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ABSTRACT

One of the demographic groups in America that has seen a marked increase in suicide rates in recent years is black males, especially young black males. While there have been various arguments and theories put forth to explain this trend, theory explaining the rise in black male suicide is still under-developed. This analysis focuses on Stack's (1998) thesis that increased educational attainment among blacks is not producing expected economic gains. Results suggest that when the main effects of education and poverty are controlled, lack of educational payoffs is not significantly related to increased suicide risk. Wasserman's (1999) and Breed's (1970) work regarding how fatalistic police contact increases black male suicide is also examined, and their work receives some support.

INTRODUCTION

Ever since the writings of Masaryk (1881[1970]), Morselli (1882), and Durkheim (1897[1951]), sociologists have argued about the validity of social explanations for variation in suicide rates. Differences in fertility rates, religiosity, marital status, gender, and age are some of the more common sociological variables cited that explain why some populations have high suicide rates while other populations have low rates (Lester 2000; Fernquist and Cutright 1998; Pampel 1998). Most research on suicide rates over the past century, though, has been done either on white populations or on populations in general with little regard to racial differences in suicide. While it is true the last few decades have seen an increase in studies devoted to explaining variation in non-white suicide (Lester 2000, 1992; Stack 1998; Davis 1980), theory on explaining variation in non-white suicide is still under-developed. Although there has been an increase in black male suicide rates over the past two decades (Gibbs 1997; Nisbet 1996), specifically among black males in their late teens through their 20s (Davis 1980), reasons for these increases are still being
debated. Some authors argue that educational differences between whites and blacks impact variation in black male suicide rates (Stack 1998; Davis 1980); others argue that getting in trouble with the law impacts black male suicide (Wasserman 1999); still others say that black male suicide is impacted by social and economic deprivation that many blacks experience (Burr, Hartman, and Matteson 1999).

While some studies on black suicide use data specific to age and gender, most studies cover a period of only a few years (Burr, Hartman, and Matteson 1999; Stack 1998; Nisbet 1996). Lester (1998 p. 124) explains that

"Studies of young (black) adults and elderly . . . might clarify the relatively high suicide rates of young black adults and the relatively low suicide rates of black elderly. This kind of research is needed if we are going to shed further light on black suicide and how its causes and motivations might differ from those of white suicide."

Using data on suicide rates according to age and sex in the United States from 1947-1998, the focus of this study is on how a social psychological issue in the lives of black males, that of educational attainment and the economic payoffs that are expected to follow, is related to black male suicide rates. The impact that fatalistic police contact has on black male suicide rates is also examined. I also discuss other relevant variables that are known to impact black male suicide rates.

BLACK MALE SUICIDE AND EDUCATION

Durkheim's theory on suicide (1897[1951]) states that the more integrated people are into social life, the lower will be the suicide rate. One of the current least-studied variables Durkheim used in his seminal work on suicide is education. Although Durkheim argues that education and suicide are positively related (1897[1951] table XIX), he ultimately concludes that "Man seeks to learn and man kills himself because of the loss of cohesion in his religious society; he does not kill himself because of his learning" (p. 169). In other words, education is not ultimately a cause of suicide. This assumption that education does not have a direct impact on suicide has come under debate recently, at least for black males. Stack (1998) argues that one of the fundamental issues impacting black male suicide lies in educational attainment. He (p. 296) writes that blacks "... have made substantial gains in educational attainment over the last 30 years." Further, "by 1986, black median education was 97 percent that of whites." Notwithstanding such significant increases in educational attainment for blacks, Stack shows that blacks have not gained any ground relative to whites in terms of family income. For example, in 1970, black family income was 61 percent that of white families, and in 1992 the percent actually dropped to 57. Stack writes:

"Educational gains juxtaposed with no observable aggregate gain in the labor market creates a situation of anomie (Durkheim 1897[1951]): A group has gained the culturally legitimate means to financial success but, nevertheless, has not been rewarded with financial success. This creates a structural situation conducive to deviant behavior" (p. 296).
Using individual-level data from the 1989 national mortality detail file, Stack finds that educational attainment is inversely related to white suicide while it is positively related to black suicide. Drawing from Davis' (1982) work on black suicide and social isolation, Stack (1998 p. 300) says that "... as more African Americans have become status aspirants, there has not been any substantial overall change in the economic position of African Americans. While African Americans have made large gains in educational attainment, these gains in education have not translated into a higher aggregate gain in income or other economic rewards associated with education."

I attempt to build on Stack's research by examining how the arithmetic difference between black poverty rates and black educational attainment is related to black male suicide rates.

Other research in the realm of education and suicide reports that occupational attainment (Davis and Short 1979), income (Hammermesh 1974), and educational attainment (Davis 1980; Lester 1990-1991; 1998) are positively related to black male suicide rates. Fernquist (2001) finds that for black males aged 55 and over in the United States from 1991-1994, suicide risk is relatively high for those with a college education, while it is relatively high for males aged 25-54 with little or no education. In the Kansas City, Missouri area, though, Fernquist and Cai (2000), find that the level of educational attainment is unrelated to suicides of blacks during 1995-1997.

BLACK MALE SUICIDE AND RACIAL INEQUALITY

Durkheim (1897[1951]) argued that poverty actually reduces suicide risk because "... it is a restraint in itself." In other words, Durkhiem says that impoverished people have limited aspirations and, therefore, are not prone to lament their impoverished situation. Current research, though, argues otherwise. In their examination of racial inequality and social integration/regulation in relation to suicide, Burr, Hartman, and Matteson (1999) studied black male suicide in United States' SMSAs circa 1980. One of their main goals was to study black male suicide in relation to racial inequality (as measured by income and occupational variables). Similar to Stack (1998), they hypothesize that "the persistence of high levels of inequality and isolation in a historical context where increased opportunity through legal remedies was supposed to bring blacks and whites closer together is linked to increased suicide risk among blacks" (p. 1049). They studied suicide counts of young black males (aged 15-24) as well as that of black males aged 15 and older. In their full regression models, they report that inequalities in income and occupation between blacks and whites increase black male suicide. For black males aged 15-24, Burr et al. also find a positive association between income and occupational inequality and suicide.

Although Burr et al.'s theory on black male suicide stresses the importance of economic inequality, I examine economic inequality in conjunction with educational attainment (as noted above) to test the hypothesis that, when expected gains from education do not occur, suicide rates increase among black males.
BLACK MALE SUICIDE AND TROUBLE WITH THE LAW

Another approach to studying black male suicide comes from the work of Breed (1970) in which he argues that black male suicides in New Orleans were more likely to have been preceded by police contact than white suicides. He (p. 158) writes that "only 10 per cent of the white males (who committed suicide) were enmeshed in troubles with police and law courts, while more than one-half of the Negroes had these problems." Breed further explains that, because of the frequent manner in which police stop and harass young black males for no apparent reason, black males often have a fear of the police and "would rather kill themselves before going to jail" (p. 158). Breed's work draws from Durkheim's (1897[1951]) fatalistic type of suicide—suicide from over-regulation. Durkheim argued that when persons receive too much social control this control places too much pressure on them and the result is fatalistic suicide

After reviewing a number of studies on black suicides and the criminal justice system, Wasserman (1999 p. 8) concludes that "the rise of African American males suicides since the 1970s is (in part) related to their increased interaction with law enforcement officials." Due to increased emphasis on America's War on Drugs and "nationwide attempts to control crime, proportionately more African American males are being arrested and placed in jail" (p. 7). Wasserman theorizes that this over-regulation of blacks by police has resulted in (1) increased suicide rates among black males due to their exasperation and frustration with law enforcement and (2) more black males employed in the field of criminal justice to help those black males who are increasingly in trouble with the law. Since Wasserman explains that persons employed in the field of criminal justice have high rates of suicide, these two reasons cited above result in increased suicide rates among black males.

In his data analysis of the Detroit, Michigan and the Kansas City, Missouri areas, Wasserman finds that problems with the criminal justice system for blacks, as measured by robbery, murder, and burglary rates, are largely unrelated to fluctuations in black suicide rates. Stewart (1980) finds no significant association between either the violent crime or property crime indexes and black suicide. The validity of Breed's and Wasserman's arguments that fatalistic control of police over young black males increases suicide will be tested.

In contrast to Breed's and Wasserman's arguments, Henry and Short (1954) argue that frustration results when environmental factors block people's aspirations. This frustration increases the risk of either suicide or homicide, depending on how much control people feel they have over their lives. Henry and Short argue that suicide and homicide vary inversely, so if suicide rates increase, then homicide rates decline. Since economically deprived people tend to feel they have less control over their ability to make a good living, according to Henry and Short, and since blacks tend to be in poverty more than whites (U.S. Bureau of the Census, 2002, Table 621), it would seem likely that the frustration experienced by black males due to the over-control by police would result in increased homicide, not suicide. It is possible, therefore, that frustration black males encounter from police contact will result in decreased suicide rates among black males. Statistical analysis will reveal if Breeds' and Wasserman's arguments or those by Henry and Short are more accurate in explaining variation in black male suicide rates.
A relevant control variable is lagged suicide rates. Stack (1992) explains that controlling the level of prior existing suicide rates is essential in time series analysis of suicide. Therefore, a lagged dependent variable must be included as one of the predictors in analyses on black suicide rates. Although fertility is another important control variable (Durkheim 1897[1951]; Lester 1990-1991), it is not included in regression analysis since bivariate correlations with suicides rates were not statistically significant.

In summary then, the two main hypotheses to be tested in this analysis are whether or not (1) expected pay-offs from educational attainment increase suicide rates among black males when these pay-offs do not occur and (2) police contact with black males increases suicide rates among black males.

**DATA AND METHODS**

The years examined in this statistical analysis of suicide rates are 1947, 1950, 1952, 1957, 1959, 1962, and 1964-1998. The sample size for all correlations and regression models below, therefore, includes data for 41 years. The rationale for including these years is explained below.

Suicide rates for black males aged 15-24, 25-34, . . . 55-64 are from Lester (1998) and the National Center for Injury Prevention and Control (2001). Lester (1998) lists age-sex specific suicide rates from 1947-1992. Data on suicide rates for 1993-1998 are from the National Center for Injury Prevention and Control (2001). While it is true that suicide among blacks is indeed a rare phenomenon (Lester 1998), the study of suicide rates among minority populations is warranted since one of the U.S. Department of Health and Human Services' (2000) goals to achieve a healthier society is to reduce the suicide rate by more than one-half (from over 11 to 5 per 100,000 population) in 2010. As data on educational attainment, a key independent for the male models, only go back to 1947, the period analyzed is from 1947-1998. A lagged dependent variable is used as one of the predictors of black male suicide rates. Suicide rates for 1946 are used as the lagged dependent variable for 1947 suicide rates.

To test Stack's (1998) hypothesis that increased educational attainment is not paying off financially for blacks and promotes increased black suicide (this variable is labeled "educational payoffs"), I use data on both the percent of black persons aged 25 and over completing four years of college (U.S. Bureau of the Census 2000b) and the percent of black people below the poverty level (U.S. Department of Commerce 2000). Specifically, the measure of educational payoffs is calculated by subtracting the percent of black persons completing college from the percent of black persons in poverty for each of the 41 years. Black poverty rates and black college educational attainment are also included in regression models in order to determine how educational payoffs impacts suicide rates in the presence of the main effects of poverty and education.

For data on educational attainment prior to 1962, data were only available for the years 1947, 1950, 1952, 1957, and 1959 and I chose not to interpolate the data for missing years because
there is no guarantee that interpolating data will generate the figures that actually occurred. Therefore, the years examined are 1947, 1950, 1952, 1957, 1959, 1962, 1964-1998. Race-specific data on poverty were available back only to 1959, and so 1959 data are used for pre-1959 years.

To assess the impact that getting in trouble with the police has on black suicide (Breed 1970; Wasserman 1999), data on the number of blacks arrested for (1) serious crimes and (2) drug crimes were obtained (Federal Bureau of Investigation 1947-1998). Serious crime arrests are arrests for murder, rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson. Drug crime arrests are arrests for drug abuse, driving while intoxicated, liquor laws, and drunkenness. Because drug crime rates and serious crime rates were correlated .76, only serious crime rates are used in analyses since serious crime arrests tend to have a stiffer penalty associated with them. To calculate annual rates per 1,000 black population, population figures for blacks were obtained from the U.S. Census Bureau (1999, 1996) and the U.S. Department of Education (1993). Data on fertility rates are from the U.S. Bureau of the Census (1950-2002), and are measured as the rate per 1,000 black women aged 15-44.

The OLS method of estimation was used to generate regression coefficients. To check for collinearity problems, Allison's (1999) suggestion that any Variance Inflation Factor (VIF) over 2.5 indicates problematic collinearity among the predictors was employed. VIFs showed that intercorrelations between educational payoffs and crime rates caused VIFs to exceed 2.5. To control this problematic collinearity, crime rates were regressed on educational payoffs, and the regression residuals are used as the measure of crimes rates. Intercorrelations between black poverty, black education, and educational payoffs also increased VIFs over 2.5. Black poverty was regressed on black education, and educational payoffs was regressed on both black poverty and black education, and the residuals are used as the measures of black poverty and educational payoffs, respectively. Finally, to remove harmful collinearity between the lagged dependent variable and the other independent variables, the lagged dependent variable was regressed on all other independent variables simultaneously (VIFs in all five models were above 2.5 without residualizing the lagged dependent variable), and the regression residuals are used as the measure of the lagged dependent variable. This process of residualization reduces correlations among the problematic independent variables to .00. After residualization, no VIF in any of the models in Table 2 is over 2.5. Both the Durbin's h statistic (the statistic to use to detect autocorrelation when a lagged dependent variable is one of the predictors) and the skewness statistic in Table 2 are normally distributed, and a value greater than |1.96| indicates problems with autocorrelation or skewness, respectively. Neither autocorrelation nor skew significantly biased the regression models. Suicide rates in Table 2 models were logged because when non-logged rates were used, the computer program (Shazam) was not able to calculate the Durbin's h statistic. It should be noted, though, that all correlations between the dependent variables and the corresponding logged dependent variables were at least .97.

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[189]

RESULTS
Time series data for both the black poverty rate and educational attainment for black adults aged 25 and over reveal that, although the gap between poverty and educational attainment declines over time, educational attainment rises steadily from the late 1940s (2.4%) through the late 1990s (13.9%), while the poverty rate remains fairly constant from the late 1960s through the mid 1990s (e.g., at about 30%).

Table 1 shows means and standard deviations of the variables, as well as zero-order correlations between the independent variables and the age-sex specific suicide rates. Because fertility rates had no significant correlations in any of the bi-variate correlations or regression models, it was dropped from tables 1 and 2. Suicide rates are highest for males aged 25-34 and are lowest for the oldest and youngest age groups. Educational payoffs are significantly and inversely related to suicide rates for males aged 15-54, while the two variables are positively related for those aged 55-64. Poverty rates are inversely related to suicide rates for 15-44 year-olds, while educational attainment is positively related to suicide rates for 15-44 year-olds. These two independent variables switch signs for their correlations with suicide rates for 55-64 year-olds. Residual crime is significantly and positively related to suicide for males aged 25-44. The lagged dependent variable is not significantly related to any of the suicide rates.

Table 2 shows standardized regression coefficients. In none of the five regression models is educational payoffs significantly related to male suicide rates. However, in models for males aged 15-44, poverty is inversely related to suicide rates while educational attainment is positively related to suicide rates. Educational attainment is inversely related to suicide rates for males aged 55-64. The lagged dependent variable is related to an increase in suicide rates for males aged 15-34, and residual crime is related to an increase in suicide rates for males aged 15-44.


<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>15-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>IV Mean</th>
<th>IV S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Res. Lag Dep. Variable</td>
<td>.20</td>
<td>.17</td>
<td>-.13</td>
<td>-.06</td>
<td>-.09</td>
<td>--</td>
<td>---</td>
</tr>
<tr>
<td>Educational Payoffs</td>
<td>-.93*</td>
<td>-.87*</td>
<td>-.84*</td>
<td>-.48*</td>
<td>.44*</td>
<td>28.07</td>
<td>11.23</td>
</tr>
<tr>
<td>Residual Crime</td>
<td>.13</td>
<td>.31*</td>
<td>.31*</td>
<td>.18</td>
<td>.08</td>
<td>0.00</td>
<td>3.51</td>
</tr>
<tr>
<td>Black Poverty</td>
<td>-.89*</td>
<td>-.88*</td>
<td>-.82*</td>
<td>-.49*</td>
<td>.43*</td>
<td>35.82</td>
<td>8.29</td>
</tr>
<tr>
<td>Black College Education</td>
<td>.86*</td>
<td>.67*</td>
<td>.70*</td>
<td>.34*</td>
<td>-.38*</td>
<td>7.76</td>
<td>3.69</td>
</tr>
<tr>
<td>DV Mean (not logged)</td>
<td>11.68</td>
<td>18.73</td>
<td>14.50</td>
<td>12.12</td>
<td>11.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DV S.D. (not logged)</td>
<td>4.38</td>
<td>4.26</td>
<td>2.54</td>
<td>1.51</td>
<td>1.40</td>
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</tr>
</tbody>
</table>

* p <.05
Table 2. Standardized Regression Coefficients for Models on Black Male Suicide Rates (N=41)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>15-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Res. Lag Dep. Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual Educational Payoffs</td>
<td>.19**</td>
<td>.15*</td>
<td>-.12</td>
<td>-.05</td>
<td>-.04</td>
</tr>
<tr>
<td>Residual Crime</td>
<td>.12*</td>
<td>.27**</td>
<td>.31**</td>
<td>.24</td>
<td>.09</td>
</tr>
<tr>
<td>Residual Black Poverty</td>
<td>-.49**</td>
<td>-.60**</td>
<td>-.47**</td>
<td>-.32</td>
<td>.21</td>
</tr>
<tr>
<td>Black College Education</td>
<td>.82**</td>
<td>.72**</td>
<td>.71**</td>
<td>.28</td>
<td>-.38*</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.93</td>
<td>.88</td>
<td>.79</td>
<td>.20</td>
<td>.09</td>
</tr>
<tr>
<td>Durbin's h</td>
<td>0.53</td>
<td>-1.55</td>
<td>-0.39</td>
<td>-0.45</td>
<td>-0.13</td>
</tr>
<tr>
<td>Skewness</td>
<td>.48</td>
<td>.40</td>
<td>-.66</td>
<td>-.39</td>
<td>.43</td>
</tr>
</tbody>
</table>

* p<.05; ** p<.01

Explained variance, adjusted for degrees of freedom, is high for the three youngest groups (between .79 and .93), while it is fairly low for the two older age groups (.20 and .09, respectively).

CONCLUSION

The present research focused on two different theories of black male suicide. Stack (1998) argues that education and suicide for blacks are positively related since educational gains made by blacks are not paying appropriate economic dividends for blacks. Using data measuring changes in poverty relative to changes in educational attainment, the current analysis does not show definitive support for Stack's assertions. When levels of black poverty and black educational attainment are controlled in regression analysis, the main effects of poverty and education, rather than educational payoffs, are what significantly impact black male suicide rates. Instead of suggesting that educational attainment is not resulting in dividends that black males hoped for, results in table 2 suggest that (1) poverty reduces the risk of suicide for black males while (2) educational attainment increases the risk of suicide for black males. Although more and more black males have received a college education since the 1940s, only a little more than one in 10 black males had a college education by the late 1990s. In Durkheimian terms, since relatively few black males have obtained a college education in recent decades, this group has been experiencing low levels of social integration. If the majority of black males (and black adults as a whole) have less than a college education, than those with a college education would have fewer opportunities for integration into social networks among other black adults. In a similar study, Fernquist (2001) finds that educated black males (and females) have an increased
risk of suicide due to a lack of integration into black culture since the majority of blacks do not have a college education. Similar arguments about social integration can be made about poverty. The data used in this analysis show that the frequency of poverty among blacks, although declining in recent years, is still about one in four. Durkheim's writings suggest that when individuals experience similar types of circumstances, integration among these individuals is likely to increase because of a banding or bonding together. Durkheimian theory, then, would suggest that the relatively high rate of poverty among blacks has actually served an integrative function since so many blacks have had to deal with poverty together and have been able to build a sense of community when dealing with poverty.

The exception to this pattern of integration, though, appears for the oldest male group, where education is inversely related to suicide rates for black males aged 55-64. Although no definitive answer can be offered here, it is possible that as the educational attainment of younger black males increases (albeit at a relatively slow pace), these older black males are realizing that the future is promising for the upcoming generation of black males and, therefore, feel satisfied with the progression of education among blacks.

The second theory examined, that by Wasserman (1999) and Breed (1970), argues that too much negative contact from and over-control by the police (i.e., fatalism) results not only in high arrest rates for black males but also in high suicide rates for black males, especially for those aged 15-44. Although these data do not allow me to determine if these suicides occurred directly due to actual incarcerations or to a general mistrust of police, results in table 2 do offer support for Wasserman's and Breed's work. Breed (p. 159) further argues that young black males often feel estranged from authority in the home and on the job (due to the high frequency of single black female headed homes and lack of job stability, respectively), and that when such estrangement is combined with "the seemingly intractable authority vested in white community officials", these feelings of despair may be too much to bear for young black males. Further, given that all of the coefficients in table 2 are positive, we can tentatively conclude that frustration from police over-regulation is more likely to be turned inward (e.g., suicide) instead of outward (e.g., homicide). Therefore, Breed's and Wasserman's arguments on police contact and black male suicide appear to be more accurate in explaining variation in black male suicide rates relative to Henry and Short's (1954) work. Overall, however, theory focusing on educational payoffs is more accurate in explaining variation in black male suicide rates as compared to theory focusing on fatalistic police contact.

There are limitations that need to be addressed. Race-specific data on poverty for 1947, 1950, 1952, and 1957 were available, and if the actual figures were used, results could be altered. Further, data between 1947 and 1964 are not annual, but a sampling of a handful of years. The use of annual data could also impact regression results. But these are issues commonly faced when studying minority groups over time; adequate data are not always available, and so we need to do the best with the data we can find.

One final comment regarding reality versus perception needs to be mentioned: Although
these data measured actual inequality between blacks and whites, expectations about inequality may be just as important in explaining variation in black suicide rates than actual inequality itself. Future research on black male suicide should examine the extent to which both actual inequality and perceived inequality impact black male (and female) suicide rates.

REFERENCES


**AUTHOR BIOGRAPHY**

Robert M. Fernquist received an M.S. in sociology from Brigham Young University in 1990 and a Ph.D. in sociology from Indiana University in 1996. Dr. Fernquist's research centers around the correlates of, as well as the prevention of, suicide. Dr. Fernquist may be contacted via e-mail at fernquist@cmsu1.cmsu.edu.