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SERIOUS PSYCHOLOGICAL DISTRESS IN AN ADULT POPULATION

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Abstract

This paper describes the prevalence of serious psychological distress among Oklahoma's adult population and how serious psychological distress relates with chronic illness, unhealthy behaviors, and performance of usual activities. A random-digit dialed telephone survey was administered to Oklahoma's non-institutionalized adult residents (n=7,463) in 2007. Five percent of Oklahoma adults experienced serious psychological distress (SPD).

Introduction

Mental illness is a leading cause of disability and premature death due to suicide around the world.¹ Individuals with mental illness have higher rates of morbidity and are more likely to engage in unhealthy behaviors such as smoking and substance abuse compared to the general population (Anderson, Freedland, Clouse, and Lustman 2001; Dickerson, Brown, Daumit, LiJuan, Goldberg, Wohlheiter and Dixon 2006; Shupe, Tolliver, Hamilton and Menefee 2007; Substance Abuse and Mental Health Services Administration 2007; World Health Organization 2001). Direct costs to treat mental illness and indirect costs related to lost productivity number in the billions of dollars each year, and the majority of these costs are funded by the public (President's New Freedom Commission on Mental Health 2003; WHO 2001). In Oklahoma, more than 35,000 adults received mental health services that were funded by the Department of Mental Health and Substance Abuse Services (DMHSAS) during the 2008

fiscal year. During this single year, adults being treated for mental health conditions accounted for almost 600,000 days and an additional 1.3 million hours of service. It was estimated that the state spent \$1.8 billion yearly in direct costs on issues of mental health, and that mental illness had an economic impact on the Oklahoma economy of more than \$256 million due to reduced productivity (Governor's and Attorney General's Blue Ribbon Task Force on Mental Health, Substance Abuse and Domestic Violence 2005). It is thus important to identify individuals and groups who are at risk for mental illness to inform public policy and programs that will provide targeted education and other preventive measures for those in need of treatment (Governor's and Attorney General's Blue Ribbon Task Force 2005; WHO 2001).

The Behavioral Risk Factor Surveillance System (BRFSS) is a national on-going telephone-administered survey that assesses prevalence of chronic disease and health behaviors among the nation's population. Survey

data are used to describe the health status of the population, inform health interventions and public policy, and evaluate health promotion programs. BRFSS is coordinated by the Centers for Disease Control and Prevention (CDC) and is administered through state health departments. In 2007, Oklahoma's survey included a module that assessed mental illness and its stigma. The module consisted of 6 items (K6) that asked how often an individual experienced non-specific psychological distress within the past 30 days. The K6 is a shorter version of the Kessler Psychological Distress Scale (K10), both of which were found to be good predictors of serious mental illness (SMI) (Kessler, Barker, Colpe et al. 2003). However, upon further analysis, the K6 was determined to be more useful at measuring psychological distress or affective-mood and anxiety-type disorders rather than SMI, and is now used in population studies such as BRFSS to assess serious psychological distress (SPD) (Wright and Sathe 2003-2004). The K6 identifies individuals who have mental health problems that are severe enough to limit functioning and who are in need of interventions and resources.

Previous data from the National Survey on Drug Use and Health (NSDUH) estimated that the prevalence of SPD was higher in Oklahoma than in most other states in the nation, and was generally more common among women, American Indians, and individuals aged 18-25 years (SAMHSA 2007). Researchers also found that those with SPD had higher

rates of illicit drug and tobacco use and binge drinking (SAMHSA 2007). The purpose of this analysis is to describe the prevalence of serious psychological distress among Oklahoma's adult population, to identify groups who experience higher rates of SPD, and to describe how serious psychological distress relates with chronic illness, unhealthy behaviors, and performance of usual activities. Whether an individual with SPD is receiving treatment will also be assessed.

Methods.

This analysis uses data from the 2007 administration of the BRFSS survey in Oklahoma and includes responses from the Mental Illness and Stigma optional module along with demographic, chronic disease, and health behavior data that are part of the survey's core. Trained telephone interviewers use computer-assisted telephone interviewing software (CATI) to administer the BRFSS survey to a stratified random sample of non-institutionalized adults aged 18 years and older responding via land-line telephones.

Data were collected from 7,463 respondents. Respondents were asked how often during the past 30 days they felt nervous, hopeless, restless, worthless, so depressed that nothing could cheer them up, and that everything was an effort. Respondents answered all, most, some, a little, or none of the time. The response "all of the time" was assigned a score of 4 and "none of the time" was assigned a score of

0. Serious psychological distress was determined by summing the scores of the 6 questions, with possible SPD scores ranging from 6 to 24. A summation score of 13 or greater defined serious psychological distress (Kessler et al. 2003). Respondents were also asked how many days during the past 30 days did a mental health condition or emotional problem keep them from doing usual activities, and if they were taking medicine or receiving treatment from a health professional for any type of mental health condition or emotional problem. Number of limited activity days was categorized into 3 groups: 0, 1 to 14, and 15 or more limited days.

A weighting factor was applied for each respondent, which included adjusting for non-coverage, non-response, and the number of adults and telephones in the household. Due to the small sample size with SPD, some demographic categories were collapsed to provide more robust data. For example, race was categorized as white non-Hispanic versus non-white. Age was categorized in a manner similar to what has been used in other population studies of mental illness (SAMHSA2007; Governor's and Attorney General's Blue Ribbon Task Force 2005). Descriptive statistics for respondents were determined, and differences in prevalence of SPD by demographic group, occurrence of chronic disease, and behaviors were assessed using Rao-Scott Chi-Square analyses.

Because some respondents answered "I don't know" or did not respond to some items from the Mental Illness and Stigma module, a composite score for SPD was not computed for 670 respondents. Data from these individuals was removed from the analysis. There were demographic differences between responders and non-responders. Non-responders were comprised of more males, seniors aged 65 years and older, and those with lower education and income. The final sample size for this analysis is 6,793 individuals. All analyses were performed using SAS version 9.1 (Cary, NC).

Results

Characteristics of Respondents

Estimates of characteristics of Oklahoma's population were calculated after applying the weighting algorithm to the respondents' data. Oklahoma had slightly more female than male residents. While more than half of adults had some post-secondary education or were college graduates, 1 in 9 adults had not received a high school diploma. Fifty-seven percent of Oklahoma adults were employed for wages or self-employed, and almost 40% had an annual household income of \$50,000 or more.

Prevalence of Serious Psychological Distress

Overall, 5.3% (95% CI: 4.6, 6.0) of Oklahoma adults experienced serious psychological distress. Prevalence of

serious psychological distress (SPD) was determined for each demographic group. There were no sex differences in the prevalence of SPD. However, differences by all other demographics were evident. Adults aged 26-64 years had higher rates of SPD than seniors aged 65 years and older. Non-whites, which included non-Hispanic blacks, American Indians, Hispanics, Asians, and multiracial individuals, had an 80% higher rate of SPD than non-Hispanic whites. Individuals with lower levels of education and income had substantially higher rates of SPD, as did those who were out of work or widowed/divorced/separated. Prevalence of SPD along with presence of eight chronic diseases was assessed. Individuals who had chronic illness had higher rates of SPD compared to those without the respective condition (Figure 1). Differences in the rates were lowest for obesity (69%) and diabetes (92%) and highest for stroke (204%), arthritis (169%), and heart disease (158%). In addition, those who had multiple chronic illnesses had an SPD rate more than twice the rate of those with only one chronic condition (Figure 2). The simultaneous prevalence of SPD and unhealthy behaviors was assessed. Those with SPD had higher rates of engaging in unhealthy behaviors, including smoking, not consuming sufficient amounts of fruits and vegetables, not meeting the physical activity recommendation, and being physically inactive, compared to those without SPD (Table 1). There were no differences in alcohol consumption by SPD status.

The average number of days that a mental health condition or emotional problem interfered with work or other usual activities and whether an individual was receiving treatment for a mental health condition or emotional problem were examined. Overall, 9.7% of Oklahomans experienced interference with usual activities on at least 1 of the past 30 days. This percentage increased to 67.5% when considering only adults who had SPD. A larger percentage of individuals with SPD experienced limitations with performing usual activities on 15 or more of the past 30 days compared to those without SPD (Table 2). On average, those with SPD experienced 11.3 days (95% CI: 9.6, 13.0) of limited activity compared to 0.4 days (95% CI: 0.4, 0.5) for those without.

Individuals with SPD were also more likely to have been taking medicine or receiving treatment from a health professional for a mental health or emotional problem, though approximately 10% of those without SPD were also receiving some type of treatment (Table 3).

Of the adults who experienced frequent limited activity days (>15 days), almost 70% were receiving treatment.

Discussion

This analysis describes the prevalence of serious psychological distress among Oklahoma's adult population and how serious psychological distress relates with chronic illness, unhealthy behaviors, and performance of usual activities.

Table 1: Prevalence of Serious Psychological Distress Among Oklahoma Adults by Demographic Category (n = 6,793).

| | Weighted % | 95% CI | p-value |
|--------------------------------|------------|-----------------|--------------------|
| Sex | | | |
| Male | 4.9 | 3.7, 6.1 | |
| Female | 5.7 | 4.9, 6.6 | 0.2655 |
| Age (years) | | | |
| 18-25 | 4.2 | 1.7, 6.7 | |
| 26-49 | 5.7 | 4.5, 6.9 | |
| 50-64 | 6.6 | 5.3, 8.0 | |
| ≥ 65 | <u>3.4</u> | <u>2.6, 4.3</u> | <u>0.0348</u> |
| Race/Ethnicity | | | |
| White | 4.3 | 3.6, 5.1 | |
| Non-white | 7.7 | 5.9, 9.4 | < 0.0001 |
| Marital Status | | | |
| Married/cohabitating | 4.2 | 3.3, 5.0 | |
| Divorced/separated/widowed | 9.9 | 8.3, 11.5 | |
| Never married | 4.7 | 2.6, 6.9 | < 0.0001 |
| Education | | | |
| Less than high school | 14.8 | 11.0, 18.6 | |
| High school graduate | 6.2 | 4.9, 7.5 | |
| Some post-secondary school | 2.8 | 2.2, 3.5 | < 0.0001 |
| Employment Status | | | |
| Employed | 3.0 | 2.2, 3.8 | |
| Out of work/unable to work | 22.5 | 18.6, 26.5 | |
| Homemaker | 2.9 | 1.6, 4.2 | |
| Student | - | - | |
| Retired | 3.4 | 2.2, 4.7 | < 0.0001 |
| Annual Household Income | | | |
| < \$25,000 | 12.5 | 10.5, 14.5 | |
| \$25,000 - \$49,999 | 2.5 | 1.5, 3.4 | |
| ≥ \$50,000.00 | <u>2.0</u> | <u>1.2, 2.8</u> | <u>< 0.0001</u> |

Figure 1. Percentage of Individuals With and Without Chronic Illness Who Had Serious Psychological Distress.

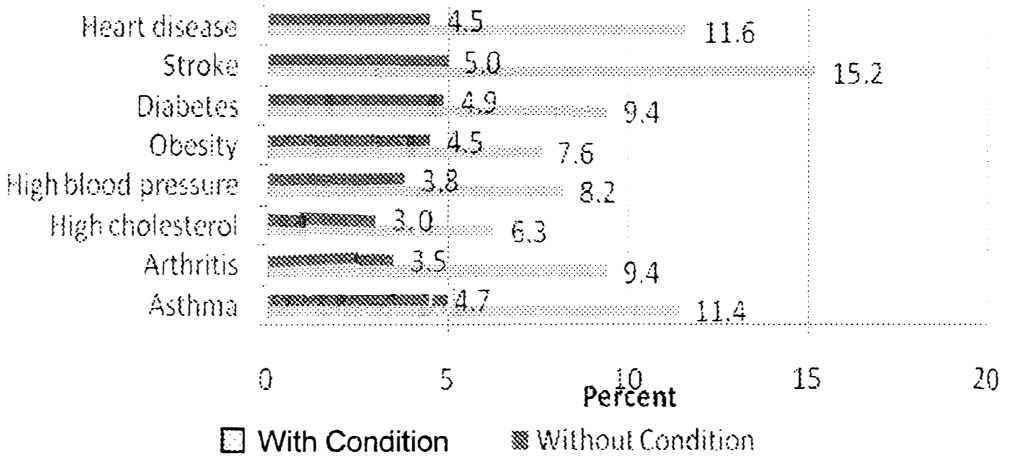


Figure 2. Prevalence of Serious Psychological Distress by Number of Chronic Illnesses Present.

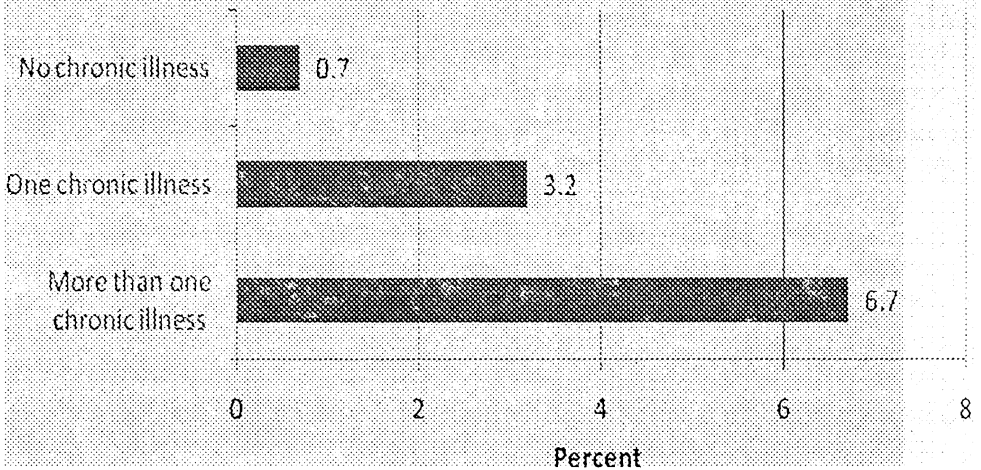


Table 2 Percentage of Individuals Who Engaged in Unhealthy Behaviors by Serious Psychological Distress Status.

| | With SPD | | Without SPD | | p-value |
|-------------------------------------|-----------|------------|-------------|------------|---------|
| | Weighted% | 95%CI | Weighted% | 95%CI | |
| Smoker | 55.9 | 49.0, 62.9 | 23.7 | 22.2, 25.1 | <.0001 |
| Not meeting fruit/vegetable recom | 88.2 | 84.4, 92.1 | 83.2 | 82.0, 84.3 | 0.0303 |
| Not meeting Physical activity recom | 64.8 | 57.4, 72.2 | 53.6 | 52.0, 55.2 | 0.0057 |
| Physically inactive | 22.3 | 17.0, 27.6 | 9.0 | 8.2, 9.7 | <.0001 |
| Brge Drinker | 16.6 | 10.0, 22.2 | 12.0 | 10.8, 13.2 | 0.1168 |
| Heavy Drinker | 6.6 | 2.4, 10.8 | 3.4 | 2.8, 4.1 | 0.0529 |

Table 3. Limited Activity and Receipt of Treatment by Serious Psychological Distress Status

| | With SPD | | Without SPD | | p-value |
|--|-----------|------------|-------------|----------|---------|
| | Weighted% | 95%CI | Weighted% | 95%CI | |
| Limited Activity for > 15 of the Past 30 Days | 39.6 | 32.5, 46.8 | 0.9 | 0.7, 1.2 | <.0001 |
| Received Treatment for Mental Health or Emotional Problems | 43.6 | 36.5, 50.8 | 10.2 | 9.3, 11 | <.0001 |

Receipt of treatment was also assessed. Five percent of Oklahoma's adults were classified as having serious psychological distress, and fewer than half of them were receiving treatment. SPD was more common among middle-aged and non-white adults, those with the lowest education and income, those who were unemployed, and those with chronic ill-

ness. Individuals with SPD had higher rates of engaging in unhealthy behaviors and experienced more limited activity days. Estimates produced from the BRFSS survey demonstrated a much smaller prevalence of SPD among Oklahomans compared to national and Oklahoma rates estimated from the National Survey on Drug Use and Health (NSDUH), a population

study that used similar items to assess SPD. NSDUH data from 2005-2006 produced SPD prevalence estimates of 19.3% and 12.2% for Oklahoma adults 18 to 25 years and aged 26 years and older, respectively (SAMHSA 2006). The prevalence of SPD for all American adults was 11.3% in 2006. These rates are more than twice the prevalence rate of SPD produced by Oklahoma's 2007 BRFSS data. The primary reason for this difference may relate to the time frame to which the K6 questions refer in each study. BRFSS asked about mental health in the previous 30 days, whereas the NSDUH asked about mental health during the most emotionally difficult month in the past year. The BRFSS survey may be better able to quantify the occurrence of long-term mental health problems because of the shorter time frame utilized; long-term problems would be present from month to month. Conversely, individuals may experience stressful situations during the year (i.e., loss of a job, death of a loved one) which they are able to resolve or accept and which may not influence responses to a previous-month survey, but will impact responses on a survey inquiring about mental health during the past year. There are also some differences in the patterns of SPD prevalence by demographics when comparing the Oklahoma BRFSS results with NSDUH results.

For example, NSDUH results demonstrated that women and the youngest adults had higher prevalence of

SPD (SAMHSA 2007), whereas BRFSS results demonstrated no difference in SPD prevalence by sex and a higher rate among those in the middle ages (26-64 years). NSDUH results also showed high prevalence of SPD among American Indians (25.9%) (SAMHSA 2007), whereas the BRFSS sample consisted of too few observations for American Indians and other minorities to enable meaningful analyses for the individual groups. BRFSS results demonstrated relevant patterns of disparity among most demographics, with the exception of sex. Though the extent of the differences among the racial/ethnic groups is unknown, it was evident that non-whites had a 79% higher rate of SPD than whites. The literature suggests that some non-white groups, such as blacks, American Indians, and multi-racial individuals, are more likely to experience SPD than whites (Shupe A, Tolliver R, Hamilton J, Menefee D, 2007). Socioeconomic factors impacted SPD prevalence considerably, as occurred in other studies (Pratt LA, Day AN, and Cohen AJ, and Li C, Ford ES, Zhao G, et al. 2007). Individuals in the lowest education and income groups had significantly higher rates of SPD than others, and those who were out of work or unable to work had rates of SPD that were 650% higher than individuals who were employed, retired, or homemakers. Factors related to poverty and low socioeconomic status are commonly associated with mental disorders, and this may

relate in some instances to difficulty in accessing care (Kessler RC, Chiu WT, Colpe L, et al 2004). Those who were previously married or were separated had more than double the rate of SPD than those who were married/cohabitating and those who had remained single. Why mental illness is more common among those with disadvantaged social status remains unclear, though combinations of biological, environmental, and social factors most likely contribute. Overall, that SPD occurs more commonly among certain demographic groups suggests that certain groups should be targeted for screening and treatment of mental disorders.

Oklahomans with specific chronic illnesses had higher rates of SPD compared to those without a chronic illness, and prevalence of SPD increased with the presence of multiple chronic conditions compared to having a single condition or no chronic illness. Rates of SPD among adults without a physical ailment ranged from 3-5%, whereas rates of SPD among those with a physical ailment ranged from 6-15%. Rates of SPD were typically twice as high for the physically ill population compared to those without illness, and were 3 times as high for stroke victims. When assessing SPD prevalence by total number of chronic physical conditions, SPD occurred in fewer than 1% of those without a physical ailment, and SPD prevalence increased to 3% for those with a single physical ailment and to almost 7% among those with two or more physical conditions. This

implies that multiple physical illnesses may increase risk of poor mental health. These results are consistent with the literature, which has shown that mental illnesses, especially depressive disorders, are associated with chronic diseases.

The direction of the relationship between mental illness and physical chronic conditions, or whether one causes the other, is unknown. Individuals with a chronic condition such as cardiovascular disease (Freedland KE, Rich MW, et al., and Fan AZ, Strine TW, et al 2007). or diabetes (Anderson RJ, Freedland KE, Clouse RE, and Lustman PJ, 2003), or who underwent a debilitating injury such as a fall (Scaf-Klomp W, Sanderman R, Ormel J, and Kempen GJIM, 2003). may be more likely to experience SPD or depression. Alternatively, individuals with mental illness have higher rates of chronic physical ailments such as diabetes, obesity, and hypertension. For example, diabetes was more common among a VA population with bipolar disorder than the national VA cohort to which the population was compared; rates of other co-morbidities were comparable to or slightly less than the national cohort. In the current study, SPD was 92% more common among adults with than without diabetes and 69% more common among the obese than non-obese. Results of a separate study demonstrated that obesity occurred in a larger percentage of those with severe and persistent mental illness compared to the general population.

Obesity and other co-morbid conditions were more common among outpatients of psychiatric care facilities who had serious mental illness compared to their matched counterparts (Dickerson FB, Brown CH, et al. 2006). The connection between mental illness and chronic disease suggests that neither a mental nor a physical illness should be treated in isolation. Individuals with either a mental or physical ailment should be screened for other related conditions, and appropriate courses of action should be taken to treat simultaneous ailments when they occur (Lichtman JH, Bigger Jr. JT, Blumenthal JA, et al., and Morden NE, Mistler LA, et al. 2009).

Of special interest to the connection between mental and physical health is that mentally ill adults may develop physical ailments earlier than their non-mentally ill counterparts. In addition, they are less likely to receive treatment for these conditions and thus are more likely to die prematurely (Manderscheid RW, 2009).

In one study, mental health clients died at much younger ages than their cohorts nationwide (Colton CW and Manderscheid RW. 3;A42). Another study demonstrated that the onset of co-morbid physical conditions occurred at younger ages. Thus, it is important to identify individuals with mental illness as early as possible. Oklahomans with SPD more commonly engaged in unhealthy behaviors compared to those without SPD. These results are generally consistent with results from other studies examining the health behaviors of individuals with mental

illness. For example, studies have shown that individuals with SPD or mental illness have twice the current smoking rate of individuals without SPD or mental illness. The current study demonstrated that Oklahoma adults with SPD had a 136% higher rate of smoking than the rest of Oklahoma's adult population. High rates of tobacco use could relate in part to the mood-altering effects of nicotine, but has serious consequences with respect to other health outcomes such as premature mortality and quality of life. Studies have demonstrated higher prevalence of physical inactivity and lower levels of activity among individuals with SPD or severe mental illness, with the primary barriers to engaging in physical activity being fatigue and illness. In the current study, the rate of physical inactivity participation was 2.5 times greater than the corresponding rate for adults without SPD. While some studies have demonstrated that adults with SPD or mental illness were more likely to engage in heavy drinking and binge drinking (Kilbourne AM, Cornelius JR, Han X, Pincus HA, Shad M, Salloum I, et al. 2004). There were no differences between the SPD and non-SPD groups with respect to alcohol consumption in Oklahoma adults. This could be due in part to the small percentage of Oklahoma adults that were estimated to be heavy or binge drinkers, thus not providing a sufficient sample size to enable meaningful analysis. Because individuals suffering mental illness tend to engage in unhealthy behaviors, health promotion programs should be

developed to provide specialized guidance addressing behavior change issues that may arise for mentally ill adults.

Mental illness is a leading cause of disability (WHO 2001) and was estimated to cost the Oklahoma economy more than \$250 million in lost productivity in 2005 (Governor's and Attorney General's Blue Ribbon Task Force, 2005). Almost 68% of adults with SPD experienced limitations to performing work or other usual activities on at least 1 day and 40% of adults with SPD experienced limitations frequently (>15 days). Fewer than 1% of adults without SPD had such frequent interference with performing their usual activities. The large differences in activity limitations that occur between those with and without SPD suggest that individuals with SPD need to receive appropriate treatment to optimize their daily functioning. However, fewer than half of Oklahomans with SPD were receiving some type of treatment for an emotional or mental problem. This number increased significantly when coupled with frequent limited activity days. This still left 30% of those who frequently had mental difficulties that interfered with usual activities who were not being treated. In a 2006 national sample, 44% of adults with SPD received treatment for a mental health problem,⁵ which was consistent with results of the current study. Of the national sample, most adults who were receiving treatment were taking medication.⁵ Reasons that adults in the national sample gave for not receiving

mental health treatment were mainly due to cost (41.5% of sample), followed by the perception that the individual could handle the problem without treatment (34% of sample). Poverty and lack of health insurance are extensive in Oklahoma (Oklahoma State Department of Health, 2008), and may reflect reasons why a larger proportion of adults with SPD did not seek treatment.

A small percentage of adults without SPD were receiving treatment for a mental or emotional problem. This could reflect individuals who were suffering from a situational event that occurred in the past month, or individuals who were not currently experiencing symptoms though they have had problems in the past. Perhaps the medication was alleviating symptoms for some individuals. In a national study, approximately 21% of adults using mental health services did not have current mental health diagnoses but had been diagnosed at some point in their life (Druss BG, Wang PS, Sampson NA, et al., 2007).

Perhaps they were utilizing "maintenance" treatment or had other problems arise. Another 8% of the national sample who were using mental health services had never been diagnosed with a mental illness (Druss BG, Wang PS, Sampson NA, et al., 2007). In these instances, treatment for emotional and mental problems prior to the onset of severe mental illness may prevent or prolong the development of a diagnosable mental illness. There are several

strengths to this study. The sample was a stratified random sample of Oklahoma's non-institutionalized adult population. Data were weighted to reduce non-response and other biases and to provide a more accurate representation of the population from which the sample was drawn. Items used to identify individuals with SPD have been shown to be good measures of psychological distress and are used in other national studies. There are also some limitations to this study. Households without landline telephones were not included in the 2007 survey, and individuals living in cell-phone only households may have different health risks and behaviors than those living in households with landline service. Because respondents were non-institutionalized, rates of SPD may be lower than the actual rate for all Oklahoma adults.

There were differences between those who responded to all survey questions and those who did not, thus affecting the generalizability of results to all non-institutionalized Oklahoma adults.

Though the BRFSS dataset encompassed a broad spectrum of the Oklahoma adult population, the percentage of individuals with SPD was small, making more detailed analysis of SPD among the demographic groups impractical. Respondents may have provided answers to questions that they thought would be more appropriate, potentially introducing social desirability bias to the data, or may not have remembered their feelings across the past month.

In summary, while rates of SPD were generally low in Oklahoma (~5%), SPD more commonly occurred among non-Whites, middle-aged adults, those with low income and educational attainment, and the unemployed. Individuals with a chronic physical ailment had higher occurrence of SPD, and adults with multiple physical illnesses had SPD at twice the rate of those with a single physical illness. Adults with SPD engaged in unhealthy behaviors that worsen health outcomes and may contribute to decreased quality and years of life, and suffered more days whereby mental problems interfere with daily activities. While having SPD does not equate to having a diagnosed mental disorder, SPD does impact quality of life and daily functioning. It is a potentially costly health condition that should be addressed. Improving the health status of the population involves more than reducing morbidity and mortality; quality of life should be enhanced as well. Because SPD occurred in higher rates among individuals with poor physical health and among those who engaged in unhealthy behaviors, mental health should be promoted as one component of a comprehensive preventive healthcare program for all individuals.

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CO-OCCURRING SUBSTANCE USE AND PSYCHIATRIC DISORDERS AMONG A SUBSTANCE ABUSE TREATMENT POPULATION

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Abstract

Research has shown that persons with co-occurring disorders are more likely to use multiple drugs and to have more social and economic problems than substance abuse treatment populations without a co-occurring mental health disorder. This article focuses on the incidence and characteristics of persons with co-occurring disorders among a substance abuse treatment population in Detroit, MI. Data were extrapolated from a larger needs assessment that covered the three-year period 2004-2006.

It is estimated that over 5 million adults in the United States suffer from co-occurring mental health and substance abuse disorders (SAMHSA, 2006). Individuals with co-occurring disorders account for a significant proportion of the substance abuse treatment population. In 2001, the number of substance abuse treatment admissions with co-occurring disorders made up 16 percent of all admissions (The DASIS Report, 2004). Clinical samples show that as many as 60 to 80 percent of persons with substance abuse histories have a co-occurring mental illness diagnosis (Mueser, Drake, Turner & McGovern, 2006).

Among mental health populations in 2003, 21.3% were found to be substance dependent (SAMHSA, 2006). Moreover, the literature suggests that certain mental health challenges places individuals at increased risk for substance abuse behaviors. For example, persons with antisocial personality disorders are at a 15.5 percent increased risk for substance abuse behavior. The psychiatric problems

commonly identified as co-occurring with substance abuse behaviors are depression and bi-polar disorders, generalized anxiety disorders, panic disorders, obsessive-compulsive disorders, phobias, schizophrenia and personality disorders (Mental Health America, 2008).

The social and economic costs of co-occurring mental health and substance use disorders has been well documented in the literature on both substance abuse and mental health (SAMHSA, 2008). Research has shown that persons with co-occurring disorders (PW) are more likely to use multiple drugs and to have more social and economic problems than substance abuse treatment populations without a co-occurring mental health disorder. Those with co-occurring disorders more likely to be chronically homeless, have serious medical problems like HIV, have functional impairment, and behavioral problems than persons with either mental health challenges or substance use issues alone. Also, persons with co-occurring dis-

orders tend to have high utilization rates for other public services - such as police, jail and court services - and medical services - such as hospital emergency rooms and emergency medical transportation services (Mowbray, Ribisi, Solomon, Luke & Kewson, 1997; Compton, Weiss, West & Kaslow, N., 2005). This article focuses on the incidence and characteristics of persons with co-occurring disorders among a substance abuse treatment population in a large urban area.

METHODS

The data reviewed here were collected as part of a larger needs assessment study completed in 2007 for the City of Detroit Department of Health and Wellness Promotion, Bureau of Substance Abuse Prevention, Treatment and Recovery (BSAPTR) in the City of Detroit Department of Health and Wellness Promotion. BSAPTR is one of 16 state designated Substance Abuse Coordinating Agencies in Michigan. Its coverage area is the City of Detroit.

Detroit is Michigan's largest city; once ranked as the fifth largest city in the U.S. (1960 population of 1,670,144). Today, with just under one million residents, Detroit is one of the poorest cities in the United States. African-Americans make up about 81 percent of the population and almost half (49 percent) of Detroit's residents have incomes below 200% of the federal poverty level (American Commu-

nity Survey, 2005). The city is plagued by population loss, poverty, decaying neighborhoods, unemployment, violence, and substance abuse (United Way for Southeastern Michigan, 2006).

BSAPTR administers federal Substance Abuse Block Grant funds and federal and state Medicaid funded treatment services to Medicaid eligible persons residing in Detroit. In addition to contracting for substance abuse treatment, recovery and prevention services, it oversees the operations of a centralized entry point into substance abuse treatment: Access Assessment and Referral Services (AAR).

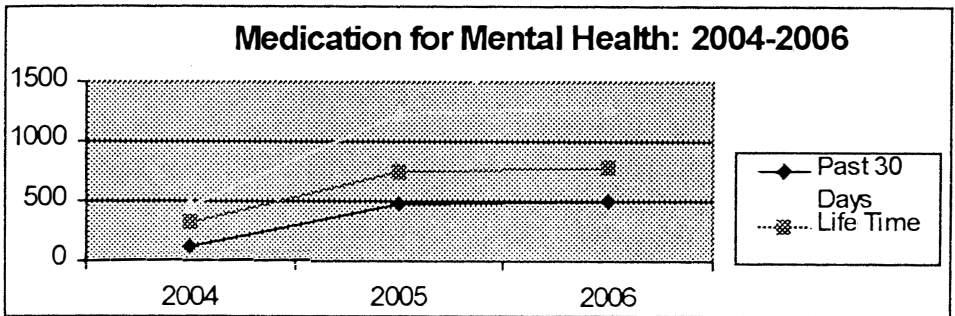
The needs assessment study used a number of administrative data sets and a variety of methods (focus groups, key informant interviews, public opinion telephone poll, mailed stakeholder group surveys) to engage the general public and BSAPTR's stakeholder communities in the needs and asset assessment process. The data reported here were derived from an administrative data set called CareNet®. CareNet® is an electronic case file system that aggregates information inputted by BSAPTR providers. CareNet® data were provided as individual Excel files for three years: 2004, 2005 and 2006. Each file contained the fields from the CareNet® database with client ID as a linking variable. The files were cleaned and exported to SPSS for analysis.

INCIDENCE OF CO-OCCURRING DISORDERS

BSAPTR gathers information on serious mental health issues via self-report at the point of admission. In addition to gathering information on specific serious issues such as depression and anxiety, information on the use of medication for mental health issues is recorded in a non-duplicative manner, based on most recent use. For the purposes of this analysis, the receipt of medication for mental health issues was used to indicate a diagnosed co-occurring disorder. Over a three year window from 2004

ring cases is viewed by year increases are noted.

As noted earlier, the city of Detroit is a largely African-American urban area. Consequently, it is no surprise that the majority of persons seeking treatment for substance abuse in Detroit (90.9%, n=12634) and a majority of the co-occurring population 87.2% (n=2,597) are African-American. Caucasians make up only 6.1% (n=850) of the larger substance abuse population seeking treatment in Detroit and about 10% (n=297) of the co-occurring population. Hispanic/Latinos (1.3%, n=34), Native Americans (.3%,



to 2006, close to 12% (n = 1,872) of all intakes noted prescribed medication for mental health symptoms 'at some point in their lives' and another 6.9% (n = 1,106) of the intakes within that same three year window noted medication for mental health symptoms 'within the last 30 days.' Together, these two categories represent 18.5% (n = 2,978) of all substance abuse treatment admissions in the city of Detroit for the years 2004 through 2006. When the number of co-occur-

n=8), Asian Americans (.3%, n=8) and Arab Americans (.1%, n=3) are also represented among the co-occurring population, albeit in fairly low numbers.

These data show that the substance abuse treatment population in Detroit is predominantly male. Males outnumber females by almost 2 to 1 (65.1%, n=9068 males v 34.9%, n=4860 females). However, gender breakdowns for persons with both a substance abuse and mental health disorder tell

a different story. These data show a fairly equal distribution of women (48.4%, $n = 1,264$) and men (51.6%, $n=1,536$). Moreover, persons with co-occurring disorders are more likely to be female when compared to persons admitted to treatment for substance abuse disorders only (48.4%, $n=1264$ women with co-occurring disorders v 31.8%, $n=3596$ women with only substance abuse disorders). The individuals who sought substance abuse treatment in Detroit between 2004 and 2006 were primarily single 90.9% ($n=12646$). Only 7.8% ($n=1257$) were married at the time of admission into treatment. Table 1 shows a comparison of marital status at the time of admission for co-occurring v substance abuse only groups.

Among the persons seeking substance abuse treatment in the city of Detroit between 2004 and 2006, about 3% ($n=89$) were court referred to treatment. These individuals had an average of 12.7 arrests with drugs noted in 11.7% ($n=347$) of the cases. Six-

teen percent ($n=476$) were on probation and 2.5% ($n=73$) had open protective services cases at the time of admission.

There was a higher incidence of homelessness among the co-occurring group when compared to the substance abuse only group (20.2%, $n=527$ v 15.3%, $n=1730$). Persons with co-occurring disorders were less likely than those with substance abuse only to be in the competitive labor force (21.6%, $n=563$ for co-occurring v 15.4%, $n=1744$ for substance abuse only); more likely to be on public assistance (42.2%, $n=1112$ v 27.3%, $n=3188$); and more likely to have Medicaid as their funding source for substance abuse treatment (42.0%, $n= 1102$ v 24.4%, $n=2829$). Table 2 compares select characteristics of the co-occurring group v the substance abuse only group. About 36% ($n=1,068$) of the co-occurring group have a family history of substance abuse and 96.7% ($n=2879$) report a history of drug overdose. The top

Table 1: Co-Occurring v Substance Abuse Only by Marital Status

| | Co-Occurring Disorder No. (%) | Substance Abuse Only No. (%) |
|--------------------|----------------------------------|---------------------------------|
| All | 2,978 (100.0) | 13,077 (100.0) |
| Marital Status | | |
| Divorced | 313 (12.0) | 1,120 (9.9) |
| Married/Cohabiting | 200 (7.7) | 1,057 (9.4) |
| Never Married | 1,750 (67.2) | 8,197 (72.5) |
| Separated | 242 (9.3) | 643 (5.7) |
| Widowed | 98 (3.8) | 283 (2.5) |

Characteristics of the Co-occurring Group Compared to Substance Use Only Group

Table 2: Characteristics of Co-Occurring v Substance Abuse Only

| | Co-Occurring Disorder No (%) | Substance Abuse Only No (%) |
|--------------------------------|---------------------------------|--------------------------------|
| All | 2,978 (100.0) | 13,077 (100.0) |
| Dependent | 1,978 (41.4) | 4,467 (39.5) |
| Homeless | 527 (20.2) | 1,730 (15.3) |
| Independent | 988 (38.3) | 513 (45.2) |
| Military Service | | |
| Yes | 81 (3.1) | 274 (2.4) |
| No | 2,522 (96.9) | 11,026 (997.6) |
| Employment Status | | |
| Employed Full Time | 24 (.9) | 388 (3.4) |
| Employed Part Time | 41 (1.6) | 366 (3.5) |
| Not Applicable | 59 (2.3) | 131 (1.2) |
| Not in Competitive Labor Force | 563 (21.6) | 1,744 (15.4) |
| Retired from Work | 19 (.7) | 77 (.7) |
| Unemployed | 1,897 (72.9) | 8,554 (75.8) |
| Education | | |
| Less than HS | 1,155 (44.4) | 4,489 (39.8) |
| HS Grad | 1,965 (41.7) | 5,531 (49.0) |
| More than HS | 360 (13.8) | 1,254 (11.1) |
| Public Assistance | | |
| Yes | 1,112 (42.2) | 3,188 (27.3) |
| No | 1,523 (57.8) | 8,481 (72.7) |
| Funding Source | | |
| Adult Benefit Waiver | 204 (7.8) | 909 (7.8) |
| Back Grant | 976 (37.2) | 6,250 (53.9) |
| Medicaid | 1,102 (42.0) | 2,829 (24.4) |
| SDA | 233 (8.9) | 1,301 (11.2) |
| Women's Specialty | 103 (3.9) | 210 (1.8) |
| Other Third Party | 1 (.0) | 19 (.2) |
| Detroit City Funds | 4 (.2) | 60 (.5) |
| Medicare | 1 (.0) | 7 (.1) |
| Blue Care Network | 0 (.0) | 5 (.0) |
| Court | 0 (.0) | 3 (.0) |
| Other | 0 (.0) | 3 (.0) |

three primary substances reported for persons with co-occurring disorders were crack cocaine (38.9%; $n = 1,018$), heroin (28.3%; $n = 740$), and alcohol (21.6%; $n = 565$). Secondary substances included alcohol (41%; $n = 647$) and crack cocaine (26.9%; $n = 425$). Comparative data show that persons with co-occurring disorders are more likely to use crack cocaine as their primary drug of choice (38.9%, $n=1018$ v 29.4%, $n=3343$) and less likely to use marijuana/hashish (7.8%, $n=204$ v 14.8%, $n=1683$) than persons with substance abuse only issues.

Almost all in the co-occurring group experienced serious mental health symptoms prior to admission. Two-thirds of this group reported experiencing serious depression at some point during their lives (and one-third within the past 30 days). Nearly half reported serious anxiety and tension (46.2%, $n=1376$), with slightly over one-quarter experiencing these symptoms in the past 30 days. Close to 29% ($n=858$) had trouble understanding/concentrating/remembering, and 29.2% ($n=870$) reported adjustment difficulties.

Nearly one-fifth experienced hallucinations (19.3%, 575), and one-third had attempted suicide (32.1%, 956) at least once. Table 3 identifies the substances used and the mental health symptoms experienced within the 30 days prior to admission for substance abuse treatment for the co-occurring group compared to the substance abuse only group.

Differences among the Co-Occurring Population

Though males significantly outnumber females among the general substance abuse treatment population, males and females are fairly equal among the co-occurring population. Comparative data by gender among the co-occurring population show very few differences. However, several characteristics where females and males differ are noteworthy. For example, among the co-occurring population, whites are slightly more likely to be female than male. (54.4%, $n=143$ v 45.6%, $n=120$).

Females are more likely to have been married and divorced, separated or widowed than males (34.5%, $n=461$ for females v 29.1%, $n=392$ for males). It is also interesting to note that more females reported living in dependent situations at the time of admission than males (45.1%, $n=569$ females v 38.0%, $n=509$ males) and more males reported being homeless than females (24.2%, $n=325$ males v 16.0%, $n=202$ females). Table 4 distributes characteristics of the co-occurring group by gender.

Choice of primary substance also differs by gender. Though of choice (25.5%, $n=342$) and more females identify heroin as a primary drug of choice (31.7%, $n=399$). When viewing mental health symptoms experienced thirty days

Table 3: Substances and Symptoms Co-Occurring v Substance Abuse Only

| Primary Substance Used | Co-Occurring Disorder | | Substance Abuse Only | |
|---|-----------------------|--------|----------------------|--------|
| | No. | (%) | No. | (%) |
| Alcohol | 565 | (21.6) | 2474 | (21.7) |
| Heroin | 740 | (28.3) | 3,534 | (31.1) |
| Methadone (illicit) | 8 | (.3) | 21 | (.2) |
| Other Opiates or synthetics | 28 | (1.1) | 91 | (.8) |
| Other Sedatives or Hypnotics | 0 | (0) | 1 | (0) |
| Barbiturates | 1 | (0) | 0 | (0) |
| Cocaine | 48 | (1.8) | 216 | (1.9) |
| Crack Cocaine | 1,081 | (38.9) | 3,343 | (29.4) |
| Other Amphetamines | 0 | (0) | 1 | (0) |
| Methcathinone | 1 | (0) | 1 | (0) |
| Marijuana / Hashish | 204 | (7.8) | 1,683 | (14.8) |
| Ecstasy (MDMA, MDA) | 1 | (0) | 9 | (.1) |
| Inhalants | 0 | (0) | 2 | (0) |
| Mental Health Symptoms in Past 30 Days | | | | |
| Serious Depression | 911 | (30.6) | 1,304 | (10.0) |
| Serious Anxiety and Tension | 744 | (26.0) | 1,011 | (7.7) |
| Hallucinations | 234 | (7.9) | 140 | (1.1) |
| Trouble Understanding/Concentrating/Remembering | 641 | (21.5) | 632 | (4.8) |
| Controlling Violent Behavior | 183 | (6.1) | 246 | (1.9) |
| Serious Thoughts of Suicide | 226 | (7.6) | 163 | (1.2) |
| Attempted Suicide | 90 | (3.0) | 73 | (.6) |
| Adjustment Difficulties | 493 | (16.6) | 1,160 | (8.8) |
| Panic Attacks | 271 | (9.1) | 204 | (1.6) |

Table 4 – Characteristics of Females v Males with Co-occurring Disorders

| | Female No. (%) | Male No. (%) |
|---------------------------|-------------------|-----------------|
| Gender | 1,264 (48.4) | 1,346 (51.6) |
| Race/Ethnicity | | |
| African American/Black | 1,086 (86.1) | 1,185 (88.4) |
| Arab American | 1 (.1) | 2 (.1) |
| Asian or Pacific Islander | 4 (.3) | 3 (.2) |
| Hispanic | 16 (1.3) | 18 (1.3) |
| Multi-racial | 2 (.2) | 1 (.1) |
| Native American | 5 (.4) | 3 (.2) |
| Refused to provide | 0 (0) | 1 (.1) |
| Unknown | 5 (.4) | 8 (.6) |
| White | 143 (11.3) | 120 (8.9) |
| Marital Status | | |
| Divorced | 167 (13.2) | 146 (10.9) |
| Married/Cohabiting | 84 (6.7) | 116 (8.7) |
| Never Married | 801 (63.5) | 949 (70.8) |
| Separated | 140 (11.1) | 102 (7.6) |
| Widowed | 70 (5.5) | 28 (2.1) |
| Living Arrangement | | |
| Dependent | 569 (45.1) | 509 (38.0) |
| Homeless | 202 (16.0) | 325 (24.4) |
| Independent | 491 (38.9) | 507 (37.8) |
| Military Service | | |
| Yes | 16 (1.3) | 65 (4.8) |
| No | 1,246 (98.7) | 1,276 (95.2) |

Table 4 cont.. – Characteristics of Females v Males with Co-occurring Disorders

| Employment Status | | | | |
|--------------------------------|-----|--------|-----|--------|
| Employed Full Time | 8 | (.6) | 16 | (1.2) |
| Employed Part Time | 14 | (1.1) | 27 | (2.0) |
| not applicable | 32 | (2.5) | 27 | (2.0) |
| Not in competitive Labor force | 277 | (21.0) | 286 | (21.3) |
| Retired from Work | 9 | (.7) | 10 | (.7) |
| Unemployed | 922 | (72.9) | 975 | (72.7) |
| Education | | | | |
| Less than High School | 603 | (47.7) | 553 | (41.4) |
| High School Grad | 466 | (36.9) | 619 | (46.0) |
| More than High School | 195 | (15.4) | 174 | (12.9) |
| Public Assistance | | | | |
| Yes | 580 | (46.7) | 492 | (37.2) |
| No | 662 | (53.3) | 831 | (62.8) |
| Funding Source | | | | |
| Adult Benefit Waiver | 79 | (6.4) | 119 | (9.0) |
| Block Grant | 402 | (32.4) | 563 | (42.7) |
| Medicaid | 600 | (48.3) | 455 | (34.5) |
| SDA | 61 | (4.9) | 172 | (13.0) |
| Women's Specialty | 98 | (7.9) | 5 | (.4) |
| Other Third Party | 0 | (0) | 1 | (.1) |
| Detroit City Funds | 0 | (0) | 4 | (.3) |
| Medicare | 1 | (0) | 0 | (0) |

Table 5: Substances and Symptoms Females v Males with Co-occurring Disorders

| Primary Substance Used | Female No (%) | Male No (%) |
|---|------------------|----------------|
| Alcohol | 223 (17.7) | 342 (25.5) |
| Heroin | 399 (31.7) | 332 (24.8) |
| Methadone (illicit) | 4 (.3) | 4 (.3) |
| Other Opiates or synthetics | 19 (1.5) | 9 (.7) |
| Barbiturates | 1 (.1) | 0 (0) |
| Cocaine | 24 (1.9) | 24 (1.8) |
| Crack Cocaine | 505 (40.1) | 505 (37.7) |
| Methamphetamine | 1 (.1) | 0 (0) |
| Marijuana / Hashish | 81 (6.4) | 122 (9.1) |
| Ecstasy (MDA, MDA) | 0 (0) | 1 (.1) |
| Ketamine | 1 (.1) | 0 (0) |
| Mental Health Symptoms in Past 30 Days | | |
| Serious Depression | 366 (31.3) | 401 (29.8) |
| Serious Anxiety and Tension | 333 (26.3) | 337 (25.0) |
| Hallucinations | 86 (6.8) | 122 (9.1) |
| Trouble Understanding/Concentrating/Remembering | 283 (22.4) | 265 (19.7) |
| Controlling Violent Behavior | 78 (6.2) | 82 (6.1) |
| Serious Thoughts of Suicide | 106 (8.4) | 95 (7.12) |
| Attempted Suicide | 42 (3.3) | 33 (2.5) |
| Adjustment Difficulties | 394 (31.2) | 219 (16.3) |
| Panic Attacks | 132 (10.4) | 96 (7.1) |

Table 6 – Characteristics of Homeless, Dependent and Independent Persons among the Co-occurring Group

| | HOMELESS | | DEPENDENT | | INDEPENDENT | |
|--------------------------------|----------|---------|-----------|---------|-------------|---------|
| | No. | (%) | No. | (%) | No. | (%) |
| Living Arrangement | 527 | (100.0) | 1,078 | (100.0) | 998 | (100.0) |
| Gender | | | | | | |
| Female | 202 | (38.3) | 569 | (52.8) | 491 | (49.2) |
| Male | 325 | (61.7) | 509 | (47.2) | 507 | (50.8) |
| Race/Ethnicity | | | | | | |
| African American/Black | 446 | (84.6) | 986 | (91.5) | 839 | (84.1) |
| Arab American | 1 | (.2) | 1 | (.1) | 1 | (.1) |
| Asian or Pacific Islander | 0 | (0) | 0 | (0) | 7 | (.7) |
| Hispanic | 3 | (.6) | 16 | (1.5) | 15 | (1.5) |
| Multi-racial | 0 | (0) | 2 | (.2) | 1 | (.1) |
| Native American | 3 | (.6) | 0 | (0) | 5 | (.5) |
| Refused to provide | 0 | (0) | 0 | (0) | 1 | (.1) |
| Unknown | 4 | (.8) | 0 | (0) | 9 | (.9) |
| White | 70 | (13.3) | 73 | (6.8) | 120 | (12.0) |
| Marital Status | | | | | | |
| Divorced | 82 | (15.6) | 107 | (9.9) | 124 | (12.4) |
| Married/Cohabiting | 18 | (3.4) | 90 | (8.3) | 92 | (9.2) |
| Never Married | 350 | (66.4) | 736 | (68.3) | 664 | (66.5) |
| Separated | 64 | (12.1) | 102 | (9.5) | 76 | (7.6) |
| Widowed | 13 | (2.5) | 43 | (4.0) | 42 | (4.2) |
| Military Service | | | | | | |
| Yes | 13 | (2.5) | 39 | (3.6) | 29 | (2.9) |
| No | 514 | (97.5) | 1,039 | (96.4) | 969 | (97.1) |
| Employment Status | | | | | | |
| Employed Full Time | 2 | (.4) | 5 | (.5) | 17 | (1.7) |
| Employed Part Time | 5 | (.9) | 18 | (1.7) | 18 | (1.8) |
| not applicable | 17 | (3.2) | 19 | (1.8) | 23 | (2.3) |
| Not in competitive Labor force | 113 | (21.4) | 271 | (25.1) | 179 | (17.9) |
| Retired from Work | 4 | (.8) | 6 | (.6) | 9 | (.9) |
| Unemployed | 386 | (73.2) | 759 | (70.4) | 752 | (75.4) |
| Education | | | | | | |
| Less than High School | 249 | (47.2) | 547 | (50.8) | 360 | (36.1) |
| High School Grad | 205 | (38.9) | 400 | (37.1) | 480 | (48.1) |
| More than High School | 73 | (13.8) | 130 | (12.1) | 157 | (15.7) |
| Public Assistance | | | | | | |
| Yes | 139 | (26.7) | 571 | (54.0) | 369 | (36.5) |
| No | 381 | (73.3) | 486 | (46.0) | 624 | (63.5) |
| Funding Source | | | | | | |
| Adult Benefit Waiver | 39 | (7.5) | 42 | (4.0) | 117 | (11.9) |
| Block Grant | 198 | (38.3) | 326 | (30.8) | 439 | (44.8) |
| Medicaid | 153 | (29.6) | 604 | (57.1) | 295 | (30.1) |
| SDA | 96 | (18.6) | 43 | (4.1) | 94 | (9.6) |
| Women's Specialty | 29 | (5.6) | 40 | (3.8) | 34 | (3.5) |
| Other Third Party | 0 | (0) | 0 | (0) | 1 | (.1) |
| Detroit City Funds | 2 | (.4) | 1 | (.1) | 1 | (.1) |
| Medicare | 0 | (0) | 1 | (.1) | 0 | (0) |

Table 7: Substances and Symptoms by Living Arrangement

| Primary Substance Used | Homeless Nb (%) | Dependent Nb (%) | Independent Nb (%) |
|--|--------------------|---------------------|-----------------------|
| Alcohol | 127 (243) | 219 (204) | 218 (220) |
| Heroin | 80 (1537) | 320 (297) | 331 (334) |
| Marijuana (illicit) | 0 (0) | 2 (2) | 6 (6) |
| Other Opioids or synthetics | 6 (11) | 12 (11) | 10 (10) |
| Barbiturates | 0 (0) | 20 (19) | 1 (.1) |
| Cocaine | 10 (19) | 388 (361) | 18 (18) |
| Crack Cocaine | 272 (520) | 1 (.1) | 345 (348) |
| Marijuana | 0 (0) | 114 (106) | 0 (0) |
| Marijuana / Hashish | 28 (54) | 0 (0) | 61 (61) |
| Ecstasy (MDA, MDA) | 0 (0) | 0 (0) | 1 (.1) |
| Ketamine | 0 (0) | 0 (0) | 1 (.1) |
| Mental Health Symptoms in Past 30 Days | | | |
| Serious Depression | 176 (334) | 283 (263) | 337 (338) |
| Serious Anxiety and Tension | 146 (277) | 286 (228) | 276 (277) |
| Hallucinations | 55 (104) | 67 (62) | 86 (86) |
| Truancy, Absenteeism, Dropping Out of School | 118 (224) | 204 (189) | 225 (225) |
| Controlling Violent Behavior | 36 (68) | 65 (60) | 59 (59) |
| Serious Thoughts of Suicide | 55 (104) | 72 (67) | 73 (73) |
| Attempted Suicide | 18 (34) | 23 (21) | 34 (34) |
| Adjustment Difficulties | 112 (213) | 156 (145) | 158 (158) |
| Parity Attacks | 60 (114) | 74 (69) | 94 (94) |

prior to admission, adjustment disorders appear more pronounced among females than males (31.2%, n=394) females v 16.3%, (n=219 males). Table 5 distributes primary substances and mental health symptoms by gender.

Homeless, Dependent and Independent Persons among the Co-occurring Population

Among the co-occurring population males are significantly more likely to be homeless at the point of admission than females (61.7%, n=325 males v 38.3%, n=202 for females). Otherwise, the characteristics of persons with co-occurring disorders do not appear to be related to living arrangement at admission (see table 6).

The data on primary substance of choice, as distributed in table 7, shows that persons who were homeless at the point of admission were significantly more likely to identify crack cocaine as their drug of choice than persons in other living arrangements (52%, n=272 for the homeless, compared to 34.8%, n=345 for persons living independently and only one person in a dependent living arrangement (defined as living with family and/or friends). Mental Health symptoms experienced show little variation based on living arrangement. (See table 7.)

Discussion

Data from CareNet® identify a high incidence of co-occurring disorders among the substance abuse treat-

ment population in the city of Detroit. Between 2004 and 2006 the persons with co-occurring disorders made up 18.5% of all substance abuse treatment cases. This percentage is slightly higher than national estimates of 16%. Among this group of persons with both a substance abuse and mental health disorders, men and women are almost equally represented, even though the substance abuse treatment population in Detroit is largely male. The high number of substance addicted women who also have mental health issues suggests the need for specialized integrated treatment programs that are able to address female specific treatment issues.

Housing and financial assistance are important considerations in the development of comprehensive programming for the co-occurring population. The co-occurring group had a higher percentage of living arrangements recorded as homeless at admission when compared to the substance abuse only group. Almost two thirds of the co-occurring group was either homeless or living in a 'dependent' arrangement. Only 38.3% were living independently at intake into the treatment program. And only 2.5% were employed at the time of admission. The lack of stable housing and the lack of employment are conditions that have been associated with relapse (Xie, McHugo, Fox and Drake, 2005). These data show that persons who suffer from co-occurring disorders in Detroit have a complex web of is-

sues and concerns. Many of the cases included in this study were involved with the criminal justice system for various offenses such as shoplifting, vandalism, driving while intoxicated and public intoxication. Most had low levels of educational attainment and came from families with a history of substance abuse. Moreover, the combination of mental health disorders and substance abuse complicates treatment access and service delivery.

Conclusion

Individuals with co-occurring disorders are often required to negotiate two different systems - the mental health system and the substance abuse treatment system. The existence of two different service systems often results in consumers bouncing back and forth between substance abuse and mental health systems, receiving treatment for only one disorder at a time with poor outcomes (SAMHSA, 2002). In recent years, the US Department of Health and Human Services Substance Abuse and Mental Health Services Administration has devoted significant resources to gather evidence on the effectiveness of integrated services (SAMHSA, 2008). As evidence mounts, many substance abuse coordinating agencies, including BSAPTR, have started thinking about and working on more fully integrating mental health and substance abuse services to better address the needs of individuals with co-occurring disorders.

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**DEVELOPING CROSS-CULTURALLY COMPETENT SOCIAL WORKERS
THROUGH INTERNATIONAL EDUCATION:**

MEETING THE CHALLENGES OF THE 2008 EPAS

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Abstract

Students must be prepared for living in a global community. This is especially the case for helping professionals. This paper presents a curriculum model for increasing cultural competency in a baccalaureate program for social workers through international education in Belize

The ability to develop new paradigms for clinical practice rests partially on the cross-cultural knowledge, skills, and values of the emerging generation of social workers. While it has often been said that social workers must continue to strive toward greater cultural competence, the need for social work educators to design curricula with ethno-conscious practice as a major thrust has never been greater. This is not to suggest that universities have made no improvements in this area, only that the models employed thus far have resulted in minimal returns. There is a need for systemic change in the way we approach cultural competence as there are staggering ill effects (even the possibility of an inaccurate assessment) that could occur if workers are not culturally conscious. The purpose of this manuscript is to present a model for increasing cultural competency in a BSW program through international education. Added to this is the realization that the new generation of social

workers will be called upon to create new models of practice that bridge different worlds (economically, culturally, politically, and geographically) - a challenge that requires the ability to think creatively, to adapt readily, and to practice cross-culturally. But, how do social work educators prepare a workforce of professionals capable of responding to such compelling demands? Can we prepare students to face challenges that we ourselves have only limited capacity to envision?

More than ever before in the history of our profession, we must educate students to become capable of realigning their customary patterns of thought, to more fully grasp the complexities of social problems in the context of cultural realities quite different from their own. We also need to prepare our students to work in tandem with other professionals, forming interdisciplinary partnerships that would provide for the creation of more holistic responses to emerging social problems. It was this backdrop of thinking

that formed the context for the authors' envisioning a new curricular model for use in a baccalaureate or masters level social work program. The conceptual framework undergirding this program is in line with the competency-based approach to social work education underscored by the 2008 Educational Policy and Accreditation Standards of the Council on Social Work Education (CSWE), particularly Educational Policy 2.1.4 relative to engaging diversity and difference in practice and Educational Policy 2.1.5 that addresses the social worker's competence in advancing human rights and social and economic justice. International Social Work Education. Boehm (1984) outlined two popular approaches to teaching international social work that remain in use to this day. The first, the comparative approach, respects the value of what he called "the law of parsimony in curriculum development" by avoiding the need to add courses to the existing curriculum (p. 19). In essence, it presupposes that international social work is best taught by going from the more known to the less known, teaching U.S. child welfare policies, for example, and using the welfare policies of another nation as a means of offering a comparative dimension. This approach offers flexibility in that faculty need not address the same topics cross-nationally, although it does place a unique burden on each faculty member to find examples that may be used for comparative purposes. Given the present lim-

itations of many social work faculty in the area of international social work, this expectation can often be rather demanding. In addition, the student fails to have a consistent reference point through which to integrate the international perspectives gained from various faculty, as each may use a different country and culture as a comparative model. While one might argue that this diversity could be quite positive, breadth of exposure without depth of integrative experiences is of questionable value to overall learning.

Boehm identified a second approach to the teaching of international social work practice – that of schools offering a course specifically designed for this purpose. Johnson (1996) estimated that approximately 20% of all BSW programs have a course on international social welfare. This approach seems to perpetuate the domestic/global dichotomy in social work education referred to by Asamoah, Healy, and Mayadas (1997). The current paucity of offerings in international social work, coupled with the fact that most are offered only as electives, is an indication of our lack of vigilance in fully addressing the foundational expectations of the Council on Social Work Education in this area. Yet, as noted by Greif (2004), "*learning more about social issues in other countries through reading and engaging in cross-national learning are important steps in helping to wage a battle against potential shortcomings in our own continuing growth as a profession*"

(p. 516). All entry-level, generalist practitioners must now be able to demonstrate competencies outlined by the Council on Social Work Education's Commission on Accreditation in their most recent Educational Policy and Accreditation Standards (EPAS). One such competency is the ability to "engage diversity and difference in practice" (CSWE, Educational Policy 2.1.4, 2008 EPAS). Practice behaviors associated with this "core competency" include being able to "*recognize the extent to which a culture's structures and values may oppress, marginalize, alienate, or create or enhance privilege and power.*" Another practice behavior to be demonstrated by all baccalaureate level graduates of CSWE accredited programs is to "*gain sufficient self-awareness to eliminate the influence of personal biases and values in working with diverse groups*" (CSWE, Educational Policy 2.1.4, 2008 EPAS). One might well ask, in light of these new standards, if it is possible through comparative analysis of systems and programs alone for students to develop the facility to analyze and synthesize information about a culture substantively different from their own, then be able to apply the results of that synthesis to the design and evaluation of effective and culturally sensitive interventions. One approach, suggested twenty years ago by Nwachuku (1989) was that we must 'start where the culture is' by coming to understand their world view, the normative form

and patterns of familial and social relationships, and indigenous forms of help within that culture. To do so would, it would seem, necessitate that students also be competent in two remaining practice behaviors associated with this educational standard, namely to be able to "*view themselves as learners and engage those with whom they work as informants*" while also being able to "*recognize and communicate their understanding of the importance of difference in shaping life experiences*" (CSWE, Educational Policy 2.1.4, 2008 EPAS). The program outlined in this document is a more comprehensive approach to the challenges of international social work education than would be necessary to meet the minimum standards outlined by CSWE, and moves beyond the two approaches outlined above. The program outlined is actually only one possible model, developed with Belize as the site for the international social work experience. The program is designed to ensure that students bring to their international field placement experience the knowledge, skills, and values necessary for effective entry-level practice in the context of the United States or a developing nation. The achievement of this goal would be measured by their success in meeting the demands of one field placement in the United States and a second in Belize (Central America) or a comparable developing country. Unlike curricular designs that address the needs of special populations as separate

courses, this curriculum weaves into every required course the perspective of practice from a national as well as an international perspective. Therefore, students would grapple with policy considerations both within the context of the United States as well as in Belize, tackle the complexities of social work practice in a variety of sociopolitical contexts, apply the biopsychosocial framework of examining human behavior in the social environment both in America and Belize, examine frameworks for research on their practice that may be most appropriate to these differing populations, and demonstrate their ability to integrate knowledge across the various components of the curriculum and apply that knowledge in their social work practice.

It is believed that this approach, which offers an integrated curriculum not unlike the interconnectedness of nations in a global economy, best prepares students in the design and delivery of interventions grounded in a holistic understanding of a distinct population. We know that understanding the language, customs and practices of a people is insufficient, in and of itself, to fully appreciate the complex forces that have shaped a country and its people. We also know that a country is composed of multiple peoples, each group having diverse customs, language, etc. We know the impact of globalization and, as underscored by Dominelli (2007) and others, the need to see its impact as "a

key challenge for social work educators and practitioners...that has to be addressed in the profession's teaching and training programs" (p. 30). For example, [social work educators] "have to deal with the internationalization of social problems and the issue of worker mobility across borders" (Dominelli, 2007, p. 43). Preparing entry level practitioners with such competencies is a challenge social work educators can no longer avoid.

The Choice of Belize

Belize was selected as a model site for the second field placement experience as it is an English-speaking, developing nation suffering from a dearth of available formally organized services to its diverse (culturally as well as socioeconomically) and multi-problemated population. In spite of having few organized support centers, Belize is a nation with multiple informal networks of support. Slightly larger than Massachusetts, it has two main roads, a declining rate of infant mortality (23.1 deaths per 1,000 live births), a growing birth rate (estimated at 27.84 births/1,000 population) and a high rate of illiteracy (over 23%) (CIA, *World Factbook*, 2009). It is a developing country with a high rate of unemployment (8.5%) among its multicultural population of 322,100 people (Statistical Institute of Belize, 2008). The major cultural groups of Belize include the Mestizos (48.7%), Creoles (24.9%), Mayans (10.6%), Garifuna (6.1%), and other ethnicities

(9.7%) (CIA, *World Factbook*, 2009). In spite of its cultural diversity, English is the official language and its legal system and form of government (constitutional parliamentary democracy) are relatively familiar to those who know the English system. In addition, Belize has become the destination for an estimated 30,000 refugees from political unrest elsewhere in Central America ("Refugee Resettlement in Belize," 1995).

Major concerns noted in the CIA *World Factbook* (2009) "continue to be the sizable trade deficit and unsustainable foreign debt equivalent to nearly 90% of GDP." A key short-term objective, also noted in *The World Factbook* (2009), continues to be "the reduction of poverty with the help of international donors." With over one-third of its population living in poverty (CIA *World Factbook*, 2009), it is a nation with compelling clinical practice challenges, yet the context provides for participation by students who may not have command of a second language.

Because social work has its roots in what Sachdev (1997, p. 7) has aptly called a "tradition of promoting social justice and . . . (a) concern for culturally diverse client groups," the authors decided that the international experience must offer exposure to a developing nation in which social action is needed to affect changes that would lead to increased social justice. Furthermore, as noted by Devore and Schlesinger (1996) among others, it

is essential that students have opportunities to develop a strong sense of self-awareness if they are to be prepared to engage in effective, client-centered, cross-cultural practice. In support of that need, the authors have worked to ensure that opportunities for self-assessment and exploration of attitudes and prejudices be incorporated throughout the preparation course work as participants in the program would be working with indigenous groups on micro-, mezzo-, and macro-levels of practice. Such an experiential learning model would provide what Green (1995) has described as the necessary direct, interactive experience with persons from a world that differs substantively from one's own. It was this type of immersion experience that Sachdev (1997) referred to as essential if students are to absorb cultural content and be able to apply that understanding in the selection, execution, and evaluation of interventions at all levels of practice.

Social work programs may well develop such a curriculum in collaboration with other professional programs (e.g., education or nursing). Such a concept is founded in the belief that social work students need to have direct practice experience working with students from other professional disciplines if they are to design interventions that address the multidimensional needs of clients, both in the United States and globally. This model of collaborative field experience demands that several seminars be held

in advance of and also following the interdepartmental field experience, as efforts need to be coordinated to ensure that the needs of the local communities are addressed in the planning of educational, medical and social services. Having a program director with direct practice experience in the developing country (in this case, Belize) is an invaluable component and could add to the success of the program, as often such an individual has maintained professional relationships that facilitate the establishment of the program. As noted by Sachdev (1997), there are distinct advantages to faculty having a working knowledge of the country and its people. In addition, one of the key strengths of the program rests in developing and maintaining mutual respect, to ensure that the needs of the people being served are met while providing opportunities for students to learn about the needs of the community directly from members of that community.

THE PROGRAM DESIGN

The goals of the program include:

- 1) Offering students an opportunity to broaden their base of understanding relative to cross-cultural practice.
- 2) Providing experiential learning in working with individuals, groups, and institutions in a developing country.
- 3) Enhancing students' problem solving and critical thinking skills by examining alternative models of practice.
- 4) Strengthening self-awareness among students.

These goals are designed to be achieved through the cooperative efforts of an international team of social workers, educators, and key informants from the community who work together to create a learning environment rich with experiences aimed at developing students' cross-cultural competency while serving the needs of the local community.

Partnering with members of the community in designing, implementing and evaluating the program serves to ensure a quality experience for the students while also modeling for them the appropriate ways for professional social workers to engage with a community of people. Rather than people from the more developed nation bringing into the developing land a fixed notion of the needs and how best to address them, service learning opportunities are arranged in concert with local agency staff, thereby ensuring a "client" focused approach that is also culturally sensitive. In dialogue with the community, faculty and students work in tandem with existing community-based agencies in preparing students to work effectively with the diverse populations of Belize. The core values of the social work profession (service, social justice, dignity and worth of the person, the importance of human relationships, integrity, and competence) are at the heart of the program. The program is designed as a fully integrated model for infusing international social work throughout the curriculum, culminating in a four-

week block placement internship with evening processing sessions in the host country just prior to the last semester of a student's final year in a social work program. This intensive experiential learning opportunity should be in addition to a year-long internship in a U.S. based human service agency. Therefore, the program is designed to enhance and supplement, rather than to replace existing internship experiences of students. In essence, this approach attempts to break the boundaries of thought that have, according to Asamoah, Healy, and Mayadas (1997), prevented our being able to internationalize the curriculum.

Each course in the curriculum (e.g., Human Behavior and the Social Environment, Social Welfare Policy, Methods of Practice, and Research) should integrate concepts appropriate for preparing students for the field experience, while challenging them to think beyond the confines of their immediate world and the models of practice endemic to the United States. As such, students should be expected to examine, for example, the biophysical hazards facing poor children not only in the United States but in the host country. Also, they would compare social support systems of the U.S. to those of the developing country and examine how they differ not only in underlying values but in their implementation and impact on society. Issues of social justice should be addressed in the context of various

sociopolitical realities, and methods available to support human inquiry should be scrutinized in research class to discern the relationship between selection of methods and ethnic-sensitive social work practice. The usefulness of various instruments for the evaluation of programs and the assessment of client needs should be analyzed to determine their appropriateness for use with persons from another culture. Also, students should be challenged to think critically about the possible ramifications to indigenous people when culturally insensitive and inappropriate methods of practice and its evaluation are employed. United Nations materials could serve as a source of information for better understanding of issues related to human rights and social justice. The International Federation of Social Workers and the International Association of Schools of Social Work's Ethics in Social Work, Statement of Principles (IFSW & IASSW, 2004) can be used as a backdrop against which to discuss guidelines for professional practice, particularly in relationship to human rights, human dignity and social justice.

The implementation of this program requires also that faculty from collateral disciplines bring into focus within their foundational service courses an international perspective, offering students in social work the opportunity to apply content not only to the United States but also the host country. For example, faculty from the Politics De-

partment may be able to structure such foundational courses as State and Local Government or Survey of American Government to include a comparative examination of U.S. government structures with those of Belize. This would help ready students for courses in the policy sequence, where students analyze policy issues with consideration given to the prevailing historical, cultural, and economic influences of the era in which they were developed. Because the context of a developing country can differ so vastly from that of the United States, students would have an opportunity to move outside their familiar reference points while analyzing policy formation in a very different arena. Therefore, the sociopolitical structure of the host country should be taught through a variety of course work, ranging from Politics to Sociology to Economic Geography, with faculty from the respective disciplines providing expertise in the methods of analysis suitable for a thorough examination of another national context. This approach is in keeping with what Midgley (1997) has identified as a general trend among universities to require students to gain a more international perspective through their general education curriculum.

A Suggested Plan of Action

The first phase of the program should be designed to prepare a group of social work students beginning two years prior to their international field

experience. The second phase would continue that process for additional students and introduce into the process students from other professional programs, while completing preparations for an international dialogue via a blog. This Internet-based exchange would occur during the block field placement in the host country, with student interns communicating from their location to other social work majors back at the University on such topics as cross-cultural practice challenges, empowerment around policy initiatives thought to be helpful to indigenous clients, and emerging critical needs of the poor in the developing country. Students completing assignments related to the host country, and those interested in participating in the field placement the following year, would be expected to gain from this state-of-the-art means of communicating between nations. It is also anticipated that interns in the host country would be experiencing many of the adjustment issues faced by immigrants coming to the U.S., with conflicting values, beliefs and attitudes complicating their adjustment process. It would be important for faculty to seize the opportunity to process this experience with the interns through reflective journaling, modeled after Fook's (1996) reflective questions, as well as evening seminars. An interdepartmental placement opportunity could provide students the chance to work in tandem with their colleagues from other disciplines toward the

achievement of common goals of empowerment. Such an interdisciplinary approach is a model seldom experienced in the traditional classroom, but has long served as a well defined method of conducting social work practice in a variety of environments.

Before deciding on joint ventures, it would be imperative to research the unique contributions that may be made through partnership efforts aimed at empowering residents of the selected international site. For example, while social work students provide direct services to children and families, education students might provide direct support through the Language to Literacy Project of Belize. That project is designed to strengthen the language arts instruction of children through literature-based teaching methodologies that introduce culturally relevant books, such as

When the Monkeys Came Back, which addresses the preservation of the rainforest. Nursing students may be simultaneously addressing nutritional and other health education needs of children in the same school. Student and parent groups may be formed around such issues as HIV/AIDS awareness, nutrition, and adjustment to illness.

These groups could be co-facilitated by student interns and faculty from the professional programs involved in the partnership, with faculty role modeling the professional use of self in the multi-disciplinary environment.

Evaluation of the Program

Several approaches could be used to evaluate the effectiveness of the program. Students could complete attitudinal scales at various points in the curriculum, with developmental comparisons made between those who participate in the program and those who do not. In addition, students could keep a journal during their field placement experiences (both in the U.S. and in the host country) and participate in exit interviews just prior to graduation to help assess the relative usefulness of the program. A follow-up survey could be sent to all participants two years after completion, to solicit feedback on their assessment of the program from a more mature, professional perspective.

Faculty who teach the foundational and core courses in the Social Work curriculum could also be asked to assess the performance of students both in classes and in the field placement. Of prime importance is the assessment by those served in the host country. This blend of subjective and objective assessments follows the model proposed by Sachdev (1997). The assessment process is designed to be addressed as an integrative whole, modeling the larger design of the program itself.

Conclusion

If students are to be adequately prepared to meet the challenges of a global environment, if they are to move beyond the confines of traditional

thought to explore new approaches to social problems, and if they are to gain a rich understanding of the importance of developing and maintaining a culturally-appropriate practice base, then such a hands-on, experiential learning model must be offered to them. Whether students ultimately practice their social work skills in an international environment or on a domestic front, the knowledge, skills and values imparted throughout the program should prove to be beneficial and directly transferrable as they address issues of poverty, human rights, social justice, empowerment, and sustainable development. As noted by Tesoriero, an educational program set within the infrastructure of a long-term partnership ... "is one way of contributing to an international perspective in social work and of social work graduates promoting human rights and social justice as global citizens and ethically sound social workers" (2006, p. 139).

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“HEY BIG BOY!”:

CHARACTERISTICS OF WOMEN WHO INITIATE INTIMATE RELATIONSHIPS WITH MEN

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ABSTRACT

Analysis of survey data from 692 undergraduate women at a large southeastern university revealed 10 statistically significant differences between the almost 40% who had asked a new guy to go out compared to those who had not. Characteristics of these “relationship initiators” included those who did not believe in there being only one true love, who had experienced love at first sight, who had used the Internet to look for a new partner, who did not view themselves as religious, who had non traditional sexual values, and who would cohabit with a partner before marriage. Initiators were also more likely to be white and reported that they had been faithful in previous relationships, had not been involved in a “friends with benefits” relationship, and had used a form of birth control (other than withdrawal) the last time they had intercourse. Implicit theories of relationships is the theoretical framework used to interpret the data. Implications and limitations of the data are suggested.

Mae West, film actress of the 30s/40s, is remembered for being very forward with men. Two classic phrases of hers are: “Is that a pistol in your pocket or are you glad to see me?” and, “Why don’t you come up and see me sometime, I’m home every night?”

As a woman who went after what she wanted, West was not alone - then or now. There have always been women not bound by traditional gender role restrictions. This study focused on women who initiated intimate relationships with men - women who, like Mae West, ventured beyond the traditional gender role expectations of the passive female.

Review of Literature

Previous research on nontraditional

women has focused attention on their presence in nontraditional career development and career choices. Educational tracks, such as engineering, mathematics, and physical sciences, have been typically male-dominated and gender segregated (Robinson and McIlwee, 1991). Increasingly, women have crossed gender role boundaries into non-typical educational tracks rather than taking the feminine track of nursing, teaching, or library sciences. Nontraditional women have also crossed gender boundaries into male-dominated occupations that are stereotyped as masculine, specifically hard-hat careers (Martin, 1997). With the help of affirmative action policies, women today perform nontraditional work as coal miners (Moore, 1996),

construction workers (Eisenberg, 1998), steel workers (Fonow, 1993), tractor-truck drivers (Lembright and Reimer, 1982), subway conductors (Swerdlow, 1989), firefighters (MacLean, 119; Yoder and Aniakudo, 1997), and harness-horse track racing jockies (Larsen, 2006). Women in nontraditional educational tracks and careers demonstrate that they are not bound by traditional gender roles and experience life actively rather than passively. In time and as women gain more social, political, economic, and reproductive freedom, non-traditional women will become more visible in public and private domains.

Research specific to relationship initiation has been organized around three types of close relationships: friendships, romantic relationships, and marriage. Initiation of friendship and initiation of dating relationships for adults depend on what the friendship and romance means to the individual (Leone and Hawkins 2006) Researchers have consistently found that mate selection for marriage or cohabitation initiation depends on attraction similarity and personality characteristics (Buss, 1985; Leone and Hawkins, 2006). Individuals' self-monitoring propensities is another factor identified as influencing intimate relationship initiation (Snyder, Berscheid and Glick 1985).

How does romantic relationship initiation differ for men and women? In line with common sense and traditional norms, men are, typically, more active and direct at initiating

romantic relationships (Guynn, Brooks and Spencer, 2008; Clark, Shaver, and Abrahams, 1999) and sexual intimacy (Byers and Heinlein, 1989) than women. Contrary to this norm, Seal and Ehrhardt (2002) found that men are sometimes approached by women for courtship, romance, and sex.

Implicit Theories- Relationships as Growth or Destiny

Beyond friendship and/or romance, attraction similarity, personality characteristics and traditional norms, initiating relationships depends on one's belief in relationships as growth or belief in relationships as destiny. One type of knowledge structure for how romantic relationships develop that has received little attention from researchers is the construct of implicit theories (Knee, 1998). The study of implicit theories has a long history in psychology and demonstrates how "people's basic assumptions about themselves and their world" guide their behavior (Dweck, 1996: 69). Implicit theories differentiate between the belief that attributes are grown or malleable (incremental theorists) and the belief that attributes are destined or fixed (entity theorists). Applied to relationship development, implicit theories differentiate between an individual who believes that relationships grow (depend on someone to initiate) and an individual who believes that relationships are destined (happen by themselves).

A belief in growth is that

relationships are cultivated or shaped by individuals over time and that one can experience multiple "true loves" over his or her lifetime. In opposition, a belief in destiny is that relationships are either meant to be or not meant to be and that there is only one "true love." Prior research on implicit theories has focused mostly on and successfully explained causation of intelligence (Spinath, Reimann, and Angleitner, 2003), motivation (Dweck and Leggett, 1988; Dweck, Chiu and Hong, 1995b), judgments and reactions (Dweck, Chiu and Hong, 1995a), evaluative processes (Hong, Chiu, Dweck, and Sacks, 1997), social morality (Chiu, Dweck, Tong, and Fu, 1997), shyness (Beer, 2002), and achievement (Dweck, 1991, 1996) situations.

Knee (1998) tested romantic relationship initiation, coping and longevity with the belief in growth and the belief in destiny. The study found that those who believed in destiny were less likely to use coping strategies whereas those who believed in growth were more likely to employ relationship-maintenance coping strategies. When gender was factored into the analysis, women displayed characteristics of both growth believers and destiny believers. For instance, women were more strongly associated with belief in growth in terms of relationship-maintenance coping strategies and also were more strongly associated with belief in destiny by being the one responsible for ending the relationship

because they felt that the relationship from the beginning was wrong (Knee, 1998).

Missing from the literature on implicit theories is how it can be used to explain romantic relationship development and specifically, the characteristics of those who initiate relationships. What are the characteristics of women who believe that relationships develop as a result of growth? What are the characteristics of women who believe that relationships develop as a result of destiny?

Do women always fit neatly into this binary classification of relationship development beliefs? The purpose of this research was to fill the literature gap on which type of women, growth believers or destiny believers, are more likely to initiate romantic relationships.

Sample and Methodology

The data for this study on women who initiate relationships were taken from a larger nonrandom sample of 1027 undergraduates at a large southeastern university who answered a 100 item questionnaire (approved by the Institutional Review Board of the university) on "Sexual Attitudes and Behaviors of College Students".

Respondents completed the questionnaire anonymously (the researcher was not in the room when the questionnaire was completed and no identifying information or codes allowed the researcher to know the identity of the respondents). The term "completed" is in quotation marks since some respondents did not

respond to all questions. The result was 692 usable questionnaires from women who answered "yes" or "no" to the question, "I have asked a new guy to go out with me" - a nontraditional gender role behavior. The focus of this research was to explore the association between the independent variables and the dependent variable. Because of our interests in association, we conducted bivariate analysis rather than multivariate analysis.

To analyze the data, cross-classification was used to determine any relationships with Chi Square utilized to assess statistical significance. This is an appropriate method for detecting statistical significance because we meet the requirements of having categorical variables and a large sample size (e.g., 100 or more) (Knoke, Bohrnstedt, and Mee, 2002).

Racial background of the 692 women revealed 80.8% whites and 19.2% blacks (respondent self-identified as African-American Black, African Black or Caribbean Black). The median age of the women in the sample was 19. Over half (50.7%) were first year students, 24.6% sophomores, 14.6% juniors, and 10.0% were seniors. In regard to current relationship, over half (50.8%) were emotionally involved with one person, 26% were not dating and not involved with anyone, 17.4% were casually dating different people, 3.3% were engaged, and 2.5% were married.

Findings and Discussion

Almost forty percent (39.1%) of the 692 women surveyed reported that they had asked a new guy out on a date; 60.9% had not done so. Analysis of the data revealed ten statistically significant findings in regard to the characteristics of those women who had initiated a relationship with a man and those who had not done so. (see Table 1).

1. *NON-BELIEVER IN "ONE TRUE LOVE."*

While romantics believe that there is only one person with whom they can fall in love and be happy with during their life, realists view such a belief as nonsense. In contrast, realists believe that there are an unlimited number of people with whom one can have an intense and fulfilling love relationship. Over forty percent (42.3%) of the women in this sample who asked men out reported that they did not believe in "one true love" in contrast to 31.7% who believed in one true love- a statistically significant difference ($p < .01$). These women who initiated relationships with men felt that there is a menu of men from which to choose and that any one of them could result in an enjoyable, adventurous, loving, enduring relationship. In reference to implicit theory, those women who did not believe in one true love (growth believers or realists) were more likely to initiate romantic relationships than destiny believers-romantics. The growth believing women believed that there are numerous men out there for the

Table 1 Women Who Initiate Relationships with Men by Significant Characteristics

| Initiate Relationship? | Yes | No | Total | χ^2 | Significance |
|---|------------|-----------|--------------|----------------------------|---------------------|
| Non-Believer in "One True Love" | 42.3% | 57.7% | 100% | 6.777 | $p < .01$ |
| Experienced "Love at First Sight" | 51.8% | 48.2% | 100% | 17.645 | $p < .001$ |
| Searched for Partner on Internet | 54.2% | 45.8% | 100% | 6.83 | $p < .001$ |
| Non-Religious | 52.2% | 47.8% | 100% | 7.613 | $p < .05$ |
| Non-Traditional Sexual Values | 44.0% | 56.0% | 100% | 8.717 | $p < .01$ |
| Open to Cohabitation | 44.6% | 55.4% | 100% | 20.402 | $p < .001$ |
| Caucasian | 41.4% | 58.6% | 100% | 7.336 | $p < .05$ |
| Sexually Faithful | 44.5% | 55.5% | 100% | 5.926 | $p < .01$ |
| Involvement in "Friends with Benefits" Relationship | 47.6% | 52.4% | 100% | 19.584 | $p < .001$ |
| Used Birth Control Last Intercourse | 44.6% | 55.4% | 100% | 2.497 | $p < .05$ |

(N = 692)

picking.

2. EXPERIENCED "LOVE AT FIRST SIGHT."

While the women in this study who asked men out were realists about love in that they felt there were numerous loves a person could have in a lifetime, they were romantics or destiny believers when it came to their own experience about the notion of love at first sight. Over half (51.8%) of those who asked a man out had experienced falling in love at first sight in contrast to 33.4% who had not had this experience- a statistically significant difference ($p < .001$). Hence, women who let a man know they were interested in him were likely to have already had a "sighting" of a man they fell in love with. One interpretation of these data

is that some of the women who initiated relationships with men were being driven by love feelings that had already developed in them- love at first sight. These are destiny believers who have their radar on for the next man they are destined to meet. And they leave nothing to chance- they go up and say, "Hey, Big Boy...."

3. INTERNET PARTNER SEARCHERS.

Only a small number (59 of 692 or 8.5%) of women reported that they had searched for a partner using the Internet. However, over half (54.2%) of those who had done so (in contrast to only 37.5% who had not used the Internet to search for a partner) report-

ed that they had asked a man to go out ($p < .001$). Since both seeking a partner on the Internet and asking a new partner to go out verbally are reflective of nontraditional gender role behavior, these women were intent on moving the relationship forward rather than waiting for the man to make the first move. Our finding is consistent with other research on women and men who initiate dating relationships using the Internet. According to a study on users of an online computer matchmaking service, women were more likely than men to report starting a romantic relationship through the matchmaking system (Scharlott and Christ, 1995). Other findings indicate that women used the Internet for finding romantic partners because it allowed them to be more assertive (Lawson and Leck, 2006) and teenage girls reported that Internet dating appealed to them because it allowed them to be aggressive (Clark, 1998). The perk of Internet dating for many women is the removal of typical gender norms that constrain women from being assertive because society deems it 'un-lady-like' behavior (Cooper and Sportolari, 1997). Similar to these findings, a student in one of the authors' classes is an example of a woman who did not leave relationship development to chance. She said- "I saw a guy walking to the library and was thunderstruck by the way he looked/carried himself. I caught up with him, told him my name and that I wanted to get to know him." Women who are comfortable initiating relationships use both the Internet and direct approach- they go after what they

want. In regard to our growth or destiny believers, these assertive women are growth believers- they go after what they want and they believe these men are hanging out on the Internet ready for the picking. On the flip side, the destiny person would sit back, do nothing, and leave a relationship to chance rather than searching the Internet for a partner.

4. *NON-RELIGIOUS.*

Regarding religion, 70.4% saw themselves as religious with 29.6% seeing themselves as not very religious or not religious at all. Those who were not religious were more likely to ask a guy out than those who were religious (52.2% versus 34.9%) ($p < .05$). The finding comes as no surprise as previous research suggests that being non-religious is associated with having nontraditional values/roles (McCready and McCready, 1973; Miller and Stark, 2002). The literature on gender and religiosity agrees that women are more religious than men due to differential gender socialization (Miller and Stark, 2002). Unlike females, males are traditionally socialized to be risk-takers, thus risking divine punishment for being irreligious. Women who regard themselves as non-religious or non-traditional may also be socialized to engage in risk taking behaviors, such as initiating an intimate relationship by asking a man out. Using this perspective, risky behaviors and being nonreligious are not gender specific. Rather, both nonreligious men and women are risk-takers. In regard to implicit self-theories of growth or destiny believers, these as-

sertive risky women are growth believers in that they do not believe that "God has destined them to meet Mr. Right." Rather, they believe that they need to find their own fellow and to nurture a relationship with him.

5. *NONTRADITIONAL SEXUAL VALUES.*

Consistent with the idea that women who had asked a guy out were also non-religious (a nontraditional value) is the finding that these same women tended to have nontraditional sexual values. Of those women who had initiated a relationship with a guy, over forty percent (44%) reported having a hedonistic sexual value ("If it feels good, do it) and over forty percent (40.8%) reported having a relativistic sexual value ("Sexual intercourse is acceptable in the context of an emotional relationship") compared to slightly over a quarter (25.8%) who regarded themselves as having absolutist sexual values ("Wait until marriage to have intercourse"). Hence, women with nontraditional sexual values were much more likely to be assertive in initiating a new relationship with a man. In regard to the growth or destiny believer categories, the women who initiated relationships with men may be characterized as growth believers and are on the "find your own man" plan.

6. *OPEN TO COHABITATION.*

Of the women who reported that they had asked a man to go out, over forty percent (44.6%) reported that they would cohabit with a man compared to 26.0% who would not cohab-

it. This difference was statistically significant ($p < .001$). Given that non-religious women with hedonistic/relativistic sexual values had asked a guy to go out, it comes as no surprise that these women were also open to cohabitation (they are not bound by traditional norms). This finding is supported by the research of Michael, Gagnon, Laumann, and Kolata (1994), who contend that cohabitating men and women are more likely to have non-traditional sexual values. In regard to our growth or destiny believers, these aggressive women are growth believers who are willing to live with a man and nurture a relationship with him.

WHITE.

White women were significantly ($p < .05$) more likely to report that they had asked a guy out than black (African-American Black, African Black, Caribbean Black) women. Over forty percent (41.4%) of the white women, compared to 28.2 percent of the black women in the sample reported that they had asked a guy out. This finding is not surprising in that blacks are traditionally more conservative in religion (Sherkat, 2002) and sexual values (Michael et al., 1994) than whites. Since religion is associated with destiny, the growth believers may be more associated with being white.

8. *SEXUALLY FAITHFUL.*

Women who are nontraditional in terms of religion (e. g. nonreligious), who have nontraditional sexual values (e. g. hedonistic/relativistic), and who are nontraditional about living togeth-

er (e. g. open to cohabitation) might also be assumed to be nontraditional about fidelity (e.g. less faithful in relationships) than women who are religious, virginal, and against cohabitation. In addition, one might assume that women who initiate intimate relationships with men (a nontraditional gender role behavior) would be more likely to be unfaithful than women who do not ask men out (a traditional gender role behavior). Analysis of the data suggested otherwise. Women who had asked a guy out were more likely to report having been FAITHFUL in previous relationships than women who had not asked a guy out (44.5% versus 34.8%) ($p < .01$).

One explanation for why women who initiated relationships with men were more likely to be faithful in relationships is that the act of their initiating a relationship may reflect the strong positive value these women placed on the relationship with the person they pursued and that the value of sexual fidelity is consistent with not wanting to jeopardize a valued relationship. This theme is reflected in the country western song, "When I Think about Cheating" made popular by Gretchen Wilson. The song details that part of the motivation for remaining faithful is the high value that is placed on the relationship....

*"When I think about cheating
I Just think about you leaving
How my world would fall apart
If you took your love away."*

Previous research also confirms that persons in high quality, happy relationships are less likely to have affairs (Treas and Giesen, 2000). Ex-

tramarital sex lowers marital satisfaction and contributes to relationship break-down (Previti and Amato, 2004). Growth believers fit into this context since these women may feel that fidelity would help to nurture the relationships with the men they initiate.

9. INVOLVEMENT IN "FRIENDS WITH BENEFITS" RELATIONSHIP.

Women who have been in a "friends with benefits (FWB)" relationship (had sex with a friend in a nonromantic, non committed relationship) were more likely to have asked a guy out than women who had been involved in such a relationship (47.6% versus 30.4%) ($p < .001$). Since involvement in a FWBs relationship may be considered a "deviant" relationship, particularly for the woman since it is a context of sex without commitment, we might expect less traditional women to be attracted to the relationship and to be open to other nontraditional behaviors such as asking guys out. Growth believers fit in this context since these assertive women may feel that they can emphasize the friendship in a "friends with benefits" relationship.

10. USED BIRTH CONTROL LAST INTERCOURSE.

Women who reported that they had used some form of birth control (other than withdrawal) the last time they had intercourse were more likely to have asked a guy out than women who had used no method of contraception their last intercourse experience (44.6% versus 37.9%) ($p < .05$). Similar to the rationale used above, women initiators sometimes reflected

a great deal of selectivity in who they choose to have sex with. Consistent with such deliberate thinking about intercourse was the decision to protect the relationship from an unwanted pregnancy. These contraceptive users are definitely growth believers in that they feel they should take responsibility for their sexual intimacy.

Implications

In the present work, implicit theories refer to beliefs about the nature of intimate relationships. Destiny believers hold the belief that potential intimate partners are either meant to be or not meant to be and that there is "one true love." Growth believers hold the belief that potential intimate partners are cultivated over time and that one can experience multiple "true loves." Our research set out to explore if the characteristics of women who initiated romantic relationships were destiny believers or growth believers. Findings indicate that these women do not always fit neatly into this binary classification of relationship beliefs. According to Knee (1998), people prefer growth to destiny. Our findings of women who initiate romantic relationships with men confirm this. Specifically, women who experienced "love at first sight" fit the classification of destiny believers. "Love at first sight" is an indicator of destiny because it is fixed or destined to happen, rather than an experience that is grown or nurtured. Growth believers were nonreligious white women who were non-believers in "one true love," had non-traditional sexual values, had searched the Internet for partners,

were open to cohabitation, were sexually faithful, had been involved in a "friends with benefits" relationship, and used birth control last intercourse. Worthy of discussion is the fact that women who initiated relationships with men were non-believers in "one true love" and had experienced "love at first sight." Non-believers in "one true love" is a very clear indicator of a belief in growth and experiencing "love at first sight" is a clear indicator of a belief in destiny. However, women who initiated romantic relationships with men had both beliefs according to implicit theories and the nature of relationships. One might conclude that women who initiate relationships with men might have a combination of growth and destiny beliefs for relationship development.

We can even complicate the matter further by asking what exactly does "love" mean in the context of "one true love" and "love at first sight?" According to Disney, romantic couple relationships are created by "love at first" (Tanner, Haddock, Zimmerman, Lund, 2003). Is "love at first sight" something that we hold on to as magical and an act of destiny? Like Cinderella and Mae West, could it be that aggressive non-traditional American women are holding on to a fantasy of experiencing "one true love" and "love at first sight?" Is experiencing "one true love" and "love at first sight" beyond women's leap into non-traditional gender roles? Are all women socialized to fantasize about experiencing both? Interestingly, romantic attitudes and beliefs in destiny may not be gender specific. Sprecher and Toro-Morn

(2002) found that both men and women moderately sanction beliefs in destiny. Other findings indicate that emerging adult and adolescent males endorse the romantic belief in love at first sight more strongly than emerging and adolescent females (Montgomery, 2005). These interpretations suggest that belief in destiny may be more relevant to gender role expectations and intimate relationship initiation than the belief in growth.

Analysis of these data revealed that almost 40 percent (39.1%) of the undergraduate women at a large southeastern university had asked a guy to go out (a nontraditional gender role behavior). There are implications of this finding for both women and men. Women who feel uncomfortable asking a man out, who fear rejection for doing so, or who lack the social skills to do so ("Hey big boy! ... Wanna get a pizza?"), may be less likely to get their man who will be whisked away by women who have such comfort, overcome their fear of rejection, and who make their interest in a partner known. Recall the earlier reference to the female student in one of the authors' classes who went up to a man (who was walking to the library), started flirting, and asked him out. This couple is now married.

In occupations, government, and intimacy, women are successfully crossing traditional gender role boundaries. As women break out of their traditional submissive roles, courtship scripts will inevitably change. The implication of this study for men is not to be surprised when a woman makes a direct request to go out- that relation-

ship norms are changing. For some men, this comes as a welcome trend in that they feel burdened that they must always be the first one to indicate interest in a partner and to move the relationship forward. Normalizing non-traditional courtship narratives will help remove the uncertainty about men's interest for women and vice versa. Men might also reevaluate their negative stereotypical notions of women who initiate relationships ("they are loose") and be reminded that the women in this study who had asked men out were MORE likely to have been faithful in previous relationships than those who had not.

Limitations

The data for this study should be interpreted cautiously. The convenience sample of 692 respondents is hardly representative of the 17 plus million college students throughout the United States (Statistical Abstract of the United States, 2009. Table 272).

The data for this study are also quantitative with no qualitative interviews to provide insights on the raw statistics. Subsequent research might include interviews with college women to elicit information about their feelings/perceptions about being in the role of relationship initiator. For example, how do women explain their own nontraditional gender role behavior, how do they feel when they ask a guy (or girl) out, how do they perceive they are viewed by the men (or women) they ask out, how do they perceive they are viewed by others (friends, family) because they ask men (or women) out, what strategies do women use to ini-

tiate intimate relationships with men (or women), what factors influence women to initiate intimate relationships, and how do men (or women) react to being asked out? In addition, interviews may reveal the degree to which physical attractiveness was a variable in women's asking a guy for a date. Physically attractive females may have had more confidence in themselves (fearing less rejection) and been more apt to initiate.

Another limitation of this research is that it is based on heterosexual relationships. The data do not include how college women that identify as bisexual or lesbian ask women out.

Finally, this research is an exploratory analysis that should be followed up with multi-variate analysis to develop a more complete and accurate understanding of women who initiate relationships.

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HISPANICS AND VIOLENCE: A RESEARCH AGENDA LEADING TO MORE MEASURED RESPONSES

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Abstract

There is a great need for a serious sustained study of the reality that interpersonal violence acts and its consequences pose among the Hispanic population and communities. This essay provides a brief overview of IPV in Hispanic populations within the United States. Furthermore, the essay calls for placing Hispanic youth's and young adults' increasing involvement with IPV within a broader discussion of violence within the criminal justice system and public health agencies. There is also an increasing need to call for basic, applied, and policy data and understanding for cooperative, sustained inquiries that would lend themselves to more measured evidenced-based policies and practices sustained to ameliorate IPV in Hispanic populations as well as in other populations.

Most Americans remain troubled by interpersonal violence as it presents itself in their respective communities (American Psychological Association, 1993; Brooks, 2003, in McShane; Feld, 1999; Feyerherm, 1993; McCord, et al. 2001). While almost American families experience some personal duress with their children's coming of age, those who are termed serious violent offenders or state raised youth trouble their respective families, communal institutions, and policymakers (Currie, 1985; Edelman, et. al. 2006). According to McCord, Widom, and Crowell (2001:7), "Public policy on juvenile crime, particularly the trend towards more positive sanctions appears to be influenced in part by predictions of future crime rates...predictions that proved notoriously inaccurate". In many of the major Hispanic barrios

and related community centers of Hispanic populations, the looming specter and reality of interpersonal violence (IPV) remains a key concern for those moving from home to school, work, or recreation. The specter and reality of interpersonal violence is also influenced by electronic media and popular culture. Some use these currents and trends in response to heightening fears and concerns with the Hispanic populations' growth, spread and advances (Huntington, 2005). Nevertheless, the reality of interpersonal violent acts, processes, and consequences marks our barrios and communities' social fabric and the quality of life, for both their neighbors and families.

Over-representation of Blacks, Hispanics, and American Indians in the juvenile justice system requires immediate attention. The existence of dis-

proportional racial representation in the juvenile justice system raises concerns about differential exposures to risk and the fairness and equal treatment by the police, courts, and other players in the juvenile justice system (McCord, Widom, & Crowell, 2001: 258). There is great need for a serious sustained study of the reality that interpersonal violent acts, processes, and consequences pose among Hispanic population and communities (Jenson, 1999; Kempf-Leonard, et al., 1990; Leonard, 2005).

This essay provides a brief overview of IPV in Hispanic populations in the United States. Furthermore, this essay calls for placing Hispanic youths' and young adults' increasing involvement with IPV within a broader discussion of violence in the criminal justice system and public health agencies. This essay suggests that violence (i.e., murder and non-negligent manslaughter, manslaughter by negligence, forcible rape, aggravated assault, and other assaults, needs to become the main focus of not just state and federal oversight agencies, but also of leading national voluntary action agencies like American Civil Liberties Union, Mexican American Legal Defense Fund, National Association of Latino Elected and Appointed Officials, and the National Council De La Raza and Children's Defense Fund. While this issue has been subject to two major NSF (National Science Foundation) workgroups and IOM (Institute of Medicine) report efforts, the calls have

been left without actions and recommendations posited and underscored. Professional associations and CJS have partially heeded calls for attention to violence to move from "silo" approaches and perspectives to more collaborative and comprehensive ones (Harrell, 2007; Harrison, et. al., 1989; Herrera & McCloskey, 2003; Menard, 2002). No less demanding are calls for basic, applied, and policy data and understanding for cooperative, sustained inquiries that would lend themselves to more measured evidenced based-policies and practices sustained to ameliorate IPV in Hispanic populations as well as in other populations.

Background and Context

Hispanic populations in the U.S. have grown considerably the past 2 1/2 decades. Only in the past 2 1/2 decades have Hispanic criminal offending and victimization become important national and community concerns. Nevertheless, beyond local and state reports, there remains little national data on Hispanic violence to inform national policymaking and programming about this concern.

The need for sound, reliable, systematic data on criminal offending and victimization has led some to explore the Federal Bureau of Investigation's (FBI's) Uniform Crime Reporting (UCR) reports, OJJDP's (Office of Juvenile Justice & Delinquency Prevention) Annual Reports,

National Center on Health Statistics, and BJA National Crime Victimization Survey data. The more commonly touted data reporting homicides and lesser offenses related to violence is the FBI's UCR program. These data come from local CJSs enforcement agencies through their state lead agency to the FBI. Yet with the exception of the National Crime Victimization Survey (NCVS), a comparable, robust, reliable, ethnic indicator is missing or wanting. Some have made calls for exploring and using local and state educational institutions such as Schools Critical Schools incidents, Emergency Hospital Trauma Registry Systems, and the Child Fatality Review reports. While promising, they are far from being able to provide quality national data needed to inform state or federal policy making.

Yet even with the growth and spread of the Hispanic population throughout the United States, many cities and states still do not collect or report offending or victimization by ethnicity of Hispanic origin populations. For some time, there have been calls for collaborative, private-public ventures to deal with violence. The need to address Hispanic IPV at the local and national levels will require significant collaborative and cooperative efforts from public CJSs, educational, health and social service agencies. These efforts are needed to provide essential data that

will lead to evidence-based strategies and programs.

Most commonly associated with IPV were at-risk and marginal Hispanic youth and young adults residing in more strained and problem filled families and neighborhoods (Leonard & Sontheimer, 1995; Penn, et al., 2006). A half century ago the deviant and delinquent actions of young adults from Black and Hispanic populations residing in inner city ghettos and barrios drew occasional concern from the media, occasional social science investigative interests, and usually drew the attention of some public policy-making agencies and groups at the state level.

There was a surge in serious juvenile crime rates beginning in the late 1980s through the early 1990s. The juvenile arrest rate for violent crime began decreasing in 1994 almost as rapidly as it had increased and by 1999 was back to the rate of the late 1980s. Most of all the increase in U.S. youth homicides from 1987 to 1993 involved homicides committed with guns. (McCord, Widom, Crowell, 2001: 2)

There has been a steady influx of youths and young adults from Black and Hispanic populations into almost all states and major SMSAs (Standard Metropolitan Statistical Area) in this country (Lauritsen, 2005; Leonard & Sontheimer, 1995; Messner & Rosenfeld, 2007). Their presence and needs challenge social and public institutions who are mandated to serve

these youths and young adults (Leonard, 2005; Leonard, et al., 1995; Zimring, 2005). Solving the problem of youth violence and young adult IPV is a priority in almost all major American cities, suburbs, and even rural communities.

The composition of youth gangs in America has changed from southeastern European immigrants to contemporary society's new, urban village, street-oriented youth, especially those linked to urban street, drug violent gang nexus and networks. Urban street, drug violent gang nexus and network images associated with Bloods/Crips, MARA Savatrucha, Latin Kings, and the Skinhead Nation were mentioned a few times. The youth gang drug violence nexus and networks are now common throughout the Metropolitan Statistical Areas and some rural communities. Firearms and illicit drugs are two factors that some pose as key to this nation's community youth homicide and serious violent offending. For those who work with these children, families, school staff, child/family advocates and CJS, interpersonal violence experiences remain common and vexing concerns. Those drawn to deal with IPV, which is more commonly experienced and concerns most Hispanics, will argue for attention to those acts, processes, and consequences in familial and communal settings. The limiting of discussions to Hispanic gangs, drugs, and firearms among youths and young adults fails to address more common unaddressed

violence experienced in their families, neighborhoods, and social networks (Jargowsky, Desmond, & Crutchfield, 2005). The context of violence is associated with intimate relationships of parents, loved ones, partners, and friends. No less important is IPV related to child neglect, maltreatment, abuse and fatalities, which must also be addressed in schools and related public settings.

Some have posited for over a decade that a Hispanic crime wave was on the horizon. While violence and crime have been declining over the past decade, those involving serious IPV, assaults, rapes, and homicides provide grist for those stoking political themes supporting their campaigns. Some drew attention to the rise of super predatory violent offenders who test the challenged Criminal Justice System (CJS) with their drug, guns, and violent activities (Huntington, 2005). Wilson and Guilio's (as cited in Zimring, 2005) expected prognostications have not developed, and some critics suggest that their work has fallen short of their dire warnings (Penn, 2006).

It is difficult not to associate violent crime and victimization with cities containing vast numbers of multi-problem families and neighborhoods (Feld, 2005; Frazier & Bishop, 1995). However, violent crime and victimization are no longer just problems of inner city barrios and ghettos. School violence has opened discussions about violent crime and victimization

of youth and their families across urban, suburban, and rural communities. National and state leadership provide a substantive but measured response to IPV and familial violence, and the public at all levels recognizes that it is a problem that cannot be ignored (CDC, 1986; Griffin & Bell, 1989; Snyder, Sickmund & Poe-Yamagata, 1996).

For the past 2 1/2 decades, national, state, and local advocacy groups and policymakers have made calls for action regarding NCLR and IPV, a persistent problem challenging Hispanic populations and their respective communities. Criminal offending, a staple of the FBI's annual reports on index crime in the United States, is reported by race but not by ethnicity, especially that pertaining to Hispanic groups in the United States. The NIJ's (National Institute of Justice) Bureau of Justice Statistics through the OJJDP Annual report provides some limited data concerning IPV offending and victimization, but does not provide complete ethnic indicator data for essential items related to offending and victimization that it reports for all racial groups. The NIJ's Bureau of Justice Statistics through National Crime Violence Survey reports IPV offending and victimization data sources by global ethnicity measuring Hispanics. BJA National Crime Violence survey provides data concerning offending and victimizations by ethnicity that FBI Uniformed Crime Index needs to collect and report.

Despite the NCVS, many advocates further argue IPV is a persistent concern among Hispanics in the United States suffering from a lack of existing data sources. Only when we have these reliable valid data sources and specialized studies may evidence based driven understandings policy and practice address the challenges that IPV criminal offending and victimization pose our nation and respective communities. Even more problematic is the need for sustained ongoing data, and theoretical understandings address the complex issues that IPV presents in different Hispanic populations and communities in the United States.

Methods

The National Crime Victimization Survey (NCVS) remains the key data source for violent crime and victimization and is collected by the Bureau of Justice Statistics (BJS). The NCVS survey collects estimates of violent acts of simple assault, aggravated assaults, robbery, sexual assaults and threatened, attempted and completed rapes. The NCVS suggests augmenting their limited data on homicides by turning to NCHS Vital and Mortality data. The NCVS respondents to the survey who identify themselves as Mexican, Chicano, Mexican-American, Puerto Rican, Cuban, or Central or South American are grouped as one ethnic body, defined in the survey data as Hispanics. Comparisons of population groups include non-Hispanics

who are identified as White, Black, American Indian, and Asian; yet a comparison of ethnicity to the FBI UCR does not allow comparing these two major NIJ data and reporting systems.

From these data, BJS draws estimates of national criminal victimizations. This essay will first report NCVS data based on the numbers and rates of criminal victimization collected in 2000. These data will provide a profile of the victims' characteristics by gender, age, income, marital status, and household income from 1993 to 2000 (Rennison, 2001). Next, we will review NCVS rates of violent crime by gender, marital status, annual household income, and place of residence for 2000. Additionally, the research will describe the relationship of the offender to the victim. The presence and use of weapons used in the violent incident will also be examined. Next, the research will describe the injury inflicted during the incident and treatment provided thereafter. The victims' perception of the offenders' use of alcohol and drugs relative to the incidents will also be discussed. The question of the victim reporting these incidents to law enforcement will also be described.

The National Crime Victimization Survey

In 2000, the NCVS found that Hispanics age 12 and over had experienced 690,470 violent incidents (rape, sexual assault, robbery and aggravated or simple assault) (Rennison,

2002). In a special NCVS report covering 1993 to 2000, the most vulnerable persons during this period were juvenile males, ages 12 to 17, who came from households with incomes under \$7,500 and whose parents never married. In 2000, a person of Hispanic origin experienced 11% of all violent crime. In terms of the number of victims associated with the violent crimes, this statistic translates to about 10% of the population of the United States were involved in violent crimes. Most of the violent acts were simple assaults, acts without the use of a weapon and resulting in minor injuries.

Nearly one in five of all Hispanics were robbed or victims of assault with a weapon, resulting in serious injury or both. The NCVS further noted that Hispanic assault rates were lower than that for Whites, Blacks, and American Indians. The survey further found that Hispanics, Blacks, and Whites reported similar rates of aggravated assaults, yet less than those reported by Native Americans but higher than those persons of Asian American descent. Hispanics reporting rapes and sexual assault accounted for 2% of all victimizations. The NCVS reported that in 2000, persons of Hispanic origin experienced 11% of all violent crime among persons 12 years of age or older in the United States, while also reporting 690,470 rapes, sexual assaults, robberies and aggravated and simple assaults. In terms of crime victims' relationship to the offender, 9%

stated that the offender was an intimate friend or relation, and 34% reported it was an acquaintance or friend. Similar to Whites and Blacks, Hispanics were as likely to have reported their victimization to the police. Hispanics who were victims of robbery reported rates as high as their Black counterparts, which was highest among the groups examined. The NCVS study demonstrated that while all persons may be vulnerable to violent crime, some individuals and groups are differentially victimized. Blacks and Native American rates of victimization are higher than Hispanics, but Hispanic rates are higher than Asian Americans'. Rates of violent victimizations varied by gender, age,

marital status, annual income and residence status. By racial groups, Hispanic male victimization rates were higher than that of Hispanic females. Hispanic male victimization rates were closer to Black rates, yet both were higher than White rates. For Hispanic females victimization rates were closer to rates for Whites but less than that for Black females. During the NCVS survey study period, Hispanics ages 18 to 49 were victims of crime at rates lower than Blacks and Whites. Young Hispanics were more likely to be violently victimized than were older Hispanics as the rates decreased by age cohort.

In terms of marital status, Hispanics report differential rates by whether

Table 1. Number & Rate of Violent Victimization by Type of Crime, Race, & Hispanic Origin, 2000

| | Non-Hispanic | | | | |
|---|--------------|-----------|---------|-----------------|--------|
| | Hispanic | White | Black | American Indian | Asian |
| Number of Victimizations | | | | | |
| Total violent crime | 690,470 | 4,363,350 | 929,860 | 50,970 | 68,880 |
| Rape/sexual assault | 13,810 | 183,180 | 39,760 | 7,540 | 1,990 |
| Robbery | 140,450 | 400,290 | 176,810 | 2,5101 | 5,300 |
| Aggravated assault | 131,150 | 871,900 | 164,480 | 15,880 | 7,680 |
| Simple assault | 405,060 | 2,907,980 | 548,800 | 25,050 | 43,910 |
| Rate of victimizations per 1000 in each group | | | | | |
| Total violent crime | 27.9 | 26.5 | 34. | 52.3 | 8.4 |
| Rape/sexual assault | 0.6 | 1.1 | 1.5 | 7.7 | 0.2 |
| Robbery | 5.7 | 2.4 | 6.5 | 2.6 | 1.9 |
| Aggravated assault | 5.3 | 5.3 | 6.0 | 16.3 | 0.9 |
| Simple assault | 16.4 | 17.7 | 20.1 | 25.7 | 5.4 |

Note: Detail may not add to total because of rounding. From National Criminal Victimization Survey by P. Klaus and C. Maston, 2000. Bureau of Justice Statistics.

Table 2. Rate of Violent Crime by Hispanic Origin, Race, Gender, Age, Marital Status, Annual Household Income, and Residence

| Victim Characteristics | Average Annual Victimization Rate per 1,000 Persons Age 12 or Older | | | | |
|-------------------------|---|--------------|-------|-------|-----------------|
| | Hispanic | Non-Hispanic | | | American Indian |
| | | White | Black | | |
| Total | 44.8 | 40.8 | 51.2 | 105.0 | 21.7 |
| Gender | | | | | |
| Male | 53.9 | 48.0 | 56.6 | 125.6 | 28.6 |
| Female | 36.0 | 34.0 | 46.7 | 86.4 | 15.2 |
| Age | | | | | |
| 12 to 17 | 90.1 | 98.0 | 99.9 | 159.1 | 43.6 |
| 18 to 24 | 70.3 | 89.7 | 91.3 | 153.0 | 36.2 |
| 25 to 34 | 39.5 | 53.0 | 52.9 | 167.2 | 22.7 |
| 35 to 49 | 28.5 | 34.3 | 39.2 | 62.4 | 16.4 |
| 50 to 64 | 14.2 | 15.9 | 15.6 | 42.1 | 8.5 |
| 65 or older | 7.1 | 4.1 | 7.6 | 22.8 | 3.5 |
| Marital status | | | | | |
| Never married | 72.3 | 80.8 | 76.5 | 143.7 | 35.0 |
| Married | 22.8 | 20.1 | 22.0 | 56.0 | 11.9 |
| Widowed | 10.4 | 7.9 | 11.5 | 39.3 | 6.6 |
| Divorced/separated | 56.3 | 69.1 | 54.3 | 147.5 | 49.8 |
| Annual household income | | | | | |
| Less than \$7,500 | 64.2 | 83.3 | 72.4 | 152.1 | 28.8 |
| \$7,500 to \$14,999 | 49.6 | 51.2 | 61.7 | 144.1 | 30.5 |
| \$15,000 to \$24,999 | 42.0 | 45.1 | 53.8 | 62.0 | 22.9 |
| \$25,000 to \$34,999 | 40.9 | 44.8 | 46.6 | 95.0 | 23.6 |
| \$35,000 to \$49,999 | 39.1 | 40.7 | 42.0 | 122.2 | 15.8 |
| \$50,000 to \$74,999 | 48.3 | 37.7 | 41.8 | 36.1 | 18.2 |
| \$75,000 or more | 46.7 | 30.0 | 51.9 | 49.7 | 17.1 |
| Location of residence | | | | | |
| Urban | 46.6 | 55.0 | 60.8 | 121.3 | 22.7 |
| Suburban | 43.6 | 39.2 | 45.3 | 103.7 | 21.1 |
| Rural | 41.2 | 31.1 | 28.2 | 70.8 | 17.9 |

*Based on 10 or fewer sample cases. See Methodology, page 8. From National Criminal Victimization Survey, by P. Klaus and C. Maston, 2000. Bureau of Justice Statistics.

they were single, married divorced/separated or never married. Hispanics who never married reported the highest rates of victimization. Yet, their victimization rates were less than those of Blacks or Whites. Among those married, Blacks and Hispanics both reported similar rates, but rates higher than Whites. Yet, among Whites, who never married or were separated/divorced, rates were higher than those for both Blacks and Hispanics.

In terms of annual family household income, Hispanic families with annual incomes of \$7,500 or less reported the highest rates of victimization among that ethnic group. Hispanic rates were less than rates for both Whites and Blacks in terms of annual family household income and criminal victimization with one exception. Whites with incomes of less than \$7,500 reported higher rates than did Blacks or Hispanics. The rate of vio-

lent victimization for Hispanics did not provide major, consistent patterns across levels of income. In terms of residence, Hispanics reported smaller differences in the rates of violent victimization: urban 46.6%, suburban 43.6% and rural 41.2%. Only for rural residents were Hispanic rates higher than they were for Blacks (28.2%) or Whites (31.1%). Hispanics residing in urban households reported victimization rates lower than that of Blacks (60.8%) and Whites (55.0%). Hispanics (43.6%) residing in suburban households recorded victimization rates second to their Black (45.3%) counterparts but only slightly higher than that of their White (39.2%) counterparts. Next, NCVS reported on the characteristics of crime victimization event: the relationships to offender, presence and type of weapon and injury, and the nature of the injury and treatment of criminalization injury. Hispanics reported that they were more

Table 3. Relationship of Victim to Violent Offender by Race and Hispanic Origin of the Victim, 1993–2000

| Victim-offender relationship | Percent of violent victimization | | | | |
|------------------------------|----------------------------------|-----------|-----------|-----------------|---------|
| | Hispanic | White | Black | American Indian | Asian |
| Total | 100% | 100% | 100% | 100% | 100% |
| Intimate* | 9 | 11 | 12 | 12 | 3 |
| Other relative | 4 | 5 | 6 | 6 | 2 |
| Friend/acquaintance | 34 | 38 | 38 | 38 | 30 |
| Stranger | 52 | 46 | 45 | 44 | 64 |
| Average annual number | 942,360 | 6,631,250 | 1,318,130 | 105,690 | 155,700 |

Note: Detail may not add to total because of rounding.

Table 4. Presence and Type of Weapons by Race and Hispanic Origin of Victim for the period 1993–2000

| Presence and type of weapon | Percent of victims of violent crime | | | | |
|-------------------------------|-------------------------------------|-----------|-----------|---------------------------------|---------|
| | Hispanic | White | Black | Non-Hispanic American Indian | Asian |
| Total | 100% | 100% | 100% | 100% | 100% |
| No weapon | 59 | 69 | 54 | 66 | 57 |
| Unknown if weapon was present | 8 | 8 | 10 | 7 | 10 |
| Weapon | 34 | 23 | 36 | 26 | 32 |
| Firearm | 14 | 7 | 17 | 11 | 8 |
| Knife | 8 | 6 | 8 | 5 | 8 |
| Other weapon | 10 | 9 | 9 | 13 | 9 |
| Don't know type of weapon | 1 | 1 | 1 | 1* | 1* |
| Average annual number | 942,360 | 6,631,250 | 1,318,130 | 105,690 | 155,700 |

Note: Detail may not add to total because of rounding.

*Based on 10 or fewer sample cases. See *Methodology*, page 8. From *National Criminal Victimization Survey* by P. Klaus and C. Maston, 2000. Bureau of Justice Statistics.

likely to be victimized by a stranger (52%), followed by a friend/acquaintance (34%), then intimates (9%), and finally by other relatives (4%). The rates of being victimized by intimates or some other relative were similar to the rates for Blacks and Whites in this same category. In terms of IPV, Hispanics reported lower rates than did Blacks (12%) or Whites (11%), but these were minor differences.

Between 1993 and 2000, almost all victims reported incidents that did not involve a weapon: Hispanics 59%, Whites 69%, and Blacks 54%. From 1993 to 2000, the percentage of Hispanic victims of violence with a weapon (34%) was only slightly lower than the percentage reported by Blacks (36%) but significantly higher than the percentage reported by Whites (23%) and Native Americans (26%). Blacks and Hispanics were more likely to report that their offenders used a firearm

than were Whites, Asian Americans, or Native Americans. In terms of injury from violent offense, almost 7 in 10 of all victims reported not being injured. Native Americans (35%), Blacks (29%) and Hispanics (27%) reported higher rates of injuries from their violent incidents than did Whites (25%) or Asian Americans (23%). In terms of seeking treatment for their injuries, 15% of Hispanics, 15% of Whites, and 13% of Blacks did not seek treatment. Of those injured seeking treatment, Native Americans (20%) and Blacks (16%) were more likely to seek treatment than were Hispanics (12%) or Whites (10%). As to whether the victim perceived the offender to have been using alcohol or drugs, only 32% of Whites, 28% of Hispanics, and 24% of Blacks reported these incidents to be alcohol or drug related. Almost all groups reported that they were not able to discern if their offender had

Table 5. Injury from Crime and Treatment of that Injury by Race and Hispanic Origin of the Victim, 1993–2000

| Injury and type of treatment | Percent of victims of violent crime Non-Hispanic | | | | |
|------------------------------|---|----------|-----------|--------------------|---------|
| | Hispanic | White | Black | American Indian | Asian |
| Total | 100% | 100% | 100% | 100% | 100% |
| Not injured | 73 | 75 | 71 | 64 | 77 |
| Injured | 27 | 25 | 29 | 36 | 23 |
| Not treated | 15 | 15 | 13 | 16 | 12 |
| Don't know if treated | 0 | 0* | 0 | 0 | 0 |
| Treated | 2 | 10 | 16 | 20 | 11 |
| At scene/home | 5 | 4 | 6 | 8 | 4 |
| Doctor's office/clinic | 1 | 1 | 2 | 2* | 1* |
| Hospital but not admitted | 4 | 4 | 7 | 8 | 5 |
| Treated other locale | 0* | 0 | 0* | 0* | 0* |
| Admitted to hospital | 1 | 0 | 1 | 1* | 0* |
| Average annual number | 942,360 | 6,631,25 | 1,318,130 | 105,690 | 155,700 |

Note: Detail may not add to total because of rounding.

*Based on 10 or fewer sample cases. See Methodology, page 8. From National Criminal Victimization Survey by P. Klaus and C. Maston, 2000. Bureau of Justice Statistics.

been using alcohol or drugs. Almost 4 in 10 of all groups reported their victimization to police. Blacks (48%) were more likely than Hispanics (44%) and Native Americans (45%), followed by Whites (42%). Asians were less likely to report their victimization than all other groups. Rennison (2001) further notes that victimized Hispanics were least likely to be reported by males under the age 20 and those who never married. Moreover, she observed that at all income levels, Hispanics were likely to report their victimization to police at similar levels. Hispanic females (53%) were more likely than males (39%) to report their incident to the police.

In terms of residence, one in two victims of crime did not report their

crime to the police (Urban 46%, Suburban 42%, Rural 47%). As for their reasons in not reporting to the police, Hispanic males and females posited a range of reasons. Hispanic males were more likely than females to offer the reasons for not reporting their victimization as minor crime or lack of proof of the crime.

One observes small variations between racial groups for various reasons in not reporting. Most racial or ethnic groups' victims suggest that it "was a private matter" or it was "a minor crime" (Rennison, 2002:5-6). In terms of non-fatal violent crime, there was a major decrease from 1993 to 2000, from 63% to 29.8%. Rennison (2002) observed that for every demographic characteristic the rate of vio-

Table 6. Victim's Perception of the Violent Offender's Use of Drugs or Alcohol by Race and Hispanic Origin of the Victim, 1993-2000

| | Percent of violent victimizations Non-Hispanic | | | | |
|---|---|-----------|-----------|-----------------|---------|
| Victim's Perception of Drug or Alcohol Used by the Offender | Hispanic | White | Black | American Indian | Asian |
| Total | 100% | 100% | 100% | 100% | 100% |
| Using Alcohol or Drugs | 28 | 32 | 24 | 44 | 19 |
| Not Using Alcohol or Drugs | 28 | 29 | 29 | 19 | 25 |
| Don't Know | 44 | 39 | 47 | 37 | 55 |
| Annual Average Number | 927,410 | 6,553,650 | 1,303,740 | 105,410 | 152,920 |

Note: The annual average numbers differ from those in other tables because sample cases in which the respondent did not provide an answer were excluded. From National Criminal Victimization Survey by P. Klaus and C. Maston, 2000. Bureau of Justice Statistics.

Table 7. Reporting of Violence to the Police by Race and Hispanic Origin of the Victim, 1993-2000

| Reported violence to police | Hispanic | White | Black | American Indian | Asian |
|-----------------------------|----------|-----------|-----------|-----------------|---------|
| Total | 100% | 100% | 100% | 100% | 100% |
| Yes | 44 | 42 | 48 | 45 | 39 |
| NO | 55 | 56 | 50 | 53 | 61 |
| Don't know | 1* | 1* | 1* | 2* | 0* |
| Average annual number | 941,750 | 6,628,660 | 1,316,660 | 105,690 | 155,700 |

Note: The average annual number differ from those in other tables because sample cases in which the respondents did not provide an answer were excluded. Based on 10 or fewer sample cases. See Methodology, page 8. From National Criminal Victimization Survey by P. Klaus and C. Maston, 2000. CBureau of Justice Statistics.

lence substantively declined. While violence and crime have been declining over the past decade, those involving IPV, assaults, rapes, and homicides remain catalysts for political campaign electioneering. School violence has opened discussions about violent crime and victimization to suburban and rural communities. For some, interpersonal violence is a persistent problem challenging Hispanic populations. Hispanic criminal offending and victimization have been important national and community concerns. The NCVS remains the key data source for violent crime and victimization and is collected by the BJS. Comparison population groups include non-Hispanics who are identified as White, Black, American Indian, and Asian.

The National Crime Victimization Survey (NCVS) found that Hispanics age 12 and over have experienced 690,470 violent incidents (rape, sexual assault, robbery & aggravated or simple assault) (Rennison, 2002). In 2000, individuals of Hispanic origin experienced 11% of all violent crimes, which represented 10% of the United States' population. The NCVS further noted that Hispanic assault rates were lower than for Whites, Blacks and Native Americans. Hispanics reporting rapes and sexual assault accounted for 2% of all victimizations.

The NCVS survey also found that violent crime incidents against Whites, Blacks and Hispanics markedly declined from higher rates in 1993. The rate for Whites declined 50% and for

Blacks 51%. The NCVS survey found that violent victimization rates for Hispanics dropped from 63% per 1,000 to 28% per 1,000. Blacks and Native American rates are higher than Hispanics, but Hispanic rates are above Asian Americans. Rates of violent victimizations varied by gender, age, marital status, annual income and residence status. By racial groups, Hispanic males' rates were higher than Hispanic females. Hispanic males' rates were closer to Black rates, yet both were higher than White rates. For Hispanic females their rates were closer to Whites, but less than Black females. During the NCVS survey study period, Hispanics ages 18 to 49 were victims of crime at rates lower than Blacks and Whites. Those Hispanics, who never married, reported the highest rates of victimization.

In terms of annual family household income, those Hispanic families with annual incomes of \$7,500 or less reported the highest rates of victimization among Hispanics. Hispanics rates were less than for both Whites and Blacks in terms of annual family household income and criminal victimization, however, with one exception. Whites with incomes of less than \$7,500 reported higher rates than did Blacks or Hispanics. The rate of violent victimization for Hispanics did not provide major consistent patterns across levels of income. In terms of residence, Hispanics reported smaller differences in the rates of violent victimization: Urban 46.6,

Suburban 43.6 and Rural 41.2. Only for rural residents were Hispanic rates higher than they were for Blacks 28.2 or Whites 31.1. Those Hispanics residing in urban households reported rates lower than for Blacks 60.8 and Whites 55.0. In terms of IPV, Hispanics reported lower rates than did Blacks (12%) or Whites (11%) but these were minor differences. Native Americans (35%), Blacks (29%) and Hispanics (27%) reported higher rates of injuries from their violent incidents than did Whites (25%) or Asian Americans (23%). 15% of Hispanics, 15% of Whites and 13% Blacks did not seek treatment. Blacks (48%) were more likely than Hispanics (44%), Native Americans (45%) followed by Whites (42%) to see treatment.

Summary and Recommendations

The Hispanics' over involvement in violence is not borne out by one of the few national data survey. The NCVS's data from a limited community sample or institutional data may suggest findings and trends regarding Hispanics and interpersonal and victimization that is misleading or suggest inaccurate conclusions. The NCVS data discussed previously in this paper shows that Hispanics usually were not the largest group of perpetrators unless compared to Asian Americans. The over criminalization of Hispanics in the media continues to be evident although NCVS data states otherwise. Overall, national and state criminal justice sta-

tistics need to include ethnicity data, yet few have turned to this pivotal data for analysis. Although crime and victimization rates have surged and waned for the last three decades, Blacks and Hispanics remain disproportionately impacted as offenders and victims. The need for national data and understandings that states and communities can gauge violence by Hispanic populations remains a key priority. However, without the recasting of ethnic identifiers that more comprehensively, systematically, and precisely attend to Hispanic groups in the United States, substantive data and understandings will not be forthcoming. Some states such as Texas do collect this information, however, there needs to be a concerted effort to streamline this effort and allow policy makers and researchers easy access to it to support future evidence-based strategy efforts to advance the field of in-depth analysis.

Recommendations

Increasing and facilitating multi-agency and multi-system efforts in collection of CJS data, reflecting calls for services to law enforcement departments and agencies and responding to these calls for services by these law enforcement department and agencies, is greatly needed with particular attention paid to data containing ethnic indicators for Hispanic populations in the United States. All efforts made to have UCR reports collect ethnic indicators for Hispanic populations

in the United States should be made similar to that collected by NCVS.

There should be an increase and facilitation of multi-agency and multi-system efforts in the collection and monitoring of child fatality review (CFR) data. Attention to calls for service are beyond CFR's current abilities, but a national workshop between NIJ and ACF (Administration for Children and Families) should address these child fatality issues as well as calls for services from state to local child protection services, law enforcement departments, and government and non-profit agencies, and county health departments. The focus should be to revitalize the data collection and practice recommendation related to child fatalities with particular attention paid to reliable ethnic indicators for Hispanic populations in the United States.

The United States Department of Education and Safe and Drug Free Schools should make a multi-agency and multi-systemic effort to collect of critical school data about incidents that occur at schools. These efforts may seek to reflect those related to BJA offenders and victimization programming concerning national to local school systems. They may explore NCVS ethnic data measures with data collected by the Center for Disease Control's Youth Risk Behavioral Survey. The calls for data would allow for school administrations and boards to collaborate with law enforcement departments and agencies to better pre-

pare for school violence and related incidents. Again, these efforts need to collect and contain ethnic indicators for Hispanic populations in the United States.

With regard to homeless/runaway youths and youth street gangs, an exploration and facilitation of cooperative and collaborative efforts among NIJ/VOCA/OJJDP and Administration for Children Youth and Family is needed. Homeless, runaway, and throw-away youths and youth street gangs' careers and involvement with programming care and service episodes require specialized and distinct outreach, intervention, and follow-up approaches.

Further discussions are required to create, support, advance, and implement evidence-based practices in creating seamless data archival and analysis systems to support CJS and AFCY policy and programming efforts at federal and state levels.

Finally, some discussion is required to take advantage and to advance IOM, NSF, and MacArthur Foundation forays into researching violence, with particular attention to Hispanic populations and violence (Chalk & King, 1998; McCord, et al., 2001; National Research Council, 1993a; National Research Council, 1993b). Without close attention to these reports, moving on to the next generation of capacity building of exemplary models involving IPV and Hispanic populations in the United States, the potential impact of future reports will be attenuated. These efforts afford great lessons learned and possible points of depar-

ture for third sector planning and programming efforts. The collection of valid, reliable data for monitoring and surveying violence offending and victimization data would not only help support policy makers at the federal and state levels with investigations and interventions, but it also could help encourage a follow-up to the MacArthur Foundation by the W.T. Grant Foundation, Robert Wood Johnson, Pew Foundation, Annie Casey Foundation, Ford Foundation, and Carnegie Foundation in addressing violence offending and victimization in America's next largest minority populations and respective communities in which they reside.

The call for sustained investigations, quality data, and collaborative interdisciplinary perspectives to address violence in Hispanic populations has been made for over 50 years. The dearth of national, comprehensive, self-reported data, and studies of non-institutionalized Hispanic populations to complement the limits of the NCSV efforts to build evidence-based policy and programming is great. The NCVS remains the major data and reporting base, but due to global measures may not be able to focus and ground understanding and discussion.

The Hispanic population in the United States is now the largest ethnic minority population. Hispanics are now part of almost all SMSA communities in the United States. Hispanics are well covered in the Department of Labor's, U.S. Census's, and National Institute

of Health's surveys and monitoring and reporting systems. With the exception of NCVS, Hispanics remain outside the FBI Index I and II reporting data. There is a need to address Hispanic and violence issues: child fatality reviews, neglect/abuse/sexual assault of children and youth, calls for services to criminal justice agencies, and court dispositions and incarceration as it involves violence and its consequences. It is crucial for a workgroup to collaborate with NIJ and these data and reporting systems. The workgroup could serve to identify key issues, priorities, and measures that NIJ, BJA, OVC, and OJJDP could address regarding Hispanics and violence. Until this is done, the efforts, results, and recommendations of the National Research Council and IOM will be lost to time. Measured actions and policies rest on sustained, solid, reliable and valid data and understanding in order to help shape prevention, intervention and incapacitation policies and programs. Without it, the nation's meager resources, current, past and future, will not be utilized to effective and efficient ends.

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VALUING TEXTBOOK WRITING IN ACADEMIC PERSONNEL REVIEWS

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ABSTRACT

Faculty who write textbooks within their disciplines are often frustrated by department, college, or university level policies that designate textbooks as something other than a traditional scholarly activity. Some place textbooks under teaching or pedagogical aids while others accept textbooks as a clearly secondary form of scholarly activity. Perhaps more problematic are the lack of rewards and the imposition of disincentives to author textbooks. This paper will examine faculty perceptions of the role and value of textbook writing and issues relating to placement in the personnel review process.

A student at Penn State University wrote an opinion piece in the university's *Daily Collegian* raising questions about why a history professor, highly honored for his teaching, was denied a promotion (Houck, 1994). The professor had taught at Penn State for 27 years and won numerous teaching awards, and thus one might conclude that the professor had simply failed to engage in scholarship. But the professor currently had three bestselling books in the academic market, including a text on Nazi Germany going into its third edition, a text titled *Western Civilization* used at more than 600 colleges and universities in the United States, and a third text on world history. His scholarship was not limited to textbooks as he had also published other scholarly monographs and articles. Either the scholarly monographs and articles were not sufficient or his engaging in the activity of writing textbooks negated the value found in his

other writing efforts. According to the student, the message from the university was clear: "*The original work you've done isn't enough and we frankly don't value your books. To hell with how many books you sell or how many undergraduates you teach*" (Houck, 1994). It could also be added to this message that little or no value was attached to the number of undergraduate students around the country initially excited about the study of history and who then chose to pursue graduate work and become professors of history as a result of reading this professor's textbooks (Roediger, 2004).

Placing Value

Each year in colleges and universities around the country, department personnel committees review and evaluate their colleagues to determine whether tenure, promotion, or merit pay should be awarded. For most faculty members some level of evidence

attesting to contributions in the areas of teaching, scholarship, and service is required for positive evaluations. In many department policies governing such reviews, these areas are mutually exclusive. That is, generally an item used as evidence in one category may not be used in another category. In some departments, publication of a textbook is counted under "Teaching" rather than under "Scholarship." Faculty members quickly recognize that counting and valuing of items is an element in the process. Students produce evaluations of faculty through their course questionnaires and the accumulation of publications and department, national, and international service are presented and given weight. Student course evaluation scores and service on committees provide clean ratio level data: a 1.7 in one course is equal to a 1.7 in another course; serving on 5 committees is roughly equal to serving on 5 committees. The rub comes in when evaluating scholarship.

Generally speaking, review committees place greater value on articles published in top-tier journals in their disciplines than on articles in second- and third-tier journals (Leap, 1995). Moreover, committees typically grant greater value to scholarly monographs published by university presses than they do to textbooks. In many top tier or Research I universities, there is little or no value attached to the writing of textbooks at all (North, 2008). According to Edward Corbett (1992), at

such universities, textbooks carry even less weight than coauthored books and articles, those collaborative efforts which are often dismissed as not requiring significant effort by any single member of the "team" of authors. Kendra Hamilton (2002) puts it this way:

In the hierarchy of publication, the single-authored work of original research or the scholarly article appearing in a reputable referred journal is at the top of the pyramid -followed by the edited collection of scholarly essays, the edition of a "lost" primary text and sometimes even the anthology. But the textbook isn't at the bottom of the pyramid; it's not even on it.

Corbett (1992) suggests that "because of the low esteem accorded to collaborative work and classroom textbooks, young teachers of writing are discovering that the rewards for publishing this kind of educational material are minimal."

James Jackson, founder of the Program for Research on Black America at the University of Michigan is quoted as saying "In my field -in psychology -it would be the kiss of death for a young scholar to author a textbook" (cited in Hamilton, 2002). And Kathy Heilenman (1993) suggests that there is an inverse relationship between authoring textbooks and academic prestige: recognition of valid academic work is attached to the production of knowledge

and not to the transmission of that knowledge. Authoring textbooks is not only held in low esteem, many research universities appear to present disincentives for such endeavors by forbidding the use of university time or facilities for textbook writing; faculty who pursue writing textbooks run the risk of becoming "academic mavericks" (Heilenman, 1993).

There are additional disincentives for faculty at many universities who write a textbook, especially an introductory-level text. Perhaps the most common disincentive is the commitment of time required for writing a textbook (Arnold, 1993). A comprehensive lower-division text typically takes three or more years from submission of a prospectus to a publisher to the publication of the book. Assuming similar teaching and service expectations, faculty who pursue authoring textbooks often have little time available to conduct research, write referred journal articles, and submit research grant proposals. Thus, at major universities the reward system minimizes the value of textbooks while maximizing the value of articles and research grants. To achieve tenure, it would be unwise to commit one's time to an activity that will likely have little contribution to a positive tenure decision (van den Berghe, 1970).

David Arnold (1993) surveyed 84 tenured faculty and 28 department chairs covering seven disciplinary areas at a research university to assess perceptions of the scholarship and

utility of writing textbooks. Surprisingly, only 12 percent of the faculty and 14 percent of the department heads gave blanket negative responses regarding writing of textbooks. A larger percentage thought textbook authorship should not be given much or any weight in tenure and promotion decisions with 23 percent of the faculty and 25 percent of department heads rating it negatively. Responses varied by discipline with respondents from education and engineering providing the greatest support for authoring textbooks and those from business indicating strongly negative responses

Authoring Textbooks as Scholarship or Entrepreneurship

What accounts for the disincentives and disdain at research universities for faculty authoring textbooks? There is no question that single-authoring a research article in a top-tier referred journal in one's discipline brings positive recognition not only to the author but to the author's department and university, even if only a few people read it. Indeed, the prestige ranking of departments, and indirectly universities, is frequently calculated based on the number of articles published or citations in the discipline's top journals by department members (Roche & Smith, 2007; Steiner & Schwartz, 2007; Steiner & Steiner, 2006). From this perspective, textbooks bring no status or prestige to a department or university.

Not only does authoring a textbook

not bring status and prestige, for many professors and administrators in research universities, writing a textbook is perceived as nothing more than an entrepreneurial activity, done only for the economic rather than the academic reward. As Arnold (1993) and Corbett (1992) suggest, it is not unusual to hear opinions reflecting disdain for this questionable pursuit, including *"textbook writing should not count because the authors receive royalties"* and *"textbook writing is a mere economic adventure."* Writing textbooks is tainted somehow by money and consequently unworthy of the professoriate.

A third disincentive involves the characterization of authoring textbooks as not meeting the requirements of being "original" or "creative" endeavors found in "real" scholarship. Authoring textbooks is seen as "drudge work" and simply putting in many hours of work is not the same thing as original thinking or creativity (Arnold, 1993). The lack of "original" intellectual effort leaves some, such as a department chair of business at a research university, suggesting that "anyone can write a textbook and get it published within the discipline" (cited in Arnold, 1993).

In response to such dismissal, defenders of authoring textbooks note that the endeavor is *"tremendously creative," typically requires a comprehensive "thinking through of the discipline, and represents a greater dedication to long-term learning experienc-*

es" (cited in Arnold, 1993). Textbooks also are inherently integrated into the pedagogy of the professorate. Textbooks communicate the accumulated knowledge of a discipline to students; they take what is often obtuse and complex findings from cutting-edge research published in journals and research monographs and translates it into meaningful information to be digested by students and other professors. According to the Carnegie Foundation for the Advancement of Teaching (Boyer, 1990:35), *"While articles in refereed journals and scholarly books are of great value, writing a textbook also can be a significant intellectual endeavor."*

"Such writing, if done well, can reveal a professor's knowledge of the field, illuminate essential integrative themes, and powerfully contribute to excellence in teaching, too."

With this emphasis on article publication and disincentives for writing textbooks, it seems reasonable to ask whether publications in referred journals only bring status to a department or do they also make a significant contribution to the discipline? To meet the need for faculty to publish research findings in referred journals and thus increase not only the status of a department or university but also the likelihood of promotion and tenure, there has been a significant proliferation of journals in nearly every academic field (Goel & Faria, 2007). However, Corbett

(1992) points out that "*not every published article or book makes a significant contribution to the scholarly enterprise.*" Indeed, Corbett notes that 80 percent of articles in academic journals are never cited by anyone, while Sharon Begley (1991) reports that of a total of 4,500 articles published in top science journals, fully 45 percent did not get a single citation within the first five years after their publication. To the extent that significant citation of scholarship is evidence of significant scholarship, then it might be concluded that a great number of journal articles are merely "journal filler" (Leap, 1995).

With such disincentives to author textbooks, which professors at research universities are willing to risk academic marginalization and the disdain of their colleagues? Certainly, many textbooks are authored by research leaders in their disciplines, professors who have already spent a large part of their careers doing research and publishing journal articles (Platt, 2008). Indeed, the authors of introductory textbooks written in many disciplines in the early 20th century were "*mentioned almost with reverence for having done so*" (Graham, 1988:356). Often, these authors were the "giants" of their disciplines. Through the mid-20th century it was generally believed that authoring textbooks was not "*appropriate for anyone but senior scholars, because of their considerable experience and knowledge of the discipline*" (Graham,

1988:357). Today, it appears that many of the textbooks in circulation are authored by already tenured faculty who do not fear or face the disincentives of untenured faculty in research universities. For example, Mary Lamanna (1988:417) suggests that textbook authorship is unevenly distributed around the nation's institutions of higher education. She notes that the most likely candidates for textbook authorship are professors so senior that their status and professional reputation are entirely secure, professors at non-elite institutions where faculty books are scarce and a textbook is appreciated, or faculty members at smaller colleges where teaching is highly valued.

However, even for tenured professors at non-elite institutions, authoring a textbook is likely to be done while teaching a regular load of classes, without assigned time, and often without graduate or undergraduate students to assist in the accumulation and sorting of a vast array of research findings (Silverman, 1999). It is likely that, as Sheryl Fullerton (1988:354) suggests, these authors have a serious commitment to developing textbooks that will help students:

Not only with knowledge but also with the cognitive chores that seem so difficult for them, such as learning critical reasoning and analytic skills, understanding the relationship between abstract concepts and concrete experiences, achieving an ex-

panded view of the world, and becoming active and curious learners.

Textbooks, Articles, and Affiliation

There are disincentives for faculty to write textbooks at both Research I institutions (lack of recognition and reward) and non-elite institutions (heavy teaching loads), and incentives for faculty at both types of institutions to publish in top-ranked journals (status and reward). A quick perusal of author affiliation suggests that institutional affiliation is significantly associated with type of writing.

The current study examined institutional affiliation of authors of current editions of introductory criminal justice, criminology, introductory sociology, and social problems textbooks published by McGraw-Hill, Pearson (Prentice Hall, Allyn & Bacon) and Cengage (Brooks-Cole, Wadsworth). Readers and peripheral books were not included. In addition, the institutional affiliation of authors of articles published in 2007 in *Crime & Delinquency*, *Journal of Research in Crime and Delinquency*, *Justice Quarterly*, *Criminology*, *American Sociological Review*, *American Journal of Sociology*, and *Social Forces* was examined. Authors affiliated with universities in other countries, graduate students, and authors not affiliated with academic departments (i.e., state department of corrections, research organizations, and NGOs) were excluded.

While only 33 percent of the authors of the textbooks were affiliated with Carnegie Research I institutions, fully 80 percent of the authors of articles published in top-ranked journals were located at them. Interestingly, only 16 percent of authors of introductory criminal justice and criminology textbooks taught in departments that were ranked among the top 24 programs offering doctorates and identified as the "most productive institutions" according to Steiner and Schwartz, (2006; 2007).

The findings from this brief survey of author affiliation seems to also support the claim that sociology textbooks attract few "luminaries" in the field (Wright, 1995) and that "*few prominent contemporary criminologists/criminal justices write introductory textbooks*" (Wright & Cohn, 1996:462). For example, in their analysis of 16 criminal justice textbooks published between 1989 and 1993, Wright and Cohn (1996:462) found that "*none of the twenty-four authors ranked among the twenty-two most-cited scholars in the books.*"

Conclusions

In all human groupings from dyads to nation-states there is at work a social organization that consists of norms, roles, status hierarchies, and mechanisms of social control. Academe is no exception. While the nature of the social organization is transformed over time and is variable among types of colleges and univer-

Table 1 Textbook Author Affiliation*

| | Intro to Criminal Justice | Intro to Criminology | Social Sociology | Problems | Total |
|--|---------------------------------|-------------------------|---------------------|----------|-------|
| Number of Authors | 29 | 16 | 44 | 27 | 116 |
| Percent at Carnegie Research 1 Universities | 24% | 31% | 43% | 26% | 33% |

*Comprehensive textbooks currently published by McGraw-Hill, Pearson, and Cengage.

Table 2. Journal Article Author Affiliation (2007)*

| | Criminal Justice | Sociology | Total |
|--|------------------|-----------|-------|
| Number of Authors | 188 | 223 | 411 |
| Percent at Carnegie Research 1 Universities | 72.3% | 86% | 80% |

*Criminal Justice journals included *Crime & Delinquency*, *Journal of Research in Crime and Delinquency*, *Justice Quarterly*, and *Criminology*. Sociology journals included *American Sociological Review*, *American Journal of Sociology*, and *Social Forces*

sities, ranging from Carnegie Research I universities to community colleges, the social organization itself is fluid, which is why "rules of the game" within and between institutions are amended. Often at the top of modern academic departments are faculty members who secure outside funding for their research and publish their findings in the discipline's most prestigious journals, whether their work is eventually read by hundreds or thousands of journal subscribers or by only a small handful of other specialists. Sitting at the bottom of the hierarchy are faculty often derided as "dead wood," those who have been assigned "extra" service and teaching assignments presumably to "carry their weight," but have no real expectation of receiving much (if any) salary increase or promotion. Only one notch above "dead wood" faculty are those who have turned to writing textbooks.

Because the decision makers in academic departments in Research I universities are often the folks who bring in money, they typically set the rules for what will be rewarded, and more often than not, textbook writing is not rewarded. The irony of course is that textbook writers influence the thinking and thought processes of many more students and instructors than do authors of research articles. In its lifetime, a successful textbook may literally transmit to hundreds of thousands of students and professors a body of knowledge, thus far exceeding the impact of only all but a very few

academic articles and monographs. For example, Paul Samuelson's *Economics* textbook sold more than 121,000 copies in its first edition published in 1948. Between 1948 and 1980, eleven editions of the text reached the market with more than three million books sold; over 440,000 copies being sold in its sixth edition alone. By the time the 18th edition was published, more than four million *new* copies of *Economics* had been purchased by students (Skousen, 1997).

Although a few textbook authors, such as Samuelson, are able to amass a fortune through their writing, authoring a textbook does not guarantee any greater income than salary increases based on teaching reviews, publication in journals, and generation of grants. At universities that reward publishing scholarly monographs, a first book with a university press is often worth at least several thousand dollars in salary increment until retirement age, while royalties on textbooks outside the introductory level market seldom bring in more than a few thousand dollars, and that for only a few years (van den Berghe, 1970). In each discipline there are but a handful of textbooks that withstand the test of time and continue into ten or more editions, while relatively few textbooks go beyond a first or second edition.

All that said, while writing a successful textbook in academe adds little value to a professor's scholarly status it seldom damages his or her reputation, especially for full Professors

or faculty at non-elite colleges and universities. And for some academics, textbook authoring will garner some respect if only because the writing process is so tedious and requires lengthy dedicated effort. However, for those professors in academic departments at Research 1 institutions who are “high brow,” the “movers and the shakers of the discipline,” textbooks always will be regarded as dull and pedantic and the protests of textbook authors looking for respect will fall on deaf ears (van den Berghe, 1970).

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ABOUT THE FICS SOCIOLOGICAL PRACTICE

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EFFECTS OF PARENTAL SEPARATION ON THE ACADEMIC ACHIEVEMENT OF CHILDREN OF MILITARY PERSONNEL

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Abstract

This study gauged the effects of parental separation on the academic achievement and social/emotional behavior of children of military personnel. Data were gathered from the school records of N=28 fifth grade students in a Department of Defense European-based elementary school. The Teacher's Perception of Social Attributes (TPSA) and Teacher's Perception of Child Emotional Behavior (TPCEB) checklists were administered to elementary school teachers to compare differences in social and emotional functioning in children who experienced parental deployment and children whose parents were not deployed.

Children of military personnel in American schools across Europe experience a higher than normal amount of parental separation as military personnel are called to duty in geographically distant locations. These servicemen and women, 46 percent of whom are fathers and mothers, must separate from their loved ones for upwards of fifteen months at a time, and in some cases longer (Buckholtz 2009). These military-induced separations can have devastating effects on children, who are caught in the midst of an intense recurring separation cycle (Peebles-Kleiger and Kleiger 1994). For many children of military personnel living in Europe, their loved ones return for about eight months after about a 15-month separation and then prepare for yet another geographically distant tour of duty. Since the war on terror began, some children in military families are currently experienc-

ing their parent's second, third, or even fourth cycle of separation (Buckholtz 2009).

Since children spend a significant amount of their day in the classroom, school teachers and staff members are in a key position to observe some of the effects of parental separation on children. They can also be instrumental in helping to provide a stable environment, albeit a learning one. Teachers provide a sense of connection, continuity, and security for students. They can be someone a student can talk to, particularly if trust and rapport has been established. Classrooms provide a home away from home—a safe haven for most students. Thus, when there are changes transpiring for students external to the school environment, frequently behaviors will manifest in the educational setting that may be evident to the teacher. Nonnormative behaviors manifested

by children have a potential impact on learning, and academic achievement. Parental separation in some cases can be a traumatic experience and may lead to social, emotional, and/or behavioral changes in children that affect different aspects of their lives (Hiew 1992; Yeatman 1981). Teachers can serve as an important interface between parent and child in terms of conveying helpful information to the non-deployed parents. Teachers are also in a position to work in concert with a school counselor in assisting the child to make a more functional adaptation to their environment despite the trauma of parental separation.

This paper is based on a study of fifth graders at a European-based Department of Defense elementary school whose subjects are predominantly children of military personnel and many of whose parents experienced repeated deployment into combat zones. This study sought to identify children who experienced educational, emotional, and social difficulties as a result of their parent's military deployment via children's school records and teachers' perceptions of students' behavior. It was expected that the outcome of this research would facilitate the development of effective interventions to help avert, postpone, or delay more serious psychological and behavioral challenges.

Background

The literature found military family members are all affected by military-

induced separations (Knapp and Newman 1993; Kelley 1994; Kelley, Hock, Smith, Jarvis, Bonney and Gaffney 2001; Peebles-Kleiger and Kleiger 1994; Yeatman 1981). Depending on the type of deployment—whether routine or wartime deployment—stress levels for family members and soldiers fluctuated according to the degree of danger involved (Cozza, Chur and Polo 2005; Kelley 1994; Kelley et al 2001; Hillenbrand 2001; Jensen and Shaw 1993). Overall, boys have a more difficult time adjusting to military deployments and father absence due to divorce or other types of separations than girls (Bain, Boersma and Chapman 1983; Pierce, Vinokur and Buck 1998; Rosen, Teitelbaum and Westhuis 1993), especially younger boys (Lyle 2006).

There are differences concerning the reaction of children concerning their parent's deployment. Applewhite and Mays (1996) found no significant difference whether a father or mother deployed, while Lyle (2006) revealed children whose mother deployed fared worse than when children's fathers deployed. Several studies indicated that whether the separation between mothers and/or fathers and their children were due to military deployment or father absence due to other reasons, children often reacted or adapted in relation to how their mother reacted or adapted to her given situation (Applewhite and Mays 1996; Hillenbrand 2001; Kelley 1994; Knapp and Newman 1993; Levai, Kaplan,

Ackerman and Hammock 1995; Pierce, et al 1998; Rosen et al 1993).

Regarding teachers' assessments of children in general, these were not very positive. Young female students were rated above male students in social behavior measures, regardless of race (Rong 1996). Students' social and emotional behaviors were rated as more rejecting for students who demonstrated externalizing behaviors—which male students had at least twice the likelihood of developing (Sternlof, Pace and Beesley 2005; Liljequist and Renk 2007). Teachers with five or less years of experience felt more positive toward children overall than did teachers with six to eleven years of teaching experience (Sternlof et al 2005).

Most of the research literature focused on either academic achievement variables or social-emotional behavior in children. The majority of these studies have used either parent or teacher rating scales to look for differences in children's social-emotional functioning during a parental separation.

Is there evidence of greater adjustment difficulty among young boys whose parents are absent due to deployment when compared to young boys whose parents are not deployed?

Girls with absent fathers have scored lower in quantitative ability in several studies from both military and

nonmilitary family studies.

Will math scores on the TerraNova standardized testing used by children of military personnel, reveal similar findings in girls who participate in this study?

In what ways might educators working with children of military personnel facilitate adaptive coping strategies for military families experiencing the absence of a parent?

Method

A cross-sectional descriptive-exploratory study was conducted with two units of analysis: social artifacts (fifth graders' school records) and individuals (fifth-grade teachers). Parental consent was obtained for access to fifth graders' school records. Study criteria for school record included: (1) child currently being in fifth grade, (2) one parent being on active duty status, (3) one parent on deployment for at least 90 days at the time the study took place, and (4) parental consent for study participation. One third of the potential study participants' parents had received duty station transfer orders immediately prior to the study beginning, substantially decreasing subject pool. Letters were sent home with children explaining the study along with consent forms for return to their teachers who would, in turn, forward the documents to the school counse-

lor (first author). An untold number of letters/consents may have been lost and/or misplaced adding to those households deciding not to participate. A total of 28 signed consents were returned by parents agreeing their child's school record could be included in the research. Two of the study variables included attendance and tardiness. To obtain this information, the researcher accessed the school's Student Management Solutions™ (SMS) system, a computer software program developed by the Chancery Software Company that stores various student data. Data were collected the week of October 27, 2007.

The second part of the sample included the five fifth grade teachers at the study school. Participants were asked to complete a questionnaire on the social behavior of each of their students. Teachers completed questionnaires following the end of the regular school year 2007/2008. The study was fully explained and consent forms were provided to each one. They were assured that all data would be kept confidential, that no one would be singled out in any way, that participation was voluntary, and failure to participate would in no way jeopardize their job or any benefits to which they were entitled.

There were three data collection instruments used in the conduct of this study. The School Data Record was designed for gathering general information from students' files including birth date, gender, grade point aver-

age, total days of school attendance, days of student tardies, parent's marital status, and TerraNova Math scores. The Teacher's Perception of Social Attributes (TPSA) is a 25-item multidimensional scale that rated students' social behaviors. The TPSA was taken in part from the Social Attributes Checklist (SACL) cited by McClellan and Katz (2001) and McClellan and Kinsey (1999). Questions were asked in three areas: individual attributes, social skills, and peer relationships that together assess a child's social-emotional development and competence according to McClellan and Katz (2001). Teachers indicated on each questionnaire whether a particular student's parent(s) was/were deployed for military purposes over the course of the school year. The response categories of the TPSA are ordinal and follow a Likert scale format.

Teacher's Perception of Child's Emotional Behavior (TPCEB) consists of a five-question index of items generally associated with nonpsychotic depression in youth modified from Herrerías (2005). Questions relate to the appearance of a child's sadness, his or her ability to make friends, an appearance of imposed isolation, a tendency to not engage in social activities, and a general assessment of depression. This brief index is a pencil-and-paper measure with Likert response categories. Data distinguishing students with deployed parents from those whose parents had not been deployed during the school year

were obtained from the TPSA. In three instances, teachers indicated a problem with recall. In those cases, a follow-up telephone call was placed to the spouse, unit commander or first sergeant, or in the event the child's parent was still deployed, the rear-detachment first sergeant, to ensure accuracy of the data. Since school personnel maintain strong working relationships with the unit commanders and military families alike, information as to a soldier's deployment status was easily obtainable.

Results

This study explored whether there were differences in TerraNova math scaled scores and grade point averages of student's academic performance in the classroom. This study further explored whether there were differences in teacher's perceptions of children's social and emotional behavior as rated by the Teacher's Perception of Social Attributes between children who experienced parental separation as compared to children who did not experience parental separation. Descriptive statistics were used to analyze the data given the small sample size. The authors felt that any other statistical analysis may not provide meaningful data given the limited number of school records.

Sample Demographics

The Children

The school records of fifth grade students were reviewed as part of this research. However, missing data from two children's school records resulted in only 26 cases being used for data analysis. Students' records fell into two groups. The first group (n=17) consisted of students who did not experience an extended parental separation during the academic year. The second group (n=9) consisted of students who experienced a parental separation of at least six months during the 2006-2007 school year. The first and second groups are hereafter referred to as No Parental Deployment (NPD) and Parental Deployment (PD), respectively. Table 1 shows the students' age, gender, and ethnic backgrounds.

The Parents

The NPD group (n=19) had eighteen married parents (94.7%) and one single parent (5.3%). Gender was not obtained for this group. The largest group of parents consisted of junior enlisted noncommissioned officers (53%) following by senior noncommissioned officers (21%). There were 16% officers and civilians, respectively, who were affected by repeated deployments as well. Genders of deployed parents for students from the PD group were almost all male except for one female. Everyone of the PD group was married. Thirty-three percent of the PD group was junior non-commissioned officers, 22% were

senior noncommissioned officers, and 33% were officers. Most of the students' parents were in the U.S. Army and worked primarily in transportation, communications, or as military police officers.

The Teachers

Teachers participated in the study by completing the TPSA and TPCEB rating scales. Sixty percent of the teachers were female with a mean age of 45 (S.D. 10.95). Forty percent of the teachers were Caucasian and 60% were African American. Overall, 20% of the teachers had completed at least some graduate work, 40% had earned a master's degree, and 40% had completed post-graduate work.

Teachers reported a mean of 22 years of teaching experience (S.D. 10.37). Their teaching experience at the fifth-grade level showed a mean of 11.2 years (SD 10.38).

There were differences in the GPAs of both the NPD and PD groups. The median GPA for NPD and PD groups are 3.70 and 3.55, respectively. Smaller differences were found in the TerraNova math scaled scores. The median score for the TerraNova math score is 660 for the NPD group and 659 for the PD group. The median percentile rank for the NPD and PD groups are 61 and 60, respectively. Table 2 shows the breakdown of the mean scores.

Table 1

Students' Age, Gender and Ethnicity

| | <u>NPD (n=17)</u> N(%) | <u>PD (n=9)</u> N(%) |
|------------------|---------------------------|-------------------------|
| Age | | |
| Mean | 11.3 | 11.1 |
| SD | 3.9 | 4.4 |
| Gender | | |
| Male | 10(52.6) | 3(33.3) |
| Female | 9(47.4) | 6(66.7) |
| Ethnicity | | |
| Caucasian | 10(52.6) | 4(44.4) |
| Bi-racial | 4(21.1) | 2(22.2) |
| African American | 3(15.8) | 1(11.1) |
| Hispanic | 2(10.5) | 2(22.2) |

Table 2

| Student GPA & TerraNova Math Scores | | |
|-------------------------------------|---------------------------------|-------------------------------|
| | <u>NPD (n=17)</u> Mean(S.D.) | <u>PD (n=9)</u> Mean(S.D.) |
| GPA | | |
| Fall 2007 | 3.49 (.1289) | 3.26 (.2511) |
| Spring 2008 | 3.55 (.1278) | 3.37 (.2318) |
| Cumulative | 3.53 (.1239) | 3.31 (.2389) |
| TerraNova Score | | |
| Percentile rank | 662.94 (7.56) | 658.89 (7.25) |
| | 61.31 (6.02) | 59.00 (6.61) |

Differences were found between the absences and tardies each semester in both the NPD and PD group. Median absences are 7.56 and 11 for the NPD and PD groups, respectively. Median tardies are 1.00 and .00 for the NPD and PD groups, respectively. Table 3 provides more details. The results of the TPSA found that children from the NPD group had a score of

86.25 (S.D.72), with those in the PD group scoring 75.89 (S.D. 8.61).

The higher the score, the greater observation of social attributes on the part of the children. On the other hand, the higher the score with the TPCEB, the higher the number of a child's emotional behavior. The NPD group scored 7.38 (S.D.97), whereas the PD group scored 9.89 (S.D. 2.03).

Table 3
Student Absences and Tardies

| | <u>NPD (n=17)</u> Mean(S.D.) | <u>PD (n=9)</u> Mean(S.D.) |
|----------------|---------------------------------|-------------------------------|
| Absences | | |
| Fall 2007 | 3.75 (1.28) | 4.33(1.17) |
| Spring 2008 | 3.81 (1.41) | 6.67 (1.98) |
| Total Absences | 7.56 (1.99) | 11 (2.42) |
| Tardies | | |
| Fall 2007 | 1.06 (.423) | .44 (.35) |
| Spring 2008 | .88 (.38) | .33 (.17) |
| Total Tardies | 1.94 (.66) | .78 (.43) |

Discussion

The purpose of this study was to assess the academic achievement and behavioral and socioemotional functioning between children whose parents were deployed and children whose parents were not deployed. The results of this study were consistent with several of the studies in the research literature (Bain et al 1983; Lyle 2006; Bernstein 1976; Hillenbrand 2001; Kelley et al 2001; Rosen et al 1993; Sternlof et al 2005; Liljequist and Renk 2007). The major findings of the current study found some differences between students experiencing parental deployment and students in the nondeployed group in terms of academic achievement, school absences, behavioral or socioemotional functioning. There was almost no difference in the number of days that students from each group were late to school.

Student academic achievement was affected as students in the PD group had a cumulative GPA of 3.31 (S.D. .2389) compared to those in the NPD group who had a cumulative GPA of 3.53 (S.D. .1239). The TerraNova score was 658.89 (S.D. 7.25) and 662.94 (S.D. 7.56) for the PD and NPD groups, respectively showing the NPD group with a slightly higher math score. Consistent findings were discovered in Bain et al (1983) whose research supports the current study. Their findings on the effects of father absence on academic achievement found no significant differences in math test

scores. The only significant difference between groups with a father absent or father present, were found in reading scores, but not in math or spelling. Even when a comparison of girls with absent fathers was looked at against boys with present fathers, the only difference remained in reading scores, not math. In their study, gender differences were investigated to compare differences between boys and girls (Bain et al 1983). Boys with absent fathers scored lower than girls with absent fathers in all academic areas, including math. In the current study, the opposite was found. In the PD group, girls (n=6) had a slightly lower math scaled score (658.66) than boys (n=3) did (659.33). In the NPD group, girls (n=9) again, were found to have slightly lower math scaled scores than boys (n=10) (664.44). These findings were marginal.

Lyle (2006) used standardized math test scores to gauge academic achievement in children of military personnel experiencing a military-induced separation or numerous family relocations. For children who experienced a military-induced separation or numerous family relocations, Lyle found only slight effects (a tenth of a standard deviation) in children's academic achievement. Lyle's modest findings revealed the greatest detrimental effects on academic achievement were on children with single parents whose mothers were in the Army, children with lower ability parents (i.e.,

less educational background, low military rank, etc.), and younger children. This finding based on demographic variables was not consistent with the current study where students of enlisted parents out scored students with officer parents, sometimes by large margins. Lyle's study also looked at parent's military rank as a demographic variable and found that children of military officers that experienced a military-induced separation of seven months or more in a four-year period had a two-point decline in their math scores compared to a 1.5-point decline in children of enlisted soldiers the same type and duration of separation. In the current study, the top two student scores on TerraNova and highest grade point averages belonged to students of enlisted parents. For example, their average scaled math score was 689 (86th national percentile rank), whereas the top two students of officer parents had an average scaled math score of 637.1 (39th national percentile rank).

The large discrepancy in scores led to taking a closer look at GPA to see if there was a similar gap between the two groups. When their grade point averages were compared, students of officer as compared to enlisted parents were almost the same, 3.68 to 3.67, respectively. Another study that is consistent with the current one was Bernstein (1976). Her study also looked at fifth-grade student test scores at an elementary school. Due to a low sample size of participants

without fathers (n=14), Bernstein controlled for this difference by comparing the groups on the basis of how each participant's math score differed from their own verbal score. No significant differences were found to exist between the two groups with absent or present fathers in the family. In her review of the literature, Bernstein had found studies on absent fathers that were related to depressed math scores for boys. Contrary to this finding, girls' math scaled scores were marginally lower than boys' math scaled scores (658.66 versus 659.33, respectively).

Hillenbrand (2001) looked at (N=126) students in sixth grade of a school for military dependents to assess effects of father absence on children's academic development, classroom behavior, parental dominance, and family constellation. Two key findings that relate to the current study were depressed quantitative ability in girls with absent fathers. Though in the current study, girls had only marginally lower math scaled scores than boys (658.66 versus 659.33). The other significant finding was that as the amount of father absence increased, the more internalizing behavior in boys was witnessed by classroom teachers.

There appeared to be no relationship between GPA and absences. Two students with the highest number of absences (21 & 25) had cumulative GPAs of 3.587 or higher and were from the NPD group. The highest num-

ber of absences in the PD group was by two students who were both absent 17 and 18 times each. Their GPAs were 3.887 and 2.925, respectively. In terms of tardies, students in the NPD group were more than twice as likely to be late to school as those from the PD group.

Teachers rated students from the NPD group as exhibiting more socially oriented attributes than students from the PD group. Alternately, teachers perceived students' emotional behavior functioning less well in the PD group and in the NPD group. While statistical significance was determined, the findings are suggestive of stress experienced by children with a deployed parent.

There was one case in particular of obvious depressive symptomatology from among the PD group. A classroom teacher witnessed what she described as extreme internalizing behavior and reported it on the TPSA and TPCEB. This is further discussed later. Academic achievement was affected as well, which is in keeping with the Hillenbrand's (2001) findings although on a much smaller scale.

As one would expect, not all of the literature in this area was consistent with this study. Kelley et al (2001) findings of children with deploying parents were found to have significantly higher levels of internalizing and externalizing behaviors when compared to children with nondeploying parents. This study also found some difference between the study groups. There are

age differences between the two studies however. Kelley et al (2001) looked at very young children (1 to 5 years old), whereas the current study consisted of fifth grade students, with an overall mean of 11.2 years of age. It may be that due to older children being more cognitively developed, higher order coping skills to respond to environmental stressors, such as a parental separation, enabled them to adapt more effectively.

Rosen et al (1993) looked at the psychological profiles of military children whose parents were deployed. Remaining parents at home filled out a modified Child Health Inventory to state their children's most prevalent symptoms during the parental deployment, as well as a Hopkins Symptom Checklist (HSCL) that measured mother's symptoms. Results of the problems children experienced most revealed the strongest predictor of a child needing counseling due to deployment, was if the child had a previous history of counseling for emotional problems. Another variable that increased a child's vulnerability was a history of poor academic performance. Lastly, if a mother scored high on the HSCL variable, then there was a significance related to symptoms of both the eldest and second child, including sadness, eating problems, nightmares, and a perceived need for counseling.

These children are the ones that the Sternlof et al (2005) and Liljequist and Renk (2007) studies refer to as

the type of students most at risk for being rejected by peers and teachers alike, or whose behaviors, whether they be internalizing (withdrawn, anxious) or externalizing (ADHD), often *turn off* their classmates and teachers. Though, as pointed out in both studies, teachers found students with externalizing more bothersome and were more rejecting of them when compared to students with internalizing behaviors. One reason this may be so is that studies have shown teachers believe internalizing behaviors to be biologically based, where the student inherited the behavior traits (anxiety, depression, etc.) and may therefore be more empathic and understanding of them. In contrast, externalizing behaviors are seen as more environmental in nature, with teachers commonly expecting children to demonstrate greater personal control over their behavior.

Still not all of the students whose teachers rated behaviors of social and emotional scales appeared to fair equally through the deployment. In particular, one significant outlier was found in a female student in the PD group. This student received the lowest scores possible by her teacher on both social adaptive and emotional behavior scales, which indicated the student was experiencing significant behavioral and emotional problems (internalizing behavior) when her parent was deployed. The student in question also had mediocre academic performance and was perhaps a repre-

sentation of significant change in behavior due to her father being deployed.

Two factors known to the study may hold plausible explanations—cultural differences or physical development. The student comes from a Hispanic background, where females commonly share very close bonds with their fathers. A second possible reason for her extreme scores may have been that because of her age. Her physical development may have been a factor in her adjustment difficulties. Girls in prepubescent stages of development may be especially vulnerable for negative life outcomes when exposed to an environmental stressor, such as having an absent father. Another possible reason may be that this girl was a psychologically more vulnerable child or that her mother experienced greater difficulty adjusting to the deployment. This finding may suggest that certain children are more vulnerable to the effects of having a deployed parent than others. It is not possible to discern if the challenges faced by this particular student were pre-existing conditions to her father's deployment.

Applied Practical Implications

The findings in this study provide support for future clinical practice in counseling, developmental psychology and social work with military families. The research findings provided by the study lend support to Bowlby's (1969, 1976, 1980) central premise on

attachment theory, which posits the importance of primary caretaker-child attachment. If, in fact, the mother continues in the primary caretaking role and remains in the home while fathers continue to be the ones being deployed, it makes sense that children are not manifesting greater social, emotional, or behavioral stressors. Nevertheless, there are any number of practical applications that can be employed in assisting families that are left without parent who has left for military assignment elsewhere.

Numerous parents have confided in teachers and the school counselor about the challenges faced once their spouse has been deployed, sometimes for a second, third, or fourth rotation of duty. Mutual aid can be a great source of comfort and camaraderie so facilitating networking and establishing support groups that meet regularly among spouses with deployed loved ones would be helpful.

Another practical outcome for schools who serve children of military personnel is to implement deployment group counseling for children. For example, at the American school where the senior author is employed as a school counselor, he is responsible for facilitating many deployment groups for children who are experiencing parental separation due to a military-induced separation. Students are grouped by grade level or by classroom as there can frequently be half of one classroom whose children have a parent that is deployed at one

time. In the early stages, deployment groups are introduced to the region where their parents are deployed to, the people they are there to help, its culture, traditions and physical geography, among other topics. The groups talk about the important jobs American soldiers have there, such as helping rebuild schools, training local nationals to become self-sufficient, and forming positive relations with the local people. After the initial lessons about the deployment are finished, the focus turns to school related tasks, such as schoolwork, or students will often times engage in educational games that foster friendship and positive social skills. Similar application is espoused by Huebner (2005) who suggests activities such as mentoring, recognizing depression in youth, documenting events and rituals during absences, and connecting children with youth serving organizations.

Yet another application of this study derives from the use of the deployment group counseling groups already in use at the American school. Children that are experiencing particular challenges with their parent's deployment are identified by teachers and referred to the school counselor who counsels with these children in smaller groups at least twice weekly depending upon the need of the group or individual student. Essentially, during the time their parents are away, students are provided a space within the counselor's office to lean on each other for support and to help ensure the

challenges of negotiating a lengthy separation go as smoothly as possible.

Conclusion

Overall, the results of this study suggested that students with a deployed parent are somewhat affected by separation from their parent. At the same time, they are able to successfully adapt to lengthy separations. This was true even when those separations took their parent to hostile, combat environments like Iraq and Afghanistan. These findings are encouraging as they suggest a certain resiliency in children of military personnel.

Without definitive evidence, one can speculate that a lack in declining academic achievement scores was likely due to a number of factors. First, schools that are accustomed to serving children of military personnel have firsthand knowledge of the special challenges faced by youth with lengthy parental deployments. Thus, institutional support from these schools may have been a source of major support for children and their remaining family members. Official hearings before congressional committees on children and families provide personal testimony as to the effectiveness of "On-post schools." Teachers are more often than not spouses of servicemen who are called to duty in geographically distant locations.

Personal experience and access to military resources on the installations helps teachers experiencing a deploy-

ment themselves to better negotiate a separation from their loved ones. For teachers who have the personal experience of going through a deployment, a deeper attachment to their students who are also experiencing a deployment is not uncommon. Teachers and students experiencing deployment separations year after year have come to accept deployments as a *norm* of military life. This frequently allows teachers and students to form special bonds.

Teachers' experiences with children who have faced numerous parental separations do not always perceive these children's behavior as extraordinary given their situations. As such, teachers may simply accommodate acting-out, withdrawn or other symptomatic behavior. Perhaps these veteran educators accept these children as acting normally, disregarding otherwise socially or behaviorally unacceptable comportment because of the extenuating circumstances.

Finally, children show amazing resiliency in the face of enormous crisis, trauma, and change. They are able to adapt and grow in the process—most not all—rise to the challenge. We need to work toward ensuring the supports are there to facilitate that rise for all of them.

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CAUSES AND CONSEQUENCES OF STRESSORS FOR LATINO ADOLESCENTS

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Abstract

This article addresses Latino adolescent stress: 1) the normative stressors that most adolescents encounter, 2) Latino-specific non-normative stressors, 3) consequences of the stressors for Latino adolescents, 4) Protective and coping factors that could be helpful for adolescents, 5) future studies and directions for research. The psychological state of stress depends on cognitive factors such as values, beliefs, goals and commitments along with self-esteem, sense of control, mastery, and environmental variables such as demands, resources and constraints. This review also found a need for research on the consequences of non-normative stressors in Latino adolescent in the following areas: a) intergenerational differences on acculturation levels and its consequences in the family (i.e. stress and conflicts between parents and adolescents), 2) further research that focuses on the difference between acculturated and bicultural Latino adolescents and their relationship to mental and physical health, 3) this review points out that Latina adolescents are in higher jeopardy for mental health and suicide attempts. Nevertheless, there is a gap in the current research that addresses gender differences in Latino adolescents related to stressors, coping skills, resiliency and consequences in physical and mental health

Introduction

Latinos¹ will reach one quarter (25%) of the U.S. population (about 97 million) by the year 2050 and one third of them will be youth under the age of nineteen (U.S. Department of Health and Human Services, 2001). The Mexican origin population is the largest of all Latino groups (66.9%) followed by Puerto Ricans (8.6%), Cubans (3.7%) Central and South Americans (14.3%) and others (6.5%) (Ramirez & De la Cruz, 2003). These subgroups of Latinos are disproportionately affected by stressful living conditions that are jeopardizing their present health and future. Such conditions include

poverty (Ramirez & De la Cruz, 2003; Salgado de Snyder, Cervantes & Padilla, 1990), lack of health insurance (Newacheck & McManus, 1989; Brindis, Driscoll, Biggs, & Valderrama, 2002-1) high school drop-out rates (Mackey, Fingerhut, & Duran, 2000), high rates of teenage pregnancies (Mackey et al., 2000; COSSMHO, 1999), and increasing health problems (e.g. obesity) (Freid, Prager, MacKay, & Xia, 2003), STDs (Buzi, Weinman, & Smith, 1998), increasing rates of HIV infections (Brindis et al., 2002-2; CDC 2002; Berger & Rivera, 1993), substance abuse (e.g.: alcohol and cocaine) (De la Rosa, 2002; Kandel, 1995) and violence (Amaro, Messinger & Cervantes, 1996; Rice & Dolgin, 2002). Considering the developmen-

¹The terms Latino and Hispanic will be used interchangeably through this chapter

tal changes and cultural changes in both the community and the family, segments of the Latino adolescent population experience a complex set of issues, increasing their levels of stress. In some Latino adolescents, stress is manifested in mental health problems such as generalized anxiety, depression, and even suicide. In particular, young female Latinas have the highest (15.9%) rate of suicide attempts (Freid et al., 2003). Researchers and mental health professionals should concede special attention to Latino youth, as they may be both at high risk yet the most amenable to prevention and intervention of all populations (U.S. DHHS, 2001).

This article will address the following issues related to Latino adolescent stress: 1) the normative stressors that most adolescents encounter, 2) Latino-specific non-normative stressors, 3) consequences of the stressors for Latino adolescents, 4) Protective and coping factors that could be helpful for adolescents, 5) future studies and directions for research.

Normative Stressors in Adolescents

Models of Stress in Adolescence

According to one major psychological theory of stress offered by Lazarus (1966; 1990) and Lazarus and Folkman (1984), stress is defined by a relation between person and environment that demands, taxes or exceeds the psychological resources in

a way that can be evaluated as harmful (negative) or challenging (positive). The psychological state of stress depends on cognitive factors such as values, beliefs, goals and commitments along with self-esteem, sense of control, mastery, and environmental variables such as demands, resources and constraints. Once the individual performs a cognitive appraisal, he or she will typically engage in a coping process to manage the stress. Results from coping responses will be appraised again in a changing process that depends on both the individual and the environmental characteristics (Lazarus, 1990). This stress-appraisal-coping activity is a dynamic feedback and interaction process (Pearlin, Lieberman, Menaghan & Mullan, 1981). This stress process model has been adapted, modified and further specified for the Hispanic population (Cervantes & Castro, 1985). However, the application of stress theory developed for adults to adolescents requires an additional basic understanding of the influence of human developmental change. The distinction between developmental stress (the "storm and stress" of normal adolescence) and to the non-normative acute or chronic life stressors that adolescents must appraise and cope with is essential in understanding the specifics of adolescent stress (Colten & Gore, 1991).

Petersen, Kennedy and Sullivan (1991) developed a model to explain the developmental transition between

childhood and adolescence. They also identified some "challenges" (to avoid the negative connotation of the concept "stressor") encountered by adolescents. The authors classified the five areas of changes faced by children in early adolescence: 1) biological (adult appearance and size, reproductive capacity, endocrine changes, asynchrony among body parts, etc.), 2) cognitive (abstract thought, etc., peer groups, conformity, pressure to explore new experiences) 3) academic (changes in school structure and format, etc.), 4) parental (parental reactions to physical changes, impeding separation, etc.) and 5) social (hopes and expectations for youth, occupational choices and opportunities). The model explains that simultaneous changes are related to more negative outcomes than to sequential changes. For example, adolescents who are pubertal during the transition from elementary to secondary school have more negative outcomes than those whose pubertal change occurs after the transition.

Some research also suggests that stressful life events in children are reported to be more devastating than for adults (Compas, 1987). The adolescent's inability to cope with stress could lead to severe consequences from academic failure, diminished academic motivation and school dropping, defiance of authority, anti-social behavior and violence, isolation, mental health problems such as anxiety, depression, eating disorders, the use

of alcohol and other drugs, crime participation, suicide, and other serious consequences (De la Rosa, 2002; Guinn & Vincent, 2002; Robson & Cook, 1995).

Developmental Challenges

Adolescents experience normative bio-psychological transitions such as physical, sexual, cognitive and emotional changes together with social transitions (e.g. shift from middle to high school) (Colten & Gore, 1991). In addition, adolescents who have different environmental and socio-cultural roots, also experience distinctive challenges along with specific social expectations and pressures that influence their behavior.

Physical and sexual maturation occurs in adolescents when puberty arrives. Sexual changes are also accompanied by other aspects of physical appearance, some of them embarrassing for adolescents (e.g. changes in voice, facial and body hair, acne, body shape and growth, distribution of fat in the body, etc.).

Cognitively, the fast development of the brain and its functions are evident in adolescence. Jean Piaget (1950, 1963) considered cognitive development to be a qualitative change that results from a combination of environmental influences and the development of the nervous system. Adolescents conquer the formal operational stage when they are able to think in abstract terms, using inductive reasoning and systematic propositional

logic in solving problems. Current research focused on information processing and decision making (see review by Rice & Dolgin, 2002) suggests both qualitative and quantitative changes in multiple areas of human intelligence during adolescence.

Fast cognitive and emotional development enables the adolescent to evaluate what they learn and become more capable of moral reasoning and idealization. Some adolescents develop a strong sense of idealism and justice and have strong desires to change society. This maturation development also helps them to plan their future in the long-term rather than obtaining immediate gratification. In addition, curiosity, daydreaming and the visual imagery increase serving a practical purpose in finding alternative behaviors to solve problems and cope with stress (Gold & Henderson, 1990). Adolescents are also capable of thinking about their own thoughts and becoming acutely aware of themselves. Other consequences of this rapid cognitive change are not as positive (e.g. lack of attention, egocentrism, obsession with their appearance and behavior, and contradiction between their ethics and behavior) (Bus & Thompson, 1989; Elkind, 1978; Gold & Henderson, 1990; Vartanian, 1997; Vartanian & Powlishta, 1996).

Adolescents are considered to experience significant difficulties in comparison to other children and adults that are generally transitory or sporadic. Arnett (1999) reviewed the available

literature concluding that authors who support the adolescent storm and stress theory usually refer to three problematic behaviors: 1) interpersonal conflicts generally with parents and other authority figures, 2) emotional swings, and 3) risky behaviors. Problematic behavior could be only to satisfy the curiosity in experiences considered of adulthood. Adolescents simply imitate adult behavior in issues such as cigarette smoking, alcohol use, sexual behavior, etc.

Latino Adolescent Non-Normative Stressors

Normative stress refers to those developmental changes that all youth experience. However, there are many groups of youth that face extremely adverse conditions and risk factors that shape their development and mental health (Colten & Gore, 1991). Latino and other minority adolescents in the United States share many risks. In addition to normative stress that most non-minority adolescents face, they also have to confront additional stressors related to prejudice and hostility, marginalization, racism and xenophobia, poverty, environmental risks (i.e. old homes with lead paint, malnutrition, unsanitary conditions, etc.) cultural and language barriers and immigration challenges (Amaro et al., 1996; Rice & Dolgin, 2002; Suárez-Orozco & Suárez-Orozco, 2001). Zambrana and Silva-Palacios (1989) conducted a study with 244 immigrant Latino adolescents in Los Angeles. Findings

reflected several sources of stress in this population. The most important factors were related to family issues such as parents getting sick and going to a hospital, having family members arrested, parents drinking, and leaving relatives and friends when moving, being pressured by family members to speak only Spanish or English at home and cultural and religious obligations. In addition, there were other factors associated to economic problems in the family; for instance, crowded homes, living in neighborhoods with crime and caring for siblings.

Another group of stressors were related to discrimination and marginalization, language barriers and academic stressors, especially at school. Finally, another cause of stress was related to peers, such as pressure to get into fights and not having enough Latino friends. Hispanic families that migrated also had encountered stressors related to the immigration process, such as migratory status (documented vs. undocumented), migratory journey risks, cultural shock, communication problems, ignorance of how the system works, and separation from their homeland, nuclear and extended family and friends.

Immigration and Broken Families: "Con Un Pie Aquí y Otro Allá"

According to the U.S. Census (U.S. DHHS, 2000) two in five Hispanics are foreign born. Latino families migrate

to escape poverty, lack of professional opportunities and education, political and religious prosecution, torture and death (Apoyo, 1997). Families migrate to improve their lives and to provide a better future for their children and economical support to other relatives living in their country of origin (Abalos, 1998).

Hope is in the heart of every immigrant (Suárez-Orozco & Suárez-Orozco, 2001).

However, immigrants pay a high price in costs and risks that go along with the process of immigration and adjustment to their new environment. Migration procedure implies losing family and friends, community ties, social roles, customs, jobs, money, hobbies, their home/house and many other important personal irreplaceable possessions. Hispanics traditionally use both nuclear and extended family as vital support systems to deal with stress. Therefore, separation from family and close friends (*compadres, comadres, padrinos*) place Latinos at high risk for mental health problems (Canino & Canino, 1982).

Families coming to the U.S. with no legal status face even more stress and risks when crossing the border. Crossing the border includes exposure to heat exhaustion and dehydration (Adler, 2004), starvation, swimming across polluted waters, crossing deserts, traveling in unreliable transportation (Cuellar, 2002) vandalism,

violence and even death from the *coyotes*, the U.S. INS officers (Suárez Orozco & Suárez Orozco (2001) and criminal gangs (i.e. La Salva Mara Trucha). In addition, women and girls face additional risks of being physically and sexually abused, raped, robbed or even murdered on their journey (Amnesty International, 1998). Cuellar (2002) explains how Latinos, once in the other side of the frontier, face other stressors: discrimination, fear of deportation, dangerous working conditions, lack of health insurance and access to social security even as they contribute to the system with their taxes. Immigrant Latinos begin developing mental health problems (depression and other affective and psychiatric disorders) and substance abuse, as they become more acculturated (Cuellar, 2002; Hovey, 2001; Vega, Kology, Aguilar-Gaxiola, Alderete, Catalano & Caraveo-Anduaga, 1998). The Transactional Mental Health Stress Model for Migrants (Ensel & Lin, 1991) also describes how individual characteristics (self-esteem, intelligence, coping style, social skills, etc.), social resources and cognitions (expectations, hope, optimism, dreams, etc.) play an important role as mediating factors.

Immigrant children and adolescents generally suffer separation from one or both parents since adults usually migrate first, mostly under the support of family networks living already in the U.S. (Suárez-Orozco & Suárez-Orozco, 2001). In some cases, the

separation can last years, decades and even a lifetime. Some children arrive to the U.S. not remembering their parents at all, especially in the cases of undocumented immigrants. Adler (2004) describes how *coyotes* in Yucatan often separate children from their parents to cross the border. This separation and the dependence on strangers can be truly terrifying and one of the most stressful experiences suffered by Hispanic adolescents (Zambrana & Silva-Palacios, 1989).

Language Barriers

In addition to immigration and other acculturation strains, Latino adolescents who are not born in the U.S., experience language barriers that constitute powerful stressors in the school setting. Many behavioral problems in Latino adolescents are related to socialization issues caused by language barriers. In addition, different rates of language acquisitions along with different preferences of the use of a language between parents and children, can facilitate intergenerational conflicts and communication problems in the family (Vega, Zimmerman, Warheit, Khoury & Gil, 1995). Parents may discourage children to speak in English or vice versa, to communicate only in Spanish, in an attempt to avoid marginalization and school failure (Rice & Dolgin, 2001).

Suárez-Orozco and Suárez-Orozco (2001) stated that immigrant Latino adolescents tend to stop using their first language. Spanish language

competence is likely to atrophy over time since English is the first language at school where children spend most of their active time. After a while, they become more comfortable using English in any context, including home.

In addition, children of first and second generation immigrants who speak English with parents who only speak Spanish do not have the opportunity to practice their skills in writing, reading and conversational English at home or obtain help with home-work. This situation may contribute to school failure increasing the risk of school drop-out.

Economic Disadvantage

Minority adolescents are more likely to be poor than White youths (Brindis, Driscoll, Biggs & Valderrama, 2002-1). Therefore, they encounter additional stressors, since socioeconomic status is associated to multiple problems. Latino adolescents are mostly concentrated in urban communities or barrios. Certain segments of Latino populations live in neighborhoods where there is violence, drug and alcohol use, gangs, academic failure, delinquency and unsafe sexual promiscuity among adolescents (Rice & Dolgin, 2002). These are consequences of poverty, marginalization, segregation and distress. They are also the cause of other future problems such as broken families, school failure and drop-out, teenage pregnancies, HIV/AIDS and other sexually transmitted diseases, victimization, incarceration,

death and other serious consequences.

Latino adults are much more likely to live in poverty and have significant lower income than non-Hispanic Whites (Ramirez & De La Cruz, 2003). This economic disadvantage forces both parents of a regular Latino family to work outside the home (Suárez-Orozco & Suárez-Orozco, 2001). Adolescents may also be encouraged to contribute to the family income by working (Rice & Dolgin, 2002). Some children and adolescents are often left without supervision and sometimes with the responsibility of raising their younger siblings since daycare is very expensive for these families. Latino adolescents may spend most of their unsupervised time on the streets increasing their risk of becoming involved in gangs, drug use, crime, unprotected sex and other serious problems.

Consequences of Stressors For Latino Adolescents

Consequences on Physical Health

Adolescence is a period of life that involves extensive change and challenges (Compas & Wagner, 1991; Petersen et al., 1991). The research consensus is that most of the variance in negative outcomes in adolescence related to stress is explained by psychosocial influences (Buchanan, Eccles & Becker, 1992; Brooks-Gunn, Graber & Paikoff, 1994; Steinberg & Morris, 2001). Some ad-

olescents could perceive the stressful conditions stimulating and respond in a positive way. However, others may find their situation overwhelming and be unable to cope. Distress could lead some adolescents to develop physical and mental health problems. Psychological stress has been linked to "associated immune modulation and risk for infectious diseases" (Glaser, Rabin, Chesney, Cohen, & Natelson, 1999) like infections, asthma, etc. According to a report from *The NIH Word on Health*, some stress is good for the body when trying to motivate someone to perform (e.g. present a speech, etc.) however studies show that high levels of short term or chronic stress can depress the immune system placing the individual at higher risk of viral infections and prolonging the healing period (Harrison, 2000).

Growing evidence indicates that health problems of young Latinos have been on the rise. Such physical health problems include growing rates of eating disorders and obesity that can lead to diabetes and cardiovascular disease. A study by Dallman, Pecoraro, Akana et al. (2003) revealed that "human's chronic stress induces either comfort food [high fat and carbohydrates] intake and body weight gain or decreased intake and body weight loss." According to this study, some of the long term consequences of chronic stress can lead to "deleterious weight gain, abdominal obesity, type II diabetes, increased cardiovascular morbidity, and mortality." Obesi-

ty in adolescents is a serious problem that is growing in the United States. Based on medical examinations of a Mexican sample (Freid et al., 2003), Latino adolescents between the ages of 12-19 revealed high rates of obesity. Overall, young Latino males had the highest rate (27.5%) of obesity both by gender and by race/ethnicity. The rate for Latino females (19.4%) was also high, but less than African-American females. One study linked overweight Latino adolescents with parents having a high school education or less and who live in poverty. It also revealed that the lack of health insurance or having a public health insurance program put Latino adolescents at greater risk for obesity (Haas et al., 2003). A recent study shows that regardless of gender, ethnicity, or socio-economic status, adolescents who experienced greater levels of stress eat more fatty foods and snacks and less vegetables (Cartwright et al., 2003). The implications of this study are that long-term stress can lead to a greater risk of developing diseases (Cartwright et al., 2003).

Another stress induced/intensified health condition that has been on the rise amongst minority youth (inclusive Latinos) is Asthma. Teenagers express more psychological stress than children when trying to cope with the "social stigma of asthma" (A.D.A.M., 2004). The A.D.A.M. publication on Asthma also identified both stress and depression to be associated with "more severe symptoms and even an

increased risk of fatal asthma attacks". It is recommended that stress-reducing and relaxation techniques be used to alleviate symptoms and manage asthma. Although more non-Hispanic Whites and Blacks have reported a current prevalence of asthma, Blacks and Hispanics are at greater risk for death related asthma. Like Blacks, Hispanics have high rates (26%) of emergency room visits, the higher rate (36.9%) of urgent care visits, asthma attacks, sleeping difficulty (64.7%), limited activity (40.4%), and like Whites, Latinos too display high rates (72.3%) of asthma symptoms. Such disparities in asthma rates have been attributed to poverty, low education, lack/under-insurance, and environmental factors (CDC, 2004).

Stress Exposure and Consequences on Behavioral Health

According to the U.S. Department of Health and Human Services (Freid et al., 2003), the rate of Latino adolescents who seriously considered suicide in the year 2001 was 12.2% for males, second after white males. However, the highest rates of suicide consideration (26.5%) were for female Latinas. Latino youth from 9th to 12th grade overall had higher rates of attempted suicide than any other group; the male students were at 8% while again, the female Latina rates (15.9%) were much higher. In an older survey, injurious suicide attempt rates were higher for Latina females 4.2%, followed by Latino males (2.5%) and then

African Americans (U.S. DHHS, 1990). Also, Latinas have alarmingly higher rates of depression (27%). Latinas were the second highest ethnic group to report depressive symptoms. Acculturation stress due to conflictive gender roles in adolescent Latinas is believed to be the driving force of their higher rates of stress, depression and suicidability (National Coalition of Hispanic Health and Human Services Organization, 1999).

Latino youth, in particular of Mexican descent, reported using more alcohol than any other substance. Data based on household interviews also indicated more alcohol use than any other substance. Findings showed that 19% of Hispanic adolescents between the ages of 12-17, reported using alcohol in 1998; non-Hispanic whites had a slightly higher (21%) rate. Similarly, 6% of Latino adolescents (followed by whites, 9%) reported binge drinking. The second substance most used among Hispanics is cigarette smoking (US. DHHS, 2000; CDC, 2004). The rise in cigarette smoking among Hispanic youth is of great concern, particularly for Latina female adolescents who have the highest rates of teenage pregnancy. This presents a potential rise in health related childbearing problems if preventive measures are not taken (Baezconde-Garbanati). The third substance most (8%) used by Hispanic youth is marijuana, which has similar percentage rates across other cultural/ethnic adolescents (Kulis et al., 2003). How-

ever, cocaine use among Latino youth was at an all time high of 1.4% greater than any other race/ethnicity in 1998 (US. DHHS, 2000). Latina adolescents reported using alcohol and drugs to relieve stress and depressive symptoms (COSSMHO, 1999). Issues of stress, in particular acculturative stress, have been linked to higher rates of substance abuse among Latino adolescents (De La Rosa 2002; Schinke, Moncher, Palleja, Zayas & Chilling, 1988).

Unprotected Sex

Adolescent acculturative stress can also lead to risky sexual behaviors among Hispanic teenagers such as unprotected sexual practices, increasing the rates of teenage unwanted pregnancies, STD's and HIV/AIDS infections (Ford & Norris, 1993). According to the Department of Health and Human Services (Freid et al., 2003), Latina teenagers under the age of 18, had the second highest rate (5.8%) of teenage childbearing in 2001. Teenage pregnancy increases the rates of low birth weight as well as infant mortality rates more than any other child bearing age group (U.S. DHHS, 2000). A study on Latino adolescent females shows that Mexican-American girls had the highest rates of teenage pregnancy (Pensa & Mathews, 2000).

Sexually active youth are at greater risk of contracting sexually transmitted infections or diseases (STDs). The wide spread of STDs among teens

is due to having multiple sexual partners and engaging in unprotected sexual intercourse. Although African-American teenagers contract more STDs than any other group, Hispanics are also at high risk (Buzi, Weinman, & Smith, 1998; Brindis, Driscoll, Biggs, & Valderrama, 2002). Likewise, HIV/AIDS in Latino/a adolescents is on the rise. Like African-Americans, Hispanics also have disproportionately higher rates of AIDS, and the highest rate of heterosexually acquired AIDS (with the exception of Puerto Ricans who have higher rates of inter-venous drug related HIV infections) (Berger & Rivera, 1993; CDC, 2002). Some of the reported barriers that have been linked to the higher rates of STD's and HIV infections among Hispanics include: the lack of contraception knowledge, cultural and religious beliefs about contraception (in particular among Mexican-Americans), lower rates of condom use, and lack of medical insurance which inhibits many teens from seeking healthcare with issues related to sex, diseases, and contraception options (Buzi et al., 1998; Rosenthal, Biro, Succo, Bernstein & Stanberry, 1997).

Protective Factors and Coping Skills

Understanding how healthy adolescents cope with stress and the types of strategies they use to deal with stress is important in order to help other adolescents manage stress. In particular, adolescents with greater life

difficulties or pressures, like the stressors many Latino/a teens face everyday. Strategies such as relaxation techniques, good sense of humor, peer support, family cohesion, strong self-esteem, physical and mental activity, problem solving skills, etc. are strategies identified in the literature to help stressed people in general and adolescents in particular (Copeland & Hess, 1995; Frydenberg & Lewis, 1993; Mates & Allison, 1992). There is also literature on gender differences in coping styles that describe boys as more likely to cope through playing and direct action while girls benefit more through social support (Frydenber & Lewis, 1993). However, research with Latino adolescents and gender differences regarding coping with acculturation stress is limited, although increasing.

Results from the few studies of protective factors and coping skills in Latinos, a social support system is being identified as a crucial preventive factor to cope with stress, marginalization, racism and other stressors suffered by minorities (De La Rosa, 1988). It is also the most cited resource to cope with stress in the literature (Petersen et al., 1991). *Familismo* and *colectivismo* are Latino cultural characteristics, but are also powerful protective factors (Padilla, Cervantes, Maldonado & Garcia, 1988). There is evidence of the association between the lack of family bonding (especially between mothers and adolescents) and stress (Kenny,

Gallager, Alvarez-Salvat & Silsby, 2002; Zarza & Cervantes, 2004). Acculturation stress, conduct disorders, learning problems, impulsivity, hyperactivity, low grades at school, substance abuse and high-risk sexual behaviors in adolescent Latinas are related to lack of bonding with mothers (Zarza & Cervantes, 2004). Parental involvement is considered critical to prevent mental health problems and other consequences in Latino adolescents (Guinn & Vincent, 2002; Kenny et al., 2002) and adolescents in general (Pearce, Jones, Schwab-stone & Ruchkin, 2003). In addition, other studies show the importance of emotional support from peers to Latino adolescents and youth (Jarama, Belgrave & Zea, 1996).

Another kind of resource that may help to moderate the effects of stressful situations are the internal coping responses, usually described as coping style (Lazarus & Folkman, 1984). Problem-focused coping responses to stress implies taking direct action (thoughts and instrumental behaviors) to fight the stressors, perceived under one's control and even challenging for personal growth (positive reappraisal). On the other hand, emotion-focused coping styles are displayed when stressors appear beyond one's control or external locus of control (e.g. *fatalismo*). Latino adolescents that have high self-esteem are more likely to cope with stress and less likely to perceive external locus of control and therefore less likely to take direct ac-

tion (Folkman & Moskowitz, 2000). Adolescent self-esteem develops from within and through empowerment and acknowledgment from parents, peers, teachers and community. Empowerment is built through social interaction and recognition of achievements at home, school settings, in sports, art or other activities where they feel challenged and respected at the same time (Guinn & Vincent, 2002).

Latino adolescents' ethnic identity plays an important part in self-esteem building. The development of an ethnic identity or the aspect to relate to one's membership in an ethnic group to achieve a secure sense of themselves helps to develop self-esteem and better mental health overall (Greig, 2003).

Recent studies also reveal that religion plays a significant role in the lives of Latinos and other adolescents as a protective factor for mental health and conduct problems (Pearce et al., 2003; Thomson & Gurney, 2003).

Future Studies and Directions for Research

The development of next generation research is necessary to understand the factors related to and causes of stress and health problems in Latino youth. This will help address research design implementation of primary and secondary prevention programs that are sensitive to the changing demands and cultural background of Hispanic adolescents. This section

will call attention to several aspects of social research in Latino adolescents, as follows: 1) methodological improvement of current studies, 2) addressing the lack of assessment tools normed for Hispanic adolescents to measure stress and other mental health problems, as well as the lack of bicultural/bilingual mental health professionals; 3) lack of evidence-based behavioral health strategies for Latino youth, and finally, 4) suggestions for future research in light of the 2010 census and documented health disparities.

Methodologically, there is a need for an objective definition of acculturation in social science research in order to compare studies and generalize the results in Latinos. There is confusion between acculturation (assimilation to other culture but no primary cultural maintenance, according to Berry and Annis (2001) and biculturalism (integration of the new culture and maintenance of primary cultural heritage). Conflicting findings of studies performed with Latino adolescents regarding mental and physical health in Latino adolescents could be related to this problem. The issue in these studies is that it is unknown if these children are acculturated or bicultural. These factors should be controlled when performing studies on acculturation and its consequences on Latino health.

In addition, as Negy and Woods (1992) indicate, acculturation studies are often overlooking socioeconomic

status (SES) as an important positive correlate to acculturation. In other words, more acculturated adolescents generally come from backgrounds with higher standards of living and better educated parents. Negy and Woods study suggests that SES and acculturation are intricately intertwined. Therefore, it is crucial to control the socio-economic status variables to conduct social studies on acculturation stress in Latinos.

The lack of reliable and valid testing research and evaluation instruments normed on contemporary samples of both Spanish-speaking and English-speaking Hispanics has been and continues to be a major barrier to the conduct of valid studies and culturally relevant clinical assessment for this population (U.S. D.H.H.S., 2001). Hispanic researchers and clinicians in the 1970s began a critical process of challenging the existing personality assessment methodologies and interpretation schemata for psychological tests that continues on today (Miranda, 1976). Measurement development should start with the uniqueness of the Hispanic subject's experience and the family-environment context and then adapt or reject existing instruments. Many concepts that are important in a culture may be missed if tests and procedures are not developed from within the culture by its own psychologists (Lonner, 1990).

Recently, the theoretically based Bicultural Stressors Scale has been developed for application to Hispanic

adolescents (Romero & Roberts, 2003). The scale demonstrates that specifically designed instruments for Hispanic adolescents can yield useful assessments regarding the effect of bicultural stress on subsequent depressive symptomatology. However, the major limitation of the scale is that it has been developed with Hispanic adolescent—middle school students of Mexican descent in a rural bicultural environment. There is an immediate need for scales that address Latino acculturation stress in adolescents both for immigrant and second generation immigrant Latinos. In addition, there is a need for assessment tools that are gender specific and over the life course.

In addition to methodological improvements and psychometric research, there is also a need for studies that cover the gaps that current research has left on normative and non-normative stressors in Latino adolescents. For instance, there is a lack of research on normative stressors related to the physical/sexual and mental developmental changes of Latinos in comparison to other ethnic groups. For example, the perceptions of physical differences in young Latinas when compared to the dominant group (Whites) and the mental and physical health (i.e. anorexia, bulimia, obesity, stress, depression, etc.) consequences of such perceptions. Additionally, there is a need of further studies on the effects of the mass media modeling the predominant cul-

tural values and customs (i.e. White models) on Latino adolescents' perception of their bodies, self-esteem, cultural background and behavior.

This review also found a need for research on the consequences of non-normative stressors in Latino adolescent in the following areas:

1) Intergenerational differences on acculturation levels and its consequences in the family (i.e. stress and conflicts between parents and adolescents).

2) Further research that focuses on the difference between acculturated (assimilation but no maintenance of cultural background) and bicultural Latino adolescents (maintaining the culture) and their relationship to mental and physical health.

3) This review points out that Latina adolescents are in higher jeopardy for mental health and suicide attempts. In addition, there is evidence of significant gender differences between Latino male and female adult stressors and the related mental health consequences (Salgado de Snyder et al., 1990). Nevertheless, there is a gap in the current research that addresses gender differences in Latino adolescents related to stressors, coping skills, resiliency and consequences in physical and mental health.

4) Also, there is considerable research on coping skills for adolescents and even some studies on Latino adults coping responses (see Padilla et. al., 1988). However, there are few studies on coping skills (cognitive and be-

havioral process to manage stress), mediating and protective factors in Latino adolescents (family, friends, self-esteem, etc.). These studies are essential to develop prevention and intervention programs.

5) In addition, the Immigrant Paradigm of Acculturation (Cuéllar 2000, 2002) or discrepancy between immigrant and non-immigrant health (both mental and physical) related to acculturation stress and other mental health disorders as well as substance abuse should be further examined in adolescents. In spite of the fact that immigrants, especially those undocumented, have a higher number of stressors and barriers for acculturation (language barriers, separation from family members, economic constraints, lack of education and work skills, discrimination, etc.) (Padilla et al., 1988) than non-immigrant Latinos, Latino immigrants overall display better physical and mental health (Cuellar, 2000, 2002; Ford & Norris, 1993; Ho, 1992; Hovey, 2001; Jane et al., 1999; Vega et. Al., 1998).

This discrepancy deserves more scientific attention focusing on possible explaining factors such as cognitive mediating variables (i.e. expectations, stress appraisal, locus of control, etc.) and other factors (i.e. reducing the number of stressors when migrating to the U.S.) that might elucidate these results in Latino adolescents.

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**RADICAL L.A.**

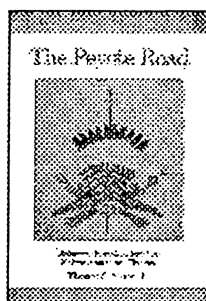
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PROGRESS OF FAMILY PLANNING PROGRAM OF INDIA

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Abstract

*The purpose of this study is to investigate the relationship between socioeconomic development and knowledge, attitude and practice (KAP) of family planning in India. This study tests the following major hypothesis: The higher the level of socioeconomic development, the more extensive the KAP of family planning will be among the states of India. The study applies correlation and multiple regression analysis of data from the National Family Health Survey (NFHS), India: 1998-1999 using level of development to predict three major categories (KAP) of family planning. The findings support the hypothesis in large measure, revealing that the overall socioeconomic development is directly related to the KAP of family planning among the states of India. **Key-words:** Knowledge, attitude and practice of family planning; socio-economic conditions; India.*

Introduction

With more than 1 billion people, India is the world's second most populous country, comprising 17.1 percent of the world's population. The 2001 Census of India reported a population of 1,029 million. During the last single decade (1991-2001), the population increased by 182 million, or 21.6 percent (India, Registrar General and Census Commissioner, 2002). In 2008, only 7 years after its last census, India had added another 120 million people, bringing the total population to 1,149 million. Even though the government of India has provided information about the benefits of small families, the total fertility rate (TFR) of the country is 2.8 and the growth rate is 1.6 percent per year. India's population is projected to reach 1.4 billion by 2025 (Population Reference Bureau, 2008).

Among the developing countries, India was a pioneer in the international movement to control population growth. The government adopted a national population policy of fertility control as an integral part of its national developmental plan. The official recognition of the problem came with the publication of the first Five-year Plan (India, Planning Commission, 1953), which went into effect in 1951. Since implementing the program, ten five-year plans have been completed, and the eleventh is underway. Unfortunately, the family planning program has not met with the success expected. Since the late 1950s, social researchers have conducted many extensive surveys in the areas of knowledge, attitude and practice (KAP) of family planning at the cross-national and sub-national levels in developing countries

such as India. This area has generated a number of scholarly and popular articles, including three major reviews of KAP literature by Berelson (1966), Mauldin (1965) and Acsadi (1974).

In an attempt to evaluate the performance of the family planning programs in the developing world, Freedman (1990) divided these countries into three categories: (1) less developed countries with rapid development, such as Korea, Taiwan and Singapore, (2) countries with moderate development, such as China, Indonesia and Thailand and (3) countries with relatively little development and a weak infrastructure, such as India, Pakistan and Bangladesh. Although many of the countries in the third category have family planning programs, they have not been very successful in promoting acceptance of contraceptive use or reducing fertility. According to Freedman, the reasons for this lack of success are the low standards of living and weak family planning systems with poor-quality services provided in ways that are inappropriate for the societal culture. The limited success led to a change in approach, a theme at the International Conference on Population and Development held in Cairo in 1994, which endorsed a strategy that stressed the relationship between population and development, focusing more on meeting the needs of individual women and men. (Vlassoff, 1999). During 1992-98 there were a number of program shifts in the administration of family welfare in India.

The initial problem faced by the government of India was trying to promote family planning in a nation that was largely poor while family planning had traditionally been associated with a high standard of living. It appears that when people are accustomed to a high standard of living, they are inclined to limit family size in order to maintain this standard of living. However, in the case of India, for a majority of the population, the standard of living is low. Consequently, the country faces a dilemma. Whereas population control is critically needed to check the decline in the already low standard of living, the successful practice of family planning may require a higher standard of living than is now the case (Chandrasekhar, 1967). Therefore an attempt is made in this study to investigate the relationship between the level of development and the knowledge, attitude and practice of family planning among the states of India.

Literature Review and Hypothesis

In the past two centuries fertility and mortality decline in Europe, and later elsewhere, were largely the result of economic and social development. In the wake of this development came the rapid decline in mortality. With more children surviving, fewer births were needed to achieve a given family size or rate of population increase. The rising cost of living and diminished economic utility of children

in urban and industrial environments provided additional motivation for family limitation. The rising status of women through the extension of educational opportunities and employment in occupations formerly reserved for males contributed to the widening practice of family limitation. Finally, along with industrialization and modernization came the development of a more secular, rational attitude favoring the voluntary control of fertility (Caldwell, 1982; Teitelbaum, 1975; World Bank, 1984).

A number of studies have sought to clarify the complex relationship between socioeconomic development and fertility in developed and developing countries. Economic development, such as an increase in gross national product, higher per capita income and urbanization of a society, has a significant inhibiting effect on fertility (United Nations 1990 and 1995). Economic development allows for an improved standard of living and higher aspirations for children and parents. In a developed society, the economic value and benefits of children decrease, resulting in lower fertility (Freedman, 1979). Rao and Somayajulu (1999) interviewed 100 couples who had recently undergone sterilization after having one child and found that the primary factor in the decision was avoiding socioeconomic deprivation. The desire for a better life for their child, coupled with the efforts of family planning workers contributed significantly to the decision to practice family plan-

ning. The sex of the child was not a significant factor. Some variables indicating economic development, such as availability of water, electricity and toilet facilities, also affect fertility directly or indirectly through their impact on mortality. Regular exposure to the mass media, especially radio and television, influences family planning attitudes and behavior, which in turn affects fertility (Westoff and Bankole, 1999).

The economic activity of women with some education is also considered an important factor in reducing fertility (Chaudhury, 1996). An increase in labor force participation rates enhances the status and power of women, which in turn motivates them to limit fertility. The earning capacity of women is expected to bring them economic independence, which ultimately gives them more decision-making power. Furthermore, working women may have higher exposure to mass media and knowledge of family planning methods and services. In developing societies such as India, the working status of women in agricultural activity hardly changes their status in family and society and, as a result, has little effect on fertility decisions (Ward, 1984). In developing countries, poverty rather than choice often forces women into the labor force (Youssef, 1982). Increased schooling and postponement of marriage affects a woman's choice of marriage partner, son preference, knowledge of contraceptive methods and ability to

control the number of births. Mishra and Retherford (2000), controlling for other factors, found that educated women in India tended to have better nourished children. A better nourished child is one more likely to survive and make additional children seem less important.

A number of researchers have found that a decrease in infant and child mortality has a significant effect in lowering fertility. As the infant and child mortality rates in a society decrease, the parental motivation to replace dead children also decreases (Knodel, 1974). A study by Taylor and Takulia (1971) in India found that the use of contraception is dependent on the respondent's perception of increased child survival. Furthermore, a couple's approval of contraception decreases in proportion to the number of child deaths (Rutstein, 1974). A study by Chaudhury (1996) in India found that the survival status of children, particularly the child mortality rate, emerges as the single most important factor explaining inter-state variations in fertility. Kamal (1999) also found, after controlling for socio-economic and demographic variables, that the number of children living was one of the two strongest determinants of the use of modern family planning methods.

Some researchers have stressed the education of women and maternal education as the key factors in the decline of fertility in developing countries. As the education level of a soci-

ety increases, fertility rate goes down. Educational attainment of parents, especially of mothers, has been found to have a significant negative relationship with fertility. Maternal education has been shown to be positively correlated with levels of maternal childcare. Literate mothers usually give birth to healthier babies because they have more information about health-care facilities than illiterate mothers. They also have more influence within the family in deciding to take sick children for treatment (Mellington and Cameron 1999; Rajna, Mishra, et.al. 1998; Yadava and Chadney, 1994). According to Caldwell (1982), mass education that tends to emphasize modernization and secular attitudes is the only means to enhance child survival and reduce mortality, as well as fertility. The nature of marital relationship has also been found to be an important factor in family planning. Along with number of children, Kamal (1999) also found the frequency of inter-spousal communication on family planning to be an important determinant of use of contraception.

In developing countries such as India and China, family planning programs play a direct role in reducing fertility. The availability of effective contraception gives contemporary developing countries a major advantage over the European societies that underwent fertility decline earlier. Legalized abortion and other forms of birth control, a trained family planning

workforce, statements by political leaders, public campaigns and the use of mass media in developing countries have accelerated the diffusion of new ideas about family planning in both rural and urban environments, creating conditions for fertility decline (Mauldin and Berelson, 1978). Sunil, Pilai and Pandey (1999) found that family planning programs with peer-based motivational programs were more effective at increasing the likelihood of contraceptive usage than those using cash incentives. However, a study by Robey, Rutstein and Morris (1993) notes that, in contrast to the demographic transition undergone by the now developed world, birth rates in the developing world have fallen even in the absence of improved living conditions. The decrease has also proceeded with remarkable speed. Developing countries appear to have benefited from the growing influence and scope of family-planning programs, new contraceptive technologies and from the educational power of mass media.

The preceding discussion forms the central orientation of this study; that as the level of development in a country increases, the knowledge, attitude and practice of family planning expands, thus bringing a decline in fertility. Therefore, there is a direct relationship between the level of development and cultural acceptance of family planning.

This study will test the following major hypothesis: **The higher the**

level of development, the more extensive will be the knowledge, attitude and practice of family planning among the states of India.

Data and Measurement

Data for the study have been obtained from the second National Family Health Survey (NFHS-2) initiated by the Ministry of Health and Family Welfare, Government of India and funded by the United States Agency for International Development. The success of the first NFHS in 1992-93 in creating an important demographic and health database in India paved the way for the subsequent survey. The International Institute for Population Sciences, Mumbai (I.I.P.S.), was designated as the modal agency for providing coordination and technical guidance to the NFHS. Interviews were conducted with a nationally representative sample of 89,119 ever-married women in the age group 15-49 from the 25 states of India. The main objective of the NFHS was to collect reliable and up-to-date information on mortality and morbidity, maternal and reproductive health, fertility and family planning. Data collection was carried out in two phases from November 1998 to March 1999.

The NFHS studies are the most comprehensive surveys of their kind ever conducted in India. (International Institute for Population Sciences, 2000). The two main concepts used in the research are (1) socioeconomic development (measures of the inde-

pendent variable) and (2) knowledge, attitude and practice of family planning (measures of the dependent variable).

The term "socioeconomic development" implies an ongoing process of change in a society and includes a large number of indicators to describe the overall development of a society (Bongaarts, 1978). However, in this study the following 14 variables are selected from the NFHS data of the states of India. These are:

- (1) The percent of household population literate.
- (2) The percent females literate.
- (3) The percent of women age 15-45 completing high school education and above.
- (4) The percent of women age 20-24 yrs married before age 18.
- (5) The percent of women employed.
- (6) The percent urban population.
- (7) The percent exposed to mass media.
- (8) The percent of households with sanitary toilets.
- (9) The percent of households with a drinking water facility from pipe or pump.
- (10) The percent of households with electricity.
- (11) Infant mortality rate.
- (12) Child mortality rate.
- (13) Crude birth rate.
- (14) Total fertility rate.

The data for the independent variables are presented in Table 1. The term "family planning" refers to various aspects of birth control, which are grouped into three major categories.

These are:

- (1) Knowledge: (a) the percent having knowledge of modern contraceptive methods and (b) the percent who have heard a family planning message on the radio or television.
- (2) Attitude: (c) the percent of currently married women satisfied with family planning demand and (d) the percent who discussed family planning with their husband.
- (3) Practice: (e) the percent using contraceptives and (f) the percent sterilized. Table 2 shows data for the dependent variables of family planning (KAP) for the states of India based on the NFHS of 1998-1999. To control for the effects of religious composition, socio-economic status and average family size, each regression model was rerun including these independent variables acquired from India Census, 2001. Five of these variables are percent Hindu, percent Muslim, percent Christian, percent Buddhist and percent Sikh. Average family size was computed as mean number of persons in the state's households.

Note: Table 1 Independent Variables: (1) Percent household population literate, (2) Percent female literate, (3) Percent women completing high school education, (4) Percent women age 20-24 married before age 18, (5) Percent women employed, (6) Percent urban population, (7) Percent exposed to mass media, (8) Percent of households with sanitary toilets, (9) Percent of households with electricity, (10) Percent of households with drinking water facility, (11) Infant mortality rate, (12) Child mortality rate, (13) Crude birth rate, and (14) Total fertility rate.

Table 1. Level of Development Variables of the States of India, NFHS Data: 1998-1999

| State | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|----------------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| Andhra Pradesh | 66.9 | 36.2 | 4.0 | 64.3 | 58.7 | 24.9 | 76.3 | 27.3 | 74.4 | 78.5 | 65.8 | 21.0 | 21.4 | 2.3 |
| Arunachal Pradesh | 73.0 | 47.3 | 4.1 | 27.6 | 59.6 | 15.9 | 63.3 | 73.9 | 68.9 | 80.7 | 63.1 | 37.4 | 22.6 | 2.5 |
| Assam | 74.6 | 46.1 | 4.2 | 40.7 | 20.2 | 8.5 | 52.6 | 63.2 | 26.4 | 60.1 | 69.5 | 21.4 | 21.8 | 2.3 |
| Bihar | 63.2 | 23.4 | 2.7 | 71.0 | 26.4 | 10.2 | 27.3 | 16.8 | 18.2 | 75.4 | 72.9 | 34.7 | 28.1 | 3.5 |
| Delhi | 91.5 | 70.9 | 28.7 | 19.8 | 20.9 | 92.1 | 92.7 | 94.4 | 97.7 | 98.7 | 46.8 | 9.0 | 21.3 | 2.4 |
| Gujarat | 88.7 | 71.4 | 16.3 | 10.1 | 47.4 | 41.6 | 88.4 | 58.9 | 93.5 | 61.8 | 36.7 | 10.5 | 16.6 | 1.8 |
| Haryana | 78.8 | 44.8 | 9.2 | 41.5 | 12.6 | 28.8 | 66.9 | 39.1 | 89.1 | 88.0 | 56.8 | 21.2 | 23.1 | 2.9 |
| Himachal Pradesh | 85.4 | 63.7 | 7.6 | 10.7 | 20.8 | 9.1 | 83.7 | 27.0 | 97.2 | 77.4 | 34.4 | 8.3 | 19.9 | 2.1 |
| Jammu & Kashmir | 68.8 | 30.2 | 5.4 | 22.1 | 42.4 | 21.5 | 74.4 | 51.0 | 90.1 | 70.6 | 65.0 | 16.1 | 23.1 | 2.7 |
| Karnataka | 74.3 | 44.8 | 8.5 | 46.3 | 52.1 | 34.8 | 78.6 | 38.6 | 80.9 | 87.0 | 51.5 | 19.3 | 20.4 | 2.1 |
| Kerala | 92.8 | 87.4 | 15.6 | 17.0 | 25.0 | 23.1 | 88.5 | 85.2 | 71.8 | 19.9 | 16.3 | 2.6 | 18.8 | 2.0 |
| Madhya Pradesh | 72.1 | 31.5 | 5.9 | 64.7 | 57.2 | 25.3 | 54.8 | 22.2 | 68.1 | 63.5 | 86.1 | 56.4 | 26.7 | 3.3 |
| Maharashtra | 82.7 | 55.4 | 7.9 | 47.7 | 55.7 | 41.3 | 70.4 | 46.0 | 82.1 | 81.9 | 43.7 | 15.0 | 23.0 | 2.5 |
| Manipur | 79.7 | 57.1 | 14.5 | 9.9 | 69.9 | 33.7 | 83.8 | 92.0 | 75.3 | 48.9 | 37.0 | 19.9 | 25.8 | 3.0 |
| Meghalaya | 71.7 | 61.9 | 4.6 | 25.5 | 47.6 | 20.0 | 62.7 | 52.0 | 41.2 | 42.1 | 89.0 | 36.2 | 35.7 | 4.6 |
| Mizoram | 93.6 | 90.0 | 5.8 | 11.6 | 49.9 | 52.9 | 83.1 | 97.7 | 84.1 | 63.2 | 37.0 | 18.4 | 25.7 | 2.9 |
| Nagaland | 80.6 | 60.2 | 4.7 | 22.9 | 63.9 | 20.3 | 64.3 | 74.4 | 56.3 | 40.5 | 42.1 | 22.7 | 30.4 | 3.8 |
| Orrissa | 76.0 | 40.5 | 3.1 | 37.6 | 30.6 | 11.0 | 44.3 | 13.5 | 33.8 | 65.3 | 81.0 | 25.5 | 22.1 | 2.5 |
| Punjab | 77.9 | 61.2 | 12.7 | 11.6 | 9.4 | 30.8 | 82.0 | 51.4 | 95.5 | 98.9 | 57.1 | 15.9 | 19.1 | 2.2 |
| Rajasthan | 71.8 | 24.5 | 3.5 | 68.3 | 43.5 | 24.2 | 36.9 | 28.2 | 64.4 | 69.8 | 80.4 | 37.6 | 29.9 | 3.8 |
| Sikkim | 79.3 | 50.6 | 5.2 | 22.3 | 22.1 | 14.2 | 78.5 | 72.7 | 80.7 | 84.6 | 43.9 | 28.4 | 24.5 | 2.8 |
| Tami Nadu | 79.7 | 52.5 | 7.6 | 24.9 | 53.8 | 34.6 | 79.7 | 34.1 | 78.8 | 85.0 | 48.2 | 15.9 | 21.4 | 2.2 |
| Uttar Pradesh | 71.8 | 29.8 | 6.9 | 62.4 | 23.4 | 20.0 | 45.3 | 26.7 | 36.6 | 85.6 | 86.7 | 39.2 | 31.1 | 4.0 |
| West Bengal | 76.0 | 50.0 | 5.5 | 45.9 | 28.5 | 23.8 | 61.4 | 45.1 | 36.7 | 89.3 | 48.7 | 19.9 | 20.8 | 2.3 |
| Mean | 77.9 | 51.2 | 8.2 | 34.7 | 39.7 | 28.2 | 68.2 | 51.1 | 69.0 | 72.0 | 56.9 | 23.1 | 23.9 | 2.8 |
| Std Variation | 7.7 | 17.5 | 5.8 | 20.0 | 17.6 | 17.6 | 17.2 | 25.0 | 23.8 | 19.1 | 19.1 | 11.7 | 4.4 | 0.7 |

This variable is highly correlated with crude birth rate (.653) and total fertility rate (.704). Socioeconomic status was computed as a function of the mean measured condition of the household housing structures for each state.

NOTE: Table 2 Dependent Variables: (1) Knowledge: (A) the percent having knowledge of modern contraceptive methods, (B) the percent who have heard family planning message on the radio or television; (2) Attitude: (C) the percent of currently married women satisfied with family planning demand, (D) the percent who discussed family planning with husband and (3) Practice the percent using contraceptives, and (F) the percent sterilized

Table 2. KAP of Family Planning Variables for the States of India, NFHS Data 1998-1999

| | 1. Knowledge | | 2. Attitude | | 3. Practice | |
|-------------------|--------------|------|-------------|------|-------------|------|
| | A | B | C | D | E | F |
| State | 1 | 2 | 3 | 4 | 5 | 6 |
| Andhra Pradesh | 98.9 | 75.9 | 88.5 | 10.0 | 59.6 | 52.7 |
| Arunachal Pradesh | 98.1 | 67.9 | 57.2 | 19.3 | 35.4 | 20.6 |
| Assam | 98.4 | 60.8 | 71.8 | 20.5 | 43.3 | 15.7 |
| Bihar | 99.2 | 39.7 | 50.0 | 13.9 | 24.5 | 19.2 |
| Delhi | 99.7 | 91.7 | 82.7 | 23.6 | 63.8 | 26.3 |
| Goa | 99.7 | 85.7 | 73.5 | 25.1 | 47.5 | 27.8 |
| Gujarat | 98.5 | 62.5 | 87.4 | 11.4 | 59.0 | 43.0 |
| Haryana | 99.9 | 76.6 | 89.2 | 47.4 | 62.4 | 38.7 |
| Himachal Pradesh | 100.0 | 88.4 | 88.8 | 44.4 | 67.7 | 45.1 |

Table 2. continued: KAP of Family Planning Variables for the States of India, NFHS Data 1998-1999

| | | | | | | |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Jammu & Kashmir | 98.8 | 60.6 | 71.1 | 22.0 | 49.1 | 28.0 |
| Karnataka | 99.4 | 84.4 | 83.5 | 14.8 | 58.3 | 51.5 |
| Kerala | 99.7 | 80.6 | 84.4 | 17.8 | 63.7 | 48.5 |
| Madhya Pradesh | 97.8 | 48.9 | 73.2 | 16.4 | 44.3 | 35.7 |
| Maharashtra | 99.4 | 62.2 | 82.4 | 17.5 | 60.9 | 48.5 |
| Manipur | 95.1 | 80.8 | 62.1 | 18.5 | 38.7 | 14.4 |
| Meghalaya | 88.4 | 62.8 | 36.3 | 27.4 | 20.2 | 6.5 |
| Mizoram | 97.8 | 77.7 | 78.9 | 32.6 | 57.7 | 45.2 |
| Nagaland | 88.0 | 64.4 | 50.0 | 29.8 | 30.3 | 12.3 |
| Orrissa | 98.6 | 58.9 | 75.1 | 24.4 | 46.8 | 33.9 |
| Punjab | 100.0 | 84.8 | 90.1 | 49.7 | 66.7 | 29.3 |
| Rajasthan | 98.8 | 35.9 | 69.6 | 17.7 | 40.3 | 30.8 |
| Sikkim | 99.4 | 88.0 | 70.0 | 12.4 | 53.8 | 22.4 |
| Tami Nadu | 99.9 | 75.7 | 80.1 | 13.1 | 52.1 | 45.2 |
| Uttar Pradesh | 98.4 | 47.1 | 52.8 | 18.5 | 28.1 | 14.9 |
| West Benga | 99.6 | 56.5 | 85.0 | 17.8 | 66.6 | 32.0 |
| Mean | 98.1 | 68.7 | 73.3 | 22.6 | 49.6 | 31.5 |
| Std Variation | 3.1 | 15.7 | 14.6 | 10.8 | 14.1 | 13.6 |

Analysis Data and Results

The analysis of data and results presented below are based on two commonly used statistical procedures appropriate for the ratio level variables described above. (a) Pearson's correlation coefficient measures the association between the dependent and independent variables (b) Multiple regression analysis models the KAP variables using the ratio level independent variables of level of development.

(a) Pearson's Correlation Coefficients:

Table 3 presents the Pearson's correlation coefficients for the level of development and KAP of family planning variables for the states of India. An examination of these coefficients shows that, of the 14 level of development variables, 10 are correlated with all 6 measures of KAP in the predicted direction compliant with the hypothesis. These include percent household population literate, percent women completing high school, percent urban population, percent exposed to mass media, percent of households with electricity, percent of households with a drinking water facility, infant mortality rate, child mortality rate, crude birth rate and total fertility rate.

These results strongly support the major hypothesis that the higher the level of development, the higher the KAP of family planning among the states of India.

(1) Knowledge: The first knowledge variable A, percent having knowledge of modern contraceptive methods, is correlated with 10 of the 14 level of development variables in the direction supporting the hypothesis. The strongest correlates are with crude birth rate (-0.705), total fertility rate (-0.680), and percent households with drinking water facility (0.572). The second knowledge variable B, percent who have heard a family planning message on radio or television, is correlated with 13 of the level of development variables in the direction supporting the hypothesis. Eleven of these correlation coefficients are greater than +/- 0.500. These include percent household population literate (0.646), percent females literate (0.689), percent women completing high school education (0.589), percent women age 20-24 married before age 18 (-0.750), percent exposed to mass media (0.914), percent households with sanitary toilets (0.527), percent of households with electricity (0.701), infant mortality rate (-0.709), child mortality rate (-0.688), crude birth rate (-0.593) and total fertility rate (-0.605).

(2) Attitude: The first attitude variable C, percent of currently married women satisfied with family planning demand, is correlated in the direction supporting the hypothesis with 12 variables of the level of development. Of these, 4 have Pearson's *r* coefficients greater than +/- 0.500. They include the percent of households with electricity (0.584),

child mortality rate (-0.553), crude birth rate (-0.781) and total fertility rate (-0.775). The second attitude variable D, percent who discussed family planning with husband, is correlated in the direction supporting the hypothesis with 13 variables of the level of development. However, none of these relationships have Pearson's *r* coefficients higher than +/- 0.500. The strongest correlation with variable D is percent women age 20-24 married before age 18 (-0.465).

(3) Practice: The first practice variable E, percent using contraceptives, is correlated in the direction supporting the hypothesis with 13 variables of the level of development, 6 of which have Pearson's *r* values greater than +/- 0.500. These include the percent exposed to mass media (0.607), percent of households with electricity (0.633), infant mortality rate (-0.559), child mortality rate (-0.642), crude birth rate (-0.765) and total fertility rate (-0.763). Of the remaining variables, 2 have Pearson's *r* values greater than +/- 0.400, including percent household population literate (0.500) and percent women completing high school education (0.403).

The second practice variable F, percent sterilized, is correlated with 12 of the independent variables in the direction supporting the hypothesis, two of which have Pearson's *r* values greater than +/- 0.500. These include crude birth rate (-0.565) and total fertility rate (-0.596). Of the remaining

variables, one has a Pearson's *r* value greater than +/- 0.400, percent of households with electricity (0.486).

(b) Multiple Regression Analysis

Finally, in an effort to explore the importance of specific variables of level of development with each individual measure of family planning, six multiple regression analyses were carried out. The results presented in Table 4 include: (1) standardized regression coefficients (Beta); (2) the values of *t*; (3) the values of the *R* square, the overall fitness of the model; (5) the *F* ratio; and (6) the sample size. The six models explaining variance in each of the six measures of family planning were developed with the primary goal of maximizing parsimony and goodness of fit.

Six of the fourteen-predictor variables of level of development (percent women 20-24 married before age 18, percent exposed to mass media, percent households with electricity, percent households with drinking water facility, crude birth rate and total fertility rate), in various combinations, explain at least 21.6%, and as much as 83.6%, of the variance in the six measures of family planning. To control for non-economic factors such as religion, socio-economic status and family size, these variables were added to each model to assess their effects. Table 5 shows the correlation of the control variables with the six dependent variables of family planning.

Table 3. Pearson's Correlation Coefficient between the Level of Development and KAP Family Planning in India

| Level of Development | 1. Knowledge | | 2. Attitude | | 3. Practice | |
|--|--------------|---------|-------------|---------|-------------|---------|
| | A | B | C | D | E | F |
| 1. Percent household population literate | 0.113* | 0.646* | 0.384* | 0.328* | 0.500* | 0.276* |
| 2. Percent female literate | -0.120 | 0.689* | 0.229* | 0.351* | 0.383* | 0.169* |
| 3. Percent women completing high school education | 0.213* | 0.589* | 0.336* | 0.148* | 0.403* | 0.077* |
| 4. Percent women age 20-24 married before age 18 | 0.145 | -0.750* | -0.108* | -0.465* | -0.262* | 0.087 |
| 5. Percent women employed | -0.441 | -0.108 | -0.268 | -0.453 | -0.313 | 0.062* |
| 6. Percent urban population | 0.145* | 0.407* | 0.334* | 0.015* | 0.381* | 0.229* |
| 7. Percent exposed to mass media | 0.126* | 0.914* | 0.480* | 0.230* | 0.607* | 0.356* |
| 8. Percent of households with sanitary toilets | -0.230 | 0.527* | -0.056 | 0.083* | 0.106* | -0.218 |
| 9. Percent of households with electricity | 0.305* | 0.701* | 0.584* | 0.319* | 0.633* | 0.486* |
| 10. Percent of households with drinking water facility | 0.572* | 0.100* | 0.419* | 0.075* | 0.397* | 0.221* |
| 11. Infant mortality rate | -0.178* | -0.709* | -0.429* | -0.162* | -0.559* | -0.359* |
| 12. Child mortality rate | -0.275* | -0.688* | -0.553* | -0.274* | -0.642* | -0.395* |
| 13. Crude birth rate | -0.705* | -0.593* | -0.781* | -0.117* | -0.765* | -0.565* |
| 14. Total fertility rate | -0.680* | -0.605* | -0.775* | -0.038* | -0.763* | -0.596* |

NOTE: (1) **Knowledge**: (A) Percent having knowledge of modern contraceptive methods, (B) Percent who have heard family planning message on radio or television; (2) **Attitude**: (C) Percent of currently married women satisfied with family planning demand, (D) Percent who discussed family planning with husband; and (3) **Practice**: (E) Percent using contraceptives, (F) Percent sterilized. * Indicates a correlation in the hypothesized direction. **Bold**: Indicates independent variables that correlate in the hypothesized direction with all six of the dependent variables.

Table 4. Multiple Regression Analysis between the Level of Development and KAP of Family Planning in India

| Level of Development | 1 Knowledge | | 2 Attitude | | 3 Practice | |
|--|---------------------|----------------------|---------------------|-----------------------|---------------------|---------------------|
| | A | B | C | D | E | F |
| (4) Percent women 20-24 years old before age 18 | | | | Eta - .465 t -2519 | | |
| (7) Percent exposed to mass media | | Eta .0914 t 10839 | | | | |
| (9) Percent households with electricity | | | Eta .0284 t 2035 | | Eta .0354 t 2597 | Eta .0286 t 1437 |
| (10) Percent households with drinking water facility | Eta .0423 t 3142 | | | | | |
| (13) Qubirth rate | | | | | | |
| (14) Total fertility rate | | Eta -.570 t -235 | Eta -.603 t -601 | | Eta -.588 t -980 | |
| R Square | 0.629 | 0.836 | 0.864 | 0.216 | 0.660 | 0.410 |
| F Ratio | 18688 | 117485 | 21735 | 6344 | 23385 | 7667 |
| N | 25 | 25 | 25 | 25 | 25 | 25 |

NOTE: (1) Knowledge: (A) Percent having knowledge of modern contraceptive methods, (B) Percent who have heard family planning message on radio or television; (2) Attitude: (C) Percent of currently married women satisfied with family planning demand, (D) Percent who discussed family planning with husband; and (3) Practice: (E) Percent using contraceptives, (F) Percent sterilized.

As expected, these variables all exhibit weak to moderately strong correlations with the family planning variables.

(1) Knowledge: Analysis of regression statistics for the model predicting knowledge variable A, percent having knowledge of modern contraceptive methods, reveals that 62.9 percent of the variance is explained by two of the fourteen measures of level of development. The F ratio for this model is 18.658. Both of the Beta values are in the expected direction supporting the hypothesis. Interpretation of the negative coefficient for total fertility rate suggests that a decrease in fertility among a given state of India promotes norms of smaller family size and motivates families in that state to seek knowledge of modern contraceptive methods. A positive coefficient for percent households with drinking water facility suggests that people living in states of India with more modern infrastructures are more knowledgeable of modern contraceptive methods than those from less developed states. Inserting the control

variables into the analysis explained an additional 19.4% of the variation in knowledge of modern contraceptive methods. Percent Hindu was the strongest predictor among the control variables, with a Beta value of .609 and suggesting that states with higher proportions of Hindus were more knowledgeable of modern contraceptive methods.

The model predicting knowledge variable B, percent who have heard a family planning message on radio or television, is the best fitting and most parsimonious model in the analysis, explaining 83.6 percent of the variance of the dependent variable with only one independent variable, percent households exposed to mass media. The F ratio of 117.485 for this model is, by far, the largest. The regression coefficient for the model suggests that states of India with highly developed mass communication media are able to disseminate very effectively information on family planning to the public. Adding the control variables explained an additional 9.6% of the variation in heard a family planning

Table 5. Correlates of Family Planning with Non-Economic Independent Variables; Census of India, 2001.

| | A | B | C | D | E | F |
|-------------|-------|-------|-------|--------|-------|--------|
| Family Size | 0.385 | 0.504 | 0.545 | 0.184 | 0.543 | 0.608 |
| SES | 0.219 | 0.466 | 0.383 | 0.039 | 0.383 | 0.450 |
| % Hindu | 0.625 | 0.140 | 0.458 | -0.266 | 0.308 | 0.447 |
| % Muslim | 0.176 | 0.252 | 0.005 | -0.226 | 0.009 | -0.068 |
| % Christian | 0.779 | 0.118 | 0.481 | 0.208 | 0.373 | -0.317 |
| % Buddhist | 0.152 | 0.232 | 0.268 | 0.572 | 0.283 | -0.030 |
| % Sikh | 0.100 | 0.248 | 0.086 | -0.163 | 0.041 | -0.085 |

message. The strongest predictors were SES with a Beta of $-.289$ and percent Muslim with a Beta of $-.227$, suggesting that women in states with poorer housing and fewer Muslims were more likely to have heard a family planning message on radio or television. The model predicting knowledge variable B, percent who have heard a family planning message on radio or television, is the best fitting and most parsimonious model in the analysis, explaining 83.6 percent of the variance of the dependent variable with only one independent variable, percent households exposed to mass media. The F ratio of 117.485 for this model is, by far, the largest. The regression coefficient for the model suggests that states of India with highly developed mass communication media are able to disseminate very effectively information on family planning to the public. Adding the control variables explained an additional 9.6% of the variation in heard a family planning message. The strongest predictors were SES with a Beta of $-.289$ and percent Muslim with a Beta of $-.227$, suggesting that women in states with poorer housing and fewer Muslims were more likely to have heard a family planning message on radio or television.

(2) Attitude: The model predicting attitude variable C, percent of currently married women satisfied with family planning demand, explains 66.4 percent of the variance in the dependent

variable with two independent variables. The F ratio of 21.735 is the third highest of the six. The strongest predictor is total fertility rate. Percent of households with electricity also contributes to explaining variance in satisfaction with family planning demand. Both Beta statistics are in the direction supporting the hypothesis. These statistics suggest that low birth rates foster norms of lower family size, which in turn increases the demand for family planning. The availability of electricity supports the electronic media needed to promulgate the acceptance and availability of family planning. Adding the control variables explains an additional 17.9% of the variation in satisfaction with family planning demand. The strongest predictors were percent Hindu, with a Beta of 1.353, and percent Christian, with a Beta of 1.043, suggesting that women in states with higher proportions of Hindus and Christians tended to have higher levels of satisfaction with family planning demand.

The model predicting attitude variable D, percent who discuss family planning with husband, explains only 21.6% of the variance with one independent variable, percent of women 20 to 24 married before age 18. Although the model is parsimonious, it exhibits a relatively low F ratio of 6.344. It suggests that marriage of females at a young age reflects a more traditional family structure, so couples exhibiting this characteristic may be less likely to openly discuss family planning,

either because it is assumed that they want a large family or because norms dictate that the decision to utilize family planning is made unilaterally by one spouse. The relatively lower proportion of variance explained by the independent variable suggests that other factors not related to socioeconomic development may significantly influence the propensity of women to discuss family planning with their husbands. Adding the control variables explained an additional 39.8% of the variation in discuss family planning with husband. The strongest predictors were percent Hindu, with a Beta of .634, and percent Buddhist, with a Beta of .561, suggesting that women in states with high proportions of Hindus or Buddhists were more likely to discuss family planning with their husbands.

(3) Practice: The analysis of the data for the model predicting practice variable E, percent using contraceptives, exhibits a relatively good fit, explaining 68.0% of the variance in the dependent variable with two independent variables. The F ratio is 23.395. The Betas for both independent variables in the model are in the direction predicted, with use of contraceptives increasing with higher levels of modernization. Total fertility rate is the strongest predictor of percent using contraceptives, suggesting that lower fertility rates promote norms of smaller families and encourage the use of contraceptives among couples in In-

dia. The positive Beta for percent households with electricity indicates higher uses of contraceptives in states of India with more developed infrastructures. Adding the control variables explained an additional 12.7% of the variation in percent using contraceptives. The strongest predictors were percent Hindu, with a Beta of 1.321, and percent Christian, with a Beta of 1.144, suggesting that women in states with higher proportions of Hindus and Christians were more likely to use contraceptives.

The final model predicting practice variable F, percent sterilized, explains 41.0% of the variance with 2 independent variables. The F ratio is 7.657. The stronger predictor of percent sterilized is total fertility rate, as indicated by the higher Beta value (-0.472). This analysis suggests again that low fertility promotes norms of smaller families, making sterilization a more socially acceptable procedure. The positive Beta value for percent households with electricity (0.354) suggests that those from the more modernized or urbanized areas of India are more likely to undergo sterilization. This may be due to social forces in the urban environment encouraging sterilization, for example the reduced value and increased liability of children, or higher levels of availability for the surgical procedure in modern, urbanized areas of India. Adding the control variables explained an additional 23.2% of the variation in percent sterilized. The strongest predictors were percent Hin-

du, with a Beta of 1.233, and percent Christian, with a Beta of .992, suggesting that women in states with higher proportion of Hindus and Christians are more likely to have been sterilized.

Four of the regression models utilized multiple regression with two independent variables. Model A used percent households with a drinking water facility and total fertility rate to explain percent having knowledge of modern contraceptive methods. The correlation between these independent variables is $-.261$, a weak relationship that presents few concerns with collinearity. Models C, E and F use percent households with electricity and total fertility rate to explain variation in acceptance and practice of family planning. The correlation between these two independent variables is $-.466$, a moderately strong relationship. The high collinearity in these three models makes the Beta weights somewhat less reliable, but does not detract from the models' overall goodness of fit measures.

Conclusion

The analysis has shown that the considerable variation in knowledge, attitude and practice of family planning among the states of India can be largely explained by each state's level of social and economic development. Of the 84 relationships presented in Table 3, 73 are in the hypothesized direction.

Of the 28 relationships between the two knowledge variables (A and B) and

the 14 independent variables, 23 are correlated in the direction supporting the hypothesis. Levels of development variables are very strongly correlated with the percent who have heard a family planning message on the radio or television.

Of the 28 relationships between the two attitude variables (C and D) and the 14 independent variables, 25 are correlated in the direction supporting the hypothesis. Level of development variables are very strongly correlated with the percent of currently married women satisfied with family planning demand.

Of the 28 relationships between the two practice variables (E and F) and the 14 independent variables, 25 are correlated in the direction supporting the hypothesis. The level of development measures are very strongly correlated with the percent using contraceptives.

Regression analysis shows that various combinations of the level of development indicators significantly predict the KAP of family planning. Knowledge of family planning is best predicted by exposure to the mass media, total fertility rate and availability of a drinking water facility. Attitudes toward family planning are best predicted by total fertility rate, percent of women 20-24 married before age 18 and availability of electricity. Practice of family planning is best predicted by total fertility rate and availability of electricity, though collinearity between the independent variables in these mod-

els makes it difficult to assess which is explaining most of the variation in practice of family planning.

Analysis of the control variables showed that factors other than those indicators of modernization used in the primary analysis, especially religion, are correlated with knowledge, attitude and practice of family planning. It suggests that women in states of India with higher proportions of Hindus and Christians are more likely to know about, accept and practice family planning. Although not as strongly, socioeconomic status as measured by the general condition of the household structures and family size are also valid predictors of family planning.

The results of this study have supported the conclusions of much of the previous research. The study found that attitudes and practice of family planning were positively correlated with exposure to the mass media, confirming the findings of Westoff and Bankole (1999). The percent of women completing high school was positively correlated to all six measures of KAP of family planning, confirming the findings of Chaudhary (1996). Ward's (1984) conclusion that work force participation was not a strong predictor of fertility and Youssef's (1982) conclusion that poverty was a stronger predictor were also confirmed by the study. In that both indicators of practice of family planning were more strongly correlated with SES than percent women employed. Chaudhary's (1996) conclusion that child mortality

rate was the single most important factor in fertility was supported in the NHFS data, in that child mortality was more highly correlated with total fertility than all other variables of economic development, with the exception of exposure to the mass media.

The theme "Population and Development," adopted by the third International World Population Conference held in Cairo, Egypt in 1994 (United Nations 1994) represented a significant change in thinking about population. In addition, the Program of Action covers a wide range of topics that reach into every aspect of human existence, such as infant and maternal mortality, education, status of women, family relationships, poverty, urban development, reproductive health care and family planning. While population policies and programs have long been equated with family planning and fertility control, the Cairo Program of Action addresses the social dynamics involved in formulating these policies by emphasizing population control within the context of socioeconomic development, particularly the socioeconomic development of women. The Program of Action asserts that population growth can be stabilized and development efforts enhanced by the emancipation of women—i.e. by providing women with education, expanding the value of female children, legislating gender equality and promoting equal access to economic and political power. In addition, the Plan of Action emphasizes the promotion and

expansion not only of family planning programs, but also reproductive health programs to bring about a decline in fertility.

The results of this study have several important policy implications for improving the KAP of family planning, and thus reducing the rate of population growth in India. Government policies aimed at increasing the educational levels of women, lowering child and infant mortality, creating basic awareness of population problems through mass media and providing effective family planning services should have a significant impact on reducing population growth.

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