that requires students to consider a behavior (i.e. cheating) they know to be in violation of established policies, codes, and perhaps norms" (257). They assumed that cheating is the result of a rational choice under the volitional control of the individual and that "individuals with less sense of obligation to behave unethically will be more likely to cheat" (268).

Contextual factors, in turn, include different forms of context – social, cultural, or institutional. Societal environment can influence on global, national or institutional, and even local levels (e.g., classroom). For instance, growing competition among young people on the educational and labor markets and the necessity to pay for education and establish their own economic status cause some students to bypass deeply rooted norms, laws, and ethical standards act to pass exams and achieve degrees. Shils (1984) described the global changes in higher education in recent decades as the great challenges for academic ethics. He has shown the new face of modern universities: the "mass university, the "service university," the "political university," the "governmentally dominated university," the bureaucratized university," the "financially straitened university," the "university in the eye of publicity," the "disaggregated university," and the "university with shaken morale." All these faces demonstrate the growing pressures on modern universities by the different social institutions of modern society. Multiple academic and research activities "are now being done outside the universities" and

create some complications for internal regulation and can lead to the possibility of academic misconduct. (Shils 1984:12-38). Additionally, the development of informational technologies and the Internet have essentially resulted in multiple new forms of student cheating on exams by using electronic devices and "copy – paste plagiarism" (Eckstein 2003:14) Eckstein also notes that growing pressures for achievement, selection, the increasing importance of examinations, and of credentials are the main reasons for increasing academic misconduct (Eckstein 2003).

Cultural factors include current ethical and cultural traditions in society as well as people's attitudes toward ethical and unethical behavior. Therefore, researchers emphasize the importance of the social environment including social values, cultural climates, peer pressure, and instructors' attitudes and actions (Wei et al. 2014:288). For instance, Gross (2011) emphasized the contradiction between traditional and postmodern values in their influence on cheating. "While the traditional values emphasize the 'private property/ownership requiring attribution of credit,' the postmodern values tend to 'view anything published, especially over the Internet . . . as community property not requiring attribution of credit" (Gross 2011:436).

According to McCabe and Trevino (1993), the institutional level of contextual factors exercises the most significant influence on academic misconduct and corruption in the academic field (McCabe, Trevino, and Butterfield 2001:224). There are factors of social microenvironment and normative background, which assume such forms of behavior as normal and obvious. For example, the problem of unethical behavior in American colleges caused Callahan (2004) to characterize the contemporary academic culture as "the cheating culture" which is found throughout the world. The embeddedness of cheating and bypassing academic charges brought against students and faculty are problems of universities, its colleges and departments, and of specific actors including teachers and students that have contact in the classroom.

> Contextual influences on cheating that were emphasized by students included the degree to which the code is deeply embedded in a culture of integrity; the degree to which a school has a supportive, trusting atmosphere; competitive pressures; the severity of punishments; the existence of clear rules regarding unacceptable behavior; faculty monitoring; peer pressure to cheat or not to cheat; the likelihood of being caught or reported; and class size (McCabe and Treviño 1993).

The most likely contextual factors include the recognition of peers' and colleagues' behavior, perceptions of the misconduct, and the intensity of sanctions doled out for the misconduct. All the factors are determined by formal institutional norms and the so-called "hidden curriculum," in other words, the everyday rules of direct interaction among the main actors in the educational field.

The perception of peers' behavior was the most influential contextual variable, suggesting that social learning theory may be particularly useful for understanding academic dishonesty behavior among college students. The strong influence of peers' behavior may suggest that academic dishonesty not only is learned from observing the behavior of peers, but that peers' behavior provides a kind of normative support for cheating (McCabe and Trevino 1993: 530).

Institutional social context can create the formal and informal normative background of academic behavior independently from some individual students' characteristics: "The contextual factors (peer cheating behavior, peer disapproval of cheating behavior, and perceived severity of penalties for cheating) were significantly more influential than the individual factors (age, gender, GPA, and participation in extracurricular activities)" (McCabe et al. 2001:222-223).

As a rule, students are not likely themselves to prevent peers' misconduct and inform officials about it. However, the crucial role in spreading misconduct plays a vicious circle of informal rules inside students' environment. Individual and collective practices of cheating during exams or tests are more frequently the results of some kinds of beliefs rather than students' individual or academic characteristics (McCabe and Trevino 1993:530). Such practices help students save time and lead to success on the exam.

Many researchers also emphasize educators' roles in students' disposition to cheat. Faculty's attention to issues of academic integrity and the use of deterrents to prevent cheating and plagiarism is an important contextual factor that works on different levels. Institutional levels include integrity policies, honor codes, and other regulations of student conduct, plagiarism, and cheating detection. Classroom levels demonstrate how the individual faculty members adopt or implement such systems in their own training practices. Spear and Miller (2012) believe that "Instructors hold a frontline position in the battle for academic integrity" (205). In their research, fewer students in the group receiving regular anti-cheating messages from their instructors engaged in cheating than the control group.

COMPREHENSIVE GROUNDS OF MISCONDUCT IN CROSS-CULTURAL CONTEXT

Multiple forms of academic dishonesty need to be prevented. Contemporary principles of university ethics include features of professional, organizational, and

academic ethics. This problem needs to be studied from the perspective of global, national and local values. On the international level, there are many documents which regulate academic behavior and include some principles of academic ethics (The Bucharest Declaration, the ESF/ALLEA European Code of Conduct for Research Integrity, Briefing Paper of Research Integrity, etc.).

Academic ethics include adaptation of fundamental ethical values to educational and research activity. Researchers emphasize the necessity of permanent monitoring of the impact of these measures that were meant to prevent academic cheating. Recently, honor codes and other forms of ethical regulation have been implemented in higher education around the world. McCabe and Trevino (1993) and Bowers (1964) found out that less cheating occurs in honor code environments. McCabe, Trevino, and Butterfield (1999) indicated that students from institutions with honor codes perceived fewer violations of academic integrity. However, honor codes by themselves do not alone lead to honest academic behavior. McCabe et al. admit that "honor codes are an important phenomenon," but such codes should not be "a window dressing". They noticed that the "relation between honor codes and cheating has been studied in great depth along three major themes: (a) implementation of honor codes, (b) faculty views of academic integrity policies including honor codes, and (c) honor codes' effect on students" (McCabe et al. 2001:224).

Additionally, despite passing honor codes and regulations in higher education, there are many problems with academic integrity in different countries, many of which are the countries of post-Soviet Europe and in developing countries. The group of scientists working on the project "Impact of Policies for Plagiarism in Higher Education Across Europe" have elaborated on the Academic Integrity Maturity Model (AIMM) and measured this score for each EU country (Foltýnek and Surovec 2015). They concluded that countries with higher AIMM scores have a higher Corruption Perception Index, higher GDP, lower unemployment, and attract scholars from other countries (Glendinning 2013). Some approaches to the problem come from corruption studies for cross-cultural research to factors of academic misconduct. According to some authors, corruption can be viewed as a problem of collective action, especially in a context of systemic corruption. "All the agents may well understand that they would stand to gain from erasing corruption, but because they cannot trust that most other agents will refrain from corrupt practices, they have no reason to refrain from paying or demanding bribes" (Rothstein 2011:231). Myrdal best described such a situation: "If everybody seems corrupt, why shouldn't I be corrupt?" (Myrdal 1968:409). In the case of systematic corruption, the majority of anticorruption measures appear to be ineffective because the habit to steal, bribe, not report bribery, and to be a free rider in the access to common good is strongly embedded in social behavior.

Karklins (2005) describes a paradox in that most people in post-communist regions angrily reject corruption but often participate in it themselves. Karklins cites

Miller and his coauthors: "They are both victims and accomplices" (Miller, Grødeland, and Koshechkina 2001). Karklins also writes about the ineffectiveness of anticorruption institutes in the post-communist countries: "Although institutions matter greatly, they can be a Potemkin village" (Karklins, 2005:17). The main features of post-communist attitudes include normalization of corruption (corruption helps in some situations of everyday life) and skepticism toward public institutions, which are identified as corrupt, criminal, or immoral. People do not feel they are responsible for the corruption, but instead they feel "They 'are made to participate'." Another important feature of the post-communist mentality is peoples' beliefs about the "top down" initiative in cleaning up corruption, demonstrated by the low level of civil activity in such countries. The last time this was studied, the situation in some countries of Eastern and Central Europe have changed so we can observe the multiple levels of implementing anticorruption law and different roles of civil activity in this process (Karklins, 2005:71-72).

In the case of academic ethics, we can assume that the problems of honor codes implementation can be connected with different social and cultural environments in different countries. However, McCabe et al. (2001) argued that this problem is determined also by different institutional or classroom circumstances, including peers' attitudes, student–teacher relationships, the entire system supporting academic honesty at a university on different levels, including students, teachers, researchers, administrators, etc. One example can illustrate this. Davis et al. surveyed American and Australian students. Higher rates of cheating were identified among American students. The authors hypothesized that it was the influence of the cultural differences in the extent to which the group of students value learning versus grades. They demonstrate that American students have higher grade orientation (found in Lang 2013:44).

Consequently, cross-cultural research of academic ethics can provide the opportunity to identify more comprehensive factors of misconduct, including national mentality, historical or cultural features, but also the institutional and contextual environment of the educational system in different countries. It can allow understanding on multiple levels and highlight characteristics of implementing ethical rules and their influence on student behavior.

THE OBSERVATION OF THE MAIN FACTORS OF CHEATING IN RUSSIAN AND POLISH UNIVERSITIES

In February 2015, a survey of 481 students at a Russian university and in October–December 2015 a survey of 467 students in a Polish university were conducted. Both universities are the state universities with about 15,000 students each. The main aims of the surveys were to find out students' attitudes about academic ethics and students'

misconduct and to identify the main factors of academic cheating. Second and third year students were surveyed. The main variables of the surveys were frequency of different practices of academic misconduct, some factors of students' dishonesty, and the main purposes for preventing such behavior.   Some parameters such as gender, year of study, area of study (humanities, natural-science, social science), and self-reported academic performance were taken as objective individual factors. The subjective individual factors were students' attitudes toward their studying (preferring to gain knowledge or a diploma) and the importance of grades for students. Such factors, as the faculty's control of cheating and students' tolerance to academic misbehavior were considered as contextual factors in the student survey.

According to the student survey at the Russian university, most extended forms of misconduct were using crib notes or cheat notes on exams and copying from another student during a test or exam. More than half of the students reported using plagiarism. In Poland, such forms as using electronic devices and copying from another student were preferred. However, results show that the problem of academic dishonesty in its multiple features is a very timely issue in both countries.

Table 1: The comparison of answers "Never" on the question about frequency of some forms of misbehavior

	"Never" percentage	
Form of behavior	**Poland**	**Russia**
Using crib notes or cheat notes on exams	41.5	20.9
Plagiarism	40	37.1
Forbid copying tests and assignments	69.4	83.7
Copying from another student on a test or exam	27.4	23.6
Using electronic devises during exam or test	25.9	43.3

The individual factors of academic misconduct also vary. A specific connection between academic misconduct and year of study was not found. Russian male students were more active in all forms of misconduct; however, in the Polish University there was not the same gender difference. Polish female students more than male students used electronic devices during the test or exam, and male students preferred copying from another student. However, most researchers mention gender as an essentially ambiguous individual factor of cheating (De Bruin and Rudnick 2007; Kibler 1993).

Russian students of the social sciences were more prone to each form of cheating, especially using crib notes, electronic devices, and plagiarism. In Poland, students of social sciences more than other discipline were active in plagiarism and copying from the books; however, students who specialized in natural sciences were

more likely to use electronic devices. It is necessary to note that in both universities the humanities students were the most honest. Students who had a job cheated more frequently than their peers who did not have a job. Students from both countries with poor academic results were also much more involved in all forms of academic misconduct. In Poland, students with the highest grades were less involved in every form of academic misbehavior. The same situation was observed with the Russian University. Students with permanent academic failures more often responded about cheating than students that passed exams confirming the conclusions of some researchers that students in the lower ranges are more likely to have cheated (Antion and Michael 1983:470), and that maintaining a high grade point average is one of the main factors leading to academic dishonesty.

Poor academic achievement was closely related to attitudes towards studying and, in turn, to cheating behavior. Students who admitted that their main goal in the university is to gain knowledge, cheated substantially less than their colleagues who were focused on getting a diploma. It confirms the conclusion about the role of extrinsic motivation in academic cheating.

The problem of plagiarism a threat for the quality of education and science around the world. For this reason, students were asked about using whole or partial plagiarism in their works. Five percent of Russian students and 2.5% of Polish students admitted that sometimes they copy an entire paper from the Internet or from other sources. Fifty-seven percent of Russian and 60% of Polish students admitted that they sometimes partly plagiarize their works.

Less than one-third of Russian students knew that there are some kinds of software for recognizing plagiarism in their departments. It also is worth noting that 55% of students were undecided about whether there was software to recognize plagiarism. The "Antiplagiat.ru" system (anti-plagiarism software) is on its initial stage of implementation in the majority of Russian Universities, so many students do not yet know about it.

According to existing research, academic dishonesty became part of students' culture, somewhat like the hidden curriculum. More than half of Russian respondents said that sometimes cheating is unavoidable. In Poland, such answers came from about one-third of the students.

Table 2: Possibility to study without cheating (%)

In your opinion, is it possible to avoid cheating and plagiarism in what you are assigned?	Russia (cheating and plagiarism)	Poland (cheating)	Poland (plagiarism)
Yes	31.8	62.1	54.4
Yes, but not always	59.5	37.0	39.2
No	8.7	0.9	6.4
Total	100	100	100

Positive attitudes about cheating and plagiarism are more popular in Russia among students studying social sciences; however, in Poland such beliefs characterize more students of the natural sciences.   In both countries, the majority of students with the lowest academic results and with an orientation towards obtaining a diploma (extrinsic motivation) believed that avoiding misconduct was not always possible. Such connections and similarities among answers about using the different forms of cheating shows the important role of students' beliefs about cheating as a necessary part of studying and its influence on students' academic behavior.

Only Polish students were asked about reasons for cheating and plagiarism. Most of them answered that the main motive for cheating was the fear to fail a test or exam (80.7%). They also complained about the great amount of material to study (66.5%). Some students said that they wanted to get a high grade for the course (42.3%), and some said that students cheat because of their job (38.4%) and because of laziness (33%). The most important institutional factor of cheating is the lack of teachers' control of students' misconduct (37.6%). However, the most popular answer is the social permission for cheating (41.7%). According to McCabe and Trevino (1993), the perception of peers' behavior appears to be the single most important contextual influence on academic dishonesty.

According to Polish students' opinions, the most popular individual reason for plagiarism is the fear that their own work will be too weak or insufficient to pass the assignment (70.7%). They also have some problems with individualized work (68.3%). These motives demonstrate students' lack of confidence in their own abilities and of their having sufficient ideas and knowledge for proper academic writing. They also believe writing on their own is too hard (41.6%) and complain that sometimes they do not have the necessary information for it (31.5%). These motives demonstrate students'

Table 3: Main reasons of cheating (Polish students)

Motives (individual reasons)	Percentage
In order to get a high grade	42.3
To not fail a test or exam	80.7
There are too many materials for exam preparation	66.5
Exams or tests are too hard	28.5
Students do not have time because of their jobs	38.4
Because of laziness	33.0
Institutional and contextual factors	
Because many other students do (social permission)	41.7
Because there is insufficient punishment for misconduct	20.6
Because teachers either don't care or can't control cheating	37.6

lack of confidence in their own ability and of sufficient ideas and knowledge for proper writing. Students often do not have sufficient abilities for comprehension of information from different sources, for proper citations and acknowledgments in their academic works. As in previous questions, we also see that the main institutional factor of plagiarism is faculty's insufficient attention to plagiarism (26.9%). Some students also are not satisfied with the system of plagiarism detection (23.7%).

Table 4: Main reasons of plagiarism (Polish students)

Motives (individual reasons)	Percentage
They are afraid that their own work will be too weak or insufficient to passing the assignment	70.7
There is the deficit of ideas for self-contained works	68.3
Writing on your own is too hard	41.6
Students don't have the ability or the information on the assignment	31.5
Students don't have time for writing because of their jobs	18.5
Because of laziness	30
Institutional and contextual factors	
Because many other students do (social permission)	31.5
Insufficient punishment for plagiarism	17.9
Because teachers cannot control or not don't care about plagiarism	26.9
Because there are insufficient systems of plagiarism detection	23.7

Generally, it is important to note that the main individual reasons for students' misbehavior comes down to students' concerns and fear about the possibility of failing; consequently, the misconduct becomes a form of avoiding risks during their studies. Such risks may be determined by insufficient knowledge about the right academic behavior or the lack of abilities for handling large amounts materials and assignments and proper academic writing. The institutional factors relate to weak teachers' concerns about cheating or plagiarism; the most important contextual factor is the popularity and even commonness of such practices among students.

What do students think about the possibility of avoiding misbehavior and in that manner enhance their quality of education? Of Russian students, 38.4% want to attend special courses for research work and academic integrity. In addition, students propose strengthening teachers' and administrators' handling of cases of academic misbehavior (32%) and using special software for recognizing and controlling plagiarism (28.9% of students and 43% of teachers). Polish students emphasized strengthening both punishments (50.9%) and teachers control and oversight for all the forms students' misconduct (59.8%).

At present, there is no efficient and comprehensive integrity system in Russian and Polish higher education, although such a system is more developed in Poland than in Russia. Our survey showed that significantly more Polish students offered to implement ethical codes for preventing misconduct because Russian students do not know anything about such codes. Polish universities are obligated to test all students' undergraduate works for plagiarism since 2014. The same act was passed in Russia just

Table 5: Ways of preventing misconduct (% of responses)

	Russia (cheating and plagiarism)	Poland (cheating)	Poland (plagiarism)
Using computer based tests	33.5	36.0	
Strengthening punishment for cheating and misconduct	9.9	47.6	50.9
Strengthening supervision by teachers and administration	32.2	62.2	59.8
Using electronic forms of control (e.g. cameras)	9.7	17.3	
Delivering special courses for students research and academic writing skills	38.4		35.2
Implementing ethical codes for students	14.7	28.4	31.2
Implementing of information and whistleblowing	17.3	30.0	41.0

in 2016. Additionally, such software was used in the majority of Polish universities. There are also some other components of the integrity system that are implemented in Poland. For instance, undergraduate, graduate, and doctoral studies must include in their curricula training for the preparation of scientific work, discussing students' papers and their parts with a supervisor during the entire academic year. Polish universities have disciplinary commissions, some of them have a position of ombudsmen, ethical codes or the ethical issues are mentioned in university statutes and rules. Despite this, problems of cheating and misconduct remain crucial. The Russian normative system in this sphere is poor and mostly directed on plagiarism detection. Other forms of misconduct are not documented in any university rules either for students or for faculty. The federal normative acts about corruption and the protection of intellectual property are not adapted for educational circumstances. Therefore, students and teachers usually do not know what to do in most of cases of misconduct.

Russian students also proposed changing forms of teaching and training through using individual assignments, practical education, and making knowledge more accessible for students. This is reflected in the answers on an open question about forms of preventing students' misconduct. The largest portion of Russian students surveyed said that there is nothing to do about the situation of cheating, and there are no measures for fighting this problem. Students believe that it is useless to do something against cheating commenting: "In general useless;" "Nobody will survive without crib notes;" "Students always will carry themselves in such way;" "We will find counter measures on your measures." Polish students also said, "Students do it always;" "It is impossible to stop," etc. Such measures show that most students believe that all the methods of fighting cheating are useless, and students cannot study without using some form of misbehavior. Another portion of students from both countries, which are more interested in the improvement of quality of education, proposed changing methods and content of teaching and training and to use new approaches to assignments for students. According to students' opinions, training should be more practical, interesting, individual, and have a clear explanation of assignments: "To have a rational approach to forming a timetable of exams," "Give real instructions for preparing for exams," "Explain more carefully," "Individual attention to every student," "To use practical assignments," "To make classes more interesting for students."

CONCLUSIONS

According to the results of our research, we drew some conclusions about some forms and factors of academic dishonesty among students from Russian and Polish universities. There are some similarities and differences in forms and incidence of misbehavior between Polish and Russian students. They have the same attitudes about cheating, which in both countries is the part of student culture. There are many similarities also in the individual factors of cheating and plagiarism: in both universities humanities students, unemployed students, and students with better academic results are less likely to engage in all forms of cheating. Additionally, the strongest individual factors are the students' attitudes toward studying. Students who perceive their studying as a formal way for getting a diploma (extrinsic motivation) are more prone to cheating in both universities. It shows that cheating has been the result of students' negligence to studying and their efforts to avoid the risks to fail in such conditions.

However, students in Poland are less involved in all forms of misconduct. We also concluded that Polish students' attitudes about cheating and plagiarism are more honest: a smaller percentage of Polish students reported that it is sometimes difficult to study without cheating and plagiarism when compared to Russian students. Such

institutional and contextual factors of academic honesty as the implementation of ethical codes and other components of the integrity system are being implemented gradually in Polish higher education. There are different components of such system in the surveyed Polish university (disciplinary commission, ethical code, patent antiplagiarism software, developed system of internal audit, special obligate courses for first-year students about intellectual property, seminars for preparing thesis, etc.) The teachers and administrators admit that they still have many problems with the implementation of this system, but they also agree that it works in most cases.

Students believe that the main measure for fighting misbehavior may be including special courses on academic ethics and writing skills in curriculum. Some forms of misconduct help students to survive in the conditions of time constraints and the necessity to work. At the same time, students note that increasing the amount of practical exercises, individualization of education processes, and the rational and flexible approach to control of knowledge can help to avoid dishonesty. The implementation of principles of academic integrity to the educational program will contribute to changing the higher education system in our countries and make academic behavior more honest.

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Article

Why Do High-Achieving Women Feel Like Frauds? Intersecting Identities and the Imposter Phenomenon

Nicole Lounsbery, Ph.D.

ABSTRACT The *imposter phenomenon* is a concept used to characterize the presence of intense feelings of intellectual fraudulence, particularly among high-achieving women. Researchers have tried to explain not only why this phenomenon occurs, but why it is more prevalent in highly successful women. This study predicts that the intersection of gender with race, class, and parental educational attainment contributes to women's feelings of fraudulence. Clance Imposter Phenomenon Scale (CIPS) scores were used to determine the effects of identity variables on imposter feelings in a sample of 403 female graduate students. Results indicate a strongly positive relationship between Native American identity and imposter feelings. More specifically, Native American female graduate students had much higher CIPS scores than all other racial groups, indicating a greatly increased sense of intellectual fraudulence. Conversely, Asian identity was significantly associated with lower CIPS scores. Additionally, higher socioeconomic status and paternal educational attainment were found to have a significant negative effect on CIPS scores.

INTRODUCTION

'THE IMPOSTER PHENOMENON IS DEFINITELY A THING.'

A recent article in the Chronicle of Higher Education (Hermann 2016) emphasized how many graduate students experience feelings of fraudulence without knowing what it is or that many others feel it too. According to an article recently highlighted in an EAB Daily Briefing (March 2017), around 70% of people experience symptoms of the imposter phenomenon (IP) at least once (Sakulku and Alexander 2011).

Although the imposter phenomenon (identified in 1978 by Clance and Imes) has been acknowledged in research involving both men and women, most studies suggest that women are more negatively affected by imposter issues, exhibit much higher imposter fears, and have higher scores on imposter phenomenon scales (Clance and O'Toole 1988; Kumar and Jagacinski 2006; Mack 2006).   Clance and O'Toole (1988) argue that "women are more likely to be limited, and limited more powerfully than men by the imposter phenomenon" (p.53). Similar research indicates there has been a "pervasiveness and longevity of imposter feelings in high achieving women," despite repeated successes (Clance and Imes 1978:242; Clance 1985).

The recent *Lean-In* movement, which underscores the need for women to reach for opportunities and promotions, and most importantly, believe they deserve them, connects closely to the imposter phenomenon. Sheryl Sandberg (2013) addresses the way imposter feelings continue to hold women back despite their success. She states "I still face situations that I fear are beyond my capabilities. I still have days when I feel like a fraud." (Sandberg 2013:38). Sandberg and others have publicized women's reality of experiencing continuing and pervasive imposter feelings, indicating that women may keep themselves from advancing because they don't have the self-confidence that men do.

Previous studies also indicate that female college students experience substantially greater imposter feelings than their male counterparts (King and Cooley 1995, Clance, 1985; Clance & Imes, 1978; Kumar & Jagacinski 2006). Similarly, recent studies indicate that female graduate students both suffer more from imposter feelings and display a lower belief in their academic ability than do males (Jostl et al. 2012:109; Ivie and Ephraim 2009).   The totality of this research begs the question: *why do high-achieving women feel like frauds?*

Few studies have specifically examined the imposter phenomenon at the graduate level. Niles (1994) found that graduate students experiencing imposter feelings blamed themselves for failures and attributed factors outside their control for successes. Ewing et al. (1996) found no correlation between African American graduate students' racial identity and imposter feelings, while Craddock et al. (2011) found that minority racial identity did impact imposter feelings in a sample of doctoral students. White (2001) sampled doctoral students and found that shame was a predictor of

imposter feelings. Jostl et al. (2012), also studying doctoral students, found that female students experienced increased imposter feelings when compared to male students.

Gibson-Beverly and Schwartz's (2008) qualitative study of female graduate students found that attachment and entitlement were significant predictors of the imposter phenomenon. The authors suggested that women with anxious attachment and elevated levels of entitlement have difficulty internalizing positive feedback and may develop a fear of failure and evaluation by others due to an underlying negative view of self.

Focusing on female students at the *graduate* level is important in several ways. Primarily, much of the previous IP research focuses on the undergraduate experience, leaving a gap in the literature. In addition, graduate students feel increased pressure to become an "academic" or a "professional," which may result in additional conflict related to identity. Professional socialization is a process that "prepares the graduate student for the academic world and its expectations, as well as the professional role and its associated values and culture" (Gardner and Barnes 2007:7). Several processes of socialization take place at the same time: socialization to the role of graduate student, socialization to academic life and the profession, and socialization to a specific discipline or field (Austin 2002:96; Polson 2003).

Over the years, academic culture and the socialization that comes with it reflects the experiences of men; specifically, older, white men, who still continue to be the majority of full professors and administrators (Gardner 2008; Walker 1998). Thus, the diverse experiences of students who "do not fit the mold of graduate education are explainable in that these students' socialization experience is not entirely normative due to differences in their underrepresented status" (Gardner 2008:128).

The structure of incentives, relationships, and rewards differs for males and females, both during and after graduate school, and often women are viewed as less dedicated and less promising by faculty (Berg and Ferber 1983:631). More recently, Hart (2006) notes that "academe is entrenched in the power of patriarchy...and although women are more prevalent in higher education, academic culture has changed very little" (p.41). Despite the progress that has been made with respect to gender and racial equality, colleges and universities "continue to maintain environments that discourage participation by women and students of color" (Ellis 2001:42).   Women's inclusion is still not prevalent in higher education discourse; more specifically, the literature rarely focuses on the intersection of gender with race, class, or related socioeconomic factors (Hart 2006).

The current study is the first to examine whether and to what extent the intersection of gender with race, class, and parental educational attainment impacts the presence of imposter feelings in a sample of female graduate students. This research addresses the scarcity of literature on female graduate students and the imposter phenomenon, as well as the lack of intersectional research in identity and student

development studies. Furthermore, the extensive and more profound experience of graduate education has the potential to shed light on whether women's identity struggles related to the imposter phenomenon persist throughout the life span.

THE IMPOSTER PHENOMENON

Individuals who exhibit characteristics of the imposter phenomenon identify with the feeling of being an "imposter;" second guessing their accomplishments (Clance and Imes 1978; Clance 1985; Clance and O'Toole 1988; Kumar and Jagacinski 2006). These self-identified "imposters" often fear that others will find out that they actually lack ability (Kumar and Jagacinski 2006; Mack 2006). In addition, experienced successes neither decrease imposters' fraudulent feelings nor increase belief in their own ability (Ferrari 2005). This in turn leads to a cycle of self-doubt that is only temporarily relieved by personal achievements (Clance and O'Toole 1988; Ferrari 2005; Kumar and Jagacinski 2006).

Identity differences, such as race, class and gender, can lead individuals to believe they are the "wrong type", often sabotaging themselves rather than risk being seen as an imposter (Clance and Imes 1978; Clance 1985; Clance and O'Toole 1988; Mack 2006:56). These self-pronounced "imposters" may display generalized anxiety, perfectionism, lack of self-confidence, depression, frustration due to their inability to meet their own standards of achievement, low self-esteem, tendency to excessively worry about mistakes, and to reject evidence of their success (Clance and Imes, 1978; Thompson, Foreman, and Martin 2000; Bernard et al. 2002; Ferrari 2005).

Bernard et al. (2002) found that college students who scored high on the Clance Imposter Phenomenon Scale (Clance 1985) were prone to feelings of depression and anxiety, while Ross and Krukowski (2003) suggested the imposter phenomenon was also associated with depression, as well as maladaptive personality. Additional studies suggest that imposter feelings are connected to self-handicapping behaviors, such as lack of effort and procrastination (Ross et al. 2001; Cowman and Ferrari 2002; Want and Kleitman 2006). Imposters may also use self-handicapping behaviors to avoid being evaluated and to reduce the chance that they will be revealed as a fraud. Additionally, imposters perceive that their success is not a result of talent or ability, but rather is a result of luck or evaluative error (Clance 1985; Ferrari 2005).

In explanation of the phenomenon, Clance et al. (1995) suggest that societal values and conflicting expectations related to gender roles contribute to women's feelings of fraudulence in higher education, making it difficult for women to embody the masculine roles necessary for success. Craddock et al. (2011) note that imposter feelings are multiplied when 'women are successful in environments where society tells them they do not belong' (p.432, from McIntosh 1989). In addition, research has shown that

imposter feelings affect women more intensely due to being doubly or triply disadvantaged (Clance et al. 1995; Cokley et al. 2013) because of identity differences such as race, class or first generation status.

INTERSECTING IDENTITIES

RACE, CLASS, GENDER & FIRST GENERATION
        The impact of race on student success and experiences in higher education has been identified in the literature. Specific racial groups, including African Americans, Hispanics, and Native Americans, are less likely to attend college and graduate (Kao and Thompson 2003; Dennis, Phinney and Chuateco 2005; Ishitani 2006).   Furthermore, first generation college students with minority racial status may be negatively affected by additional stressors beyond what college students normally face, such as cultural expectations to fulfill family obligations and duties (Phinney and Haas 2003), racism and discrimination, cultural insensitivity, and educational hegemony (Goodman and West-Olatunji 2010; Cokley et al. 2013).
         According to the findings of Ellis (2001), race is a significant factor in the graduate student experience influencing socialization, satisfaction level, and commitment to degree completion**.** Research has also shown that being a female minority student has a significant impact on students. Bassett (1990) states "the minority female in higher education, regardless of her qualifications, is often perceived as a 'token'; at times she may find herself disregarded or patronized, or she may meet open hostility" (p. 239). Saenz (1994) indicates that a token status often causes minority students to feel responsible for positively representing their group at all times, which for females, leads to increased self-consciousness and can result in performance deficits or imposter feelings.
        Only a few published studies regarding racial minority college students and the imposter phenomenon exist in the literature. Cokley et al. (2013) found that African-Americans reported higher minority status stress than Asian Americans and Latino/a Americans, while Asian Americans reported higher imposter feelings, despite higher academic achievement. Craddock et al. (2011) found that doctoral students' marginalized racial identity increased their imposter feelings. However, Ewing et al. (1996) indicated African American graduate students experienced imposter feelings that were influenced more by worldview and academic self-concept than racial identity**.**
        Socioeconomic status has been shown to influence student experiences and identity in academia. Research indicates that a higher level of socioeconomic status positively impacts academic and social integration (Ishitani 2006:863). Lower income students pursuing higher education often experience a "painful dislocation between old and newly developing habitus, which are ranked hierarchically and carry connotations of

inferiority and superiority" (Baxter and Britton 2001:99). Many poor to working class students confess that they try to "pass" as middle or upper-class students by not divulging background information and embracing the culture of their fellow students (Aries and Seider 2005). The working class student's struggle to "pass" can lead to living in fear of being unmasked as undeserving (Mack 2006:56), a core characteristic of the imposter phenomenon.

Across class status, middle-class women often find their role obligations truncated to being good mothers and wives, while working-class women are expected to be good mothers, wives, daughters, sisters, cousins, on down the line. Within class, but across gender, working class female college students often go home to help the family, while their working-class brothers are left to focus solely on their college life (Fuller 2004:17). These examples further highlight class values and conflicting expectations related to gender roles which can also contribute to women's feelings of fraudulence.

Parental educational attainment has been identified as an influential factor in the student experience. Past research shows that when compared to their peers, first generation college students are at a pronounced disadvantage regarding basic knowledge about the higher education process, high school academic preparation, degree expectations and plans, as well as socioeconomic status and support (Pascarella et al. 2004; Orbe 2008). First generation students have a more difficult transition from high school to college than their peers, are less likely to stay in college through graduation (Pascarella et al. 2004; Orbe 2008), and experience increased feelings of alienation and inadequacy (Aries and Seider 2005). In a study of first generation graduate students (80% of which were women), imposter feelings were prevalent, with participants indicating a lack of belonging and concern that they would be "found out" or told they "could not persist" (Gardner and Holley 2011:88).

Numerous first generation professional scholars from working-class backgrounds report long-lasting identity conflicts, still feeling like outsiders and imposters in academia years later (Jones 1998; Lawler 1999). First generation graduate students face the reality of having to construct a professional or academic identity, one that may differ greatly from their previous experiences and parental models, thereby increasing the likelihood of developing imposter feelings.

THEORETICAL FRAMEWORK

Intersectionality is the theoretical framework guiding this research. Intersectionality refers to "the interaction between gender, race, class, and other categories of difference in individual lives, social practices, institutional arrangements,

and cultural ideologies, and the outcomes of these interactions in terms of power "
(Davis 2008:68).

The term "intersectionality" (Crenshaw 1989), was initially used as a "critique of
difference" (Davis 2008:68) to highlight experiences of women of color that both
feminist and anti-racist discourse were not addressing at the time (Yuval-Davis 2006;
Jordan-Zachery 2007). Crenshaw (1989) implied that existing theory needed to show
how gender and race interacted to shape the "multiple dimensions of Black women's
experiences" (p.139).

Intersectionality as a framework for studying identity emerged from critical legal
studies and research conducted by women of color (Torres et al. 2009). The goal was to
respond to the lack of representation of their experiences in the literature, while at the
same time advancing the "lived experiences of marginalized individuals" (Torres et al.
2009:588). Researchers have used intersectionality in traditional and nontraditional ways
to analyze and understand women's multiple identities and the challenges that women
face.

Thus, intersectionality as a theoretical approach to conducting research provides
answers to many questions left unanswered by the more common unitary or multiple
approaches. It is especially useful in this study to help understand how female graduate
students experience imposter feelings at the intersections of race, class, and first
generation status. Although intersectionality is more often used in qualitative studies, it
has also been successfully utilized in quantitative analysis (Brooks and Redlin, 2009).

METHOD

PARTICIPANTS

403 female graduate students participated in this study. All participants were
enrolled in a Midwest state land-grant institution with approximately 800 female graduate
students. Participants' age ranged from 21 to 64 years, with a majority (44.3%) between 25-
34 years of age. The majority of participants identified as White (84%), followed by Asian
(5.6%), Two or More Races (4.3%), Native American (3.1%) Pacific Islander (.51%), and Black
(2.54%). 2.28% identified as Hispanic or Latino. The majority of respondents (21.43%),
reported family income of $35,000-50,000 dollars a year, which was only a fraction higher
than the second highest response of $20,000-$35,000 a year (21.17%). Percentages reflect
overall female graduate student population at the university, thus limit generalizability.

Overall, statistics indicate that a large percentage (40-45%) of respondents were
first generation college students. The majority of respondents (71%) were from
populations of 10,000 or below, indicating a mostly rural sample. Most respondents
(92%) indicated they were U.S. citizens.

Instrument and Procedure

The Clance Imposter Phenomenon Scale (CIPS) is the instrument utilized in this study (Clance 1985). The CIPS contains 20 statements which identify fear of evaluation, fear of not being able to repeat success, and fear of being less capable than others (Clance 1985). Examples of questions include:

> *'Sometimes I'm afraid others will discover how much knowledge or ability I really lack'*
> *'I can give the impression that I'm more competent than I really am'*

The CIPS uses a 5-point Likert scale for responses, ranging from 1 (not at all true) to 5 (very true) and is scored by totaling the numbers of the responses to each item. The higher the score, the more frequently and seriously the imposter phenomenon may inhibit a person's life (Clance 1985:20-22).

The CIPS has been extensively tested and found reliable across multiple studies (Kumar and Jagacinski 2006; Chrisman et al. 1995; Cokley et al. 2013). Chronbach's alpha for this study was .95. The CIPS has also been proven to reliably distinguish between imposters and non-imposters, thus demonstrating substantiation of known-groups validity (Cokley et al. 2013:87).

Quantitative data was collected using an online survey format. 403 out of 800 female graduate students completed the survey during a 4-week time frame, slightly over a 50% response rate.

DEPENDENT AND INDEPENDENT VARIABLES

The dependent variable of investigation was the CIPS score. The CIPS scoring method was used to determine an overall IP score, with possible CIPS scores ranging from 0 to 100. According to Clance (1985), the higher the respondent's score, the more frequently and seriously the imposter phenomenon interferes in the respondent's self-perception of competence, and potentially, in the success in graduate school or other endeavors.

The four independent variables included: racial identity (Asian, Native American, Pacific Islander, White, Two or more races, Black); mother's educational level, father's educational level, and family income of respondent while in high school. Racial identity was measured using six categorical responses. In a separate question, participants answered whether or not they identified as Hispanic or Latino. For analysis, the resulting race values were recoded as dichotomous (0=participant did not select racial category and 1=participant selected racial category). Recoding variables allowed for closer analysis of self-identified racial comparisons. Parental educational level was measured using six ordinal responses for both father's and mother's education ranging from "not a high school grad" to "Doctorate or Professional degree." Family income was measured

using eight response categories coded as ordinal variables, ranging from < $20,000 to >$ 200,000.

The CIPS data was analyzed using the CIPS (Clance 1985) scoring method and SPSS. Data was analyzed to provide the necessary descriptive statistics, including the mean, range, and standard deviation of the online sample CIPS scores. Both correlational and multiple linear regression analysis were also conducted to identify the strength of the relationships between the dependent variable (CIPS score) and the independent variables, as well as how the CIPS score was affected by each of the variables.

HYPOTHESES

Three hypotheses were developed based on variables included in the survey. The purpose of these hypotheses was to explore whether and to what extent race, class and parental education impacted the presence of imposter feelings in a sample of female graduate students.

Hypothesis 1: Respondents with minority racial identities will have higher CIPS scores than White/European American respondents.

Hypothesis 2: Respondents' CIPS scores will decrease as mother's and father's educational level increases.

Hypothesis 3: Respondents' CIPS scores will decrease as yearly family income increases.

RESULTS

Results show that the lowest CIPS score in the sample was 26 (N=1), the highest score was 100 (N=5), and the average score was 63.46. Among different racial identities of respondents, Native American students had the highest average IP score at 89, followed by 2 or more races = 64.2, Black = 63.9, White = 63, Asian = 55.3 and Pacific Islander = 51. The frequency distribution of the sample indicated a mean of 63.46 and standard deviation of 17.52.

Three of the independent variables: family income, mother's education and father's education; significantly correlated with the dependent variable, CIPS score (see Table 1 below).

Table 1: Correlations between Variables

Measure	1.	2.	3.	4.	5.
1. Family income	1.00	.416**	.238**	-.138	-.376**
2. Mother's education	.416**	1.00	.569**	-.134	-.284**
3. Father's education	.433**	.569**	1.00	-.105	-.329**
4. Racial identity	-.034	-.134**	-.105*	1.00	.084
5. CIPS score	-.376**	-.284**	-.329**	.084	1.00

**Correlation is significant at the .01 level (2-tailed).
*Correlation is significant at the .05 level (2-tailed).

Items in Table 1 show a modest to moderate strength of correlation with the dependent variable (CIPS score). The independent variables of family income, mother's and father's education level are significantly correlated with CIPS score. Negative correlations indicate that as family income and parental educational levels increase, CIPS scores decrease.

To examine relationships of different racial identities and CIPS score, distinct categories were identified and a separate correlation analysis was completed (Table 2).

Table 2: Correlations for Racial Identity Variables

Measure	1.	2.	3.	4.	5.	6.	7.
1. Asian	1.00	-.043	-.039	-.017	-.052	-.557**	-.106**
2. Native American	-.043	1.00	-.029	-.013	-.038	-.406**	.259**
3. Black	-.039	-.029	1.00	-.012	-.034	-.370**	.004
4. Pacific Islander	-.017	-.013	-.012	1.00	-.015	-.164**	-.053
5. 2+ races	-.052	-.038	-.034	-.015	1.00	-.487**	.009
6. White	-.557**	-.406**	-.370**	-.164**	-.487**	1.00	-.056
7. CIPS score	-.106*	.259**	.004	-.053	.009	-.056	1.00

**Correlation is significant at the .01 level (2-tailed).
*Correlation is significant at the .05 level (2-tailed).

Results indicate a correlation between Asian identity and decreased CIP scores. Conversely, Native American identity was correlated with increased CIPS scores. None of the other identity variables were statistically significant.

Multiple regression analysis provides a way to predict how the dependent variable, CIPS score, is affected by the independent variables.   Table 3 below provides a representation of the model, excluding racial identity variables not significantly correlated with CIPS score.

Table 3: Summary of Multiple Regression Analysis for CIPS Scores

Variable	B	SE(B)	β		Sig. (*p*)
Family income	-2.84	.542	-.283	-5.233	.000**
Mothers education	-1.13	.916	-.072	-1.233	.218
Father's education	-1.92	.842	-.135	-2.282	.023*
Asian	-10.85	3.724	-4.479	-2.913	.004*
Native American	16.03	4.546	6.617	3.526	.000**

R^2 = .24
  **significant at the .01 level
  *significant at the .05 level

Examining the variable 'family income,' it could be determined that for every categorical increase in family income, we would expect a decrease in CIPS score by 2.84. For example, as family income increases from the $20,000-35,000 range to $35,000-50,000; a CIPS score of 26 would decrease to approximately 23.16.

The next variable, 'mother's educational level,' was not significantly associated with a decrease in CIPS score (p=.218). Interestingly, 'father's education level' was significant at the .05 level, indicating that for every per rank increase in father's education, such as moving from 'some college, AA, or technical degree' to 'bachelor's degree,' we would expect a decrease in CIPS score by 1.92. In this case, having a father with a bachelor's degree would correlate with a CIPS score of 1.92 less than having a father with some college, AA, or technical degree. As mentioned previously, the lower the respondent's CIPS score, the fewer imposter feelings are recognized as being present in a respondent's life.

Native American racial identity was associated with a rise in CIPS score by 16 points. The p value (.001) indicates a highly significant relationship, and the effect size reveals a prominent association between Native American racial identity and intense imposter feelings. On the other hand, Asian identity was associated with a decrease in CIPS score by almost 11 points. The p value (.004) also indicated a significant relationship, and the effect size reveals a prominent association between Asian identity and lower imposter feelings. All other racial identity variables were not significant.

Taken together, the independent variables (racial identity, yearly family income, mother's and father's educational level) explain 24% of the variance in CIPS scores, R^2 = .24, F(12.296), p = .000.

<div align="center">DISCUSSION AND CONCLUSIONS</div>

Results indicate that Hypotheses 3 was supported by the data. Categorical increases in yearly family income were associated with decreases in respondents' CIPS scores. Hypothesis 1 and 2 were only partially supported. Although Native American identity was associated with higher CIPS scores; Asian identity was associated with lower CIPS scores, and all other minority racial identities were not significantly associated with CIPS scores. Additionally, an increase in father's educational level was significantly associated with a decrease in CIPS scores; however, mother's educational level was not significantly associated with CIPS scores.

Findings suggest that a female graduate student with low family income, a father who didn't go to college, and Native American racial identity would have a higher score on the CIPS than a woman with high family income, a father who went to college, and White racial identity. The findings from this study show that intersecting identity variables of class, parental educational attainment and race, *do* contribute to imposter feelings among high-achieving women, in this case a sample of female graduate students.

This study's findings support previous research which indicates a connection between lower class status and the presence of increased feelings of fraudulence and the struggle to keep from being "unmasked" as an imposter (Granfield 1991, Mack 2006, Aries and Seider 2005), as well as a connection between first generation status and increased alienation and imposter feelings (Aries and Seider 2005, Gardner and Holley 2011). More specifically, increases in father's educational attainment were significantly associated with decreases in imposter feelings. The significance of father's education might suggest that women in graduate school are challenging traditional feminine status, and therefore could be seen as taking on a male role and reacting to a male role model. However, more research is

needed to determine actual differences between the influence of mother's and father's educational attainment on imposter feelings.

Findings also suggest that racial identity was not a significant variable associated with experiencing increased imposter feelings for all racial minority groups sampled. Only Native American female graduate students exhibited significantly higher imposter scores. Conversely, Asian female graduate students experienced significantly lower imposter scores, contrary to previous research related to Asian American college students and imposter feelings (Cokley et al. 2013). These results may be impacted due to potential cultural differences between Asian American and Asian international populations; in this study, almost all Asian participants were international students.

Research suggests that Native American students' perceptions of confidence, competence and self-efficacy are integral to their motivation for academic achievement and persistence (Kerbo 1981; McInerney and Swisher 1995; Jackson, Smith and Hill 2003). Despite these findings, the development and impact of imposter characteristics has not been specifically applied to Native American success in higher education. This study's results provide a tool (CIPS) researchers can use to measure students' feelings of competence, confidence, and ability to succeed, which can offer additional data regarding the challenges Native American students face in higher education.

Conclusions based on this research reflect the intersectional nature of identity variables, given that mutually occurring variables were significantly correlated with an increase in imposter phenomenon scores. Examining identity variables together provides a more realistic picture of their contribution to imposter feelings in high-achieving women. Women of color may be more intensely affected by impostor feelings because of a double or triple minority status (Clance and Imes 1978; Clance et al. 1995), which can make the entire graduate school experience more difficult to navigate. They must often "leave themselves, who they are, at the door of graduate education in order to succeed" (Turner 2002:89). According to these women, the process of fitting in or aligning themselves with what is expected, causes identity (who they are) to take a back seat (Turner 2002). Gardner (2008) notes that "graduate students' individual demographic characteristics (race, gender, class) play an influential role in their preparation for the degree program and their experience in it" (p.127).

Ultimately, this research aids in understanding why high-achieving women may feel like frauds by illustrating how gender intersects with race, class, and parental educational attainment to influence the presence and intensity of imposter feelings. Further studies involving Native American students and the imposter phenomenon would be helpful in identifying and understanding the significance of this relationship to the lack of representation in higher education and to unpack the presence of imposter feelings in Asian women. Additionally, more research could identify and examine differences in the impact of maternal vs. paternal education levels on the presence and intensity of imposter feelings.

In conclusion, examining identity variables to give voice to students who are often marginalized or underrepresented because of identity differences not only provides a framework to understand and research identity and student identity development, but also addresses the larger purpose of institutional and social policy change. The present and future studies provide important insight for shaping institutional policies and programs that provide student support services within colleges and universities, and assist graduate departments in identifying the needs of new graduate student populations.

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Undergraduate Student Article Competition Winner

How Does Class Status Influence Perceptions of Individual Mental Health?

Brie Willert

ABSTRACT   Individuals in lower socioeconomic classes are said to have higher stress levels than those in higher classes, which in turn causes poor mental health for these individuals. Studies have shown that low income is associated with both low life evaluation and low emotional well-being. The present study worked to find support for this theory using the research question: How does class status influence perceptions of individual mental health? This study uses data from the 2010 General Social Survey (N= 1149) in which individuals between 18-89 years of age participated. Analyses of the results through multiple regression suggested individuals in lower socioeconomic classes experienced more days of poor mental health than did individuals in higher socioeconomic classes. Results also suggested other factors such as less education, being single, divorced, widowed, or separated and being female also negatively impacted levels of individual mental health. These findings support the notion that individuals in the lower classes rate themselves as having poorer mental health than do individuals in higher classes.

A wide variety of literature exists on the relationship between financial hardship and the development of social and emotional problems (Ponnet 2014). Family and individual functioning as well as interpersonal relationships become negatively affected by financial hardship as well (Conger, Conger, and Martin 2010). Low socioeconomic status (SES) and income are also associated with depression due to the stress of living with less money than one needs to make ends meet. Individuals of lower socioeconomic status have also been found to experience more chronic and uncontrollable life events and stressors than those in higher socioeconomic statuses (Santiago, Stump, and Wadsworth 2011).

The current study approaches this topic using the Family Stress Model. According to this model, income indirectly affects psychological stress and creates conflict due to concerns about individual financial situations. The impacts of financial distress are higher for those at the lower socioeconomic levels, as they do not always have access to resources to alleviate stress like others to which members of higher classes may have access. Using this theory, I will work to answer the question: How does class status influence perceptions of individual mental health?

To do this, I will be using data from the 2010 General Social Survey which focused on the question, "How many days of poor mental health have you experienced in the last 30 days?" Running descriptive statistics, I will provide the mean, range, and the standard deviation for my variables. Using correlation coefficients, I will examine the relationship between my dependent variable and all other variables. Using linear regression, I will control for certain variables, and examine remaining relationships. This paper first reviews past literature on this topic, which include vital pieces of information to support my research question. After providing background information, the methods and data used in this study will be described. After describing the data, results of my analyses will be provided. To conclude my paper, a discussion of the results will be provided to explain the social implications of my findings. The discussion section will be followed by a conclusion, which will provide suggestions for future research.

LITERATURE REVIEW

There are various theories used to explain the relationship between class level and poor mental health. One of the most frequently used theories is the Family Stress Model, also known as FSM. This model explains that economic problems will cause various stressors to occur, which impact family functioning. This model predicts that when economic hardship is high, individuals are at an increased risk for emotional distress (such as depression, anxiety) and behavioral problems (such as substance use), which in turn affects the way they are able to communicate and function with others. Using this model, it is shown that families in lower income households experience more stressors, which is detrimental to family functioning, and may negatively influence child development (Ponnet 2014). These stressors include factors such as low income, high debts, and negative financial events (increasing economic demands, work instability). These conditions tend to affect couples essentially through the economic pressures they create, such as unmet material needs that are considered necessities (food and clothing), the inability to make ends meet or pay bills, and having to cut back on necessary expenses such as expenses of healthcare or medical insurance.

According to the FSM, experiencing these kinds of strains or stressors creates an underlying psychological component of economic hardship, in addition to the obvious

stress hardship causes (Conger, Conger, and Martin 2010). Another study examining the relationship between socioeconomic status and levels of stress and mental health was conducted in 2011, involving 98 low-income families. This study found that poverty-related stress was directly related to anxious/depressed symptoms and social problems. It was also found that low SES and income are associated with depression due to the stress of living with less money than one needs. Individuals with lower income were also found to experience more chronic and uncontrollable life events and stressors, which thus impacts their functioning at higher levels than those with higher SES (Santiago, Wadsworth, and Stump 2011).

As mentioned before, the Family Stress Model also takes into account how parental stress due to economic hardship influences child development. According to the model, economic hardships predict problems in relationships between parents, which in turn cause problems in parenting such as uninvolved, inconsistent childrearing. This model also predicts that interparental conflict and problems within relationships will also be related to disruptions in parenting. This style of parenting impacts a child's cognitive and social competence, school success, and attachment to parents, as well as increases internalizing and externalizing problems in negative ways (depression or anxiety, aggressive/antisocial behavior) (Conger, Conger, and Martin 2010).

The impact of financial distress is higher in those with low income, because these families are not always able to purchase materials, experiences, and services that benefit a child's development or they lack social and institutional support (Ponnet 2014). Another finding by Duncan, Magnuson, and Votruba-Drzal (2014) supports the idea that families with higher incomes are better able to promote child and overall human development. This research shows that children whose parents had higher incomes met their kindergarten proficiencies at a much higher rate than children whose parents had lower incomes. In another example, adults with higher incomes had a lower percentage rate of arrest than did adults with lower incomes. Another study has shown that parents with low incomes reported higher incidents of adolescent emotional problems among their children than did parents with higher incomes. It was also found that in certain incidences low-income families experience, such as renting a house instead of buying a house, impacted the levels of behavior problems among their children. This may be because large concentrations of disadvantaged families live in areas of rental housing, and things such as the quality of the neighborhood and its context have worsened over time (Langton et al. 2011).

Other studies have examined the relationship between stressful life events and relationship satisfaction, using socioeconomic status, also known as SES, as a moderator. The results show that the association between stressful life events and relationship satisfaction was stronger for individuals with low SES compared to respondents with high SES. The association between mental health and relationship satisfaction was also stronger for low-SES respondents compared to respondents of high SES. This is because

economic disadvantage makes other stressful events and mental health problems more challenging and can impair a couple's ability to communicate effectively (Maisel and Karney 2012). Another example comes from research conducted by Kirschenbaum, Oigenblick, and Goldberg in 2000 that examined the relationship among well-being, work environment, and proneness to work accidents. Results found that poor housing conditions, having feelings of anger or conflict in interpersonal relationships, as well as being unsatisfied with home life also increase the chance of work injury. This is because these types of stressors decrease attention to a person's task, often due to preoccupation of the mind, therefore increasing chance of injury. Yet another example of this concept comes from a study conducted by Krieger et al. in 2010. This article examines the relationship among different aspects of those with low income such as their home life, work life, and neighborhood, and how these aspects affect their health. The results found that 82% of respondents experienced at least one occupational hazard such as workplace abuse. Seventy-nine percent experienced at least one social hazard such as sexual or racial discrimination, 34% of respondents experienced a relationship hazard such as intimate partner violence. All these results were associated with an increased rate of psychological distress.

Family processes that may seem unimportant for some high-income families also can become stress factors for families with low incomes. For example, in a study by Hughes et al. conducted in 2015, the relationship between emotional distress among parents and parent feeding styles in low-income families was tested. Emotional distress among parents was found to have negative effects on their feeding habits, such as lacking important aspects like fruits and vegetables, uninvolved feeding styles, and turning to less healthy, yet more inexpensive, meals for their children. These factors influence obesity in adolescents, which results in poorer health, which strongly relates to increased stress levels..

A study conducted in 2013 also contributes to this idea. Griggs, Casper, and Eby examined the relationship between support from work, family, and community aspects and the impact those domains have on work-family conflict. To study this, researchers surveyed 193 low-wage workers throughout the US. The results of their study showed that work-family conflict is reduced when individuals have support from outside sources. A unique finding in these results for low-income families comes from the fact that the outside sources for these families are nontraditional. Respondents reported feeling no support from coworkers or their places of employment in general. Respondents also reported little support from their partners. This is possibly because often low-income couples are working equal amount of hours, with their main contribution being financial. Another unique result found was that many of the respondents considered child financial support to be a large help; child financial support refers to parents' children helping with family needs, such as employment at a very young age to contribute to the family income or caring for younger siblings in order to reduce work-family conflict.

These unique situations for low-income parents as well as the children in these families contribute to added stress, said Griggs, Casper, and Eby (2013). Other studies have found that low levels of daycare quality cause higher levels of parental stress among low-income mothers (Bigras, Lemay, and Liesette 2012).

A unique outlook on this concept comes from research completed after the economic recession of 2008. Rothwell, Chang-Keun (2010) discovered that although most families were affected in some way by the recession, those with low incomes felt the impact at a much higher rate. This is because small fluctuations in incomes can create many large problems within a family, and families with low incomes have less access to financial and other supportive services. Economic resources are recognized to play an important role in family functioning, and this article focused on the effect assets have on a family's financial situation and stress. Results found that the more assets a family has, the less likely they are to be affected by an economic dilemma. Assets were also found to be stress suppressing in terms of family demands. Because of this, low-income families are affected by economic dilemmas and experience stress at higher rates, because they do not have many assets.

METHODS

Research Question: How does class status influence perceptions
of individual mental health?

Hypothesis 1: Individuals with lower socioeconomic status will report more days of poor mental health than those with higher socioeconomic status.

This paper examines the relationship between class identification and individual perceptions of mental health. Class ID in this case is measured by subjective identification. For this paper, I used data from the 2010 General Social Survey (GSS). The GSS is a survey conducted by the National Opinion Research Center, also known as NORC, which monitors social change throughout American society. NORC randomly selects households to participate in the survey, keeping certain quotas in mind such as quotas of sex, age, and employment status. The survey is usually conducted in-person and takes about 90 minutes to complete. Since 1994, the GSS has been conducted every other year. With 2044 respondents, the GSS from 2010 focused on questions regarding many different topics, such as national spending priorities, marijuana use, crime and punishment, race relations, quality of life, and confidence in institutions.

The dependent variable examined in this paper is mental health. The question used to measure this variable is: How many days of poor mental health has the respondent experienced in the last 30 days? The response categories ranged from 0-30

days. The primary independent variable examined in this paper is class identification. Response categories ranged from 1-4, 1 being lower class, 4 being upper class. Control variables included in this research are: age, education level, number of children, sex, race, and marital status. For age, respondents provided their age in years, with a specific category created for ages 89 or older. Respondents also provided the number of years of schooling they have received, with a specific category created for individuals who have had 20 or more years of education. Number of children follows this pattern, with a specific category created for eight or more children.

The control variables of sex, race, and marital status were recoded into dichotomous variables. Sex was recoded so that male=1, and female=0. Race was recoded into three different dummy variables; the first dummy variable was recoded so that White=1, Not White=0. The second dummy variable was recoded so that Black=1, Not Black=0. The third dummy variable was recoded so that Other Race=1, every other race=0. Marital status was also split into three different dummy variables. The first dummy variable was recoded so that 1=married, 0=not married. The second dummy variable was recoded so that 1=Never married, 0=Currently or previous married. The third dummy variable was recoded so that 1=widowed, divorced, or separated, 0=every other response.

In conducting analysis of the data, I will conduct a univariate analysis, which will examine the descriptive statistics of my sample, providing the mean, range, and standard deviation of my variables. Then, I will conduct a bivariate analysis, and examine Pearson correlation coefficients, to explore the correlations between the independent variables and the dependent variable, as well as the significance of these correlations. Finally, I will conduct a regression analysis, using a baseline model, a partial model, and a full model. The baseline model will include only the control variables, to determine the significance of them. The partial model includes only the primary independent variable, while the full model includes both the control variables and the independent variable, to determine the remaining significant correlations between the variables, which will provide a better understanding of the relationship between the independent variables and days of poor mental health.

RESULTS

Descriptive statistics are provided in Table 1. The total number of people involved in this sample is 1,149. In total, 47% of respondents were male. The average age of the respondents in this sample was 43 years old. The average level of schooling completed by this sample was 13.99, which represents having completed at least some college. With regard to racial demographics, 14% of the sample identified as Black, and 9% of

the sample identified as a race other than Black or White. Twenty-eight percent of the sample reported never being married, while 24% of the sample identified as widowed, divorced, or separated. The mean number of children reported by this sample was 1.6, meaning the average number of children respondents in this sample had is one child. This table shows the mean score of my dependent variable, days of poor mental health, was 3.82. This means that the average number of poor mental health days reported by respondents was 3-4 days out of a 30-day span. The mean score of my primary independent variable, subjective class identification, was 2.4, which represents the category of working class.

Table 1: Descriptive Statistics

	Mean	Range	Standard Deviation
Days of Poor Mental Health	3.82	0-30	7.32
Subjective Class Identification	2.40	1-4	.61
Age	43.69	18-89	13.86
Black	.14	0-1	___
Other Race	.09	0-1	___
Highest Level of School Completed	13.99	0-20	3.04
Male	.47	0-1	___
Never Married	.28	0-1	___
Widowed, Divorced, Separated	.24	0-1	___
Number of Children	1.67	0-8	1.53

Notes: 2010 General Social Survey; N=1,149.

Table 2 provides the bivariate correlations between my variables. This table shows there is a significant negative correlation between my dependent variable, days of poor mental health, and class identification (r=-.151, p < .05). This suggests that as a person's class status increases, the number of poor mental health days experienced decreases. This table also shows a significant negative correlation between days of poor mental health and age (r=-.098, p < .05). This suggests that as a person's age increases, the number of poor mental health days experienced decreases. A significant negative correlation between days of poor mental health and the "Other" race category also exists (r=.068, p <.05). This correlation suggests that individuals who were not Black or White experienced more days of poor mental health than did individuals who were Black

Table 2: Pearson Correlation Coefficients

	Days Poor Mental Health	Class ID	Age	Black	Other Race	Highest School Completed	Male	Never Married	Widowed, Divorced, Separated	# of Children
Days Poor Mental Health	1	-.151*	-.098*	-.022	.068*	-.144*	-.067*	.059*	.073*	.014
Class ID		1	.168*	-.133*	-.032	.320*	.018	-.144*	-.023	-.047*
Age			1	-.084*	-.135*	-.049*	-.009	-.497*	.380*	.427*
Black				1	-.133*	-.083*	-.048*	.222*	-.013	.048*
Other Race					1	-.087*	.015	.090*	-.048*	-.004
Highest School Completed						1	-.004	.005	-.106*	-.288*
Male							1	.030	-.116*	-.022
Never Married								1	-.393*	-.404*
Widowed, Divorced, Separated									1	.213*
# of Children										1

Notes: 2010 General Social Survey, N= 1,149; *$p<.05$

or White. Days of poor mental health also correlates with the amount of education a respondent had (r=-.144, $p < .05$). This suggests that the more education a respondent had, the less poor mental health days they experienced. There was also a significant negative correlation between days of poor mental health and sex (r=-.067, $p < .05$). This suggests that men reported fewer days of poor mental health than did women. A positive correlation between amount of poor mental health days and being single also exists (r=.059, $p < .05$). This correlation suggests that respondents who were single experienced more days of poor mental health than did those who were not single. There was a final positive correlation found between number of poor mental health days and the respondent being widowed, divorced or separated (r=.073, $p < .05$). This suggests

that respondents who were widowed, divorced, or separated experienced more days of poor mental health than did respondents who were not widowed, divorced, or separated.

The results of my regression analyses are presented in Table 3. Controlling for the effects of the demographic variables explains 4.3% of the variance in number of poor mental health days (R^2 = .043). I also find that when controlling for the effects of the

Table 3: Regression Results Predicting Poor Mental Health

	Model 1- Baseline Model	Model 2- Partial Model	Model 2- Full Model
Constant	8.726 (1.386)	8.103 (.857)	10.311 (1.456)
Age	-.057* (.019)		-.049* (.019)
Black	-1.136 (.647)		-1.136* (.647)
Other Race	1.136 (.763)		1.163 (.763)
Highest Level of School Completed	-.223* (.074)		-.127 (.079)
Male	-.953* (.433)		-.877* (.432)
Never Married	1.251* (.593)		1.186* (.591)
Divorced, Widowed, Separated	1.953* (.548)		1.874* (.546)
Number of Children	.234 (.168)		.191 (.168)
Class Identification		-1.785* (.346)	-1.328* (.379)
R^2	.043	.023	.054
N	1,149	1,149	1,149

Notes: 2010 General Social Survey, Unstandardized coefficients shown; Standard errors in parentheses; *p*<.05*

other variables, there is a significant association between days of poor mental health and age (b = -.057, p < .05). This suggests that as a person's age increases, the amount of poor mental health days experienced decreases. There is also a significant association

between days of poor mental health and level of school completed (b = -.223, $p < .05$), even when controlling for the effects of the other variables. This suggests that the more education a person has, the lower the amount of poor mental health days they experience. Controlling for the effects of the other variables, regression analyses also resulted in an association between sex of respondent and days of poor mental health (b =-.953, $p < .05$). This suggests that males reported fewer days of poor mental health than did females. There is also a significant association between days of poor mental health and being single (b = 1.251, $p < .05$). This suggests that respondents who were single reported more days of poor mental health than those who were not single. Lastly, there was a significant association between days of poor mental health and being divorced, widowed, or separated (b = 1.953, $p < .05$). This suggests that those who are divorced, widowed, or separated have more days of poor mental health than do those who are not divorced, widowed, or separated. Number of children (b = .234, $p > .05$), as well as race (b = 1.136, $p > .05$), was not significantly associated with days of poor mental health. When examining my primary independent variable, class identification, the results for this explained 2.3% of the variance in my dependent variable (R^2 = .023). When adding in the effect of this variable, an association between days of poor mental health days and class identification was found (b = -1.785, $p < .05$). This suggests that as an individual's class status increases, the number of poor mental health days experienced decreases. This finding supports my hypothesis: individuals with lower socioeconomic status will report more days of poor mental health than those with higher socioeconomic status.

This relationship remains statistically significant when adding in the control variables. The full model of my regression analysis explained 5.4% of the variance in this data (R^2 = .054). After constructing my full model, the original significance of two variables was affected. In the partial model, the control variable of Black had no significance. After the full model analysis was conducted, the control variable of Black became significant (b = -1.136, $p < .05$). This suggests that those who are Black report less days of poor mental health than other races, when controlling for the other variables. The association between days of poor mental health and highest level of school completed disappeared after constructing the full model (b = -.127, $p > .05$). This suggests that there is no association between days of poor mental health and level of school completed, when controlling for the effects of the other variables in my models.

DISCUSSION

When economic hardship is high, those who experience the hardship are at an increased risk for emotional distress, such as depression or anxiety. Using the Family

Stress Model, we might expect that individuals in lower-income households experience more stressors, which is detrimental to family functioning, as well as individual functioning (Ponnet 2014). Experiencing these stressors creates an underlying psychological component to economic hardship (stressors cause psychological dysfunction) in addition to the obvious stressors that occur (Conger, Conger, and Martin 2010). Several studies have been conducted to support these relationships, and the current study examines these relationships further.

This paper explored the research question: How does class status influence perceptions of individual mental health? In conducting my analysis, it was found that individuals who categorized themselves into higher-class statuses reported fewer days of poor mental health than did individuals who categorized themselves into lower-class statuses. This finding supports the literature surrounding this topic, as well as my hypothesis: Individuals with lower socioeconomic status will report more days of poor mental health than those with higher socioeconomic status. This may be due to factors such as individuals in lower classes having less access to resources to alleviate stress, experiencing financial distress more frequently, or having unmet material needs that are necessities such as food and clothing (Conger, Conger, and Martin 2010).

Factors such as level of education, marital status, and sex were also related to the amount of poor mental health days reported. These significant findings are important to discuss, as they may reflect a person's class status. Those with higher education reported experiencing fewer days of poor mental health. This could be explained by the fact that individuals with higher education tend to fall into higher statuses of class. This could also be because those who have more education may have more knowledge of coping skills to deal with poor mental health. Those who had been divorced, widowed, or separated, as well as those who were single, reported experiencing more days of poor mental health than did those who were married. This may also be explained in terms of class status; having a single income compared to a dual income may cause these individuals to be in a lower-class status, which in turn causes stress for the individual. This may also be because divorce, separation, and losing a spouse are all highly stressful, hard situations. This may contribute to their feelings of poor mental health. In the case of those who are widowed, divorced, separated, as well as single, they may lack interpersonal support, which in turn may cause them to have poorer mental health. In terms of sex, males reported experiencing fewer days of poor mental health than did females. This could be explained in terms of class as well; the wage gap between men and women may cause men to be in a higher position of class than women, which may decrease the amount of poor mental health days men experience compared to women. This may also be due to the social norm that women are more likely to express their mental issues than men are, therefore women more readily admitted they had suffered from some days of poor mental health.

After conducting a regression analysis, my dependent variable only accounted for 2.3% of the variance in the data. Because of this, it is important to discuss some limitations of this study. First, the topic of this study focuses on class status being the main causation of an individuals' poor mental health, which may be too narrow of an explanation. It is important to also explore societal factors, as well as individual psychological factors, that may also cause reports of poor mental health. For example, in regards to men experiencing fewer days of poor mental health than women, it is important to consider societal factors, such as social norms, to explain their levels of poor mental health. Women are expected to be more emotional, as well as carry more responsibilities, such as being a caregiver as well as an income-earner (Mayor, 2015). These factors may also explain why women report having more days of poor mental health than men, in addition to their class identification.

Second, the Family Stress Model used in this analysis assumed participants will perceive "stress" to fall under the category of poor mental health, which may have skewed respondents' answers to the question. It should be taken into consideration that some individuals may not consider stress to translate into poor mental health, but instead are viewed as two different issues. To correct this, future researchers should work to restructure the question for the variable of days of poor mental health by providing a description of what is meant by the concept of poor mental health, to clarify the understanding of the question at hand.

Third, the subjective measure used to interpret the variable of days of poor mental health may also skew the results. Because a subjective measure is used, those who are responding to the question may not always have the same interpretation of what they consider poor mental health to mean. For example, a situation that may be found to be stressful for some may not be considered to be stressful to others, which influences their response to the question. Some respondents may not have considered the events in their life to impact their mental health, one possible explanation being that they are accustomed to these events, so therefore they do not consider themselves to be impacted psychologically by this event, while other respondents may find the same situation impactful on their mental health. To correct this possible problem, future researchers should work to create an objective measure to interpret the days of poor mental health variable to create uniformity in the way respondents interpret the question.

Last, the topic of discussion examined in this paper may be a bit too broad for the sample that was used. The 2010 General Social Survey covers a large spectrum of questions concerning multiple issues within society, as well as individual experiences, but does not go into detail about these topics. Because of this set-up, it poses difficult to pinpoint the influences of poor mental health in this situation. To correct this, future researchers may work to create follow-up questions regarding a respondent's personal perception of mental health. Questions regarding situations a respondent has been

through in the past 30 days, such as financial hardships or lack of resources, are important to consider in order to create a better understanding of the level of perceived mental health, and how these experiences may relate to class identification.

CONCLUSION

Living with financial hardship is proven to be detrimental to one's physical and mental health (Ponnet 2014). The present study worked to research this relationship further by investigating the relationship between class identification and individual perceptions of mental health. The findings of this study revealed that class identification does indeed influence an individual's perceived mental health. Factors such as level of education, marital status, race, and sex were also found to influence perceived mental health, which reiterates the importance of using a broad scope when determining factors that may influence poor mental health. Taking into consideration the limitations mentioned above, future research could provide a stronger argument for the role class identification plays in perceptions of mental health, by including various in-depth questions concerning the causes of a person's perceived poor mental health, and determining whether those causes relate to class identification more directly.

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