

# Health Education Practice: Formative Evaluation of Violence Prevention Program

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Violence among young African American males is a major public health problem in our society today. Homicide is currently the fifth leading cause of death in the United States among young adults ages 16 to 25. There has been a proliferation of urban makeshift street memorials in New York City as evidence of the homicide epidemic among African Americans. There is a relationship between unemployment and violence in the African American population and with a causal effect on violence well established. This is a formative study that aims to demonstrate Albert Bandura's social cognitive theory as a theoretical framework for producing information for the development of a violence prevention program. There are two goals of this study: The first is to demonstrate that with development of violence prevention programs there can be increases in the levels of self- efficacy among program participants and an anticipated increase likelihood of employment. The implication is that unemployment leads to violence. It is the simulated work experience which would be the crux of a violence prevention program that would provide the impetus for increasing participants' self-efficacy. The second goal is to make practical contributions to health education practice through the development of violence prevention program. Health education practitioners are well suited to carry out the work of disease prevention and health promotion. It is hypothesized if higher levels of self-efficacy are associated with being employed among this population. Participants included 32 male African Americans from a mixed-income neighborhood in New York City. A 10-item general self-efficacy scale was administered. The result indicated a moderate relationship between respondents' self-efficacy scores and their employment status. A higher level of police arrest was found among those without high school diplomas, yet higher levels of employment. This may be attributable to the study's small sample size but which still informs further research.

**Key words:** Health education, homicide, social cognitive theory, violence, restiveness, young African Americans.

## INTRODUCTION

African American males are disproportionately represented among victims of violence [1] which raises real public health concerns. Homicide is currently the fifth leading cause of death in the United States among young adults ages 16 to 25, with the highest homicide rate occurring in 2009 among 18 to 24 year-olds [2]. There has been a proliferation of urban makeshift street memorials in New York City as evidence of a homicide epidemic among blacks. The social and behavioral

sciences are replete with evidence showing a relationship between unemployment and violence in the African American population. While unemployment alone is insufficient to explain the violence, assessments of whether unemployment has a causal effect on violence are well established. It can now become clear that pursuing development of Violence Prevention Programs (VPPs) to address the unemployment problem and thus the disproportionate violence seen among young African

American males can be a worthwhile endeavor. This study is a formative step that aims to demonstrate Albert Bandura's Social Cognitive Theory (SCT) as a theoretical framework for producing information for the development of a VPP. Formative evaluation is an evaluation that produces information used during the developmental stages of a health education program, to improve it. A common procedure in a formative evaluation is conducting a pilot study. There are two goals of this study: The first is to demonstrate that with development of VPPs there can be increases in the levels of self-efficacy among program participants and an anticipated increase likelihood of employment. The implication is that unemployment leads to violence. It is the simulated work experience which would be the crux of a VPP that would provide the impetus for increasing participants' self-efficacy. The second goal is to make practical contributions to health education practice through the development of VPPs. Health education practitioners are well suited for carry out the work of disease prevention and health promotion. Certified Health Education Specialist (CHES) are especially positioned to provide the type of health education proposed in this study. CHESs are certified by The National Commission for Health Education Credentialing (NCHEC), Inc. The NCHEC is charged with strengthening and attesting to the skills and knowledge of health education practitioners.

### Review of the Literature

The social and behavioral science literature is replete with explanations of underachievement in the world-of-work. The social factors that contribute to African American male unemployment include immigration and employer preference for Latino workers, poor interpersonal skills, pre-employment drug testing, and criminal background checks. SCT contributes to the field of public health in that it explains a diverse set of health behaviors. Self-efficacy plays a central role in SCT and Bandura [3] defined self-efficacy as "people's judgments about their capabilities to organize and execute courses of action to attain designated types of performances."

A number of studies explore social factors explaining African American male unemployment. Shihadeh and Barranco [4] claimed that Latino immigration results in increased black unemployment and therefore, black violence. This is caused by employer preference for Latinos in the low skill job markets due to competition. Alternatively, Holzer and Offner [5] indicated that "many black women entered the labor force because of welfare reform" which suggesting that African American males are also competing with females for scarce employment. In addition, there may also be employer preference for African American women. The literature reveals that there is a causal link between African American male unemployment and violence. One

explanation offered in Shihadeh and Barranco [4] is that young underclass men unable to support a family or otherwise demonstrate their worth in society, turn to peers who offer more achievable goals, like fostering an image based on toughness and the ready willingness to use violence. In another study, Freudenberg [6] indicated that those incarcerated in New York City jails are disproportionately black (58%) yet blacks are only 26% of the population, which contributes to the unemployment rate among this population. Western and Pettit [7] find that the black male unemployment rate is often underestimated where black incarceration is not considered. Western and Pettit insist that many studies do not consider the high, institutionalized rate of black males in unemployment rates. Wozniak [8] who examined the explanations for black male unemployment indicated that black men identified their felony convictions and drug testing as barriers to employment. Employers' explanations for black male unemployment, is that they have poor interpersonal skills, a poor work ethic, and are less likely to pass pre-employment drug tests.

SCT specifically, the theoretical construct of self-efficacy, has been demonstrated to explain and predict divergent health behaviors. However, there are four sources of influence that can modify an individual's self-efficacy: (1) verbal persuasion, (2) physiological states, (3) vicarious experience and (4) performance mastery experience. Verbal persuasion refers to individuals who are verbally persuaded that they have the capabilities to perform certain tasks, are inclined to mount greater sustained efforts than if they were plagued with self-doubt in the face of obstacles. In addition to verbal persuasion, individuals rely partly on information from their physiological state in judging their capabilities [3]. An individual increases his or her self-efficacy by watching others perform (symbolically) the desired behavior. Skills can be mastered through the aid of modeling. As Bandura [3] suggests, seeing others perform threatening activities without adverse consequences, can generate expectations in observers that they too will improve if they intensify and persist in their efforts. Moreover, modeling influences that convey effective coping strategies can boost the self-efficacy of individuals who have undergone many experiences confirming their efficacy [3]. It is performance mastery experience that may be used in the development of a VPP, as it is considered the most influential source, producing the strongest and most enduring efficacy effects. Performance mastery experiences occur when the individual learns through personal experience where mastery over a difficult task is accomplished which results in an increase in self-efficacy.

Studies that have used the construct of self-efficacy have included but not limited to teen pregnancy studies, smoking cessation programs, substance abuse programs, weight control programs, nutrition programs, and HIV/AIDS prevention programs. For example, a

study by Young *et al.* [9] hypothesized that there would be a difference between adolescent females who later became pregnant and those who did not in regard to personal efficacy. Those females who became pregnant would have poorer personal efficacy. Prochaska *et al.* [10] found that self-efficacy to avoid temptation among smokers increased linearly from the pre-contemplation stage through to the maintenance stage. A substance abuse study by DiClemente *et al.* [11] used a 20-item self-efficacy scale to assess program participants' confidence or efficacy to abstain from drinking in a range of situations. The principal question in a study by Yzer *et al.* [12] suggest that perceived self-efficacy among undergraduates tends to produce greater involvement in AIDS prevention behavior than with other behavioral models. Okech *et al.* [13] conducted Self-efficacy studies in children nutritional health behavior and Parcel *et al.* [14] conducted studies in weight loss. A review of the literature reveals a dearth of previous studies and programs of a similar type proposed in this study, a formative evaluation for the development violence prevention program, one that uses work as a way to influence attitudes and behaviors to gain "performance mastery experience". Thus the aim of this study is to contribute to the body of knowledge by proposing the use of SCT as a theoretical framework for any prospect development of a VPP. Health education practitioners may find practical utility with this approach in working with this population.

## MATERIALS AND METHODS

A general self-efficacy (GSE) measure was administered. The 10-item (GSE) was developed by Jerusalem and Schwarzer [15] and is administered to respondents in this study. Self-efficacy plays a central role in SCT and contributes to the field of public health in that it helps to explain a diverse set of health related behaviors. Self-efficacy is considered task-specific; that is that an individual may have a high degree of self-efficacy for a particular task but will have a low degree of self-efficacy for some other task. However, the GSE 10-item psychometric scale is designed to measure an individual's perceived, general competence or confidence to cope in the face of barriers. The GSE is suitable as an indicator of an individual's quality of life at any point in time. The questions on the GSE are as follows:

1. I can always manage to solve difficult problems if I try hard enough,
2. If someone opposes me, I can find the means and ways to get what I want.
3. It is easy for me to stick to my aims and accomplish my goals.
4. I am confident that I could deal efficiently with unexpected events.

5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
6. I can solve most problems if I invest the necessary effort.
7. I can remain calm when facing difficulties because I can rely on my coping abilities.
8. When I am confronted with a problem, I can usually find several solutions.
9. If I am in trouble, I can usually think of a solution.
10. I can usually handle whatever comes my way.

The following responses Format wERE used:

- 1 = Not at all true,
- 2 = Hardly true,
- 3 = Moderately true,
- 4 = Exactly true.

A self-administered questionnaire was used to collect the following demographic data: Age, High School Graduate/GED, Non-High School Graduate/GED, Employment Status (i.e., Employed, Unemployed). There was a single question that asked: Have you ever been arrested? The only response options were yes and no.

## Study Population

Survey data were collected from a purposive sample of 32 African American males over a four-month period of time. The sampling method was used as a means of penetrating a relatively hard-to-reach population. A 22-year old key informant was asked to identify others for the study and was trained in the administration of the self-efficacy scale, and with the demographic data sheet to measure respondents' general confidence or personal efficacy in themselves. The key informant carried out the methodological technique of "street intercept." New York City police blotter which is a daily written record, a book, located inside of police stations and street information were accessed to find out where homicides occur in the Queens community. A daily New York blotter can now be accessed on-line. The key informant would find where make-shift-street memorials are that typically follow the homicide. Training of the key informant included conducting the face-to-face interviews using the self-efficacy instrument and demographic data sheet. Places where the key informant administered surveys were on basketball courts, and on main, and side streets. This study's principal investigator observed key informant from parked vehicle during street intercepts. The key informant provided a nominal fee of \$6 in cash to each survey respondent. The key informant recited an informed consent statement to each respondent to the effect that respondents' names do not have to be provided, that respondents' answers are anonymous and that their participation is purely voluntary. No ethical approval was provided by an ethical committee. However, to maintain the integrity and protections of relevant ethical standards

for human subjects, no names were asked and no identifying information was gathered. Respondents reside in the Queens, New York neighborhood of Far Rockaway with a population of 160,686 reported for the year 2010[16]. Far Rockaway had an unemployment rate in the year 2008 for males over 16, of 12.8% as compared to the rest of the borough of Queens with an unemployment rate of 7.7%, and for all of New York City, a rate of 9.6% [17]. The community consists of 40% black, 37% white, 17% Hispanic, and 6% other. In 2010, the infant mortality rate in Far Rockaway was 11.8%, as compared to all of New York City rate of 4.9% [17].

### Data analysis

A correlation procedure was used to measure the strength of association between the two variables-self-efficacy scores and employment status. It is the participants' self-efficacy scores and their employment status that is being correlated. The correlation coefficient between the discrete variable of respondents' self-efficacy scores and the dichotomous variable of respondents' yes-no responses to their employment status – employed, unemployed was sought with the use of a phi-coefficient correlation statistic. The self-efficacy scores are discrete data that are placed on the self-efficacy integer scale: 1. not at all true, 2. barely true, 3. moderately true and 4. exactly true; and, relate to the counting of how many respondents had a summated score of 36, 26, 28, for instance. The highest possible score is 40. The self-efficacy scale was not measured infinitely or continuously with fine degrees beyond its discrete capabilities. The phi-coefficient correlation is just one of the Pearson *r* statistics. As with the case of Pearson *r*, the phi-coefficient is a basic form of product-moment correlations. Consistent with the Pearson *r*, the *z* scores in the formula are distances or moments from the mean that are multiplied to form products.

The researchers predicted that higher levels of self-efficacy are associated with being employed among this population. That is, the higher the self-efficacy scores of respondents, the more likely these respondents would have reported being employed. Based on the dearth of similar studies in the literature, the researchers were unsure of the direction the relation of self-efficacy and employment status would take because of the small sample size, a limitation of the study. Moreover, many situations in formative evaluations involve only small samples. While it is unreasonable to assume that the true standard deviation is known with a sample of 32 young black males, the researchers would have to have used the sample estimate of the population in the computation of the *Z* score as would be the case in a *T*-test. In this study, there is no hypothesized true mean. Rather, there was a prediction that the employed participants would have had a higher mean score on the self-efficacy measure than the unemployed participants which is the basis for program intervention such as the one proposed

in this study, a VPP through the development of a work acumen by simulating employment. Descriptive statistics are reported here between the mean scores of the self-efficacy test of respondents who are employed and those who are unemployed. Respondents who were employed had a mean self-efficacy score of 3.15 and a standard deviation of .10 compared to respondents who were unemployed with a mean score of 2.54, and a standard deviation of 0.31.

## RESULTS

The result of the phi coefficient correlation of .79 showed a moderate relation between respondents' self-efficacy scores and their employment status. With the values of 1.0 (positive or negative) indicating a perfect linear relation. The result of the descriptive statistics where the higher mean self-efficacy score of the participants who are employed and the lower mean self-efficacy score of the participants who are unemployed revealed no statistically significant difference at the 0.05 level of significance. The probability of having obtained the observed mean self-efficacy score of 3.15 and 2.54 had more than a 0.05 chance of occurring.

Something quite unexpected was discovered in a cross-tabulation of having a high school diploma or GED and being employed. As it turns out, 75% of the participants without high school diploma or GED were employed as compared to the 25% of those who held diplomas as shown in Table 1. It is also revealed that 77% of the participants without a high school diploma reported an arrest record as compared to 23% reporting an arrest record among participants having high school diplomas. What this all mean is that if a VPP can be developed that increases the levels of self-efficacy among its participants, then what would be expected would be an increase likelihood of being employed. The implication is that unemployment leads to violence. It is the simulated work experience which would be the crux of a VPP that would provide the impetus for increasing participants' self-efficacy.

**Table 1:** High School, Employment, Arrest StatusTable..

| Diploma | Arrested | Employed | Unemployed |
|---------|----------|----------|------------|
| Yes     | Yes      | 0        | 0          |
|         | No       | 2        | 14         |
| No      | Yes      | 6        | 10         |
|         | No       | 0        | 0          |
| Total   |          | 8        | 24         |

## DISCUSSION

The literature review, the collection of survey data and its

analysis, inform health education practice for providing information during the developmental stages of a violence prevention program, to help ameliorate the public health epidemic of homicide. Health education practice inescapably has to take into account, disease prevention and health promotion, which occurs in three ways: Primary prevention is what the individual does to prevent the disease (the violence). African American male participation in a VPP can be developed exposing participants to a simulated world-of-work experience effectively providing educational inoculation. The simulated world-of-work experience then is prophylactic. Secondary prevention involves screening to detect the existence of disease (the existence of a propensity for or at risk for violence) with the use of violence risks instruments. While some instruments are self-reports, others are health and psychosocial instruments such as the Community Violence Scale (CVS) established by Foy *et al.* [18]. It is the attainment of a work acumen that provides a milieu therapy and that which has curative effects. The ability to work is in itself rehabilitative.

SCT (Self-efficacy) can be demonstrated as a theoretical framework for the development of a VPP. health education practice is uniquely suited to focus primarily on primary prevention where educational inoculation can occur in a VPP. As a way of modifying program participants' level of self-efficacy, participants would receive stipends for doing supervised work and attain a work acumen that mimic real world-of-work experience. It is a simulated world-of-work experience in a VPP that would provide the "performance mastery experience", needed to build self-efficacy. Implications for advancing Social and Behavioral Science Theory are also stark. The theoretical framework presented here is to advance sociological theory designed to provide a systematic explanation for social deviance and in particular, violence among young black males. This discussion underscores social structure and structuration theory for the development of a violence prevention program. In his seminal work, Merton [19] considers socially deviant behavior, such as violence, to be a product of social structure of a society that limits access to legitimate means of obtaining economic goals. While Giddens [20] does not refer to social deviance or violence per se in his seminal work, as is the case with Merton, Giddens similarly view social structure as something that both inhibits and expands the scope of individual lives in society. However, Giddens structuration theory may have some explanatory value for deviance. Giddens [20] defined structure as "rules and resources, recursively implicated in the institutional articulation of social systems" [20]. Besides from the shortcomings of human agency, social structure expands and inhibits the parameters of individual lives, in what Giddens [20] refers to as a "duality of structure". The idea of a duality of structure is vital to structuration theory. That is, a dualism that demonstrates the conflict between human agency and the larger society. The rule-resource structure of

systems (as in the labor market system, and criminal justice system) contributes to potential violence among African American males.

Nisbet [21], from whose work on anomie Merton's work was built, views the individual as having insatiable biological desires. And it is this unbridled desire for material goals and society's failure to regulate such desires is what contributes to deviance. Except, unlike Nisbet who views these limitless passions and appetites as a function of failures of social structure to exercise social control over these drives; Merton on the other hand, views these human drives as the product of a social structure that erect impediments to achieving these goals.

A public health campaign of violence prevention programs would then be aimed at ameliorating the effects of society's structural barriers and impediments of program participants' entry into the world-of-work. The aim of the proposed program is consistent with the theory of social structure that states that it is the nature of social structure that exerts pressure upon certain persons (such as young black males) to engage in deviant behaviors. In other words, social structure often leaves this group without legitimate means of achieving goals to which all Americans aspire. The pressures appear to some to come in the form of society's structural barriers and not from people's biological tendencies towards deviance as Nisbet's anomie will have it.

## Conclusion

A cultural goal of society is to be gainfully employed which has the potential for realizing life-long aspirations. The acceptable modes of reaching this goal however is perhaps curtailed for some in our society today in a "duality of structure" that reveals a differential access to employment as being structurally determined. The intention is that this formative study may serve as a basis for additional studies with substantially more resources to collect data on a much larger sample size to advance social and behavioral science theory and to inform public health and health education practice.

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