

An Examination of Dietary Influences on Delinquency

Kevin R. Clark
Missouri Western State College
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Abstract

A sample of undergraduate psychology students were surveyed in order to determine if their quality of diet consequently influenced their self-reported levels of delinquency. Fifty-five students were surveyed, using both Schauss' Nutrition-Behavior Inventory and a modified version of the Short-Nye Self-Report Delinquency Scale. Subjects' nutrition scores and delinquency scores were then subjected to statistical analysis to determine if any degree of correlation existed. Contrary to the hypothesis, a Pearson Correlation did not reveal a significant relationship between diet and delinquency, $r(55) = .0814$, $p > .05$. Despite the lack of significance in these results, this should definitely be an area of interest for future research. This lack of significance can partly be attributed to the ambiguity of the questionnaires used and should, in no way, diminish the significance of numerous dietary findings which have been found to be applicable to the delinquent/antisocial individual.

Introduction

The war on crime has generated extensive research into the field of Criminology and the various strategies for reducing criminal behavior. While most of the behavioral scientists believe that criminal behavior is primarily learned, others claim that biosocial factors can be applicable in the treatment of criminals and juvenile delinquents. This claim led to a relatively new approach in corrections, primarily during the 1970s. This approach involves the attempt to reduce antisocial behavior by changing diet. While the overall impact of diet upon crime and delinquency may not be as powerful as traditional psychological variables, the dietary approach is far more practical since diet can be altered rather easily and inexpensively.

Researchers interested in these biosocial/biomedical approaches to offender rehabilitation have identified at least six primary syndrome areas. These areas include: (1) hypoglycemia, (2) vitamin and mineral deficiencies or dependencies, (3) cerebral allergies and addictions, (4) environmental contaminants, (5) minimal brain dysfunction, and (6) neuro-regulator imbalances (Schoenthaler, 1983a). After extensive analysis of the literature in these six areas, Hippchen (1976), Schauss (1980), and Schoenthaler (1982) came to the conclusion that hypoglycemia - induced by a diet which is high in sugar and/or refined carbohydrates - may account for the largest proportion of antisocial behavior which can be controlled by diet.

Hypoglycemia, or low blood sugar, can be caused by a variety of conditions such as endocrine

system malfunctions, adverse reactions to a particular food, and the consumption of high quantities of sugar. While hypoglycemia is often caused by physiological problems, research suggests that poor eating patterns are the primary cause of low blood sugar (Schoenthaler, 1983a).

As Schoenthaler (1985) clearly illustrates, the link between violence/delinquency and hypoglycemia can be grounded in basic human physiology. First of all, blood sugar (glucose) is the only nutrient which the brain can convert into energy. As glucose levels fall, the available brain energy will fall correspondingly, due to impaired neuronal firing. Therefore, due to diminished brain functioning, people with low blood sugar would have a lowered capacity to think clearly before acting and may have difficulty controlling their violent emotions.

As Schauss (1980) points out, many such biochemical disturbances can be attributed to our modern day diet of junk foods. In 1971, the United States had the "distinction" of becoming the first people on earth to consume processed foods for more than 50 percent of their diet. Over 4,000 additives can now be found in the American food supply, none of which have ever been tested thoroughly for their effects on our central nervous system (Schauss, 1980). We have become a nation of coffee and soda pop drinkers, fast food consumers, and refined carbohydrate junkies, without regard to their disastrous consequences, particularly on our children. Less than 50 years ago hyperactive children were a rarity. Today the incidence of hyperactivity and learning disability is higher in the United States than in any other country in the world (Schauss, 1980).

In support of the diet and delinquency hypothesis, several studies have successfully shown reductions in antisocial behavior by reducing sucrose consumption in numerous juvenile correctional institutions. In fact, as of 1983, at least nine separate institutions in three states had found that the behavior of their juveniles improved significantly after the elimination of high sugar "junk foods" in scientifically controlled studies (Schoenthaler, 1983b). In one study, for example, Schoenthaler and Doraz (1983) found that during the 12 months when the juveniles received a nutritionally superior diet, the incidence of assault was lowered 82%; theft was lowered 77%; general rule violations were lowered 23%; and fighting was lowered 13%.

From the vast amount of literature on the subject, one can safely theorize that a definite relationship exists between diet and delinquency, although the degree of this relationship may be quite arguable. It is this gray area which this paper will focus upon. While numerous experimental procedures have been carried out in correctional institutions, there seems to be little or no data relating to how accurately and consistently a poor diet will correlate with delinquent/antisocial behavior in the general population. Thus, the purpose of this paper is to determine the extent to which individuals with poor nutrition consequently exhibit delinquent/antisocial tendencies.

Methods

Subjects

For this study, I surveyed fifty-five undergraduate psychology students at Missouri Western State College in St. Joseph, MO. Data were collected from both males and females. The vast majority of subjects were traditional age college students (18-25 years), but the non-traditional students were included as well.

Materials

Subjects were surveyed using Schauss' (1980) Nutrition-Behavior Inventory and a modified version of the Short-Nye Self-Report Delinquency Scale (Nye, 1958).

Procedure

I first administered the Nutrition-Behavior Inventory to all subjects, in a classroom setting. I then administered the Self- Report Delinquency Scale to the same subjects, on a subsequent day. The surveys were given at different times in order to minimize demand characteristics which might influence the subjects' responses. Therefore, each survey asked for the last four digits of the subject's Social Security Number for identification purposes. Each subject's Nutrition survey was then accordingly paired with his/her Delinquency survey.

Scores were then tabulated for each Nutrition-Behavior Inventory. Those subjects scoring over 50 were considered to have nutritionally linked factors affecting their health and behavior and, therefore, considered to have a generally poor diet. A delinquency score was then assessed for each subject. Thus, each subject had both a nutrition score and a delinquency score in the final analysis. These scores were then correlated to determine the extent to which the subjects' diets influenced their degree of delinquency.

Results

The data from this study resulted in a simple correlational design. The data for all subjects underwent statistical testing to determine the Pearson Correlation. The correlation was not found to be significant, $r(55) = .0814$, $p > .05$. Therefore, the quality of subjects' diets, as measured by the Nutrition- Behavior Inventory, was not found to be significantly correlated with subjects' self-reported levels of delinquency.

Discussion

Because there was no statistical significance found between diet and delinquency, we cannot conclude, in this case, that the quality of subjects' nutrition influenced their self-reported degrees of delinquency. One obvious limitation of the study is the ambiguity of the questionnaires used to measure both nutrition and delinquency in subjects. Schauss' Nutrition-Behavior Inventory, for instance, merely purports to measure whether an individual has nutritionally linked factors affecting his or her health and behavior. While a high score on this inventory may indicate the likelihood of a generally poor diet, it is not entirely conclusive. Likewise, the delinquency survey's ambiguity is apparent in the fact that, foremost, it is a self-report method of measurement and, secondly, it asks for the frequency of delinquent acts ever committed in the subject's lifetime, as opposed to concentrating on a current level of delinquency.

Despite the low degree of correlation found in this study, research should continue to examine the

possible dietary influences on delinquency. Perhaps a future study might yield significant results if it were to use a more definitive measure for the quality of subjects' diets. Future research should also focus on the time factor involved, insuring that subjects' present-day quality of diet is examined with regards to their present-day delinquency - not delinquent acts that may be years old and which have not been repeated since. Research should also be continued with regards to reductions in delinquent/antisocial behavior which have been demonstrated in correctional institutions, especially juvenile institutions. The results of this study, from a sample of undergraduate psychology students, in no way diminishes the significance of the numerous findings which have been found to be applicable to the delinquent/antisocial individual. Adjustments in diet have proven beneficial for many such individuals and could, undoubtedly, benefit many others who are, unfortunately, naive to such possibilities.

References

- Hippchen, L.J. (1976). Biochemical approaches to offender rehabilitation. *Offender Rehabilitation*, 1, 115-123.
- Nye, F.I. *Family Relationships and Delinquent Behavior*. New York: Wiley, 1958, 13-14.
- Schauss, A.G. *Diet, Crime, and Delinquency*. Berkeley: Parker House, 1980.
- Schoenthaler, S.J. (1982). The effect of sugar on the treatment and control of antisocial behavior: A double-blind study on an incarcerated juvenile population. *International Journal of Biosocial Research*, 3, 1-9.
- Schoenthaler, S.J. (1983a). Diet and crime: An empirical examination of the value of nutrition in the control and treatment of incarcerated juvenile offenders. *International Journal of Biosocial Research*, 4, 25-39.
- Schoenthaler, S.J. (1983b). The effects of citrus on the treatment and control of antisocial behavior: A double-blind study of an incarcerated juvenile population. *International Journal of Biosocial Research*, 5, 107-117.
- Schoenthaler, S.J. (1985). Diet and delinquency: Empirical testing of seven theories. *International Journal of Biosocial Research*, 7, 108-131.
- Schoenthaler, S.J., & Doraz, W.E. (1983). Types of offenses which can be reduced in an institutional setting using nutritional intervention: A preliminary empirical evaluation. *International Journal of Biosocial Research*, 4, 74-84.
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