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Economic insecurity and depression among low socioeconomic status adults

Laura Margaret Wills

ECONOMIC INSECURITY AND DEPRESSION AMONG

LOW SOCIOECONOMIC STATUS ADULTS

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A Project

Presented to the

Faculty of

California State University,

San Bernardino

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In Partial Fulfillment

of the Requirements for the Degree

Master of Social Work

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by

Laura Margaret Wills

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ABSTRACT

The purpose of this research is to discover the effects of economic insecurity and low socioeconomic status (SES) on depression in adults. Various studies have examined the role of economic insecurity and SES on depression and show that both economic insecurity and low SES are correlated with higher rates of depression.

Based on the literature, a positive corollary relationship between economic insecurity and depression, and a negative corollary relationship between low SES adults and depression were hypothesized. To test this hypothesis, public-access data from the 2005-2006 National Health and Nutrition Examination Survey (NHANES) were collected and analyzed.

The results of the data analyses show that low SES adults experience depression at higher rates; the tests between economic insecurity and depression were not significant. The results of this study illustrate the need for greater accessibility and procurement of mental health services for low SES individuals.

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I would like to extend my warm thanks to everyone that helped and supported me with this project, especially to my present and past faculty advisors, Dr. Rosemary McCaslin and Dr. Sara Johnson.

I would also like to thank Cheryl in the Social Work Research Lab for all her help with SPSS, my field supervisor David, for the incredible training and experience, my cohort, for the laughs and for serving as a sounding board throughout the program, and lastly my friends and family, for simply being there.

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CHAPTER ONE

INTRODUCTION

The purpose of this chapter is to detail the scope, purpose and relevance of this study within social work practice. This will be achieved by clearly stating the problem that will be addressed in the study, in this case, the ill-effects of economic stressors and socioeconomic status (SES) on depression. The scope and background of this problem will be explored, as well as current policies that maintain and exacerbate this problem. The purpose of the study will be reflected through a brief description of methods, population, source and rationale. Finally, the relevance of this study to social work and more specifically mental health will be explained.

Problem Statement

Within the study of social work, it has been imperative to study not only the nature of social phenomena, but also potential social and economic contributing factors. This systems perspective is also useful in analyzing external influences in the

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development and severity of mental health disorders. This particular study focuses on the macro influences affecting mental health disorders by analyzing the particular influence of and relationship between economic insecurity and low socioeconomic status on depression.

Nationally, between the years 2005 and 2006, depression reportedly occurred in about 5.4 percent of individuals age 12 and older. Within the population affected, depression is more prevalent among certain sub-groups. These subgroups include individuals of low socioeconomic status, 40-59 year-olds, women and non-Hispanic black persons (Centers for Disease Control, 2005). The prevalence or pooling of depression among certain individuals certainly suggests there are particular social factors that may contribute to a higher incidence of depression, and indeed, other studies have demonstrated this to be true.

Depression, as defined by some is a stress-related mental health disorder, and as such is easily affected by social stressors such as domestic, occupational, but especially economic stressors (Kalia, 2002). In fact, this susceptibility of mental illness to external factors indicates a potential rise in mental illness, as these

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factors become more acute. The World Health Organization

has estimated that by the year 2002, stress-related

mental illness, such as depression and anxiety disorders

as a stress-related disorder will be second in prevalence

only to ischemic heart disease (Kalia, 2002).

The influence of economic stress has been found to

be particularly impactful on depression. As Belle and

Doucet (2003) have shown, economic stress has long been a

main contributing factor to depression. As their study

shows, women living in poverty are especially prone to

developing depressive symptoms. The authors stress

however, that depression is not only inherent in poverty-

stricken populations, but rather it is found in all

populations that are affected by economic stress (Belle &

Doucet, 2003).

The susceptibility of depression to economic stress-

factors is not only limited to low-income individuals,

but rather also those that are affected by occupational

stressors that are indirectly tied to income, such as

unemployment. Dooley and others (1994) have demonstrated

a positive link between unemployment rates and

depression. According to their research, individuals not

diagnosed with major depression, that had recently become

unemployed had twice the risk of developing depressive symptoms and becoming clinically depressed as those individuals that had continued working (Dooley et al., 1994).

Clearly, it appears that a strong relationship exists between economic stress/insecurity and onset of depression.

At no other point in time has it been more important to study the effects of economic stressors on mental illness than now. The recent economic crisis has been marked by a falling housing market, rising commodities and prices, greater difficulty in acquiring loans, and increased unemployment. As this economic crunch becomes more pronounced over time, it is more than possible that rates of depression may also become concurrently more prevalent and severe. In one study that was conducted during a similar recession, Catalano (1991) found that economic insecurity, in the form of job loss, was highly correlated with adverse psychological effects, such as onset of depression. The author of the study points to the findings to illustrate the need for greater economic policy changes.

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Over the last two decades, policy changes and 'reforms' have compounded the sense of economic insecurity for low-income individuals. One of these major reforms was the Welfare Reform Act, signed into law by Bill Clinton in 1996 (Popple & Leighninger, 2005). Among other stipulations, AFDC became a capped program, employment verification became a requisite for cash benefits and states could sanction individuals that did not meet state employment regulations. Reports show that these 'reforms' did little to create incentives or real opportunities for families on welfare to find employment; as of the late 1990's only about two-thirds of all welfare recipients were employed, and of those, the average income was between six and eight dollars an hour (Belle & Doucet, 2003).

This problem also affects mental health practice by not only impacting the number of clients manifesting depressive symptoms, but also in the types of treatment interventions and target goals set for clients. Depression in part or wholly attributed to economic stress may necessitate certain interventions that could potentially prove difficult to overcome or achieve, such

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as finding and maintaining employment and alleviating debt.

Purpose of the Study

The purpose of this study, as stated above is to examine the effects between income level and depression in order to gauge the extent to which low-income adults are at risk for developing depression.

In order to test this, data was collected through secondary sources. The 2005-2006 National Health and Nutrition Examination Survey was utilized. This survey, which is free for public access and use, is conducted by the National Center for Health Statistics, under the guise of the Centers for Disease Control. This dataset is a national survey that includes various questionnaires and variables for tens of thousands of surveyed individuals. This type of data collection provides a reference point which establishes a statistical relationship between SES and depression. Furthermore, the high number of participants rendered a varied and nationally representative test sample.

Significance of the Project for Social Work

It is crucial for social work and mental health practitioners to consider and acknowledge a systems perspective during practice. By incorporating a systems perspective, practitioners develop a more holistic point of view with which to consider certain phenomenon. This may include consideration of how overlapping systems may be affecting both symptoms and treatment.

In this particular case, since depression is influenced by environmental factors, it is imperative to study the extent and intensity to which economic concerns and stressors adversely affect depression in adults. Through this knowledge, direct mental health service practitioners (micro social work) can thereby more easily mitigate some of these effects through certain therapeutic interventions, preventative case work, and case management.

In a more broad, macro sense, this research helps elucidate some of the external, influential factors that may fall out of the direct control of micro practitioners. In terms of socioeconomic status and income, appropriate policy changes would lie in the realm of the state and federal government. Some of the policy

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reforms for which social work practitioners could
advocate include greater financial assistance and
improved medical insurance, as well as tax relief for the
poor.

This research specifically addresses and informs the
planning and the implementation stage of the generalist
model. The research question is: how is depression
affected by economic insecurity and low socioeconomic
status? It is hypothesized that there is a positive
relationship between economic insecurity and depression,
and a negative relationship between low socioeconomic
status adults and depression.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter will review the various literatures
that guided the focus of this particular research study:
the effects of economic insecurity and low socioeconomic
status on depression. The literature has been clustered
into three different subsections: Stressors Affecting
Depression, Depression and Adults of Low Socioeconomic
Status, and finally, Economic Insecurity and Depression.
These subsections were organized and ordered in such a
manner to illustrate the development of the topic's
specificity, as well as to lead into the research
question. The last subsection is entitled, Theories
Guiding Conceptualization, which is an overview of the
general theories that have funneled the scope and
methodology of this research project.

Stressors Affecting Depression

The relationship between external social stressors
and incidence of depression has been examined in numerous
early studies (Holmes & Rahe, 1967; Kobasa 1979).

Although not all studies demonstrate a causal relationship between social stress and depression, all can at least show a positive association between the two. In a study by Kessler (1997), the exact relationship of social stressors and depression were examined through a review of previous studies. As a result of this review, the author concludes that although there seems to be a positive correlation between stress and depression levels, a causal relationship between stress and depression cannot be established.

The author demonstrates that the inability to show causality is due to certain confounding variables which include history, onset and severity of depression. Because of these variables, the author concludes that it is difficult to isolate social stressors as the sole cause of depression, only the severity in which social stressors exacerbate the condition. These findings also support a study conducted by Kendler and fellow authors (1999) which also showed a significant association between stressful life events and the onset of depression. However, the Kendler study, like that of Kessler's, could not establish a direct causal

relationship between stressful life events and

depression.

Conversely, in another study by Strickland and others (2002), the authors argue that psychosocial stressors do indeed precede onset of depression. Here they establish a biosocial explanation by focusing on the physiological and biochemical processes tied to stress and occurrence of depression. It should be noted, however, that the theories and methodology guiding this study were of a biological scope, which may have led to the differing results.

These causal findings, however, are also supported by Kendler and others (1999), who conducted their study under the auspices of social and systems theories. In this study, rates of depression and stressful life events were monitored on female twins for the period of one year. The authors examined the relationship between stressful life events and the onset of major depression through statistical tests and co-twin analysis. The results of their study showed a significant causal relationship between stressful life events and the onset of major depression in about two-thirds of their cases. The authors explain that approximately one-third of their

cases are noncausal since their tests show that genetic factors are responsible for both predisposition to stressful life events or high risk environments and major depression.

Finally, Brown (2002) examines some of the origins and relationships between stress and depression through an evolutionary and biopsychosocial lens. Brown examines and reviews several different studies concerning the origins and types of relationship between stress and depression and concludes that there is sufficient evidence that points to a causal relationship between these two variables. Brown, furthermore, goes on to explore some of the origins of depression in terms of evolutionary adaptability. This study, along with the others does indeed point to, if not a causal relationship, then a corollary one between stress and depression.

Depression and Adults of Low Socioeconomic Status

Socioeconomic status can be defined many ways, but is typically defined as a collection of demographic features such as income level, education level, marital status, race or ethnicity and also sex or gender

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(Feinstein, 1993). Low socioeconomic status, then, is considered one who has low income, education level unmarried and is of a marginalized race and gender (Feinstein, 1993).

Parke and others (2004) explore the differential impact of economic burdens and stress on Mexican American families compared to European American families. According to past research, African American and Mexican American families are approximately three-times more likely to be poor. Interestingly, generational and acculturational factors mattered greatly in terms of perceived economic burden and marital satisfaction. Less acculturated groups reported fewer perceptions of economic inequality and greater marital satisfaction.

This study helps elucidate the potential disparities in cultural habits and environmental perceptions depending on level of acculturation in immigrants. This indicates that minorities on average face greater psychosocial hardships due to low-income or socioeconomic status.

In a similar study, Gazmararian and others (1995) focus on depression in women, namely how marital status and SES influence the susceptibility of the disorder.

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The article argues that women as a whole are more

susceptible to depression due to gender-role stereotyping

and discrimination, however marital status and SES are

very influential in presentation of symptoms. Within the

study, several key findings were made, including higher

susceptibility to depression of black women than white.

Interestingly race was a determining factor for the

nonpoor, but not for the poor. Racial influence was also

more pronounced for the married, rather than the

unmarried.

In short, married, high SES black women were found

to be at highest risk for developing depression. This

article was helpful in understanding some of the

complexities surrounding race/ethnicity and SES. In this

case it is odd that black women of high SES would be more

susceptible than low SES. This may in part be due to

greater work stress or exposure to racial discrimination

from outside groups. This study in turn relates to

another one conducted by Belle and Doucet (2003).

In this study (Belle & Doucet, 2003), the authors

focused on the issues of poverty as a major risk factor

for depression among women. The article surmises that

economic inequalities have been linked to poor health

quality in women, as well as susceptibility to depression. The focus of stressors in the article was not only limited to economic stress, but also to racism and inequality. According to the article, perceived discrimination, even short episodes have been shown to impact victims. This article was helpful in demonstrating potential depressive risks for low-income, minority women. This is important to keep in mind in micro practice, especially in community mental health, as most consumers are of low SES.

In another study, Lorant and others (2003), assume a positive association between low socioeconomic status (SES) and psychiatric morbidity. The authors conducted a meta-analysis to verify the evidence of this association. Results gleaned from their tests revealed a positive correlation between individuals of low-SES and rates of depression. In other words, low-income individuals had higher odds of being depressed.

Everson and fellow authors (2002), also confirm previous findings. In this study, the authors focus on the epidemiological evidence that demonstrates the deleterious effects of social strain. The authors constrain the epidemiological evidence into three types:

depression, obesity and diabetes. Their study shows a positive association between social strain and the occurrence of these health problems, especially in chronic stress cases, such as when the source of strain is maintained over a longer period of time.

These articles help demonstrate the precarious position many low socioeconomic individuals are in regarding propensity of depression and mental illness due to the increased hardships and social strains.

Economic Insecurity and Depression

As shown in the previous subsections, social strain is positively associated with depression, with low-income individuals particularly at risk. This subsection will demonstrate that one of the most pernicious of the social stressors is economic insecurity. In one particular study, Dooley and others (1994) have demonstrated a positive link between unemployment rates and depression. According to their research, individuals not diagnosed with major depression, that had recently become unemployed had twice the risk of developing depressive symptoms and becoming clinically depressed as those individuals that had continued working.

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The previous study is further validated by Hagquist and Starrin (1996). In this study, the authors examined 81 unemployed individuals less than 25 years in Sweden. The results show that one-in-four men and one-in-two women report a worsening or onset of mental illness with unemployment. This study clearly shows, as do several preceding studies presented in this chapter, that women, who are of lower socioeconomic status than men, are particularly vulnerable to the effects of unemployment and social stress in general.

In another, later study, Dooley and fellow authors (2000) found similar findings in their study, which attempted to look at the effects of economic insecurity and depression. Here the authors defined economic insecurity in terms of job quality. That is, they did not define work or job quality as the having a job or not, but on a more continuous spectrum of inadequate employment to adequate employment. The results in their study also indicate a positive relationship between inadequate employment and onset of major psychological illness.

In another study, Vinokur and fellow authors (1996) examined the link between unemployment and economic

hardship to depression and marital satisfaction. The

authors utilized longitudinal data from a group of

recently unemployed job applicants and their partners.

The results of this study revealed that financial strain

had significant effects on depressive symptoms of both

partners. Those with little to no social support systems

reported increased deleterious effects on relationship

satisfaction. This study, along with accompanying

studies in this subsection illustrate that economic

insecurity, in the form of unemployment, carries an

incredible risk of developing and increasing depression.

The research question for this proposed project is

thus: How does economic insecurity and low socioeconomic

status affect depression?

Theories Guiding Conceptualization

A theoretical approach that has helped to guide this

research in terms of examining and understanding the

effects of macro-level forces on micro relationships and

mental illness is systems theory. Systems theory

observes the iterative forces and relationships between

the multiple systems in a society (Payne 2005; Zastrow &

Kirst-Ashman 2007). This theory is important in

identifying the complex relationships and linkages between multiple systems, such as micro, mezzo and macro, to understand how and why individuals interact with other people in families, in communities and in broader social environments. This approach helps target potential lacks or holes in community resources, as well as the need for greater mezzo and macro interventions such as greater employment opportunities, affordable housing, and even reconstruction of social services and implementation.

Person-in-Environment theory (PIE) is another psychosocial theory that can be applied to this particular research to study and analyze the effects and consequences of stress and financial strain on parents. Person-in-environment theory looks at the impact of the environment on human behavior and well-being, especially in regards to stress (Payne, 2005).

This approach aims to reduce 'stress' and also 'press' from the environment of the individual, in order to improve emotional and psychological well-being. Since financial strain and low SES among individuals have been associated with increased levels of depression and social problems, this approach is apt in guiding research survey questions pertaining to stress and financial strain.

Social stress theory is also appropriate for the scope of this study in that it examines the role and definition of stress through a socioenvironmental lens. One of the most impactful forms of stress is the life-event change, which can have such ill-effects as low self-esteem, depressive symptoms among others (Aneshensel, 1992).

There are many other theoretical approaches that may be considered and used to guide this study. Some pertaining theories that may be considered include perspectives and theories pertaining to social support systems, psychodynamic theories, especially, cultural-sensitivity and anti-discrimination perspectives, as well as empowerment and advocacy theories (Payne 2005).

Summary

As discussed, the previous literature helped establish support for this research study by showing that social stressors, especially economic ones, are significantly and positively associated with depression in individuals of low socioeconomic status. Furthermore, depression, as defined by some is a stress-related mental health disorder, and as such is easily affected by social

stressors such as domestic, occupational, but especially economic stressors (Kalia, 2002). In fact, this susceptibility of mental illness to external factors indicates a potential rise in mental illness, as these factors become more acute. The World Health Organization has estimated that by the year 2002, stress-related mental illness, such as depression and anxiety disorders as a stress-related disorder will be second only to ischemic heart disease (Kalia, 2002).

This proposed study is particularly important to conduct now, as the state of financial and economic security within the United States is in crisis. In this particular case, since depression is influenced by environmental factors, it is imperative to study the extent and intensity to which economic concerns, perceptions and stressors adversely affect depression in adults of low socioeconomic status. Through this knowledge, direct mental health service practitioners (micro social workers) can thereby more easily mitigate some of these effects through certain therapeutic interventions, preventative case work, and case management.

CHAPTER THREE

METHODS

Introduction

The third chapter will focus on the research design
and methods that were employed in this research study.
The chapter will be focused into six different
subsections: Study Design, Sampling, Data Collection and
Instruments, Procedures, Protection of Human Subjects,
and Data Analysis. The intent of this chapter is that
the readers gain a better understanding of the methods
and rationales guiding the research design, instrument
design, sampling, data collection and analysis, as well
as the protection of human subjects.

Study Design

The purpose of this study is to evaluate the
relationship between economic insecurity, low
socioeconomic status adults and depression. This
research study uses quantitative approaches and tests to
answer the research question: How does economic
insecurity and low socioeconomic status affect
depression? The primary investigator hypothesized a

positive corollary relationship between economic insecurity and depression, and a negative corollary relationship between low socioeconomic status adults and depression.

Since the intent of the research question is to evaluate the type and extent of the relationship between depression and economic insecurity, the only means to test this is through quantitative statistical evaluation.

The research was conducted through secondary data collection from publicly accessible datasets available in the 2005-2006 National Health and Nutrition Examination Survey. This survey is conducted by the National Center for Health Statistics, under the auspices of the Centers for Disease Control.

This proposed study is particularly important to conduct now, as the state of financial and economic security within the United States is in crisis. In this particular case, since depression is influenced by environmental factors, it is imperative to study the extent and intensity to which economic stress adversely affects depression in adults of low socioeconomic status. Through this knowledge, direct mental health service practitioners (micro social work) can thereby more easily

mitigate some of these effects through certain therapeutic interventions, preventative case work, and case management.

Sampling

The study sample was gathered from the 2005-2006 National Health and Nutrition Examination Survey (NHANES). The NHANES survey itself is a stratified, multistage probability sample of the civilian noninstitutionalized U.S. population (Centers for Disease Control, 2005). The NHANES survey was conducted in three phases. The first phase consisted of selection of Primary Sampling Units (PSUs, which are counties or small groups of contiguous counties.

The second phase was to select segments within these PSUs, such as blocks or group of blocks containing a cluster of households. The third phase was then to divide the household into segments and select one or more participants within the household. In total the number of participants in this survey is quite large, as it is a representation of such a comprehensive, national survey (N = 10,348).

Data Collection

The NHANES survey was conducted through the administration of various questionnaires, many of which have been used in prior surveys. Households indentified for selection in the NHANES sample received an advance letter informing the inhabitants of the impending interview. These data were collected and grouped into various smaller datasets, to provide greater access and ease of use. The two sub-datasets that were used in this study are the demographic and depression dataset.

Data that were collected from the survey and utilized in this study include numerous demographic identifiers, such as sex/gender, age, annual household income, education level, race or ethnicity, and marital status. All of these are independent variables and all are nominal measurements, with the exception of age and income which are ratio measurements (See Appendix A). To determine economic instability, the income variable was used.

To determine socioeconomic status, several questions were utilized: education, sex/gender, race, marital status. All of these variables are independent and nominal, with the exception of income which is a ratio

measurement. For depression which is the dependent

variable, ten questions from the NHANES survey were used,

which were computed into one aggregate sum variable. The

ten NHANES questions pertain to a specific "Depression

Screener" questionnaire (See Appendix B) and are all

nominal (Centers for Disease Control, 2005).

Procedures

Data were collected through an existing source: The

2005-2006 National Health and Nutrition Examination

Survey. This dataset is free for public use and access

and is available online through the National Center for

Health Statistics (NCHS) website. The survey dataset is

divided into various sub-datasets, which are categorized

by topic to facilitate download time and space, which

otherwise would be spent on irrelevant data. Each

dataset is formatted into a SAS file and also includes

informational documentation, such as pertaining

questionnaires and relevant information.

The NCHS website also includes a free SAS viewer,

which enables the researcher to convert each dataset from

a SAS to a SPSS file. Dataset files were converted into

SPSS format, since this program is more readily available

than SAS. Separate datasets from the NHANES survey were merged into one working dataset through the SPSS program. The conversion and merging process took less than 2 weeks to complete.

Some adjustments needed to be made to the variables within the NHANES dataset. The income variable was recoded into a new income variable, since the original variable included repeating income information. Here the data was recoded so that the income data remained consistent and did not repeat. The race/ethnicity variable was also recoded so that all Latino populations were represented by one variable; the 'other' racial category was not used, resulting in a new variable with three racial categories: Latino, Black and White. Lastly, marital status categories were grouped into either a 'married/together' category or 'unmarried/separated category'.

Protection of Human Subjects

Since data were collected from an existing, secondary source, no direct contact was made with any of the research subjects. Furthermore, the dataset does not include any identifying information pertaining to the

subjects, such as name, address, etc. Respondent

identification has been assigned a code, so that all

information is anonymous and risk of identification is

minimal to none.

Data Analysis

This study used only quantitative measures and

evaluations to test the research question. In order to

test the research question, inclusion of variables and

data that would identify socioeconomic status was

necessary. In the survey, this has been achieved by

including variables regarding sex or gender, ethnic

background, level of education completed, and marital

status. The survey also included specific questions to

measure economic insecurity and depression, which was

conducted by looking at the relationship between monthly

annual household income and the aggregate depression

score.

To evaluate the relationship between these

variables, different tests were conducted. In order to

look at the effects of low-income or economic insecurity

and depression, a univariate analysis, a Pearson

correlation test, as well as an Independent Samples t-

test analysis was conducted on these variables. A Pearson correlation was used to test the relationship between perceived economic instability and depression. The Independent Samples t-test - a bivariate analysis- was used to analyze the relationship between the socioeconomic variables (sex, level of education, ethnicity, and marital status) and depression.

Summary

This chapter has indicated the rationales, and data collection and analysis methods to be employed in this research study, as well as the commitment to protecting the rights, confidentiality and anonymity of the research participants. As stated above, this proposed study is particularly important to conduct now, as the state of financial and economic security within the United States is in crisis. In this particular case, since depression is influenced by environmental factors, it is imperative to study the extent and intensity to which economic concerns, perceptions and stressors adversely affect depression in adults of low socioeconomic status.

CHAPTER FOUR

RESULTS

Introduction

This chapter will review and summarize the results

of the data analysis. As described in the preceding

chapter, only quantitative measures and evaluations were

utilized to test the research question. The research

question as stated in Chapter Three is: how is depression

affected by economic insecurity and low socioeconomic

status? A positive relationship between economic

insecurity and depression, and a negative relationship

between low socioeconomic status adults and depression

were hypothesized.

The statistical tests and findings that will be

summarized in this chapter include a demographic

description of the sample, the various univariate

descriptive statistics and bivariate analyses.

Univariate analyses were calculated through

frequency statistics that were conducted on the six

independent variables and one dependent variable utilized

within the study. The independent variables used within

the study are Sex, Age, Education Level, Race,

Marital/Relationship Status and Income. The dependent variable used in this study is the Depression Score. For each of the univariate analyses, the mean, minimum and maximum were generated.

Bivariate analyses were conducted through two primary statistical tests: the Pearson Correlation coefficient test and an Independent Sample t-Test.

Presentation of the Results

Demographics

The study sample in this research project was gathered from the 2005-2006 National Health and Nutrition Examination Survey (NHANES). This survey represents a probability sample of the civilian noninstitutionalized United States' population (Centers for Disease Control, 2005). Since the sample was taken from a large nationalized survey, the sample size for this dataset was quite large (N = 10,348). Figure 1 shows the age distribution of individuals 18 and over within the sample.

Age
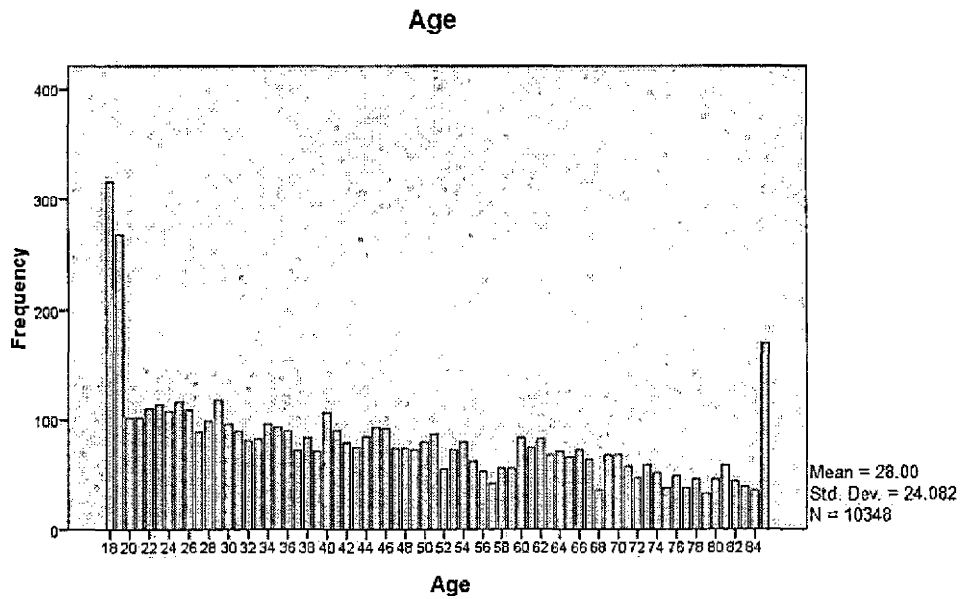
Figure 1. Age Distribution

Univariate Analyses

The sample in this survey consisted of 10,348 individuals; 5,080 of these individuals were males, 5,268 were female. The male and female distribution was very similar, with males representing 49.1 percent of the sample and females representing 50.9 percent of the sample. Table 1 shows the frequency statistics for this variable.

Table 1. Sex

		Frequency	Percent
Valid	Male	5080	49.1
	Female	5268	50.9
	Total	10348	100.0

The sample also contained individuals of mixed racial and ethnic backgrounds. For ease of testing, race was grouped into three categories: Latino, White and Black. Responses other than these three categories were coded as missing. The representation of the three racial categories within the sample size was also very similar, with no one racial category being over represented within the sample. Of the valid 9,834 respondents, Latinos comprised 32.5 percent, Whites comprised 39.9 and Blacks comprised 27.6 percent of the sample. Table 2 displays the frequency and percent distribution for the racial categories.

Table 2. Race

		Frequency	Percent
Valid	Latino	3196	32.5
	White	3928	39.9
	Black	2710	27.6
	Total	9834	100.0

The next variable used in the study is Education Level. This question was asked of adults over the age of 20, in five different categories. The five possible categories were: Less than ninth grade, ninth to eleventh grade, High School Diploma or GED, Some College or College Graduate. The mean education level completed by respondents as depicted in Table 3 is 3.27, which corresponds with the category 'High School Diploma or GED'. Table 4 shows the frequency distribution for all of the education categories.

Table 3. Descriptive Statistics for Education Level

Education level - Adults 20+		
N	Valid	4970
	Mean	3.27
	Std. Deviation	1.288
	Minimum	1
	Maximum	5

Table 4. Frequency Distribution for Education Level

		Frequency	Percent
Valid	<9th	628	12.6
	9-11th	766	15.4
	High School Diploma/GED	1181	23.8
	Some College	1417	28.5
	College Graduate	978	19.7
	Total	4970	100.0

The next variable analyzed in this study is Total Annual Income. Of the total 10,348 respondents in this survey, almost all (N=9,724) responded to the income question. For ease of presentation and analysis, income data was split into eleven intervals. These intervals are grouped by $5,000 dollars up through $24,999, after which it is divided into intervals of $10,000. Mean annual income for this study sample, as shown in Table 5, was reported as code 7.04 which corresponds with the interval $35,000 to $44,999. Table 6 displays the frequency distribution for the sample for all eleven income intervals.

Table 5. Descriptive Statistics for Total Annual Income

Total Annual Income		
N	Valid	9724
	Mean	7.0369
	Std. Deviation	3.00943
	Minimum	1.00
	Maximum	11.00

Table 6. Frequency Distribution for Total Annual Income

		Frequency	Percent
Valid	$ 0 to $ 4,999	255	2.6
	$ 5,000 to $ 9,999	428	4.4
	$10,000 to $14,999	803	8.3
	$15,000 to $19,999	801	8.2
	$20,000 to $24,999	818	8.4
	$25,000 to $34,999	1331	13.7
	$35,000 to $44,999	995	10.2
	$45,000 to $54,999	922	9.5
	$55,000 to $64,999	619	6.4
	$65,000 to $74,999	557	5.7
	$75,000 and Over	2195	22.6
	Total	9724	100.0

Marital and relationship status was also analyzed for this study. The number of respondents for this question is 6,689. Respondents were grouped into two categories: Married/United and Unmarried/Separated. The first category includes individuals that are either married or cohabitating together, while the second category encompasses divorces, the widowed, separated, unmarried or single. Married/United respondents represented 47.5 percent of the sample, while

Unmarried/Separated represented 33.9 percent of the sample. Table 7 shows the frequency distribution for marital/relationship status.

Table 7. Frequency Distribution for
Marital/Relationship Status

		Frequency	Percent
Valid	Married/United	3179	47.5
	Unmarried/Separated	3510	52.5
	Total	6689	100.0

The last univariate analysis is Depression Score, which is a continuous dependent variable that was computed by deriving the aggregate sum of ten depression variables. The aggregate depression score ranges from one to thirty. The number of respondents that were included in this variable is 3,153 (N=3,153). The depression score ranged from 1.0 to 30.0 with a mean of 4.4640, with a standard deviation 4.24481 as seen in Table 8.

Table 8. Depression Score

Depression Score		
N	Valid	3153
	Mean	4.4640
	Std. Deviation	4.24481
	Minimum	1.00
	Maximum	30.00

Bivariate Analyses

A Pearson correlation test was run to find the relationship between the two continuous variables: Depression Score and Age. The results of the test show that depression is negatively correlated with age ($r = -.007$). This finding however, was not significant ($p > .05$).

A second Pearson correlation test was conducted between the depression score and education level. The results of this test showed a significant, negative correlation between these two variables ($r = -.108$, $p < .05$). This test then reveals that in this study, depression scores decreased as education level increased.

The relationship between depression and total annual household income was also measured through a Pearson correlation test. The results of this test reveal a negative correlation between depression and annual income, however these results were not significant ($r = -.024$, $p > .05$).

In addition to the Pearson correlation test, an Independent Samples t-Test was conducted to measure the difference in means between the Depression Score, for groups in other categorical variables.

The Independent Samples t-Test was conducted between depression and sex to gauge the differences in depression scores between males and females. The t-Test shows a slightly higher depression score in females than males; these scores were significant (female $M = 4.6886$, male $M = 4.1732$; $p < .05$).

Next, an Independent t-Test was run between depression scores and race. In order to properly test the category pairs, the race categories were combined in pairs. This analysis was used to show the mean differences in depression between the three racial groups.

The first t-Test was conducted between the Latino and White racial groups. Here the t-Test revealed a significantly higher mean difference for Latinos (M= 4.6194) than Whites (M= 4.2148; p < .05). In other words, depression was more prevalent among Latinos than Whites.

The t-Test run for depression between Latinos and Blacks showed a slightly higher mean difference in depression in Blacks (M = 4.7876) than Latinos (4.6194), these differences however were not significant (p > .05).

The third Independent t-Test on depression differences in race was conducted between the White and Black racial groups. Here the mean depression scores were higher in blacks (M = 4.7876) than in Whites (M = 4.2148); these differences were significant (p < .05). This indicates a higher prevalence of depressed Blacks than Whites.

Lastly, an Independent t-Test was conducted to find the differences in depression between married or united respondents and unmarried or separated respondents. The results of the t-Test reveal a significantly higher mean score in unmarried/separated respondents (M = 4.7152) than in married/united respondents (M = 4.2756; p < .05).

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These results from this study sample reveal that unmarried and/or separated individuals have a higher prevalence in becoming depressed than do individuals that are married or in a relationship.

Summary

This chapter reviewed the quantitative tests that were conducted in order to test the research question. The various statistical analyses covered in this chapter included demographic statistics, univariate descriptive statistics, including frequency distributions and bivariate analyses that were conducted through the Pearson correlation test and the Independent t-Test. The interpretation and significance of these results in relation to the research question and hypothesis will be reviewed in the following chapter.

CHAPTER FIVE

DISCUSSION

Introduction

This chapter will examine and interpret the

statistical analyses summarized in the preceding chapter.

The significant results will be reviewed and their

support or lack of support of the research question and

hypotheses will be discussed. If any results do not

conform to the expected results and are inconsistent with

previous research, those will be further discussed and

possible explanations explored. The limitations of this

study and implications for future social work will be

reviewed as well.

Discussion

The purpose of this study was to study the effects

between depression, economic insecurity and low

socioeconomic adults. The specific question this study

aimed to test is: how is depression affected by economic

insecurity and low socioeconomic status? A positive

relationship between economic insecurity and depression,

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and a negative relationship among low socioeconomic status adults and depression was hypothesized.

In order to test economic insecurity, a total annual household income variable was utilized. Economic insecurity in this case is defined as low annual household income. Socioeconomic status was determined by a set of five independent variables including sex, age, race, education level and marital/relationship status. Depression was calculated through computing the aggregate score of ten separate depression variables within the study.

The relationship between sex and depression was gauged through an Independent T-Test. In this test a slightly higher depression score among females than males was found. The results were significant and do conform to expected results, since females are considered of lower socioeconomic status than males.

To understand the differences between the levels of depression among the different racial groups, an Independent T-Test was run between depression scores and race. In order to properly test the category pairs, the race categories were combined in pairs. This analysis was used to show the differences in mean differences in

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depression between the three racial groups. In the first test, Latinos slowed a slightly higher prevalence than Whites for depression.

This finding does conform to previous studies, specifically Parke and others (2004). In this study less acculturated Mexican American families reported less marital satisfaction and greater economic burden. Higher depression scores in Latinos conforms to the hypothesis since Latinos are a minority status group within the United States and thus of low socioeconomic status. In other words depression was seen to rise with low socioeconomic status in this instance.

The next significant result showed a higher mean depression score for Blacks than Whites. This result again conforms to the hypothesis, since Black or African-Americans are also of minority status and also of low socioeconomic status.

To further test the effects of low socioeconomic status on depression, the relationship between education level and depression was analyzed. A second Pearson correlation test was conducted between the depression score and education level variables. The results of this

test showed a significant, negative correlation between these two variables.

This indicates that as educational levels increase, depression scores decrease. In other words, the more educated an individual is the less likelihood of becoming or being depressed. This result does conform to the hypothesis, since less education is consistent with low socioeconomic status (Lorant et al., 2003).

In the last significant finding, the relationship between marital/relationship status and depression was analyzed through an Independent T-Test. The findings from this test reveal a higher mean depression score for individuals of unmarried or single status. These results do conform to the hypothesis since married individuals are typically considered of higher socioeconomic status (Belle & Doucet, 2003).

To review the results and their support of the hypothesis, four of the independent variables (sex, race, education level and marital/relationship status) did conform with the expected results and past research and thus do support the hypothesis. These four variables were used to gauge socioeconomic status and thus show

that low socioeconomic adults do experience higher rates of depression.

Unfortunately, this study was unable to support the first hypothesis which predicted a positive relationship between economic insecurity and depression. In other words, as economic insecurity increases, or as individuals become poorer, depression will increase. In other words, to use the variable term used in this study, as annual income decreases, depression scores will increase. Although the findings per the Pearson Correlation test did show a negative relationship between depression scores and income, though suggesting that as income increases, depression will decrease, these results were not significantly valid.

Limitations of the Study

This study was conducted through secondary research and as such, this type of research has both strengths and weaknesses.

As mentioned before, this study was conducted using data from the 2005-2006 National Health and Nutrition Examination Survey. This survey conducted by the National Center for Health Statistics, under the auspices

of the CDC granted the primary investigator access to a tremendously large dataset (N = 10,348) that would otherwise have been impossible to collect.

This large dataset included data from individuals across the United States and furthermore provided a diverse, representative sample of the U.S population. This large sample size furthermore allowed small statistical relationships to become apparent.

Although secondary sources can in many times provide access to greater and more diverse samples, as in this case, there was one limitation to the study that which concerned the methodology and questioning procedures.

As is the case with all secondary sources, the primary investigator is limited by the variables and questions chosen in the source. For example, to better test economic insecurity and depression, the primary investigator would have added a specific question to test this relationship within the depression questionnaire.

This would have allowed a better means to test for economic insecurity and depression among low socioeconomic adults. Since this option was not available, the effects of economic insecurity and depression were tested separately from the other

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independent variables that comprised low socioeconomic status.

With less time constraints, other research possibilities may have been incorporated to further compliment the secondary data. This could have included gathering local, current data through original (first-hand) data collection. The results and findings from the two data types (first-hand and secondary) could have been compared to gain a more rounded idea of how depression is affected by economic insecurity and low socioeconomic status.

Recommendations for Social Work
Practice, Policy and Research

As stated before in this study, it is crucial for social work and mental health practitioners to consider and acknowledge a systems perspective during practice. By incorporating a systems perspective, practitioners develop a more holistic point of view with which to consider certain phenomenon. This may include consideration of how overlapping systems may be affecting both symptoms and treatment.

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In this particular case, since depression is influenced by environmental factors, it is imperative to study the extent and intensity to which economic concerns and stressors adversely affect depression in adults. Through this knowledge, direct mental health service practitioners (micro social work) can thereby more easily mitigate some of these effects by through certain therapeutic interventions, preventative case work, and case management.

In a more broad, macro sense, this research will help elucidate some of the external, influential factors that may fall out of the direct control of micro practitioners. In terms of socioeconomic status and income, appropriate policy changes would lie in the realm of the state and federal government. Some of the policy reforms for which social work practitioners could advocate include greater financial assistance, improved medical insurance, as well as tax relief for the poor.

In short, this research has illustrated the need for increased awareness and recognition by direct service practitioners of the heightened risk of depression among low SES individuals, as well as the need for greater

accessibility and procurement of mental health services for low SES individuals.

Conclusions

The findings from chapter four did support part of the hypothesis. The variables sex, race, education level and marital status were used as indicators for socioeconomic status. These variables showed relationships with depression that indicate a negative relationship between depression and socioeconomic status.

In short, adults of low socioeconomic status suffer from depression at increased rates. In addition to supporting the hypothesis these findings also remain consistent with previous research and literature regarding the relationship between socioeconomic status and depression.

The first part of our hypothesis and research question could not be properly measured since the results from the findings were not found to be significant.

The findings from this study indicate a need to increase social services and outreach for individuals of low socioeconomic status who may be at risk for developing depression.

APPENDIX A

DEMOGRAPHIC VARIABLES

1. Gender of the sample person

Male.. 1
Female..2

2. Age in years

3. Race/Ethnicity

Mexican American.. 1
Other Hispanic... 2
Non-Hispanic White... 3
Non-Hispanic Black 4
Other Race... 5

4. What is the highest grade or level of school received?

Less than 9th Grade.. 1
9-11th Grade (Includes 12th grade with no diploma).... 2
High School Grad/GED... 3
Some College or AA degree...................................... 4
Refused.. 7
Don't Know... 9

5. Marital Status

Married.. 1
Widowed.. 2
Divorced... 3
Separated.. 4
Never married.. 5
Living with partner.. 6
Refused.. 77
Don't Know... 99

6. Annual Household Income

$ 0 to $ 4,999... 1
$ 5,000 to $ 9,999... 2
$10,000 to $14,999... 3
$15,000 to $19,999... 4

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$20,000 to $24,999.....................................  5
$25,000 to $34,999.....................................  6
$35,000 to $44,999.....................................  7
$45,000 to $54,999.....................................  8
$55,000 to $64,999.....................................  9
$65,000 to $74,999..................................... 10
$75,000 and Over...................................... 11
Over $20,000.......................................... 12
Under $20,000......................................... 13
Refused............................................... 77
Don't Know............................................ 99
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APPENDIX B

DEPRESSION SCREENER QUESTIONNAIRE

1.

05DPQ.010 Over the **last 2 weeks**, how often have you been bothered by the
following problems: little interest or pleasure in doing things? Would you
say . . .

Not at all, ... 0
several days, ... 1
more than half the days, or 2
nearly every day? 3
REFUSED 7
DON'T KNOW 9

2.

05DPQ.020 [Over the **last 2 weeks**, how often have you been bothered by the
following problems:] feeling down, depressed, or hopeless?

NOT AT ALL... 0
SEVERAL DAYS 1
MORE THAN HALF THE DAYS.................................... 2
NEARLY EVERY DAY.. 3
REFUSED 7
DON'T KNOW 9

3.

05DPQ.030 [Over the **last 2 weeks**, how often have you been bothered by the
following problems:] trouble falling or staying asleep, or sleeping too much?

NOT AT ALL... 0
SEVERAL DAYS 1
MORE THAN HALF THE DAYS.................................... 2
NEARLY EVERY DAY.. 3
REFUSED 7
DON'T KNOW 9

4.

05DPQ.040 [Over the **last 2 weeks**, how often have you been bothered by the
following problems:] feeling tired or having little energy?

NOT AT ALL... 0
SEVERAL DAYS 1
MORE THAN HALF THE DAYS.................................... 2
NEARLY EVERY DAY.. 3
REFUSED 7
DON'T KNOW 9

5.

05DPQ.050 [Over the **last 2 weeks**, how often have you been bothered by the
following problems:] poor appetite or overeating?

NOT AT ALL... 0
SEVERAL DAYS 1
MORE THAN HALF THE DAYS.................................... 2
NEARLY EVERY DAY.. 3
REFUSED 7

DON'T KNOW 9

6.

05DPQ.060 [Over the **last 2 weeks**, how often have you been bothered by the following problems:] feeling bad about yourself – or that you are a failure or have let yourself or your family down?

NOT AT ALL... 0
SEVERAL DAYS 1
MORE THAN HALF THE DAYS.. 2
NEARLY EVERY DAY... 3
REFUSED 7
DON'T KNOW 9

7.

05DPQ.070 [Over the **last 2 weeks**, how often have you been bothered by the following problems:] trouble concentrating on things, such as reading the newspaper or watching TV?

NOT AT ALL... 0
SEVERAL DAYS 1
MORE THAN HALF THE DAYS.. 2
NEARLY EVERY DAY... 3
REFUSED 7
DON'T KNOW 9

8.

05DPQ.080 [Over the **last 2 weeks**, how often have you been bothered by the following problems: moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual?

NOT AT ALL... 0
SEVERAL DAYS 1
MORE THAN HALF THE DAYS.. 2
NEARLY EVERY DAY... 3
REFUSED 7
DON'T KNOW 9

9.

05DPQ.090 Over the **last 2 weeks**, how often have you been bothered by the following problem: Thoughts that you would be better off dead or of hurting yourself in some way?

NOT AT ALL... 0
SEVERAL DAYS 1
MORE THAN HALF THE DAYS.. 2
NEARLY EVERY DAY... 3
REFUSED 7
DON'T KNOW 9

10.

05DPQ.100 How **difficult** have these problems made it for you to do your work, take care of things at home, or get along with people?

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Not at all difficult,  ..........................................  0
Somewhat difficult,..............................................  1
Very difficult,  ................................................  2
Extremely difficult?.............................................  3
REFUSED  ........................................................  7
DON'T KNOW  .....................................................  9
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