

Research In Brief

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Do Individuals with a Severe Mental Illness Experience Greater Alcohol and Drug-related Problems? A Test of the Supersensitivity Hypothesis

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The supersensitivity hypothesis predicts that individuals with a severe mental illness (SMI), such as schizophrenia or bipolar disorder, are 1) more likely to be diagnosed with a substance abuse diagnosis rather than a substance dependence diagnosis, and 2) experience greater negative consequences associated with substance abuse at lower levels of use as compared with non-SMI substance abusers.

This is the first known study to empirically test this hypothesis with a control group of non-SMI substance abusing individuals. Forty-two individuals with only a substance use disorder (SUD; abuse or dependence) were compared to 53 dually-diagnosed (DD) individuals on measures of substance use, alcohol and drug dependence, negative consequences, substance use outcome expectancies, and motivation for change. A group of 35 SMI-only individuals (i.e., no substance use disorder) also were recruited and all three groups were compared on psychological symptoms. The computerized Diagnostic Interview Schedule IV (DIS-IV; Robins et al., 1995) was administered to confirm diagnoses.

Findings

- Contrary to predictions of the supersensitivity hypothesis, a greater proportion of individuals in the DD group were diagnosed with alcohol dependence as compared with the SUD-only group.
- The DD group reported significantly greater problems with drug use as compared with the SUD-only group.
- There were no significant differences between the DD and SUD-only groups with respect to alcohol use, negative

continued on page 2

Assessment of Alcohol Use Disorders among Court-mandated DWI Offenders

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Individuals convicted of DWI (driving while intoxicated) are often court-mandated to undergo an assessment to evaluate substance abuse problems. Researchers hypothesized that the rates of alcohol use disorders among DWI offenders might vary according to how diagnoses were assessed. To test this hypothesis, convicted DWI offenders referred to the Research Institute for a comprehensive substance abuse evaluation by judges from urban, suburban, and rural courts in Erie County, New York were invited to participate in a study. A total of 761 offenders were referred for evaluation; 549 (72 percent) agreed to participate in this study. The sample was 78 percent male, 90 percent Caucasian with an average of 33 years of age. Twenty-nine percent were repeat DWI offenders.

Both a structured clinical interview (the Diagnostic Interview Schedule or DIS-IV, Robins et al., 1997) and an alcohol problem screening instrument (the Alcohol Use Disorders Identification Test or AUDIT; Saunders, et al., 1993) were used to assess for current and lifetime alcohol problems. ["Current" refers to meeting diagnostic criteria during the past 12 months. "Lifetime" refers to across a lifetime but not during the past 12 months.] Rates of diagnoses for first-time and repeat DWI offenders were reported separately.

Findings

- Comparison between the DIS-IV and the AUDIT – As predicted, the number of individuals with current alcohol use disorders identified by the DIS-IV (almost nine percent) was considerably lower than the number of individuals identified

continued on page 3

A Test of the Supersensitivity Hypothesis

consequences of alcohol and drug use, substance use outcome expectancies, motivation for change or alcohol and drug dependence severity.

- The DD group did not have higher rates of abuse as opposed to dependence diagnoses.
- The DD and SMI-only groups did have significantly greater levels of psychological symptoms, as compared with the SUD-only group.
- Overall, this study did not provide support for the supersensitivity hypothesis.

The Study

Participants were part of a Research Institute on Addictions' study assessing coping skills among individuals with a SMI and a substance use disorder. The SUD-only group was comprised of 42 individuals with a substance use disorder and no other major mental disorder. The SMI-only group was comprised of 35 individuals with a SMI (i.e. schizophrenia, schizoaffective, or bipolar disorder, and no substance use disorder). The DD group was comprised of 53 individuals with both a SMI and a substance use disorder (dually diagnosed). The SMI-only and DD participants were recruited from a university-affiliated, publicly funded community mental health center and the SUD-only participants were recruited from an outpatient substance use treatment clinic.

The majority of the participants were single, averaged 37 years of age, and had a household income of less than or equal to \$10,000 in the previous year. The sample was 50 percent female. SUD-only participants had a significantly greater gross income and a significantly lower unemployment rate than either the SMI-only or DD groups. Significantly more SUD-only participants lived in independent housing or private residences as opposed to a group setting, when compared with SMI-only or DD participants. Participants were predominately African American (60 percent) with no significant differences in ethnic distribution between groups. The SMI-only and DD groups did not differ in their proportions of individuals with diagnoses of bipolar vs. schizophrenia/schizoaffective disorders.

Discussion of Results

Substance Use and Diagnoses – Contrary to the supersensitivity hypothesis that suggests substance-abusing SMI individuals will display lower rates of substance use when compared with SUD-only individuals, there were no significant differences between the two groups regarding extent of recent substance use. Also contrary to the supersensitivity hypothesis, DD individuals were not more likely to be diagnosed with substance abuse as opposed to dependence.

Substance Problems, Severity of Dependence and Negative Consequences – Contrary to the supersensitivity hypothesis, DD participants did not report greater symptoms of substance dependence severity, more negative consequences associated with their substance use, or greater problems associated with alcohol use. They did, however, report greater drug problems.

Substance Use Expectancies and Motivation for Change – There were no significant differences between SUD-only and DD groups in alcohol or drug motivation for change or in positive or negative expectancies associated with substance use. Greater negative consequences were associated with greater motivation for change and negative expectancies regarding the outcomes of substance use.

Psychological Symptoms – Somatization was significantly higher for the DD group than for the SMI-only or SUD-only groups. Obsessive-compulsive, phobic anxiety, interpersonal sensitivity, depression, anxiety, paranoid ideation and psychoticism were significantly higher for the SMI-only and DD groups as compared with the SUD-only group. Hostility was higher in the DD and SUD-only groups than in the SMI-only group.

Limitations

- The sample sizes for each of the groups were limited, resulting in reduced power to detect differences between groups. However, the effect sizes for nonsignificant findings were quite small so that statistically significant differences between groups were unlikely to have been found even with a much larger sample.
- Demographic comparisons revealed differences between the SUD-only and DD groups with regard to housing, employment and income. Nevertheless, these differences were to be expected given the demographic characteristics typically found among SMI populations.
- Given that the SUD groups were drawn from substance abuse and dual-diagnosis outpatient treatment sites, the results may not generalize to non-treatment seeking individuals or those who use substances but do not meet diagnostic criteria for abuse or dependence.
- It is possible that DD individuals were only referred to substance abuse treatment once their substance use problems had progressed, possibly because their substance abuse symptoms were masked by their psychiatric symptoms. If this were the case, it would result in higher rates of dependence than seen in the larger population. This could have contributed to the lack of significant differences between the groups in rates of substance abuse versus dependence diagnoses. Alternatively, SMI individuals may have been more likely to be

Assessment of Alcohol Use Disorders

as having engaged in hazardous alcohol consumption (during the previous year) by the AUDIT (30 percent).

- Rates of Current and Lifetime Alcohol Use Disorders – For current alcohol use disorders, approximately four percent (23 individuals) of DWI offenders received a diagnosis of alcohol abuse and approximately four percent (24 individuals) received a diagnosis of alcohol dependence. For lifetime alcohol use disorders, 18 percent (99 individuals) were diagnosed with alcohol abuse and 11 percent (59 individuals) with alcohol dependence. (Participants with a current diagnosis also are represented in the lifetime category.)
- Alcohol Use Disorders and Offender Status
 - For first time offenders:
 - Three percent received a current alcohol abuse diagnosis and four percent received a current alcohol dependence diagnosis.
 - Sixteen percent received a lifetime diagnosis of alcohol abuse and seven percent received a lifetime diagnosis of alcohol dependence.
 - For repeat offenders (individuals with more than one DWI conviction):
 - Thirteen percent received a current alcohol use disorder diagnosis, twice the rate of first-time offenders (seven percent).
 - Eight percent met criteria for a current alcohol abuse disorder and six percent met the criteria for current alcohol dependence.
 - Forty-three percent received a lifetime alcohol use disorder diagnosis, compared to 23 percent of first-time offenders.
 - Twenty-four percent of repeat offenders received a lifetime diagnosis of alcohol abuse; 19 percent received a lifetime diagnosis of alcohol dependence.
- Alcohol Use and Gender Differences
 - There was no significant gender difference for current alcohol use disorder (nine percent of men vs. eight percent of women). Men were, however, more likely to have a higher lifetime alcohol use disorder than women (31 percent vs. 21 percent, respectively).

Discussion

These results suggest that rates of alcohol use disorders among DWI offenders vary according to how diagnoses are assessed and reported. When using a structured clinical interview to determine alcohol use disorders, the rate of lifetime alcohol use disorders was more than three times that of current alcohol use disorders.

Men were more likely to be repeat offenders than women, and men were also more likely to have a lifetime alcohol use

disorder. Repeat offenders' rates of both current and lifetime alcohol use disorders were approximately twice that of first-time offenders.

These findings suggest that variability in rates of alcohol use disorders reported in studies of DWI offenders may be reduced if rates of both current and lifetime diagnoses of alcohol abuse and dependence are reported separately for first-time and repeat offenders. In addition, results suggest that information be reported separately by gender.

Finally, the procedures for deriving alcohol problem diagnoses in future studies should be clearly described – use of a symptom checklist versus use of a structured or semi-structured clinical interview – to aid in the comparison of future prevalence rates.

Until better measures are developed, Stasiewicz and colleagues suggest that researchers and clinicians (a) use a valid and reliable measure for diagnosing alcohol use disorders, (b) assess for hazardous or harmful drinking using a screening measure such as the AUDIT, and (c) base referral recommendations on both sources of information.

Once the offender is engaged in an intervention program, ongoing assessment is recommended because additional information may be obtained to support a diagnosis of alcohol abuse or dependence. Based on the newly-obtained information, consideration might be given for more intensive treatment.

Limitations

- The Alcohol Module of the DIS-IV was used to determine current and lifetime rates of alcohol abuse and alcohol dependence. As a structured clinical interview, the DIS-IV may not allow the flexibility needed with DWI offenders who tend to underreport alcohol-related problems; hence the relatively low rates of diagnoses in the current study.
- The DIS-IV was not developed specifically for DWI offenders and therefore may be less sensitive to subgroups such as criminal justice populations.
- The diagnostic assessment was conducted during the offender's first visit to the outpatient clinic. It is possible that rates of diagnoses would have been higher if the diagnostic interview was conducted following the establishment of a greater therapeutic rapport between therapist and client.
- Social desirability may have influenced the reporting of alcohol use and alcohol-related problems. DWI offenders may be inclined to minimize their alcohol problems to avoid costly or unwanted treatment.

A Test of the Hypothesis

identified as having a SUD during their mental health assessments and treatment.

- While this study's findings do not support the supersensitivity hypothesis, a population-based epidemiological study would provide a superior test by avoiding the potential for bias associated with treatment-seeking populations.

Conclusion

The results of this study suggest that negative consequences and problems associated with substance use disorders do not differ between individuals with and without a severe mental illness. In addition, cognitive and attitudinal factors related to substance use examined in this study suggest that SMI and substance use disorder participants were quite similar in their thoughts about substance use and their self-reported need for change.

References

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Assessment of Alcohol Use Disorders

Summary

Thorough assessment of DWI offenders will require studies that focus on the development of reliable and valid measures of alcohol problems, as well as those which assess for hazardous or harmful drinking using a screening measure such as the AUDIT. Until such research is conducted, the results of the present study show that it will be important to report rates of alcohol use disorders separately by offender status and gender, as well as to distinguish lifetime from current alcohol use disorders, and report rates of alcohol abuse and alcohol dependence separately. Additionally, a thorough description of the procedures used for deriving a diagnosis of alcohol abuse and dependence should be included.

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