Recently the media has drawn attention to serious family violence episodes in our military community. Alcohol is a contributor to family violence. This issue of Joining Forces Joining Families (JFJF) focuses on the relationship between domestic violence and alcohol use. Our interview is with Chris Murphy, PhD, of the University of Maryland Baltimore County. Dr. Murphy shares his insights into violence and alcohol based on his experience in coordinating a community counseling program for domestic violence offenders. Other articles in this issue are related to themes discussed by Dr. Murphy including a review of the stages of change model and a brief discussion of motivational interviewing. Both concepts are commonly used in addiction and violence interventions and are widely applicable to changing maladaptive behaviors. We continue our focus on violence and neuroscience with a review of a study relating the gene-environment interaction to child abuse and adult PTSD. Our regular statistics article presents a brief discussion of meta-analysis, a technique often used in the behavioral sciences to estimate the effect of an intervention across a wide range of studies investigating the same outcome.

**In This Issue**

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**Featured Interview**

**Domestic Violence and Alcohol Misuse**

*An Interview with Christopher Murphy, PhD, by James E. McCarroll, PhD*

Christopher Murphy, PhD

Christopher Murphy, PhD, is Professor of Psychology at the University of Maryland, Baltimore County. He also directs the New Behaviors Program at the Domestic Violence Center of Howard County, Maryland. This Center consists of comprehensive clinical training, service, and research programs focusing on perpetrators of intimate partner violence. Dr. Murphy's research focuses on cognitive-behavioral and motivational interventions for abusive behavior in intimate adult relationships, factors that predict successful response to partner violence treatment, emotional abuse in relationships, and the links between intimate partner violence and the use of alcohol and drugs. His work has been supported by grants from the National Institute of Mental Health and the National Institute on Alcohol Abuse and Alcoholism. Dr. Murphy has authored more than 50 articles and book chapters on the topic of intimate partner violence.

**Dr. McCarroll:** Please tell us about your center for domestic violence counseling and your research on the relationship between domestic violence and alcohol use.

Dr. Murphy: I have an appointment at the University of Maryland, Baltimore County (UMBC) and I also help coordinate a community-based counseling program for domestic violence offenders in Howard County, Maryland. About 80 to 100 abusive individuals come through our counseling program each year. My clinical work has been mainly in domestic violence treatment. I also collaborate with people in the VA system whose primary expertise is in substance abuse.

**Dr. McCarroll:** People can be referred for treatment for violence or for alcohol abuse. How well does each program screen for the other problem and how well do they work together?

Dr. Murphy: Surveys in both of those areas have shown that there is tremendous variation...
in the extent to which each program assesses for the other problem. There are some theories that help to explain why this is the case. In domestic violence, it has traditionally been thought that substance use is viewed as an excuse rather than a contributing factor and certainly not a cause of violence. Because of that, some domestic violence programs have rejected the idea that they can do much about the substance abuse or they have said that substance abuse is not something that they handle in their program.

In the substance abuse field, there is a traditional belief that once the addiction is cured, all other aspects of one’s life will start getting back on track.

**Dr. McCarroll: How would you advise a clinician working in the domestic violence field to assess for the involvement of alcohol misuse or abuse in domestic violence?**

Dr. Murphy: There are several methods that are very helpful. One is to use a general screening tool such as the AUDIT (Alcohol Use Disorders Identification Test). Although the AUDIT detects early signs of alcohol dependence, we have found that it misses a lot of people who were intoxicated at the time of an abuse incident. The approach I take is to go over details of conflicts where there has been abuse and ask the person whether they had had anything to drink or were using any drugs at that time. We also ask how often they drink and how much they typically drink on weekdays and weekends to screen for unhealthy levels of alcohol consumption.

**Dr. McCarroll: If you find somebody who has a high level of drinking, but they were not drinking during the incident, what do you do with that information?**

Dr. Murphy: It is still valuable for them to have some type of intervention for a couple of reasons. First, they might be doing damage to themselves or others through that level of drinking. Second, their drinking may interfere with their getting benefits from domestic violence counseling.

**Dr. McCarroll: Is the person who drinks moderately more likely to be involved in domestic violence than one who does not drink?**

Dr. Murphy: There is no good evidence to that effect. It is binge drinking and chronically high levels of alcohol consumption that are associated with domestic violence. There are two different patterns of drinking among those with serious alcoholism: stable and unstable drinking. Unstable drinking applies to people with serious alcohol problems who do not drink the same amount every day, or may not drink every day, but who drink quite excessively at times. They also tend to drink outside the home. Stable alcoholic individuals tend to drink at home, every day, in roughly the same amount. We have found that domestic violence is more common among those with unstable drinking patterns.

In our studies of persons with severe alcohol problems we have found that if they are able to achieve stable recovery or remission from their problem drinking, their domestic violence rates substantially decline and their level of risk looks fairly similar to demographically matched people in the population who do not have alcohol problems. This suggests that stable remission of drinking is a major protective factor against further domestic abuse.

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Alcohol and Interpersonal Violence

By James E. McCarroll, PhD

The research of Dr. Murphy and colleagues has focused on the relationship of alcohol consumption to interpersonal violence (IPV). The studies reviewed here examine many of the risk factors associated with IPV and alcohol misuse.

In a study of partner-violent and nonviolent alcoholic men, the partner-violent alcoholic men had more antisocial personality traits, greater alcohol problem severity, greater use of other drugs, higher relationship distress, and stronger beliefs in the relationship between alcohol drinking and relationship problems. Relationship distress and alcohol problem severity were independently associated with partner violence (Murphy, O’Farrell, Fals-Stewart, & Feehan, 2001). The number of drinks consumed by the alcoholic husband in the 12 hours prior to a physical assault incident was significantly higher prior to violent compared to non-violent conflicts (Murphy, Winters, O’Farrell, Fals-Stewart, & Murphy, 2005).

In another study, rates of domestic violence by alcoholic men were compared before and after alcohol treatment. In the year before treatment, 56% of the alcoholic men had been violent toward their female partner (O’Farrell, Fals-Stewart, Murphy, & Murphy, 2003). After treatment, partner violence in the alcoholic sample decreased to 25%, but remained higher than the comparison group (14%). Among alcoholics whose alcoholism remained in remission, the prevalence of violence was reduced to a level (15%) that was nearly identical with the non-alcoholic comparison sample.

Alcoholics in remission had about the same prevalence of violence (15%) as the non-alcoholic comparison sample.

Greater drinking by wives prior to violent conflicts has also been observed. Women in addiction treatment programs reported a high level of both victimization and perpetration of violence. They committed more violent acts and were more likely to commit severely violent acts than the men in these couples (Chase, O’Farrell, Murphy, Steward, & Murphy, 2003).

Finding successful treatment for substance abusers has also been a focus of the research of Dr. Murphy and colleagues. Recent studies have found that behavioral couples therapy, an intervention that emphasizes sobriety, teaches communication skills, and increases positive activities has strong research support in improving relationships and decreasing domestic violence (O’Farrell, Murphy, Stephan, Fals-Stewart, & Murphy, 2003).

References


For additional reading on alcohol and domestic violence in the Army, see:


How People Change
By James E. McCarroll, PhD

Dr. Murphy, in his interview in this issue of JFJF, noted the applicability of the stages of change model of Prochaska and DiClemente to family violence and addiction counseling (Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992). The purpose of their studies was to understand and describe how people intentionally change their behavior with and without psychotherapy. The stages of change model has five components: precontemplation, contemplation, preparation, action, and maintenance. The model has now become a classic way of conceptualizing how individuals initiate changes in behavior.

The stages of change model is flexible and considers that most individuals do not progress through the changes in a linear fashion, but in a spiral in which relapse occurs. The spiral suggests that those who relapse do not revolve in endless circles, but learn from their mistakes as they progress. The stages represent a time dimension that allows understanding of when shifts in attitudes and behaviors occur. The processes of change aspect of the model addresses how the changes occur. Ten examples of types of intervention leading to change are given by the authors (Prochaska, DiClemente, & Norcross, 1992). Among these are consciousness-raising, self-reevaluation, and helping relationships. Importantly, for assessment and treatment of behaviors requiring change is the integration in their model of both the stages and the processes of change. A practical implication of this approach is that prevention and treatment programs that address clients and communities with only action-oriented programs are likely to not appeal to people who are not ready for the action stage of change. Specifically, the model requires that assessment address the stage of a client’s readiness for change and provide an intervention that is appropriate for that stage.

Motivational interviewing (MI) grew out of the style of non-directive therapy pioneered by Carl Rogers (Rogers, 1959). Miller (1983) is credited with developing motivational interviewing as a way to help people work through ambivalence and commit to change. The components of motivational interviewing are: (1) a focus on increasing motivation for change, and (2) consolidating commitment (Miller & Rollnick, 2002). Motivational interviewing consists of a supportive and empathic counseling style, a directive method for resolving ambivalence, exploration of the client’s own arguments for change, and reflective listening (Hettema, Steele, & Miller, 2005). A recent comprehensive review of motivational interviewing and meta-analysis of studies of MI concluded that the evidence base for MI is strong in the areas of addiction and health behavior (Hettema, Steele, & Miller (2005). When used as a brief intervention added to other treatment approaches, MI appears to improve outcomes, but its effectiveness is highly variable across providers, populations, target problems, and settings (Hettema, Steele, & Miller, 2005).

References


Meta-analysis is a statistical technique that allows investigators to analyze the results of a number of studies at one time. It is frequently used in social science research when many studies have been conducted on the same question using the same or similar measures. Based on the aggregation of data from the studies in the analysis, the investigator may draw conclusions about whether the phenomenon or intervention of interest has consistently shown the same or similar results.

There are many different models for meta-analysis and many cautions on how to conduct the analysis to avoid a misleading conclusion due to biases in study selection and analytic techniques (Egger, Smith, & Phillips, 1997). Ideally, the research selects only studies with the same objectives and outcome measures. However, the selection of studies ultimately has elements of subjectivity requiring the investigator to be aware of biases due to different aspects of the studies selected for analysis. Critical for meta-analysis is that the outcome measures have to be expressed in a standardized form to permit comparison across studies. Outcomes can be either continuous (such as degree of change on a measure) or dichotomous (characteristic present or absent). For estimates of the outcome in studies involving continuous measures, the differences are measured in the difference between the mean in the treatment group and the controls or other comparison group. Sometimes these differences are also expressed in units of standard deviation. When the outcome is dichotomous, the odds ratio (or relative risk) is used as the measure of the outcome result.

Another approach to meta-analysis was suggested by Greenland (1998) who reviewed meta analysis from the epidemiologic point of view. He noted the approach that may be taken when investigators have used non-experimental data to make inferences about causes of the outcomes investigated. Why does he stress the meta-analysis of non-experimental data? This is because in experimental research where controls are applied to confounders and other sources of variability, causal relationships between antecedent variables and outcomes of interest are more likely to be observed.

In Greenland’s summary of the meta-analysis of non-experimental data, there are two primary objectives: (1) to find an overall summary effect (such as an average) across studies, and (2) to identify and estimate differences among the variables in the analysis. The first is called the synthetic approach and the second is called the analytic approach. The synthetic approach can be misleading or lead to wrong conclusions if the investigator does not also pursue some aspect of the analytic approach to determine whether there is systematic variation across studies. Finally, no meta-analysis can compensate for systematic error that affects all studies in the analysis.

In synthetic studies, the major outcome sought is the effect size. Effect size is a general term in statistics that refers to the difference in outcome between groups that have received an intervention compared to those who received no intervention. For example, the difference in height between adult men and women is readily visible and does not require measurement in a large population. This would be considered a large effect size.

For pre-teen children, the difference between the height of boys and girls may not be so obvious and the differences would constitute a small effect size. However, it is not the only outcome that should be produced when analyzing quantitative data. At a minimum, the confidence interval of the effect size is required in order to understand the meaning of the effect size observed.

Meta-analysis was used to examine whether motivational interviewing (MI) was more effective than no intervention in reducing alcohol consumption, and whether MI is as effective as other interventions (Vasilaki, Hosier, & Cox, 2006). The data for their review consisted of 22 randomized trials of MI interventions. The effect size observed was greater than 0.60, considered a moderate result (Cohen, 1988), when the follow-up period was 3 months or less and dependent drinkers were excluded. When MI was compared to studies in which another intervention was applied, the effect size was 0.43. Applying Greenland’s second requirement for a meta-analytic review, the authors com-
Child Abuse and Adult Posttraumatic Stress Symptoms: A Gene by Environment Interaction

By James E. McCarroll, PhD and David M. Benedek, MD

JFJF strives to report new developments in the neuroscience of family maltreatment. Here, we briefly summarize an article which relates the interaction between a gene (FKBP5) and the environment (child maltreatment) to the development of adult posttraumatic stress symptoms (PTSS) (Binder, Bradley, Liu, et al., 2008). Genes have many variations. In this study, some forms (alleles) of the FKBP5 gene were associated with adult PTSS symptoms while other alleles of the gene appeared to be protective against the development of PTSS. Specifically, four types of the FKBP5 gene interacted with the severity of abuse as a child to predict the level of adult PTSS symptoms. This gene by environment interaction was significant after controlling for age, sex, levels of non-child abuse trauma, genetic ancestry, and depression (frequently found in combination with PTSS). A hypothesized mechanism for this observed result was that certain variations in the FKBP5 gene may alter sensitization of the stress-response pathway during development and place individuals who have had significant child abuse at risk for PTSS. This study involves complex genetic and neurochemical mechanisms that are not well understood and requires replication before the findings become widely accepted. Nevertheless, it suggests that individuals with a certain genetic makeup when subjected to early child abuse are more likely to develop PTSS as adults than persons without this genetic pattern.

Reference

Meta-Analysis, from page 5

Although meta-analysis is a powerful analytic method, it is not foolproof. They concluded that while brief MI is effective, there are complex factors that could influence its long-term outcome and that future research should concentrate on possible predictors such as age, gender, employment status, marital status, mental health, and other variables.

In conclusion, although meta-analysis is a powerful analytic method, it is not foolproof. The reader of a meta-analytic paper claiming benefit of a treatment or other intervention should pay attention to the methodology and especially to whether the author has provided qualitative data and commented on the limitations of the analysis.

References

CSTS Website Updated

The website of the Center for the Study of Traumatic Stress (CSTS) has been redesigned and reorganized. Three bars on the left-hand side of the site provide navigation to all aspects of the site. About Us, Trauma and Disaster, and About You now serve as a gateway to the comprehensive information on the site. A search function has been added to make finding resources faster and more efficient. We’ve even shortened our URL to CSTSonline.org. Please visit, check it out, and send comments and suggestions to nvineburgh@usuhs.mil.
Dr. Christopher Murphy Interview, from page 3

However, risks may still exist. One risk is the limited success of alcohol treatment. People with antisocial personalities and longer histories of substance abuse tend to have poorer outcomes in addiction treatment. They might have continued risk for partner violence because they are less likely to remit in their substance abuse. It is also possible that even when they overcome their substance abuse they will continue to be controlling or abusive in their relationships due to generalized tendencies toward anger and violence.

Dr. McCarrroll: What are some differences between the populations seen in domestic violence treatment and those in alcohol treatment?

Dr. Murphy: The vast majority of people in domestic violence treatment are court-mandated whereas alcohol programs have tended to be primarily voluntary or have a mix of mandated and voluntary clients. In actual practice, a lot of people in court for alcohol problems do not get referrals for domestic violence even when there is evidence or testimony that they have both problems.

However, when domestic violence offenders are referred to addiction treatment programs, those programs would not always view the domestic violence client’s drinking problems as warranting substance abuse services. For example, domestic violence offenders may not have many negative consequences of their substance abuse other than its negative effects on their family relationships. Also, substance abuse programs do not necessarily gather information from the relationship partner about substance abuse and violence.

Dr. McCarrroll: What are the goals of most substance abuse programs?

Dr. Murphy: Abstinence is the goal for people with significant substance dependence disorders. Once they have a certain level of alcohol problems, it is unlikely that they could drink in a controlled fashion. There are also binge drinkers who come to domestic violence programs. They may get into trouble when they binge drink, but not have symptoms of alcohol dependence. Non-abstinence might be a reasonable goal for those individuals if they can regulate their drinking and have harm-reduction as a goal.

Dr. McCarrroll: Do you find common barriers to treatment in most domestic violence offenders?

Dr. Murphy: The first barrier is blaming the partner for the difficulties and problems and being very frustrated and angry at the system that put them there. Clients feel like they have been railroaded or they did not get a chance to have their part of the story heard by the police or the courts. It is often very hard for them to look at their own behavior.

Dr. McCarrroll: Many states mandate lengthy domestic violence treatment programs, six months and more. In the military, that option is limited by the frequency and length of deployments. What is the length of time necessary for an effective treatment for violence and for alcohol abuse?

Dr. Murphy: In substance abuse, some brief interventions have good outcomes, particularly motivational enhancement therapy where the goal is to stimulate the individual to a self-directed change process. [See articles in this issue of JFJF entitled How People Change for more on motivational interviewing and the stages of change model.] In the domestic violence field, we are still struggling to clearly identify effective interventions. There is a general clinical sense that we need to see people at least for a few months to try to understand their problems and to give them some skills to supplant their abusive behavior. There is not much evidence to suggest that a one-year program is better than a six-month program or that a six-month program is clearly better than a three or four-month program.

Dr. McCarrroll: What is the distinction between motivational therapy and cognitive behavioral therapy?

Dr. Murphy: Motivational therapy is less directive than cognitive behavioral therapy. It uses more reflective listening and focuses on the issues of why someone would want to change, the barriers to change, developing a plan for change, and stimulating movement through the stages of change. A lot of the original motivational interviewing is based on the Proshaska and DiClemente five stages of change.7 Motivational interviewing emphasizes a self-directed change process.

Cognitive behavioral therapies tend to focus on the active ingredients of change. Once someone is motivated to change, they need to alter their thought processes and to learn new behaviors, for example strategies to handle relationship disagreements and conflicts more constructively.

We have studied motivational therapy as an early intervention for domestic violence offenders. A lot of clients are resistant when they show up for treatment and hostile toward the system and the treatment providers. We need a clinical strategy to get them past that initial resistance and hostility in order to open them up to some of the subsequent interventions that are more cognitive and behavioral. You may have the best cognitive behavior therapy in the world, but people are not going to benefit if they do not practice the listening and communication skills taught in the treatment.

Dr. McCarrroll: Can you use the stages of change model in both the domestic violence and alcohol fields?

Dr. Murphy: Yes. It was originally developed in the addictions field. The model fits well for stopping smoking. It gets more complicated when you apply it to domestic abuse because you have another person involved in the relationship and a complex set of behaviors that might involve control, emotional abuse, physical assault, and other kinds of difficulties so it is not as simple to conceptualize as smoking.

Continued on p. 8
There are many websites containing helpful information for practitioners on the prevention of alcohol misuse. Preventive services are an important part of the Army Family Advocacy Program (FAP). Prevention of alcohol misuse can have a dramatic effect on rates of domestic violence (See interview with Dr. Chris Murphy). The U.S. Preventive Services Task Force (USPTF) in 2004 published recommendations for primary care interventions for alcohol problems. The USPTF found that important outcomes can result from screening and behavioral counseling to reduce alcohol misuse by adults.

- Screening in primary care settings can identify patients whose levels or patterns of alcohol consumption do not meet criteria for alcohol dependence, but do place them at risk for increased morbidity and mortality.
- Brief behavioral counseling with follow-up can produce small-to-moderate reductions in alcohol consumption that are sustained over 6- to 12-month periods or longer.
- Interventions can lead to positive health outcomes 4 or more years later.
- Screening and behavioral counseling can reduce alcohol-related morbidity.

The U.S. Department of Health and Human Services maintains a webpage for the Agency for Healthcare Research and Quality (http://www.ahrq.gov/clinic/). This website has a very wide variety of sources of information of interest to the Army Family Advocacy Program (FAP) community as well as all clinical services providers. To find this article and others of interest go to Preventive Services, then to Recommendations, and then to Injury and Violence. Under Mental Health Conditions and Substance Abuse is the entry entitled “Alcohol Misuse.” At this point is a summary of the finding that screening in primary care settings can accurately identify patients who are at high risk for increased morbidity and mortality.

Other entries on this page are Screening for Family Violence, Depression Screening in Adults and Children, and others such as obesity, exercise, and pregnancy. These pages may be especially helpful to providers as they present a succinct statement of the problem, the evidence considered, and the recommendation, all in a way that can be easily presented to clients.

References

Dr. McCarroll: Do you think that a clinician can function effectively addressing both violence and alcohol misuse?

Dr. Murphy: Yes. It would require evaluation of some of their assumptions. People in the domestic violence field might have to reevaluate some of their thoughts that substance abuse is just an excuse for violence by acknowledging that it might contribute directly to people’s bad judgment and impulsive behavior. People on the substance abuse side might have to reevaluate the extent to which they believe that family relations may play a role in someone’s addiction and not just think that all their clients’ problems are as simple as a secondary consequence of their substance abuse. A lot of the clinical and counseling skills would be very similar in both these areas.

References