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Cover Design

The creation of the graphic for the logo came about by thinking of how ideas are formed and what the process would look like if we could see into our brains. The sphere represents the brain, and the grey matter inside consists of all the thoughts in various stages of development. And finally, the white spotlight is one idea that formed into a reality to voice. The entire logo is an example of creation in the earliest stages.

Cathy Solarana, Graphic Designer

Editorial

Announcement

I am pleased to announce that Susan Burns from Morningside College in Sioux City, IA has accepted the position of Managing Editor-Elect for the *Journal of Psychological Inquiry (JPI)*.

A search committee received applications for the position and recommended Susan to *JPI*'s editorial board, and they recommended her to the Board of Directors of the Great Plains Behavioral Research Association. The Board, in turn, unanimously approved that recommendation.

Susan earned master's and doctoral degrees from Emporia State University and Kansas State University, respectively. Her professional interests include psychology of gender, influences of videogame exposure, academic dishonesty.

For many years, Susan has served as a reviewer for *JPI* and the *Psi Chi Journal of Undergraduate Research*. She has also been a consulting editor for both journals. Susan has reviewed several psychology-related books.

She has sponsored numerous students' research projects. In addition to her own scholarship, Susan's students have presented the results of their research at state, regional, and national psychology conventions and in psychology journals.

For several months, Susan and I have worked to foster a smooth transition of editors. We have shared viewpoints regarding undergraduate research and discussed procedural operations of *JPI*. We have also had extensive conversations about strategies ranging from copy editing to journal production. Subsequent to our meetings, I reported to *JPI*'s editorial board that I found Susan possessed the "skills and enthusiasm [that will] provide the leadership and professionalism to guide *JPI* into a new era. ... she is eager to [pursue our] common goal of recognizing and promoting quality undergraduate scholarship."

I have begun a two-year, phased retirement from Creighton University. During academic year 2007-2008, I will have a half time workload. *JPI*'s Volume 12 will be my last as Managing Editor. Susan will begin receiving manuscripts in the fall; she will be responsible for producing *JPI* beginning in 2008.

Evidence for the journal's success through 2006 consists of the publication of 79 empirical and literature review articles by 116 authors, as well as 95 Special Features articles by 118 authors. There have been 11 interviews with notable psychologists, including former presidents of the American Psychological Association (Bill McKeachie, Dick Suinn, and Bob Sternberg) and Association for Psychological Science (Beth Loftus).

Such success would not have been possible without the dedication and professionalism of reviewers and associate editors. The median number of reviewers for each issue was about 40. The following individual served as associate editors since the journals inception:

Mary Beth Ahlum	Ralph McKenna
Julie Allison	Richard L. Miller
Brian C. Babbitt	Gwendolyn K. Murdock
Christie Cathey	Jennifer L. O'Loughlin-Brooks
Stephen F. Davis	Robert F. Rycek
William J. Lammers	Marilyn L. Turner

To students and their sponsors, reviewers, and editors, I extend my sincere appreciation. You have raised the quality of undergraduate inquiry to a new high.

Finally, I want to thank administrators of Creighton University's College of Arts and Sciences and the Department of Psychology for their financial support. That support contributed substantially to *JPI*'s stability.

Mark E. Ware
Managing Editor

Instructions for Contributors

The *Journal of Psychological Inquiry* encourages undergraduate students to submit manuscripts for consideration. Manuscripts may include empirical studies, literature reviews, and historical articles; manuscripts may cover any topical area in the psychological sciences. Write the manuscript for a reading audience versus a listening or viewing audience.

1. Manuscripts must have an undergraduate as the primary author. Manuscripts by graduates will be accepted if the work was completed as an undergraduate. Graduate students or faculty may be co-authors if their role was one of teacher or mentor versus full fledged collaborator.
2. Manuscripts must (a) have come from students at institutions sponsoring the Great Plains Students' Psychology Convention and the *Journal of Psychological Inquiry* or (b) have been accepted for or presented at the meeting of the Great Plains Students' Psychology Convention, the Association for Psychological and Educational Research in Kansas, the Nebraska Psychological Society, the Arkansas Symposium for Psychology Students, or the ILLOWA Undergraduate Psychology Conference. The preceding conditions do not apply to manuscripts for the Special Features Sections I, II, or III.
3. Send original manuscripts only. Do not send manuscripts that have been accepted for publication or that have been published elsewhere.
4. All manuscripts should be formatted in accordance with the APA manual (latest edition).
5. Empirical studies should not exceed 15 double-spaced pages; literature reviews or historical papers should not exceed 20 double-spaced pages. The number of pages excludes the title page, abstract, references, figures, and tables. We expect a high level of sophistication for literature reviews and historical papers.
6. The *Journal* requires five (5) copies of the manuscript in near letter quality condition using 12 point font.
7. Provide e-mail addresses for the author(s) and faculty sponsor.
8. Include a sponsoring statement from a faculty supervisor. (Supervisor: Read and critique papers on content, method, APA style, grammar, and overall presentation.) The sponsoring letter should indicate that the supervisor has read and critiqued the manuscript. In addition, assert that the research adhered to the APA ethical standards. Finally, confirm that the planning, execution, and writing of the manuscript represents primarily the work of the undergraduate author(s).
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11. Ordinarily, the review process will be completed in 60 days.
12. If the editor returns a manuscript that requires revisions, the author(s) is (are) responsible for making the necessary changes and resubmitting the manuscript to the *Journal*. Sometimes you may have to revise manuscripts more than once.

2/06

Send submissions to:

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Checklist:

- _____ Five copies of the manuscript (#6)
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Effectiveness of Pretreatment Variables in Predicting Substance Abuse Treatment Completion

Jessica Sapp, Valerie Gonsalves, & Brandon Jewell

Creighton University

With the stable prevalence of substance abuse and dependency, effective treatment for these problems is crucial. Researchers have linked several pre-treatment variables to success or failure in substance abuse programs. However, there remain several understudied variables such as a history of sexual abuse and voluntariness for treatment. This study examined those variables using data from a residential substance abuse facility and found that although sexual abuse had a significant affect on treatment completion, voluntariness of treatment did not.

Estimates are that approximately 200 million people use drugs globally with millions of those individuals suffering from a substance abuse disorder (Washington & Moxley, 2003). Substance abuse disorders are in turn related to many other social concerns such as homelessness, physical abuse, depression, crime, and even careless deaths (Washington & Moxley). Because of these social concerns, individuals and organizations spend millions of dollars on treatment for substance abuse disorders each year (Lo & Stephens, 2002). As a result, using the most effective means to treat patients and to identify those variables likely to reduce the effectiveness of treatment is important. Researchers have identified several variables as accurate predictors of success, including age, gender, ethnicity, education, treatment retention, and socially deviant peers (Friedmann, Lemon, Sterin, & D'Aunno, 2003).

In addition to those variables, two highly understudied pretreatment variables are voluntariness to enter treatment and a history of sexual abuse. This study intended to further research in establishing whether voluntary admission or a history of sexual abuse accurately predicted treatment completion.

Studies indicate that patients enter treatment for several reasons. Establishing whether patients who are less motivated to seek treatment (i.e., involuntary admissions) are less likely to respond to treatment is imperative. For the purposes of this study, we defined voluntariness by the original admission status. Voluntary patients may

enter treatment to overcome family situations, psychological stressors associated with a substance abuse disorder, or dependence on a drug. Involuntary patients are referred to treatment programs through an employee assistance program, mental health agencies, or the courts and legal system (Friedmann et al., 2003). The literature is somewhat unclear as to whether voluntary admission is a valid indicator of treatment completion or failure.

Lo and Stephens (2002) did not specifically define voluntary or involuntary admission, but they established treatment motivation as a means to prolong retention in treatment programs and thereby improve treatment outcomes. They found that the more internally motivated patients (voluntary) entered treatment programs at a much lower severity level of the disorder and thus potentially performed better in treatment. Many substance abusers voluntarily enter treatment for the first time during the less severe stages of the disorder. But many first time treatment patients also enter treatment involuntarily. Friedmann et al. (2003) found the majority of patients in treatment programs for the first time were referred for legal reasons or by employee assistant programs. There are both voluntary and involuntary patients in first time treatment programs. Perhaps voluntariness to enter a treatment program does not accurately predict success, but rather the number of previous times in a treatment program and severity of any co-occurring disorders that are responsible for the outcomes.

Research also exists to support the contention that although voluntary patients enter treatment at an earlier stage of the disorder, they also may have other psychological stressors along with the substance abuse disorder that lead to treatment failure (Friedmann et al., 2003). Patients may be less able to complete treatment successfully because of the difficulty in overcoming both the psychological stresses and the substance abuse disorder.

The literature appears equally unclear in regard to having a history of sexual abuse and treatment comple-

*Readers can find a description for the context of this award in: Ware, M. (2006). Editorial. *Journal of Psychological Inquiry*, 11, 5.

Matthew T. Huss from Creighton University was faculty sponsor for this research project. The authors thank the patients and staff of Touchstone Residential Treatment Program for their assistance in the data collection process.

tion. However, that childhood sexual abuse is related to several psychological disorders such as depression and drug abuse is clear (Swanson, et al., 2003) and that any form of childhood sexual abuse is directly associated with lifetime substance abuse disorders (Freeman, Collier, & Parillo, 2002). Furthermore, individuals who have been sexually assaulted as adults also have high incidences of substance abuse. Medrano, Hatch, Zule, & Desmond (2002) claim that many long-term consequences of childhood abuse exist among substance abusers and that a great number of patients in substance abuse treatment programs are victims of sexual or physical abuse. Estimates are that between 30 and 50 percent of men in substance abuse treatment programs have previous experiences of sexual or physical abuse and that the number of women who have been previously sexually or physically abused is even higher (Medrano et al.). Medrano et al. also indicated that while physical abuse has an indirect effect on later drug abuse, sexual abuse is directly related to the abuse and or dependence on drugs. The literature clearly supports a correlation between a history of sexual abuse and a substance abuse diagnosis.

However, there is little research on whether or not sexual and physical abuse also predict outcomes of substance abuse treatment programs. Thornton, Patkar, & Murry (2003) found that growing up in aversive situations with sexual or physical abuse may cause a mentality of learned helplessness. Patients in mental health or substance abuse treatment facilities believe they are helpless to change situations in their lives, including substance abuse disorders. Therefore, patients who have this attitude may not benefit from substance abuse treatment facilities that promote self-help in overcoming addictions. Those patients may not be able to identify with the theories of these treatment programs.

The necessity for creating effective, efficient substance abuse treatment programs is vital for abusers. This study focuses on two of the important but understudied pretreatment variables, voluntariness and previous experiences of sexual abuse. The current study examined those two variables along with additional variables, which researchers have found related to treatment completion, in a sample of patients at a residential dual diagnosis program. Because this study focused on several variables, studying a program that not only assists in the treatment of substance abuse but mental illness as well is essential. Based on the current literature, we anticipated a history of sexual abuse to be a more accurate predictor of treatment completion than voluntariness. In addition, we expected that previous variables that have been asso-

ciated with treatment completion would also be significant predictors of treatment completion.

Method

Participants

Participants were 146 consecutively admitted patients at a dual diagnosis residential treatment facility. Participants consisted of 89 men and 57 women and had a mean age of 34.14 years ($SD = 8.78$). The ethnic background of participants was 133 Caucasians, nine African Americans, four Asian Americans, two Native Americans, three participants who identified themselves as Other, and one participant who did not report ethnic identity. For admission to the facility, participants had both a history of drug abuse or dependence, and a diagnosed (or diagnosable) mental health disorder.

Materials and Procedures

Treatment staff collected patient records during a calendar year and coded demographic and clinical history data primarily reported during intake evaluations. Information regarding ethnicity, age, gender, treatment reason (voluntary admission), previous treatment, alcohol abuse, mental health status, and history of sexual abuse, were treated as a dichotomous variable for the purpose of statistical analysis. Days in treatment was recorded as a continuous variable. In addition, patients' final discharge status was identified as either successful completion of the program or unsuccessful completion of the program. Other variables known to affect treatment outcome (e.g., gender, age, days spent in treatment, previous treatment, and anxiety diagnoses) were included in the model.

Voluntary entry into treatment was measured in terms of patients who were not committed to treatment by the Mental Health Board or via a court order. Patients who were committed or court-ordered were classified as involuntary. Sexual abuse was coded as present if the patient, while in treatment, admitted to previous sexual assault or previous institutional records documented the occurrence. Those variables were compared to the discharge status. Discharge status was rated on a scale of high or low. A high completion status indicated that the patient had successfully completed the program, and a low completion status indicated that a patient had been unsuccessful either because he or she left the program or treatment staff terminated the patient. Treatment completion was compared to the reason for treatment, voluntary or involuntary status, as well as the presence of sexual or physical abuse. Other variables identified in the literature

as affecting treatment outcome were included as well, including gender, race (whether or not the patient was a racial minority), days in treatment, use of alcohol alone or with another drug, if the patient had a specific diagnosis of depression, if the patient had a specific diagnosis of anxiety, whether the patient was diagnosed with a psychotic disorder, and whether or not the patient had previous treatment. See Table 1 for descriptive statistics.

Table 1
Descriptive Statistics of Individual Variables in the Regression for Completion Status

Variables	Descriptives	Values
Gender		
	Male	61.0%
	Female	39.0%
Race		
	Caucasian	87.0 %
	Non-Caucasian	12.3 %
Alcohol Abuse		
	Alcohol Alone	26.7 %
	Polysubstance Abuse	71.9 %
Sexual Abuse History		
	Yes	24.0 %
	No	70.5 %
Treatment Reason		
	Voluntary	28.8 %
	Non-Voluntary	68.5 %
Previous Treatment		
	None	29.5 %
	Some	69.9 %
Days in Treatment		
	Days	M = 34.46 SD =16.57
Psychotic Diagnosis		
	Yes	3.4 %
	No	96.6 %
Depression Diagnosis		
	Yes	42.5 %
	No	57.5 %
Anxiety Diagnosis		
	Yes	28.1 %
	No	71.9 %

Results

To assess the relationship of variables to treatment outcome, a logistic regression analysis was performed

relating the dichotomous variable of completion status to the previously identified status. The overall model was

significant, $\chi^2(9) = 129.821, p = .001$, with specific variables contributing to the model. Having experienced sexual abuse, Wald = 9.01, $p = .003$, gender, Wald = 5.15, $p = .023$, use of alcohol alone or with another drug, Wald = 4.875, $p = .027$, day in treatment, Wald = 19.11, $p < .001$, and an anxiety disorder diagnosis, Wald = 5.71, $p = .017$ (see Table 2) all contributed significantly to the model. Therefore, a history of sexual abuse had an impact on treatment effectiveness for clients in this sample.

Table 2
Beta Weights and Odds Ratios of Individual Variables in the Regression for Completion Status

	Odds Ratio	p-value
Gender	7.482	.023
Race	1.413	.602
Alcohol Alone	8.104	.027
Sexual Abuse	17.458	.003
Treatment Reason	1.331	.759
Previous Treatment	3.339	.197
Days in Treatment	.724	.000
Psychotic Diagnosis	.104	.173
Depression Diagnosis	.387	.235
Anxiety Diagnosis	7.678	.017

Discussion

Analysis revealed that the relationship between a history of sexual abuse and treatment completion was significant but did not identify a significant relationship between voluntariness for treatment and treatment completion. The study also found significant relationships between treatment completion and several other variables including gender, use of alcohol alone, number of days in treatment, and a diagnosis of an anxiety disorder.

The results of this study supported the hypothesis that a history of sexual abuse has an impact on the effectiveness of treatment for individuals with substance abuse disorders. Individuals who had a history of sexual abuse were 17 times less likely to complete the program than those who were not abused (see Table 2). This finding indicates that treatment for an individual with a history of sexual abuse was less effective than for an individual without a history of sexual abuse. Clients with a history of sexual abuse may need more intense treatment pro-

grams that not only focus on substance abuse treatment but also help them cope with prior sexual abuse (Thornton et al., 2003).

Contrary to the second hypothesis, we did not find a significant relationship between reason for treatment and treatment completion. Originally we hypothesized that patients who entered treatment for a personal desire to overcome the substance abuse disorder would leave the treatment facility with a greater completion status than those who entered treatment because of outside requirements. We believed that because an individual entered treatment voluntarily he or she would be more committed to treatment and the requirements of the facility, both during treatment and after. However, results of this study did not support that conclusion. Instead, the additional motivation that voluntary patients may have experienced at admission may have been tempered because they could also leave voluntarily and thus were more likely to relapse. The finding that the number of days a patient stayed in the program also was related to treatment completion might support that notion. In addition, patients' legal status may not be an adequate proxy for their personal motivational level.

Similar to the focus of other studies, this study found significant relationships between gender, the use of alcohol alone or with another substance, the number of days in treatment, and the diagnosis of an anxiety disorder with treatment completion. The relationship between gender and completion status indicated that male patients, overall, were seven times more likely to complete the program than female patients. Note that a history of sexual abuse was much more prevalent in women in this sample and may account for the finding of less completion for women.

This study also indicated that number of days in the treatment facility had a significant affect on treatment completion. The longer patients remained in the program, the more likely they were to complete the program successfully. This finding is important because most substance abuse treatment facilities set personalized goals regarding length of treatment to ensure the highest success for patients. Focusing on keeping individuals in treatment longer is more important than is focusing on patients' reasons for treatment. If patients are around a positive, supportive environment longer, they may learn from the environment rather than dwell on their reason for commitment (i.e. voluntary or involuntary).

Furthermore, this study found a significant relationship between completion status and the number of other

substance abuse related disorders. Individuals who only had a substance abuse disorder with alcohol were eight times more likely to complete the program than those who had an alcohol related disorder as well as another substance abuse disorder. Treating a single substance abuse disorder would be more effective than attempting to treat multiple disorders at once seems reasonable.

Finally, individuals without an anxiety disorder were more likely to be successful in treatment than individuals with an anxiety disorder. Individuals with an anxiety disorder were almost eight times less likely to complete the program than those without an anxiety disorder. This finding is consistent with findings reported in the literature that there is a correlation between sexual abuse and anxiety (Medrano et al., 2002). This finding may also account for the finding that there were no differences in program completion for individuals suffering from depression or psychotic disorders. The relatively low prevalence of a psychotic disorder and high prevalence of depression in this sample also may account for the lack of significant findings for either predictor.

There were several limitations to the present study. Results were based on participants from a single, dual diagnosis, treatment facility in the Midwest. This facility has a substantially large male, Caucasian population, with little or no strong ties to the community. The majority of patients were homeless and without financial support following treatment. We cannot accurately generalize our findings to all treatment facilities because the majority of patients in this facility had either an alcohol or methamphetamine disorder and rarely other drug abuse disorders. Furthermore, participants had co-occurring mental illnesses that substantially impacted their treatment completion and the generalization of those findings to all substance abusers. For example, Minkoff (2001) reported the dually diagnosed population was a difficult population to treat and facilities need to be highly trained in both areas of treatment.

Future research should focus on voluntariness and level of success in treatment facilities. According to this study, reason for treatment did not result in completion success. Future studies should assess motivation for change in a more sensitive and individualized manner. This study defined motivation as voluntary or involuntary admission. However, motivation goes beyond voluntariness. Motivation to change is based on internal motivation to improve a person's current circumstances. Therefore, questions regarding each individual's motivation for change should be highly subjective and used to focus treatment more individually to assist fully each

patient in his or her own needs. Future studies should also refine the measurement of treatment completion. We evaluated treatment completion by whether patients completed the program not by the length of their sobriety upon release or additional future outcomes. As a result, these findings may provide an overly optimistic view about treatment completion.

This study replicates the current literature regarding several variables and extends knowledge regarding history of sexual abuse and voluntary admission as they relate to treatment completion. Gender, alcohol abuse, a history of sexual abuse, days in treatment, and diagnosis of an anxiety disorder all impacted successful completion of the program. However, one of the two variables of interest, treatment voluntariness, did not predict program completion. Future studies and intervention approaches should consider gender, alcohol abuse, a history of sexual abuse, days in treatment, mental illness, and reason for treatment when examining treatment effectiveness.

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Relationship Between Interview Style and Individual Self-Disclosure in Face-to-Face Interactions

Matthew R. Brock

Missouri Southern State University

Self-disclosing behavior occurs at high levels in situations where trust is present, the interaction is face-to-face and private, and other individuals reciprocate the same levels of disclosure. This experiment examined the influence of interviewing styles on individual self-disclosure by participants during a discussion session about crucial decisions they had made and scores from a trust questionnaire. Results from this study indicate different interviewing styles elicit varied levels of disclosure in face-to-face interactions. The findings also support previous research about how the role of trust affects levels of disclosure, and self-reported gender differences regarding self-disclosure.

The study of self-disclosure has emphasized the importance of the individual and the variables that influence self-disclosing behavior. Studies have examined personal trust, comfort levels, public and private settings, and different topics of discussion to determine when and why an individual will disclose personal information. Most of this research ended over a decade ago, which leaves several questions about extrinsic influences left unanswered. What effect does questioning have on individual self-disclosure when reciprocity of disclosure is absent? Are there gender differences between groups? This experiment attempted to reveal relationships between different interview styles and individual self-disclosure in face-to-face interactions.

McCroskey and Wheelless (1976) explained that generally self-disclosure is related to the reciprocal nature of face-to-face conversations and that the question of what characteristics cause self-disclosure cannot be answered with current knowledge. Although this literature was written nearly three decades ago, our understanding of self-disclosure has not progressed. In a review of conceptual models of self-presentation bias in interview situations, Catania (1999) pointed out that very little of the research on self-disclosure has focused on the actual interview situation.

Current research suggests that face-to-face interactions are the best type to elicit self-disclosing behavior. Mallen, Day, and Green (2003) conducted an experiment in which they randomly assigned participants to a conversation with a partner in either an Internet chatting sit-

uation or in a face-to-face interaction. Overall, the results indicated that participants in face-to-face interactions were more satisfied with the experience, showed more self-disclosure than those in the chatting condition, and felt a higher level of closeness to the partner.

Several studies suggest that self-disclosing behavior is highly correlated to others' disclosing behavior in positive and negative ways. For example, Peca-Baker and Friedlander (1987) examined the effects of role expectations on client perceptions of disclosing or non-disclosing counselors. Individuals listened to audiotapes of counselor sessions that varied in counselor personal disclosure. The results revealed that clients rated counselors expressing the most disclosure more favorably than those who did not disclose. In contrast, other research suggests that people may experience anxiety when pressured to disclose. If disclosed information is highly intimate and negative, the other individual may become anxious because she or he believe that there is an expectation to reveal similar information (McCroskey & Wheelless 1976).

These findings are consistent with Catania's (1999) analysis. He stated that interviewing situations are unique from separate social exchanges because of the asymmetrical relationship of information exchange. Through attempting to achieve a balance of similar disclosed material, a reciprocal social exchange takes place. This explanation is later followed by a generalized description of current research in which he wrote "...most researchers prohibit interviewers from self-disclosing to respondents for fear that their disclosures will shape or bias the respondents' answers" (Catania, p. 27).

Research findings also suggest that there are clear gender differences in levels of disclosure. The most consistent difference, Jourard (1964) described in his multiple disclosure questionnaires, was that women reported disclosing more about themselves than men. Foubert and Sholley (1996) furthered that research by seeking to establish a correlation between disclosure and levels of trust. Those researchers administered a sex role invento-

K. Casey Cole from Missouri Southern State University - Joplin was the faculty sponsor for this research project.

ry, disclosure scale, and a trust scale to discover relationships. They found that high trusting women disclosed more than high trusting men regardless of whether they spoke to a man or woman, and that the overall disclosure levels were greater for women, further suggesting that trust can act as a cue.

Another variable that influences self-disclosing behavior is the material being discussed. Some authorities have asserted that social norms work to inhibit in-depth discussion about certain topics. Details about work, hobbies, and political attitudes elicit higher levels of disclosure than topics such as financial status, one's sex life, or even general personal problems. In addition, these findings seem to be consistent across cultures including England, Puerto Rico, and Beirut, Lebanon (Jourard, 1964).

Overall, research suggests that several variables can affect disclosing behavior and that participants' internal motivation determines most of them. Unfortunately, beyond counselor disclosure, little research has focused on external variables that encourage or discourage self-disclosure. This situation raises the question of what effect the act of questioning itself has on disclosure levels. The wealth of research on the benefits of active-listening led this experimenter to suggest that asking more or less questions during an interview is a variable that influences self-disclosure levels. Therefore, I hypothesized that there would be a significant difference in self-disclosure levels between listening groups and question groups (i.e., interviewing style). I also hypothesized that disclosure levels would differ between men and women.

Method

Experimental design

This experiment was conducted using a 2 X 2 factorial design. The first independent variable was interview style (questioning vs. listening). The second independent variable was gender (men vs. women). The dependent variables were the levels of actual disclosure and the questionnaire responses. Multiple univariate analyses were used to test the questionnaire and response scores.

Participants

The participants were enrolled in Psychology courses at a small Midwestern university with moderately selective enrollment. All students were given the choice

to participate; however, only students involved in Psychology courses actually participated. Some students used sign-up sheets posted outside the Psychology department office and other students were recruited from two statistics classes. All 24 participants were older than 18 years of age; there were 12 women and 12 men.

Materials

Three instruments were used in this experiment. First, the discussion topic was chosen from a pool of topics previously tested for mean intimacy value (Jourard, 1971). Second, the Jourard 15-question interview rating scale questionnaire (Jourard) was administered after each discussion to measure the subjects' trust of the discussion partner (see Appendix A). The instrument was modified so that the questionnaire did not ask participants to reveal their names, but rather to write the confederate's name. Each question presented two options. For example participants could choose whether they "felt at ease" during the discussion session or if they "felt anxious."

The third instrument was Haymes Technique for Measuring Self-Disclosure from Tape-Recorded Interviews (Jourard, 1971). This instrument's inter-rater reliability was .98 and was used to score audiotapes of the discussion sessions. Recordings were scored by giving a score of 2 for each first person reference made by the participant and a score of 1 for all third person reflexive statements in which "you" is a definite substitution for the word "I." Further, non-reflexive third person statements were not scored (see Appendix B). The audiotape recorder was concealed behind a computer in the room to avoid affecting participant self-disclosure behavior. Participants were not informed about the audiotape to prevent them from feeling anxious or limiting their conversation.

Procedure

Confederates (one man and one woman) met with the experimenter one week before the beginning of the study. The experimenter explained the differences between how they should behave in a listening versus questioning a group. In the listening group, confederates would give reassuring responses such as head nods and would paraphrase what the participant had said to show they had been listening. In the questioning group, confederates were to ask questions about whatever subject was discussed with the goal of simply getting information. Confederates were told not to disclose personal information. If the participant asked a direct question, the

confederate was to answer it without elaboration. Confederates were trained and practiced using each technique multiple times with the experimenter present.

Participants waited outside the assigned experimental room until the experimenter invited them in. In all groups, one confederate (a man or a woman depending on the participant's gender) was partnered with the participant of the same gender to initiate the discussion. Same gender partnerships were used because the experimenter believed that some topics could elicit discussion about sexual or extremely personal subjects. Participants might withhold first-person statements because such topics with a member of the opposite sex could be awkward.

Immediately prior to beginning the experiment, the investigator told participants that they were taking part in an experiment on basic communication skills in face-to-face interactions. Informed consent was obtained after giving a basic explanation of what would happen during the experiment, and participants were told they could withdraw at any time without penalty. The explanation included the format of the experiment and information about questionnaires, as well as time constraints.

The experimenter left the room while the confederate asked the participant the topic question. The question was, "What are the most crucial decisions you have had to make in your life?" In Group 1, confederates implemented an active listening approach in which they asked few or no questions, allowed plenty of time for the participant to speak, and paraphrased the participant's ideas and spoke about them. In Group 2, confederates implemented an interrogative approach in which they asked questions giving little regard to the individual but instead simply attempted to gain information. After 5 min, the experimenter returned and administered the questionnaire about the participants' trust and feelings regarding the discussion session itself.

Once the questionnaire was completed, the experimenter gave a partial debriefing. Participants were told that they had taken part in an experiment involving types of communication with an emphasis on the dynamics of face-to-face interactions. They were also told that the results would be posted outside the Psychology department at the end of the semester, and that if they had any questions or felt they were experiencing adverse effects from the study, they could contact a faculty member in the Psychology office.

The experimenter did not fully debrief participants because of space constraints; participants leaving the

experiment could speak to individuals waiting to participate. Prior knowledge regarding the use of a confederate as well as the use of an audio-tape could have adversely influenced behavior. All audio recordings used to score disclosure levels were subsequently destroyed. To complete the debriefing, a full explanation of all deception including confederate participation and the use of audio-taping was posted with the results. Once the study was completed, each confederate was paid \$75.00 for his or her assistance.

Results

Results from the audiotapes and trust questionnaires were analyzed. A one-way ANOVA of participants' first person statements for interview style was significant, $F(1, 20) = 68.00, p < .001$. Both male and female participants in listening groups disclosed more first person statements ($M = 19.7$) than those in questioning groups ($M = 8.3$). This finding supported the experimenter's hypothesis.

A 2 X 2 ANOVA revealed a significant interaction for the dependent variable of anxiety for interview style by gender, $F(1, 20) = 5.71, p = .027$. Women in listening groups were more anxious ($M = 1.00$) than those in questioning groups ($M = .83$), whereas men in questioning groups were more anxious ($M = 1.00$) than those in listening groups ($M = .50$).

A 2 X 2 ANOVA on confederate interest for interview style was significant, $F(1, 20) = 5.71, p = .027$. Both men and women in listening groups felt that confederates were more interested in them ($M = 1.00$) than in questioning groups ($M = .67$).

There were no significant effects in interview style or gender on total questionnaire score ($M = 13$), third person statements ($M = 1.48$), confederate first person statements ($M = 1.13$), or participant perceived confederate disclosure ($M = .46$).

Discussion

Results suggest that interviewing style independently can effect self-disclosing behavior in both a positive and negative manner. Based on these results, an interviewer asking fewer questions was more effective; focusing more on listening elicited higher levels of disclosure, even though such listening may mean a loss of control of focusing on the topic. This occurrence may be because prior experience to intense questioning has been associated with negative feelings. As children, most individuals

encounter long talks and drawn out questioning periods by parents regarding their misbehavior. Job interviews can also be extremely intense for many people when asked a series of pressing questions. Both of these situations can produce high levels of anxiety, which may account for why participants engaged in conversation used less first-person statements while in groups with heavy questioning.

The results support the notion asserted by Jourard (1964) and Foubert and Sholley (1996) that there are gender differences when closely examining individual dynamics of a face-to-face interaction. Although the data did not support the assertion that women disclose more than men, there was an interaction for the dependent variable of anxiety. Women were more anxious in listening groups than in questioning groups, whereas men were more anxious in questioning groups than in listening groups. There are many explanations for this difference; however, none of them can be validated by the data from this study. Women may feel less comfortable in situations where the other individual does not ask questions to further the conversation. Men may feel more threatened by heavy questioning and would prefer to lead the conversation. This phenomenon needs more research that specifically focuses on analyzing anxiety levels in conversation according to gender.

This study also found that both men and women believed that the confederate was more interested in them during listening group sessions but not as interested in them during questioning sessions. The experimenter does not understand this finding. Perhaps, in questioning groups, confederates did not allow participants to finish answering a previous question completely before asking another question. In listening groups, however, by allowing participants to express themselves fully on each topic, the confederate may have appeared more interested in knowing participants' opinions regarding the discussion questions.

Analysis of confederate disclosure scores from the audiotapes yielded no significance differences. Thus, there was no evidence that participants' disclosures were influenced or biased by reciprocity from the confederate. Overall, confederates disclosed very little, in some cases none at all, but at most they gave two or three first person statements. There was no significant differences in participants' responses to the questionnaire regarding

whether the individual felt that the confederate made himself or herself known. Third person responses were also analyzed, but there were no significant differences for interview style or gender.

There were several limitations to this study. I conducted the experiment under unfavorable time constraints. There was only four months to generate the idea and complete all aspects of the study. I was also competing with several other individuals in recruiting participants from the same sample population. This situation made acquisition of willing participants very difficult. The confederates were students themselves and thus scheduling worked around the three busy confederates' schedules. In addition, the experimental site did not provide an adequately private atmosphere. The experiment took place in a room adjacent to several classrooms that were in session throughout the experiment. Thus, the surrounding environment was noisy. To alleviate these problems, future experiments should be conducted in a private setting with ample time between sessions, as well as being aided by confederates who have flexible schedules.

There are several implications from these findings, and knowledge gained from these results can be useful in many areas of verbal communication. The findings are relevant for interviews, ranging from job interviews to criminal investigation. Physicians and professional counselors may be more effective in assessing an individual by using a strategy based on a methodology of not only listening but purposefully limiting questions. However, there are still many areas that should be researched more extensively. Anxiety levels and how they relate to the interview style should be examined as well as ways an interviewer asks questions without seeming uninterested.

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Appendix A

Experiment Questionnaire

Experiment # (filled in by experimenter) your age _____ Date _____

Partner's Name _____ session (filled in by experimenter)

Put a circle around each of the phrases (1 through 15) that best describes your experience with the person you have just met.

- | | |
|--|--|
| 1. felt at ease | felt tense, anxious |
| 2. felt that I made myself known to the other person | did not feel that I made myself known to the other person |
| 3. bored by the other person | interested by the other person |
| 4. held back a lot, and was careful of what I revealed | talked fully and freely |
| 5. liked the other person | disliked the other person |
| 6. felt the other person was interested in me | felt the other person was not very interested in me |
| 7. the other person was good at interviewing and drawing me out | felt the other person was not very good at interviewing and drawing me out |
| 8. wouldn't want to interact with the other person again | would want to interact with the other person again |
| 9. didn't mind the tape recorder | was bothered by the tape recorder |
| 10. felt the other person could describe me effectively to a third party | did not feel the other person could describe me effectively to a third party |
| 11. felt the other person was a good listener | did not feel the other person was a good listener |
| 12. felt the other person made themselves known to me | did not feel the other person made themselves known to me |
| 13. did not feel the other person could be trusted | felt like the other person could be trusted |
| 14. would like to have the other person as a close friend | would not like to have the other person as a close friend |
| 15. felt like the other person was judging me | did not feel like the other person was judging me |

 Appendix B

Haymes* (1969) Technique for Measuring Self-Disclosure from Tape-Recorded Interviews

Code and Scoring Manual for Self-Disclosure

Self-disclosure will include four major categories of response:

1. Expressions of emotion and emotional processes.
2. Expressions of needs.
3. Expressions of fantasies, strivings, dreams, hopes.
4. Expressions of self-awareness.

Self-disclosure will specifically exclude opinions about objects other than self unless the person obviously intends the opinion to be saying something about himself. Since this experiment deals with the acquaintance process, it is only rarely that one comes across such inferential statements without their being followed up by a clarifying remark which is scorable under one of the categories below.

Although much self-disclosure of the types described below is stated in the first person singular, it is possible to make self-disclosing statements in the third person. Examples of both types are included below.

Scoring Procedure

A score of 2 points will be given to disclosures of the defined types when they are first person references.

A score of 1 point will be given to the disclosures of the same types when they are reflexive third person references. These statements in the third person in which the word "you" is an obvious substitution for saying "I."

*From Haymes, M., Self-Disclosure and the acquaintance process. Unpublished article, in press, 1970.

Haymes Technique for Measuring Self-Disclosure

Non-reflexive third person references, such as "people always..." in which the person is not really revealing any information about himself will not be scored.

For this experiment, ratings will be given for each 30 seconds of interaction. In any 30-second segment, only the score for the maximally disclosing statement will be used. In other words, if a person makes 1, 2, or 10 2-point disclosures in any 30-second segment his score is 2 points for that segment. This avoids inaccurately scoring for speech pattern repetitions. Similarly, if a person makes a 1-point statement, and a 2-point statement in the same 30-second segment, his score is 2 points for that segment.

Examples

1. Expressions of emotions and emotional processes:

Irritation - "It really bugs me ..." "You get peeved at ..." "It makes me sick when..." "It drives me crazy..." Also references to being agitated, irritated, testy, etc.

Anger, rage, hostility, hate, bitterness, resentment - "It gets me very angry when ..." "You (I) just naturally hate people like her."

Excitement, involvement, concern, etc - "I get all caught up in ..." "It gets to me ..." "It gets me goin' ..." "I'm really close to my father." "I'm excited by ..." Also the opposite of involvement. "I can't seem to get into the material." "Boredom is one of my big problems."

Sad, blue, apathetic, cheerless, depressed, grief, mournful, pensive, gloomy, etc - "It depresses me when ..." "I get blue frequently."

Happy, contented, delighted, feeling great, secure, feeling well (strong, confident, etc.), assured, pleased, jovial, elated, euphoric, merry - "I feel great when she ..." "You really feel good when ..." (Also the opposite of feeling well and strong, i.e., discussion of health problems, physical complaints, expression of general lack of the feeling of well being.) expressions which have been leached of their emotional content and are not scored.

2. Expressions of needs, demands, made upon others in

contact with self: "I demand a great deal of attention." "I don't feel too motivated to do much of anything." "All I want is ... " These will frequently be expressed in statement

Sorry, repentant, ashamed, guilty, etc. "I feel very guilty about ... " "I always feel sorry when ... "

Pride, self-esteem, feelings of fulfillment, self-confidence. "I felt good about what I did for her." "I've been feeling great lately."

Confused, perplexed, puzzled, cloudy, incoherent, disoriented, uncertain, etc. To be scored the statement must indicate some emotional disorientation or confusion. (i.e., "My math homework confuses me" is not scored.) "Situations like that puzzle the hell out of me." "I just don't know how I feel about it."

Anxious, tense, afraid, on-edge, overrought, upset,

distressed, worried, etc. "I get really tense in situations like this." "It worries me when ... " "She scares me." "You (I) get frightened when ... "

Love, tenderness, affection, warmth, caring-for another, passion, arousal (sexual), withdraw at times like that."

Love, tenderness, affection, warmth, caring-for another, passion, arousal (sexual), etc. "I loved her before she ... " "I was so hung up on her that I couldn't even ... " (Colloquial).

Assessment of a Holistic Cardiac Rehabilitation Intervention

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The purpose of this study was to assess the effectiveness of Healing Hearts, a holistic cardiac rehabilitation intervention at Scripps Center for Integrative Medicine, in reducing several negative life events including hostility, stress, depression, life dissatisfaction, and low social support. Using an archival database and a within-subjects repeated-measures design, I compared 37 patients' psychosocial risk factors at intake and exit from the program. Patients were married and primarily Caucasian, who had some postgraduate education. Results indicated a significant decrease in patients' depression and a significant increase in life satisfaction. Results illustrate the efficacy of this type of intervention. Limitations in the study included a select sample, use of archival data, and lack of a control group.

Coronary heart disease (CHD) is a prevalent problem. CHD is currently the number one killer in the United States, and professionals link it to many health problems (American Heart Association, 2005). Researchers have established several biological and behavioral risk factors for the disease. These risk factors include high blood pressure, high cholesterol, physical inactivity, obesity, diabetes mellitus, and smoking (American Heart Association). In the past two decades, healthcare professionals have moved toward a more inclusive biopsychosocial model of patient care, emphasizing the importance of psychological factors on health. Investigators have identified several psychosocial risk factors for CHD morbidity and mortality. These factors include hostility, high perceived stress, depression, low satisfaction with life, and low social support (Kudielka, Von Kaumlnel, Gander, & Fischer, 2004).

The most researched and established of these psychosocial risk factors is hostility. The literature documents an association between high levels of hostility and increased risk of CHD (Keltikangas-Jarvinen & Ravaja, 2002; Miller, Freedland, Carney, Stetler, & Banks, 2003; Niaura et al., 2002; Sethness et al., 2005). In addition, interventions aimed at reducing hostility in cardiac patients have been successful in lowering the risk of another cardiac event (Gidron, Davidson, & Bata, 1999). Stress is another psychosocial factor. There is clear evidence that high levels of perceived stress increases a person's risk for CHD (Din-Dzietham, Nembhard, Collins,

& Davis, 2004; Koukouvou et al., 2004; Niaura et al.). In addition, high levels of stress are associated with increased blood pressure and increased prevalence of hypertension, which are major risk factors for CHD (Din-Dzietham et al.).

Depression also plays a role in the prevalence and progression of CHD. Depression is common in cardiac patients and predicts rehospitalization, poorer symptom relief after surgery, disability, cost of care, and survival (Brummett et al., 1998). In addition, recent research suggests that depression mediates life dissatisfaction, another risk factor for CHD. Satisfaction with life is positively associated with both physical health and self-rated health. Also, life dissatisfaction is associated with poor health behaviors and low social support (Valkamo et al., 2003). Interestingly, professionals have recognized social support for its role in disease incidence and progression. Some authorities have suggested that social support buffers destructive health behaviors (e.g., smoking) and perceptions (e.g., stress) (Cohen, Mermelstein, Kamark, & Hoberman, 2000). In addition, Brummett et al., (1998) showed that social support predicted survival in CHD patients.

Based on this research, examining whether cardiac rehabilitation interventions aimed at reducing these psychosocial risks are effective is important. Scripps Center for Integrative Medicine (SCIM), located in San Diego, California, offers a Healing Hearts program that addresses psychosocial cardiac risk factors. Healing Hearts is a holistic cardiac rehabilitation program that includes monitored exercise, cooking classes, educational lectures, group therapy, stress management classes, music therapy, and spirituality classes. This program intends to incorporate a traditional intervention format (i.e., education, diet, and exercise) with treatments aimed at reducing psychosocial risk factors. Patients are referred to the Healing Hearts program for a variety of reasons, including recent myocardial infarction, coronary artery bypass graft, or prevention. The

Sandra Sgoutas-Emch from the University of San Diego was the faculty sponsor for this research project. **Acknowledgments:** Scripps Center for Integrative Medicine was founded by Mimi Guarneri, M.D. and Rauni King, R.N. The author thanks Dr. Guarneri for permission to use the archival database, Derek Schwartz for assistance in collecting and entering data, all of the general practitioners and their staff who have supported the Healing Hearts program, and the program participants.

goal of Healing Hearts is for patients to make necessary lifestyle changes to reduce the risk of a future cardiac event. These lifestyle changes include lowering hostility, lowering stress, treating depression, increasing social support, and increasing satisfaction with life.

The purpose of this study was to assess the effectiveness of the Healing Hearts program. I gathered and assessed data to determine whether there were any changes in patient hostility, perceived stress, depression, social support, and life satisfaction during the course of the intervention. I hypothesized that at exit of the program patients would have lower levels of hostility, stress, and depression than at intake. In addition, I hypothesized that the program would increase social support and life satisfaction.

Method

Participants

Recruitment. Participants included patients from the SCIM Healing Hearts program. An archival SCIM database containing patients' psychosocial scores was used. The database consisted of 132 patients. Fifty-nine patients had been or were currently enrolled in the Healing Hearts program. The remainder were Cardiac Rehabilitation-Only patients whose treatment consisted only of monitored exercise. Originally, the latter group was meant to serve as a control for the study. Unfortunately, only 12 of the 73 Cardiac Rehabilitation-Only patients had their complete assessment scores entered for both intake and exit from the program. Because of these missing data, only the 59 Healing Hearts patients in the archival database were used for this study.

To be included in the study, participants were required to complete the month program and all psychosocial assessments. Of the original 59 patients, 37 met the inclusion criteria.

Demographics. Although no data were collected from the 37 participants of this study, Scripps keeps data regarding the demographics of its patient population. These data reveal that SCIM patients are typically Caucasian, married, have completed some postgraduate work, and have an annual income of \$80,000 or more.

Measures

Hostility. The amount of participants' hostility was measured using the Cook-Medley Hostility Scale (CMH;

Cook & Medley, 1954). The questionnaire consists of 27 true-false items that assess three components of hostility: hostile affect, aggressive responding, and cynicism. High scores correlate with high levels of hostility. This measure has been found to have good internal consistency and validity (Miller et al., 2003).

Stress. The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) is a 10-item self-report questionnaire. The PSS employs a Likert-scale, with higher scores indicating higher levels of perceived stress. Previous studies indicate that it is a valid and reliable instrument (Din-Dzietham et al., 2004).

Depression. The severity of participants' depressive symptoms was assessed using the Beck Depression Inventory (BDI; Beck, Ward, & Mendelson, 1961). This 21-item self-report measure assesses the affective, cognitive, behavioral, and physiological symptoms of depression. High scores correlate with high levels of depression. This scale has been widely used and shown to be reliable (Koukouvou et al., 2004).

Life satisfaction. The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) is a five-item questionnaire used to measure satisfaction with the respondent's life as a whole. High scores indicate high life satisfaction. The SWLS has good convergent validity with other scales of subjective well-being and has good internal consistency (Pavot & Diener, 1993).

Social support. A 16-item shortened version of the Interpersonal Support Evaluation List (ISEL; Cohen & Hoberman, 1983) was used to measure four subscales of social support. There is the tangible subscale (to measure availability of material aid), appraisal subscale (to measure availability of someone to talk to about one's problems), self-esteem subscale (to measure availability of a positive comparison when comparing one's self to another), and the belonging subscale (to measure availability of people with whom one can interact). High scores indicate low levels of social support. This shortened version of the ISEL has been shown to correlate strongly with the original version (Brummett et al., 1998).

Procedure

A within-subjects repeated-measures design was utilized. There were two outcome variables: psychosocial scores at program intake and exit. Healing Hearts patients participated in a three-month lifestyle change program. Before starting the program, participants met with a nurse case manager, who explained the components of

the program. The patients were given a packet of psychosocial assessments listed above and assured that the results would remain completely confidential. Upon completion, a mental health counselor or psychology intern scored the assessments. Patients then met with the mental health counselor to discuss the results of the assessments and set goals for the program. At the conclusion of these intake procedures, participants began the program. Three mornings a week, they chose from a variety of treatment options. Options included monitored exercise, cooking classes, educational lectures, stress management classes, group support, music therapy, and spirituality classes. Patients were strongly encouraged, but not required, to participate in all components of the program. Upon completion of the program, they met again with the nurse case manager, completed the same psychosocial assessments, and the mental health counselor conducted an exit interview.

Data Analysis

Data were analyzed using SPSS (Version 11.0). Within-group relationships for hostility, perceived stress, depression, life satisfaction, and social support were analyzed using paired-samples *t*-tests. In this study, paired-samples *t*-tests were used to detect differences between patients' initial assessment scores and final assessment scores. Because multiple *t*-tests were performed, a Bonferroni correction was used to control for Type I errors, resulting in a critical analysis alpha level of .005.

Results

Table 1 contains the means and standard deviations for the hostility, perceived stress, and social support assessment measures that were not significantly different from intake to exit. There were two assessment measures that yielded statistically significant differences. A paired-samples *t*-test indicated that the mean depression score at intake ($M = 5.46, SD = 4.65$) was significantly higher than the mean depression score at exit ($M = 2.54, SD = 2.95$), $t(36) = 4.38, p < .0001$. A paired-samples *t*-test indicated that the mean life satisfaction score at intake ($M = 26.89, SD = 5.66$) was significantly lower than the mean life satisfaction score at exit ($M = 28.84, SD = 4.58$), $t(36) = -3.39, p = .002$.

Discussion

Hostility, high perceived stress, depression, life dissatisfaction, and low social support are all well-established risk factors for CHD. The purpose of this study was to assess the effectiveness of a holistic cardiac reha-

Table 1
Intake and Exit Assessment Measures

	Intake		Outtake	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Hostility				
Hostile affect	1.40	1.14	1.05	1.15
Aggressive responding	2.51	1.59	2.30	1.45
Cynicism	2.70	2.52	2.49	2.55
Perceived Stress	11.16	5.61	9.43	5.20
Social Support				
Tangible	5.97	2.19	5.49	2.24
Appraisal	5.84	1.72	5.30	1.71
Self-esteem	6.57	1.63	6.41	1.91
Belonging	6.14	2.06	5.81	2.22

bilitation intervention. Significant improvements were found for both depression and satisfaction with life. Intervention participants reported an increase in life satisfaction and lower depression compared to their baseline scores. The trend of the data was that the intervention led to reductions in hostile affect, cynicism, aggression and perceived stress and an increase in social support in a predominantly Caucasian, upper socioeconomic population following the intervention.

Results regarding depression from the present study were consistent other research. For example, Zhang, Li, Xu, & Feng (2000) found that a cardiac rehabilitation program, which included music therapy, was effective in reducing patient depression and anxiety. Some results from the present study (i.e., perceived stress and social support) were inconsistent with those of Toobert, Glasgow, Nettekoven, & Brown (1998). Those researchers conducted a study to assess a lifestyle-change program that incorporated a low-fat diet, stress management, moderate exercise, and group support. They found that program was effective in decreasing stress and increasing perceived social support among women with CHD. This latter inconsistency may result from the cost of a very stringent standard for avoiding a Type I Error by using Bonferroni correction.

This study also supplements previous research. Researchers have shown that the treatment modalities employed in the Healing Hearts program increase physical and psychological well-being. However, investigators have not specifically examined all of these modalities in cardiac patients. VanderArk, Newman, and Bell (1983)

concluded that music therapy is effective in increasing life satisfaction in an elderly sample. The current study suggests that music therapy may also play a role in increasing life satisfaction among CHD patients. In addition, research shows that hostility-reduction interventions for CHD individuals are effective if specifically aimed at altering hostile cognitions, affect, and behaviors (Gidron & Davidson, 1996). The Healing Hearts program was not as effective at significantly reducing all components of hostility in the absence of such a specified program. This finding suggests that feelings of hostility may be decreased if professionals added a component that specifically addresses hostility reduction to the program.

Readers should interpret the results of this study cautiously because of the relatively small sample and selectivity of participants, which consisted of primarily Caucasian, higher income, and highly educated individuals. The results might not generalize to other populations, particularly ethnic minorities and individuals from lower socioeconomic status. Investigators should replicate this study with larger samples that include a more demographically varied population.

Another limitation concerns the collection and recording of data. The archival database contained several incomplete entries. Whether participants received assessment packets, completed the assessments, dropped out of the program, or had their assessment scores recorded was unclear. Future studies should take precautions to ensure the distribution and completion of assessments, as well as thorough data entry.

Because the program was relatively flexible, patients were able to choose the components of the program in which they wanted to participate. From anecdotal reports, group support seemed to be the least popular part of the program. This observation may explain why there was not a significant increase in social support. Another recommendation is that future studies include more stringent protocols on patient participation.

A final limitation of this study was the lack of experimental control. This study did not include a control group.

Implications of this study are very promising. The results suggest that a holistic intervention was effective in altering some risk factors for CHD. Considering that CHD is a prevalent and costly illness, identifying modalities that help prevent subsequent cardiac events is important. If professionals can establish as effective this type of tertiary prevention, such an approach has the potential to

be a very cost-effective solution for cardiac patients. Certainly, a three-month lifestyle change program is less costly than a surgical procedure. With the rising cost of health care, holistic care may be an affordable means to decrease CHD morbidity and mortality.

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College Students and Alcohol: Beliefs, Misconceptions, and Behavior

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The present study examined college students' views and behavior regarding alcohol consumption and treatment. A total of 196 students were placed in one of three groups characterized by their level of problem drinking, using the Michigan Alcoholism Screening Test (Selzer, 1971). Results indicated that students categorized as not having a problem with alcohol reported a stronger belief that treatment would be helpful than students categorized as early or middle problem drinkers. Results of correlational analyses (a) indicated that students who drank greater amounts of alcohol estimated that others students drank more and (b) suggested that they were inclined to deny problems associated with alcohol. Discussion includes suggestions for alcohol education and future research.

Alcohol abuse in the United States currently afflicts 17.6 million individuals (Grant et al., 2006) and represent one of the largest problems on college campuses. There is need for research to identify college students who abuse alcohol and help them receive treatment. However, college students' views about the efficacy of treatment and their beliefs regarding the use of alcohol may affect their willingness to seek treatment. Research findings have shown that people's beliefs and expectations about the effectiveness of treatment can impact the outcome of treatment (Frank, Gliedman, Imber, Stone, & Nash, 1959), and that there is a positive correlation between people's views about treatment and how well the treatment works (Garfield, 1994).

The purpose of this research project was to examine drinking behavior among college students, their views about the effectiveness of alcohol treatment, the use of alcohol, and their drinking levels. Understanding college students' views about alcohol and its treatment would assist in determining how to reduce college student drinking and how to improve students' views about the efficacy of treatment.

Wechsler, Davenport, Dowdall, Moeykens, and Castillo (1994) studied a random sample of 17,592 college students from the American Council on Education's listing of accredited colleges to examine problems related to drinking among college students. Wechsler et al. sent students a 20-page survey that asked questions about drinking behavior, problems students create for them-

selves because of drinking, and problems students experience related to others' drinking. In general, the researchers reported high levels of drinking-related problems among students classified as binge drinkers (five or more drinks in a row for men; four or more drinks in a row for women) reported more instances of promiscuous sexual activity, illegal activity, and more injuries than those who were not binge drinkers. Also, students who were not binge drinkers, but attended colleges with higher drinking levels, reported more negative incidents related to others' drinking than students at colleges with lower drinking levels.

A longitudinal study of 489 participants, studied over the course of 11 years, revealed a relationship between college alcohol use and later alcohol use (O'Neill, Parra, & Sher, 2001). Participants were interviewed and given a questionnaire during the first year, 5 times over the next 10 years, and at the end of the study in the 11th year. The study revealed that heavy drinking during college was related to heavy drinking and alcohol-related problems later in life.

A study assessed the prevalence of alcohol abuse and dependence among 14,115 college students randomly selected from 119 four-year colleges (Knight et al., 2002). Participants received a 20-page questionnaire by mail. The questionnaire included questions about students' drinking, lifestyle, and other drinking-related behaviors. Investigators used DSM-IV criteria to determine alcohol abuse and dependence among the college students. About one-third of the sample met criteria for alcohol abuse and 6% met criteria for alcohol dependence. In addition, among students who met the criteria for alcohol dependence, only 6.2% reported seeking treatment.

Previous research examined barriers to treatment. Grant (1997) surveyed 964 adults from the noninstitutionalized population of the contiguous United States. Grant, Dawson, Chou, & Pickering (1994) chose participants from the 1992 National Longitudinal Alcohol Epidemiological Survey. All participants reported feeling

Kaira Hayes from Fort Hays State University was the faculty sponsor for this research project.

a need to seek treatment but had not. Results from the Alcohol Use Disorder and Associated Disabilities Interview Schedule (Grant & Hasin, 1992) determined if they had an alcohol disorder. Participants responded to 21 reasons for not seeking treatment. The three most reported reasons included the belief that a person should be strong enough to handle the problem without help (28.9%), that the problem was not serious enough to require help (23.4%), and that the problem would get better on its own (20.1%). Although investigators have studied barriers to treatment in the general population and found a relationship with perceptions about alcoholism and its treatment (Grant, 1997), there is little known about college students' perceptions about alcohol treatment. The present study was a quasi-experimental design with levels of problem drinking as the independent variable. Scores on the Michigan Alcoholism Screening Test (Selzer, 1971) defined problem drinking. The dependent variables were organized around five research questions: 1) Will college students get help for a drinking problem? 2) Do college students believe that people with a drinking problem can quit drinking on their own? 3) Do college students think that alcoholism treatment can help a person with a drinking problem? 4) What are the drinking levels of college students? 5) What are college students' beliefs or misconceptions regarding drinking?

Method

Participants

Students ($N = 196$) enrolled in 13 different general education courses at a state university in the Midwest were surveyed. All students were offered the possibility of gaining extra credit for their participation. The mean age of students was 21.05 years, with an age range of 18 to 60 years. The sample was 55.1% men ($n = 108$) and 43.9% women ($n = 86$) with 1% not reporting their sex ($n = 2$). Of the participants, 42.3% were freshmen ($n = 83$), 29.6% were sophomores ($n = 58$), 18.9% were juniors ($n = 37$), 8.7% were seniors ($n = 17$), and one person did not report class standing. The ethnic diversity of the sample was limited with 87.8% white ($n = 172$), 1.5% Black/African American ($n = 3$), 2% Spanish/Latino ($n = 4$), 1.5% Asia/Pacific Islander ($n = 3$), 1.5% Native American/other ($n = 3$), and 5.6% did not report their ethnicity ($n = 11$). Of the 196 students, 95.4% indicated that they believed they could recognize someone with a drinking problem ($n = 187$), and 58.2% indicated that they knew someone with a drinking problem ($n = 114$).

Materials

Michigan Alcoholism Screening Test (MAST). The 22-item MAST (Selzer, 1971) was used as a measure of problem drinking; it was taken from the National Council on Alcoholism and Drug Dependence of the San Fernando Valley's Inc. (National Council, n.d.). Laux, Newman, and Brown (2004) compared MAST scores of 94 outpatient treatment center participants with several subscales of the Substance Abuse Subtle Screening Inventory-3 (SASSI-3; Miller & Lazowski, 1999) and found that the MAST was internally consistent. In addition, MAST scores did not vary based on the demographics of the participants. However, researchers did find that the MAST was not as effective as the SASSI-3 in detecting people who had an alcohol-abuse problem and who were defensive or were in denial. Because the MAST does not discriminate based on the demographics of participants, because of its high level of internal consistency, and because of its present use in practice as a screening instrument, the present study used the MAST to detect substance-abuse problems.

For statistical analysis, the students were placed in three groups based on their MAST scores. Students who scored 0-2 on the MAST were placed in the no problem group ($n = 134$), students who scored 3-5 were placed in the early to middle problem group ($n = 50$), and those who scored 6 points or higher were placed in the problem group ($n = 12$). The 3 groupings were based on the scoring system suggested by the National Council on Alcoholism and Drug Dependence of the San Fernando Valley (National Council, n.d.). These groupings reflect the separate diagnostic categories of the MAST (Selzer, 1971).

Alcohol Drinking Rates, Attitudes, and Beliefs Survey. I designed a survey to measure respondents' level of drinking and to quantify their attitudes about problem drinking. Five open-ended questions quantified respondents' use of alcohol, 7 items were yes or no questions (1 = *No*, 2 = *Yes*), and 14 questions used 4-point Likert-type scales (1 = *Strongly Disagree*, 4 = *Strongly Agree*) measuring attitudes about drinking. The yes or no questions and the questions using Likert-scales were scored such that a higher score indicated a more positive answer. The Appendix contains the format and content of questions constituting the dependent variables. The survey also included areas for the respondents to report their age, sex, college classification, and race/ethnicity.

Procedure

E-mails were sent to instructors of 50 general education courses. Thirteen instructors allowed their students to complete the surveys during regularly scheduled class sessions. Students from the 13 courses were given a black ballpoint pen to fill out the surveys to ensure confidentiality. After signing a consent form, participants completed the surveys, which took approximately 15 min. Finally, students were debriefed and given written verification of their participation so that they could receive extra credit. APA ethical standards were maintained throughout the study.

Results

To determine the likelihood that students would seek help for a drinking problem, a one-way ANOVA was calculated using the MAST groupings as the independent variable. The dependent variable was a composite of the total score of respondents' answers to questions 1-3 (see Appendix). Results of this one-way ANOVA revealed that the students' likelihood of seeking treatment did not differ significantly based on their level of problem drinking, $F(2, 193) = .332, p = .718$.

To determine if problem drinking had an influence on whether college students believe that they can quit drinking on their own, a one-way ANOVA was calculated with the students' MAST grouping as the independent variable; the dependent variable was a composite of the total score of respondents' answers to questions 4 and 5 (see Appendix). Results revealed that the students' beliefs about whether they could quit drinking on their own did not differ significantly based on their level of problem drinking, $F(2, 193) = .241, p = .786$.

To determine whether students' believed that alcoholism treatment could help, a one-way ANOVA was calculated with the students' MAST grouping as the independent variable and a composite of the total score to questions 6-12 (see Appendix) as the dependent variable. Analysis revealed a significant difference among the three MAST groupings, $F(2, 192) = 3.231, p = .042$. The results of Tukey's HSD post-hoc analysis indicated that the no problem group differed modestly from the early/middle problem group ($p = .058$). The no problem group reported a stronger belief that treatment would help than the early or middle problem group.

To examine the drinking levels of college students within the MAST groupings, ANOVAs were calculated separately comparing the three MAST groups on questions 13-17 (see Appendix), which reflected the students' reported average number of drinks per week, average

number of drinks per month, average number of times they reported drinking per week, average number of times they reported drinking per month, and the students' estimates of the average number of drinks that a typical college student has per week. Results of the ANOVAs (see Table 1) and post-hoc analyses were statistically significant except for the students' estimates of the number of drinks that an average college student had per week. The three MAST groups differed from each other in the expected direction, with the problem group reporting more frequent and greater quantities of drinking per week and per month followed by the early or middle problem group and then the no problem group. Table 2 contains means and standard deviations.

The calculation of a Pearson-product-moment correlation coefficient between MAST scores and students'

Table 1
One-Way Analyses of Variance for Effects of Problem Drinking Level on Five Dependent Variables

Variable	<i>df</i>	<i>F</i>
Drinks/Week	2, 190	35.09*
Drinks/Month	2, 191	35.40*
Times/Week	2, 193	20.26*
Times/Month	2, 192	25.74*
Estimate	2, 186	0.87

* $p < .001$

responses to the question about their average number of drinks per week resulted in an $r = .53, p < .001$. Although the two measures were significantly correlated, responses to the frequency of drinking provided a more direct measure of alcohol consumption. Thus, I calculated Pearson correlation coefficients to examine the relationship between students' reported average number of drinks per week (question 13) and the extent to which students thought treatment (questions 6-12) for alcohol treatment would help a person with a drinking problem. The results were $r = -.203, p = .005$. There was also a significant positive correlation between the number of drinks reported

Editor's Note: Because of large sample size differences and questions about homogeneity of variance, the analyses in this study have increased risks for Type I and Type II Errors. (see pp. 238-239 — Glass, G. V., & Hopkins, K. D. (1984). *Statistical methods in education and psychology*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Table 2
Means and Standard Deviations for all ANOVAs

Variable	Level of Problem Drinking					
	No Problem		Early/Middle Problem		Problem	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Seek Help	5.60	.62	5.60	.64	5.75	.45
Quit Drinking	4.63	.92	4.70	1.02	4.50	1.09
Treatment*	17.96 ^a	2.44	17.01 ^b	2.42	18.50 ^{ab}	3.26
Drinks/Week*	5.39 ^a	7.62	13.82 ^b	1.97	35.58 ^c	35.54
Drinks/Month*	18.14 ^a	26.20	56.33 ^b	58.66	132.38	39.98
Times/Week*	1.37 ^a	1.23	2.17 ^b	1.55	3.79 ^c	2.20
Times/Month*	4.58 ^a	5.09	9.01 ^b	7.10	15.83 ^c	9.58
Estimate	15.60	14.82	17.70	13.05	20.33	9.58

*Note: Significant differences for this variable; means with different superscripts significantly differ from each other.

per week and students' estimates of the average number of drinks other college students have per week, $r = .754$, $p < .001$.

I then calculated the correlation between students reported average number of drinks per week and their beliefs and misconceptions regarding the use of alcohol (questions 18-23). There were significant correlations between question 13 and questions 18 ("A person with a drinking problem should abstain from alcohol"; $r = -.215$, $p = .003$), 20 ("If I had a drinking problem I would not seek treatment because I would be worried what other people would think"; $r = .170$, $p = .019$), and 23 ("Alcoholism is a disease"; $r = -.142$, $p = .048$).

Discussion

I organized discussion of results according to the question raised in the Introduction. The end of Discussion discusses limitation of the study and suggestions for future research.

Will college students get help for a drinking prob-

lem? There was a failure to find significant differences in the likelihood of seeking treatment among the three groups of problem drinkers. I was surprised at that finding. Because of the prospect of denial of a potential problem, I anticipated that those students who drank more would say that they were less likely to want to seek treatment.

Do college students believe that they can quit drinking on their own? There was also a failure to find significant differences in students' belief that people can quit drinking on their own among the three groups of problem drinkers. This attitude could be a barrier to seeking treatment. One explanation for the lack of differences between the groups could be that problem drinkers were in denial and believed they could quit drinking on their own. Another explanation is the occurrence of a Type II Error.

Do college students think that alcoholism treatment can help someone with a drinking problem? A significant difference existed between the no problem and the early or middle problem group on whether they thought that treatment for alcoholism would help (questions 6-12). The no problem group reported that treatment would help more than the early or middle problem group. I had not expected the difference between the no problem and the early or middle problem group, instead of between the no problem or the early or middle problem group, and the problem group. Perhaps with a larger sample of problem drinkers and thus less variability in responses, a difference between the problem group and the other groups might have been significance.

Interestingly, there was a significant and negative correlation between the students' reported number of drinks per week and whether they thought that alcoholism treatment would help. Those students who reported drinking more were less likely to believe that treatment would help than those who did not drink as much. This study has implications for the administration of alcohol awareness programs. Results suggest that college students need to learn more about alcoholism and its treatment. Because students seem uncertain about the efficacy of alcoholism treatment, programs should be implemented to reduce that uncertainty. College students are not going to seek treatment if they do not that it will help them.

The results of this analysis are related to the findings of Grant (1997), which indicated that 8 to 12 percent of

people who did not seek treatment for a drinking problem reported that they did not think that anyone could help them. These findings underscore the importance of providing information on the effectiveness of alcohol treatment to college students in order to raise their expectations in overcoming alcoholism with help. That college students who drink more, and are more likely to need treatment, report less confidence in therapy may negatively influence the outcome of therapy.

What are the drinking levels of college students? The analysis of students' levels of drinking revealed several findings. The levels of problem drinking identified by the MAST included 12 students in the problem group, 50 in the early or middle problem group, and 134 in the no problem group. The categorization of students by problem drinking mirrors the findings of Knight et al. (2002), who reported that 31.6% of students were alcohol abusers and 6.3% were alcohol dependent. If I considered students in the problem group in the present study as likely to be alcohol dependent, then 6.1% of the current sample was alcohol dependent. Similarly, if I combined the MAST identified students as having some form of an alcohol problem (early or middle problem group and no problem group) into one category, then they would account for 31.6% of the sample, a finding that exactly matches the percentage reported by Wechsler et al. (1994) as alcohol abusers.

A comparison of the three MAST groupings on the number of drinks reported per week and per month, and the number of times reported drinking per week and per month were all significant different; the problem group reported more drinking followed by the early or middle problem group and then the no problem group. Those results indicated that students who incurred more drinking related problems reflected in responses on the MAST, drank greater quantities of alcohol and drank more often.

The average number of drinks per week reported by students was positively correlated with the students' estimates of the amount of drinks other college students have per week. Those college students who drank more estimated that other students also drank more. This belief could serve as a barrier to seeking treatment, because those students who need treatment may believe that their level of drinking is normal and that they do not need treatment.

What are college students' beliefs or misconceptions regarding college students' drinking? Finally, the three significant correlations between the reported number of drinks per week and beliefs about drinking had implica-

tions for education and treatment. Results indicated that the more students drank alcoholic beverages the less likely they were to think that problem drinkers should abstain, the less likely they would seek treatment because they worried what other thought, and less likely they were to believe that alcoholism was a disease. These findings may reflect a sense of denial related to alcohol use and a belief by students that they are in control of their drinking. This finding is related to the finding by Grant (1997) that 28.9% of the people surveyed that had a drinking problem, but did not seek treatment, thought that their drinking problem was not serious enough to seek treatment.

This study had several limitations, including a sample with little ethnic diversity. Also, the MAST instrument did not include a measure of defensiveness. With such a measure of defensiveness, researchers could assess the credibility of particularly the problem group's responses. Future research should attempt to replicate this study using an instrument such as the SASSI-3, which has a built in defensiveness scale, or a scale designed to measure denial. In addition, a replication of this study should use a sample that can generalize to the college student population. Another limitation was the impact of the large sample size associated with the significant correlation coefficients. The predictive power of those relatively small coefficients is limited. Future studies should also be done to further examine misconceptions among college students about the use of alcohol, its ill effects on health, and how a person becomes alcohol dependent or acquires a substance abuse problem.

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Appendix

Dependent Variables and Questions Used to Measure Them

<u>Dependent Variables</u>	<u>Survey Items</u>	<u>Question Format</u>
Will college students get help for a drinking problem?	1. Would you seek help if you had a drinking problem?	Yes/No
	2. Do you know where to get help for a drinking problem?	Yes/No
	3. Would you advise someone to seek help if they had a drinking problem?	Yes/No
Do college students believe that they can quit drinking on their own?	4. Do you think people can stop drinking by themselves?	Yes/No
	5. If I had a drinking problem I could easily quit drinking on my own	Likert-scale
Do college students think that alcoholism treatment can help a person with a drinking problem?	6. Do you think inpatient treatment would help you if you had a drinking problem?	Yes/No
	7. Do you think that outpatient treatment would help you if you had a drinking problem?	Yes/No
	8. A psychologist could help someone with a drinking problem?	Likert-scale
	9. A social worker could help someone with a drinking problem?	Likert-scale
	10. A minister could help someone with a drinking problem.	Likert-scale
	11. A psychiatrist could help someone with a drinking problem.	Likert-scale
	12. A family physician could help someone with a drinking problem.	Likert-scale

<u>Dependent Variables</u>	<u>Survey Item</u>	<u>Question Format</u>
What are the drinking rates/levels of college students?	13. In a typical week how many drinks do you have?	
	14. In a typical month how many drinks do you have?	Open-ended
	15. How many times on average do you drink per week?	Open-ended
	16. How many times on average do you drink per month?	Open-ended
	17. How many drinks do you think the average college student has in one week?	Open-ended
Beliefs or misconceptions regarding college students' drinking?	18. A person with a drinking problem should abstain from alcohol.	Open-ended
	19. A person with a drinking problem can learn to moderate their drinking.	Likert-scale
	20. If I had a drinking problem I would not seek treatment because I would be worried what other people would think.	Likert-scale
	21. It takes a long time to develop serious health problems from drinking.	Likert-scale
	22. Problem drinking is just a symptom of another problem.	Likert-scale
	23. Alcoholism is a disease.	Likert-scale
		Likert-scale

Special Features

Richard L. Miller and Robert F. Rycek

University of Nebraska at Kearney

The Special Features section provides a forum for three types of essays that should be of considerable interest to students and faculty. Students can address a variety of issues for subsequent issues of the Journal's Special Features sections. At the end of this issue, you can read about those topics; Evaluating Controversial Issues, Conducting Psychological Analyses—Dramatic, and Conducting Psychological Analyses—Current Events. In this volume, students present psychological analyses of popular theatrical dramas.

Psychological Analyses – Dramatic

Psychological Analyses of the Relationships Among Gangs and Gang Members in *Colors*

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The movie, *Colors*, (Solo & Hopper, 1988) is the story of two police officers, Hodges and McHavin, who worked together on the L.A.P.D.'s (Los Angeles Police Department) renowned C.R.A.S.H. (Community Resource Against Street Hoodlums) anti-gang unit. Hodges and McHavin observed the way of life for gang members while patrolling the streets of Los Angeles. They saw firsthand the love relationship among gang members and the hate and conflict between gangs. The movie depicted the underlying importance of relationships both between gangs and among the members of each of the gangs. An individual's "colors" depicted his/her socialization, enculturation, social identity, beliefs, and most of all, loyalty to the gang, either the Crypts or Bloods. In analyzing this movie, I described the importance of socialization agents, such as communication gestures, that strengthened the bond between gang members, thereby creating inflexible ethnocentrism as

well as a collectivist community within each gang. I also described how the movie illustrated filial piety as a gang member's sense of duty and obligation to the gang.

The movie included many characters who evolved as individuals as a result of their interrelationships. These relationships and loyalties determined which gang the individual joined. Once members were initiated into a gang, their views, identity, and beliefs became those of the gang in ways similar to those described by Matsumoto and Juang (2004). A common feature of gang identity was ethnocentrism.

According to Hammond and Axelrod (2006), ethnocentrism is defined as in-group favoritisms, attitudes, and beliefs. Therefore, the strong bonds and tight relationships in these gangs were the result of extreme ethnocentrism, and they viewed anyone who challenged their beliefs as an enemy. Each gang could be classified as possessing inflexible ethnocentrism because each side was unable to go outside its gang's opinion and perspective (Matsumoto & Juang, 2004).

The relationships between and within gangs throughout the movie evolved from socialization, enculturation, and socialization agents. According to Lesane-Brown (2006), socialization includes specific verbal and nonverbal messages passed on to younger generations for the development of values, attitudes, behaviors, intergroup and intragroup interactions, and personal and group identity.

Because of socialization, the children in the movie were highly likely to end up in a gang because they had grown up in a society that encompassed gang activity as the norm. Once individuals learned about and internalized the expectations of their society, they adopted the ways and manners of that society. In turn, enculturation occurred, and many children joined a gang because they thought that was their role within their society (Matsumoto & Juang, 2004). "The reality on the street is that the drug dealer has the Mercedes Benz, the instant money and the women. These kids have eyes; they see what is going on. That is their socialization, the values they respect," a former gang member stated in the movie.

Richard Miller and Robert F. Rycek are editors of the *Journal's* Special Features section.

The children adopted the ways of the gangs through socialization and enculturation by acquiring skills, dependencies, and values of the gang culture as a way to survive and to feel a sense of belonging in their communities, families, and among their peers (Wimsatt, 2006). Socialization agents, such as parents and peers, play a major role in an individual's socialization and enculturation (Burlison & Kunkel, 2002), and the movie portrays several instances of peer influence. Bronfenbrenner (1986) stated that children of uninvolved parents have a higher risk of becoming involved in socially deviant behavior. Therefore, parents' lack of involvement and lack of support played a major role in ensuring the formation of strong relationships between the children and adolescents, promoting gang membership.

Communication is a style of reflective language, which we can only properly understand with an appreciation of the meaning of the communication within the culture of the gang (Singh, McKay, & Singh, 1998). Gang members' relationships are strengthened through communication gestures they can process only through encoding and decoding. For instance, individuals used different hand gestures to indicate gang membership. Communication gestures, such as beating up a potential gang member to see if "he has enough heart" to become a gang member, were additional methods of nonverbal communication. If individuals could withstand the beating, then they demonstrated enough dedication and loyalty to the gang to become new "brothers."

Another nonverbal source of communication between gangs was the graffiti written on walls throughout the neighborhoods. For example, one gang member sent a message to the opposing gang by crossing off an individual's name that was written on a wall with spray paint. This nonverbal behavior indicated to the enemy gang that one of its members was going to be killed. The nonverbal communication between gang members could be classified as their cultural language.

The colors, either blue for Crypts or red for Bloods, communicated the individual's beliefs and opinions based on his/her gang membership. These strong nonverbal cues were often methods of internal communication within the groups that strengthened members' bonds and relationships.

A collective culture such as a gang often displays the psychological condition of filial piety. Filial piety is a set of family values in relation to parental care and respect (Kao & Travis, 2005). Gang members felt a sense of duty and obligation to their gang members, as indicated in the statement, "That's all we have (the gang); I love them and

they love me." Relationships between gang members could be compared to the tight bond of a family, with gang members willing to die for another gang member. This expectation of filial piety was so strong within the gangs that if one member left the gang he would be classified as a traitor and killed.

Finally, I classified gangs in the movie as a collectivist culture because the gang required members to sacrifice their personal needs for the needs of the gang. Collectivist cultures tend to express negative attitudes toward anyone who is not part of that particular culture. To strengthen in-group relationships, Laiwani, Shavitt, and Johnson (2006) stated that collectivists engage in deception and socially desirable responses to ensure good relationships with others in the gang. This concept could explain the extreme hatred between gangs. Researchers have shown that members of collectivistic cultures have a high commitment level to the group to which they belong (Matsumoto & Juang, 2004). One gang member's sister responded to the police, "Who do you think you are? Let me tell you something. Those guys are F_ _ _ _ up, but they have each other. What do you have that is better? Tell me."

Often an individual in a collectivist culture bases his/her survival on the success of the group, instead of the success of his/her self (Matsumoto & Juang, 2004). This phenomenon explains why many gang members kill others, put their families in danger, and risk their own lives. They do so to ensure the survival of the gang.

The movie, *Colors*, illustrated that the relationships between gangs and among gang members was based on gang members' socialization, enculturation, social identity, beliefs, and loyalties either to the Crypts or Bloods. The producer and director of this movie portrayed the bond within the gangs through examples of ethnocentrism, socialization, enculturation, socialization agents, communication gestures, and the condition of filial piety. The movie concluded with a gang member opening fire on a police officer, resulting in the killing of Hodges and many gang members. The gang member pulled a gun as a way to kill himself, instead of letting the police officer kill him. His action allowed him to die in a respectful manner. This conclusion helped viewers comprehend the extreme measures a gang member will take to gain and maintain the respect of his fellow "brothers".

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Anorexia Nervosa: Analysis of a Dancer

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The life of a competitive dancer is extremely stressful and demanding, creating an environment in which the development of eating disorders is not uncommon. In the film, *Center Stage* (Hytner, 2000), one of the major characters, Maureen Cummings, meets the criteria for a diagnosis of the eating disorder known as Anorexia Nervosa, specified in the *Diagnostic and Statistical Manual of Mental Disorders-Text Revision* (American Psychiatric Association, 2000). This movie focuses on several young ballet dancers in the American Ballet Academy as they prepare for the final company workshop that will decide their futures. In this academy, every dance class is like an audition; every dancer is constantly being observed. Maureen is a talented dancer hoping to become a professional, and she places herself under great pressure to be

perfect in body and technique. Ultimately this pressure contributes to her development of anorexia, which no one has noticed until she forms a relationship with medical student, Jim Gordon. I will use scenes of their interactions and other important incidents from the movie to support the four major diagnostic features described in the *DSM-IV-TR* as confirmation of the diagnosis of Anorexia Nervosa.

The first two criterion for Anorexia Nervosa are a "refusal to maintain body weight at or above a minimally normal weight for age and height" and an "intense fear of gaining weight or becoming fat, even though underweight" (*DSM-IV-TR*, p. 589). Maureen displays an obvious refusal to maintain a normal body weight, portrayed as she reduces her total food intake tremendously, eliminating anything from her diet that may be high in calories. She is underweight, and by comparing her skeletal appearance to the average college student's appearance, she weighs less than 85% of the weight that professionals consider normal for her age and height. Her fear of weight gain manifests itself through Maureen's noticeable obsession with any subject matter pertaining to food, weight, or general appearance. She repeatedly makes disdainful comments about her peer, Emily, who struggles with natural weight gain considered unacceptable by the dance profession. Maureen constantly scolds her for eating. To Maureen, food seems to be the enemy, something that will only hinder her efforts towards reaching her goal of perfection. In the movie, Maureen goes bowling with Jim and his friends. An illustration of her fear of becoming fat is her struggle with the thought of eating the forbidden pizza placed in front of her. She feels obligated to eat it despite fearing the food because everyone around her is eating, and she does not want them to single her out. She seems to let down her guard, relax, and release control. However, in refusal to maintain a normal body weight, Maureen must compensate for what she has done and throws up everything she has eaten once she returns to school. On another occasion, Jim actually hears her throwing up during a boat outing. When he shows concern for her, Maureen brushes him off, explaining it as mere motion sickness.

Throughout the movie, Maureen engages in purging behavior as evidenced by self-induced vomiting. As a dancer, exercising for a great deal of time after meals is not unusual. However, when she cannot exercise after eating, Maureen resorts to vomiting. According to the *DSM-IV-TR*, there are two types of anorexia, restricting type and binge-eating/purging type. Her case is classified under the subtype of anorexia known as the binge eating/purging type, used when the individual has regularly

engaged in binge eating or purging during a current episode. This form differs from bulimia in that there is an excessive amount of weight loss in anorexia, which does not occur in bulimia. Some individuals in this subtype do not binge eat, as in Maureen's case, but do regularly purge after the consumption of small amounts of food.

In addition to the aforementioned features of Anorexia Nervosa, the third diagnostic criterion is the "disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight" (*DSM-IV-TR*, p. 589). Maureen persistently checks her reflection in the mirror and is always unhappy with her appearance. She does not realize how emaciated she has become; Maureen only feels disgusted with her body. She evaluates her own worth based on her weight. In her mind, any weight gain equals failure and displays her lack of control.

One night Jim hears Maureen throwing up in the bathroom, and he finally realizes that she is seriously ill with something much more severe than the flu. When he confronts her with the issue, she denies its seriousness and becomes defensive. Maureen attempts to explain it as one of the many sacrifices and decisions she makes to achieve her demanding goals. She refuses assistance and lashes out at Jim, saying, "I'm the best dancer in the American Ballet Academy, and who are you? Nobody!" Rather than accepting the possibility that she might be ill, Maureen instead becomes angry and rejects the idea completely. Her denial of the severity of such behavior is once again in concordance with the *DSM-IV-TR* and its description of Anorexia Nervosa.

The final criterion of this eating disorder is that "in postmenarcheal females, amenorrhea, defined as the absence of at least three consecutive menstrual cycles, is an indicator of physiological dysfunction in Anorexia Nervosa" (*DSM-IV-TR*, p. 584). In the movie, there is one reference to Maureen's menstrual period in which her mother asks Maureen if her moody behavior is related to Maureen starting her period. Maureen rejects the insinuation, and although the film supplies no further evidence to outwardly support this criterion, her other behavior follows the diagnostic features closely; however, a clinical interview would be necessary to confirm whether or not Maureen has amenorrhea.

Several variables, including biological, psychological, and familial, may contribute to the onset of an eating disorder. According to Anorexia Nervosa and Related Eating Disorders, Inc. (2001), genetics could play a par-

tial role in temperament. Anxiety, perfectionism, and obsessive-compulsive thoughts and behaviors, all of which make people vulnerable to eating disorders, could be because of abnormal levels of brain chemicals. Maureen is a perfectionist, and similar to others with Anorexia Nervosa, she never feels adequate, despite her many accomplishments. In addition, there is never a gray area. "Everything is either good or bad, a success or a failure, fat or thin" (p. 120). People with eating disorders lack a sense of identity and use their outward appearance as a way to define who they are. They believe that they matter in life because they are attempting to be thin (p. 120). For example, in the movie, Maureen asks Jim how much he liked her because she is a ballet dancer, and how much because she was just herself. She defines herself not as a person but as a dancer who is trying to be thin.

Families play a key role in the development of eating disorders. Often times they are "overprotective, rigid, and ineffective at solving conflict There are often high expectations of achievement and success" (Anorexia Nervosa and Related Eating Disorders, Inc., 2001, p. 120). Maureen's mother is extremely involved in all aspects of her life. In one scene, Maureen is trying to tell her mother a joke. However, her mother interrupts Maureen with information about getting her a good partner for the academy workshop, saying, "A good partner will get you a good position at the workshop. Your entire career hangs on what you do at this workshop". When Maureen replies that she does not think she will have trouble getting a good part, her mother sees this as overconfidence and continues talking. In the end, Maureen tells the joke over her mother's talking and leaves angrily.

At the end of the movie, Maureen decides to tell her mother that she is unhappy and does not want to dance anymore, saying she does not sleep, has no friends, and throws up everything she eats. Her mother brushes this off, saying Maureen is merely watching what she eats. Once again, she is not listening to her daughter. Maureen explains that she danced for her mother, not because she loved it. Her mother did not have the feet to be a dancer, and she does not have the heart. Maureen chooses to quit dancing. Obviously her mother is living through her daughter's life, pressuring her to dance because she herself was not talented enough, which probably contributed to Maureen's eating disorder.

After watching *Center Stage* and analyzing Maureen Cummings' behavior, I believe that a professional would diagnose her with Anorexia Nervosa. Her mannerisms fully support the necessary criteria listed in the *DSM-IV-TR*. There is a high likelihood that Maureen's genetics

may also have contributed to her perfectionism. This biological variable along with her rigid definition of success, lack of identity, and controlling family environment would contribute to professionals' diagnosis of her as having an eating disorder. In Maureen's situation, her assertion of independence from her mother would be the first step toward becoming a healthier and happier individual. However, extensive therapy would be the most effective form of treatment in helping her develop a better body image and sense of self and would be necessary for sustainable change.

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Fight Club: A Film Portrayal of Psychopathology

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Although there are many films and television programs that portray various aspects of psychopathology, one movie, *Fight Club* (Fincher, 1994), paints a unique portrait of an individual with several disorders related to psychopathology. Because of his psychological disorders, the main character creates his own self-destructive coping strategy, as well as an army of followers.

The movie does not mention the main character's name but generally refers to him as the narrator. The narrator is a man who thinks his life is pointless until he meets Tyler Durden. Tyler teaches the narrator that he can feel better about himself and find meaning in his life through self-destruction. Thus, there is the creation of fight club. At first, only Tyler and the narrator fight, but over time, they recruit more men. Word spreads and fight clubs emerge in cities across the United States. Eventually, the army of men in fight club become Project Mayhem, an organization that thrives on the destruction

of corporate America. At that time, Tyler disappears, and when the narrator looks for him, the narrator finds that everyone knows him as Tyler Durden. The man who the narrator referred to as Tyler Durden was a figment of his imagination, an alternate personality created by the narrator's own mind.

To begin the film, the narrator explains that he has not slept for six months and often wakes up in places that he does not recognize. In addition to his problems sleeping, he is continually trying to make his life complete by buying modern furniture, house wares, or clothing. Nevertheless, he is dissatisfied with his life and thinks that it is meaningless because he has the same routine day in and day out. Clearly, these indicators in the narrator's life suggest that he has several disorders relating to psychopathology.

When examining the sleeping disorders with which the narrator is afflicted, he seems to have insomnia, which he identifies in the movie. That he has not slept a full night in six months is an indicator of this disorder, because it only takes one month of sleep disruption to diagnose primary insomnia according to the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1994). Furthermore, the narrator diagnoses himself with narcolepsy. When he is talking to a doctor about his sleeping problems, he says that he often falls asleep suddenly during the day, and when he wakes up, he is often disoriented. The film seems to portray his sleep disorders accurately. As the narrator says, "When you have insomnia, you're never really asleep, and you're never really awake" (Fincher, 1999). The narrator describes not only a common problem faced by people suffering from insomnia, but also a vicious cycle affecting their everyday lives (Barlow & Durand, 2005). Because the narrator's daily problems are affecting his sleep, his lack of sleep is making his daily problems worse, and thus, his dissatisfaction with his life becomes more pronounced.

Because the narrator is having problems sleeping, he feels detached from his life, and his daily activities seem meaningless. He says, "Everything is far away. Everything is a copy of a copy of a copy" (Fincher, 1999). During these times, he even seems detached from reality. This behavior is a strong indicator that he is also suffering from de-realization (Barlow & Durand, 2005). Although this response is only mentioned in a few segments of the movie, this disorder is also apparent through the characterization of the narrator. The world seems to disintegrate and everyone around him at work seems mechanical.

The narrator also shows some signs of having borderline personality disorder (BPD). At the beginning of the movie, he appears to have no regard for his own life. Although he does not attempt to commit suicide, he often finds himself hoping for his life to end. On a business flight, he says, “Every time the plane banked too sharply, I prayed for a crash or a midair collision” (Fincher, 1999). Furthermore, he seems to have very unstable relationships, a fear of being abandoned, a general feeling of emptiness, and a particularly negative self-image, all of which characterize BPD (*DSM-IV*). The most apparent sign of BPD, though, is that he finds pleasure in causing himself pain through self-mutilating behavior (*DSM-IV*). For example, he burns the back of his hand with lye, and throughout the movie, he feels a sense of euphoria when he is fighting or more specifically, getting beaten. He is dissatisfied with himself and his life, and he likes being injured from fighting because, as he says, “After fighting, everything else in your life got the volume turned down” (Fincher).

The most apparent disorder that the narrator displays may be dissociative identity disorder (DID). Though most individuals with DID have more than two identities (Barlow & Durand, 2005), the narrator was significantly affected by his own identity, as well as the alter, Tyler Durden. In the film, the narrator unwittingly creates Tyler as his alter because he is unsatisfied with his life. Predictably, Tyler is the complete antithesis of the narrator; he is everything the narrator wants to be but cannot bring himself to become. Tyler is an outgoing, risk-taking chain-smoker who lives in a dilapidated home and wears extravagant clothes. He is a consumer of only the things he absolutely needs and tells the narrator that large corporations are taking over the world. The narrator says that Tyler has “the ability to let that which does not matter slide” (Fincher, 1999).

One criterion for DID is that two or more of the identities take control of the affected individual’s behavior (*DSM-IV*). This process occurs often in *Fight Club*, and when the narrator confronts Tyler as his alter, he begins to think back to all the times when he does not remember what happened. He wonders, “Have I been going to bed earlier and earlier? Have I been sleeping in later and later?” (Fincher, 1999). The audience eventually finds out that Tyler takes control of the narrator so often that the narrator actually holds no less than four different jobs at the same time. Memory lapses, such as the ones the narrator experiences, are a characteristic of DID because the individual cannot remember times when his alter has taken over his actions (*DSM-IV*).

However, these memory lapses also present a flaw in the film because, although there are many times when an individual with DID cannot remember when an alter takes over, the narrator often seems to create his own memories for times when he is aware of Tyler’s actions. For example, when Tyler is fighting someone else, the narrator remembers himself as an observer of the fight. He does not appear to have a blackout or memory lapse. This behavior does not seem to be a common theme among individuals with DID; people with DID have a complete “inability to recall important personal information” (*DSM-IV*).

Similarly, a characteristic of DID that appears in the movie is that Tyler is aware of the narrator as another personality. Tyler even takes precautions in case the narrator discovers that Tyler is actually his alter. Although this response is not always a characteristic of DID (Barlow & Durand, 2005), alters are sometimes aware of other alters, as well as the host individual’s personality.

Nevertheless, the narrator’s interaction with Tyler presents another problem in terms of psychopathology, similar to the previous discrepancy about the narrator’s lack of memory loss. Although alters frequently become aware of other personalities, the host is often not aware of the alters. In the film, however, the narrator is clearly aware of Tyler but does not know that he is an alter. Tyler appears as the narrator’s imaginary friend, although the audience is not aware of this relationship until the movie’s end. This detail makes the movie a bit less accurate with respect to psychopathology.

Clearly, *Fight Club* presents the audience with many examples of disorders related to psychopathology, including insomnia, de-realization, BPD, and DID. Although not all details in the movie are accurate from a psychological point of view, *Fight Club* still gives audiences a unique glimpse into the life of someone living with several psychological disorders.

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Notes:

Psychologically Speaking

Teaching Creates Opportunities: An Interview with William Buskist

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William Buskist is the Distinguished Professor in the Teaching of Psychology at Auburn University and a Faculty Fellow at Auburn's Biggio Center for the Enhancement of Teaching and Learning.

Together with Steve Davis, he has edited two volumes on the teaching of psychology: The Teaching of Psychology: Essays in Honor of Wilbert J. McKeachie and Charles L. Brewer and The Handbook of the Teaching of Psychology. Together with Barry Perlman and Lee McCann, Bill has edited Voices of Experience: Memorable Talks from the National Institute on the Teaching of Psychology. He has published over 30 books and articles on the teaching of psychology.

Bill serves as the Section Editor for The Generalist's Corner section of Teaching of Psychology and as a member of the National Institute on the Teaching of Psychology (NITOP) planning committee.

In 2005, Bill was a co-recipient of Auburn University's highest teaching honor, The Gerald and Emily Leischuck Presidential Award for Excellence in Teaching. He also is a recipient of the 2000 Robert S. Daniel Teaching Excellence Award from the Society of the Teaching of Psychology (STP). He is a Fellow of Divisions 1 (General Psychology) and 2 (STP) of the American Psychological Association. He currently serves as STP President.

Miller: The *Journal of Psychological Inquiry* publishes undergraduate student research. In addition, there is a Special Features section that serves a variety of purposes. It is a forum for student essays on topical issues and also features, from time to time, articles that provide information of interest to both faculty and students, related to the research process. We have asked you for this interview to explore your thoughts on the role of undergraduate research in

teaching. This interview is designed primarily for the audience of students and, secondarily, for faculty, with particular emphasis on the scholarly component of teaching and learning, and on how that relates to students conducting research and subsequently presenting and publishing the results of that research. The three students who will be talking with you are all undergraduates, one junior and two seniors, at the University of Nebraska at Kearney.

Middleton: To begin, I would like you to think back to when you were a student. Who influenced you to become a psychologist, and were there any teachers who affected your decision?

Buskist: I came to psychology the long way. What I mean by that is that it was late in my undergraduate career when I discovered psychology. I took an introductory class and sort of liked it, but it wasn't something that really turned me on. However, I liked it enough that I thought I'd take another class, and I ended up, completely by accident, taking a course in research methods, and that really excited me. The teacher's name for this course was Dr. Paul Robinson. He got his PhD from Utah State University. I was in his office one day, about halfway through the semester. On one of his walls hung his framed PhD diploma. Well, I looked up at it-I had never seen a degree like that before-and I remarked, something like "So, that's what a PhD looks like." He replied, "Yes that's what they look like, and that's what yours will look like." Dumbfounded, I said, "What are you talking about?" And he said: "You're going to go to graduate school aren't you?" I had never really thought about it, and I told him so. He then said, "Well, why don't you think about it. We're starting a new program here." So I asked him about the requirements, and he told me all about the Graduate Record Examination (GRE). I told him I thought it was getting a little bit late in the year to

take the GRE and that it might be too late to meet BYU's deadline for graduate admission. I was stunned by his reply: "Let's see what I can do; maybe I can get it waived for you." I then asked him about GPA requirements. He told me that BYU's Psychology Department was looking for students with strong GPAs-somewhere in the range of 3.3 to 3.5 or so. I told him that my GPA was closer to 2.5 than it was 3.5, to which he replied, "Well, we can probably get around that, too."

About a month later, the psychology department admitted me to their doctoral program in experimental psychology on a probationary basis. I made a commitment to myself at that time that unless I got really good grades, I wasn't going to stick with it. But I ended up getting a 4.0 that first year. It was the first time in my life I worked really hard in school and it paid off. I haven't looked back once, and that was almost 30 years ago. I am still committed, and I am still working hard.

Middleton: What was the reaction of your family and friends when you chose psychology as a career?

Buskist: There was no reaction, really. I was the first person to go to college, and so my parents really had no idea what college was all about. I do remember that when I was a high school student and I decided to go to BYU, I knew nothing about the west and nothing about the Mormon Church. All I knew was that it was far away, and that was where I wanted to be. I came to BYU to play baseball.

Middleton: What position did you play?

Buskist: I was a pitcher. I played for about 18 months-a torn rotator cuff ended my pitching career.

Middleton: What motivated you to get involved in scholarship and research?

Buskist: Well, once I got to graduate school, I became interested in working with Hal Miller, who was a student of Dick Herrnstein at Harvard. Hal is a very bright person, and to this day, he's the best teacher I've ever known. He was doing some behavior-analytic work with humans, studying people make choices for certain food items based on their allocation over time. He had rigged these very old vending machines to work like operant conditioning chambers used with rats and pigeons.

Early in my work with Hal, he told me to come to him at any time with any idea for research, and we'd find a way to work with it. I talked to him about some pretty crazy ideas, but he would always say, "Let's go to the library, do a little reading, and think about it some more." He never once turned me down, and I had some bad ideas. What would happen is that he would allow me to take this idea, vis-à-vis the literature and his empirical shaping, and then create a worthwhile study.

I can remember being so excited about our research that I sometimes would wake up at 2 or 3 in the morning ... just pore over data and think up new ideas.

Together we had a dozen or so publications. I can remember being so excited about our research that I sometimes would wake up at 2 or 3 in the morning, shower, eat, and go to school, and just pore over data and think up new ideas. In those days, there was no IRB, so we could get an idea in the morning, write the computer program during lunch, and be running subjects by three o'clock. It was great! We got things done.

Hal was a huge influence on my interest in scholarship, and I knew from my work with him that I wanted to be an academic psychologist. I had lots of opportunities to teach at BYU. My first teaching experience happened completely by accident. During my second year as a graduate student, I walked past a classroom full of students but with no teacher. The class should have started 7-8 minutes earlier. So I poked my head into the room, and asked the students what was going on. It turned out that it was Paul Robinson's research methods undergraduate class. I had served as a teaching assistant for the course during my first year, so I told the students that if he didn't show up in another few minutes, we'd figure out something to do.

Another 5 minutes passed, still no Paul, so I asked the students what they were talking about in the course, and they said "analysis of variance." And so, Paul never showed up-he had been detained unexpectedly at home, and from the top of my head, I

began lecturing over analysis of variance. I can't remember what I said at the time, but I do remember thinking it was fun. It was then that I realized that I could teach if I wanted to.

Middleton: Obviously you love teaching now.

Buskist: I do, I do. I have been converted. I had a religious experience.

Middleton: You once said that you don't consider yourself a great teacher.

Buskist: No, I don't. My good friend Barney Beins (Ithaca College) once said that the moment you think you achieved something is the moment you've lost it. I really believe that. I think that as soon as you let yourself think you're that good; you get lazy and lose your edge. I think that's true of anything. I think that once you become cocky and arrogant, you're on your way down. And I don't want to go down, I want to stay right where I am or go up. I know I have some skill at teaching, but I would never confess, privately or publicly that I was a master teacher. That's what you let other people say about you based on what they experience.

I always tell people that I'm just an average guy who works hard, and that's the way I've always been. When I played baseball I was of average talent, but I could work harder than anyone, and the same thing is true of academics. I was not the brightest person in graduate school, but I studied my butt off. A lot of times I would stay up, and I had many, many 17-18 hour days cracking the books, because that's what it took me to do it.

Demoret: What can new professors do to improve their teaching style when they are struggling to balance tenure requirements and their educational goals?

Buskist: This questions hits one of my research areas. One of the things we are finding is that if we can teach graduate students how to teach, for example, learn the elements of basic course design, how to put together a syllabus, how to address certain problems that are inevitable in every class, then we can help you put all of your teaching ducks in a row, so to speak, during graduate school. When you become an assistant professor, you don't have to worry about your teaching. If the emphasis in graduate school is just on research, research, research, once you become a professor, you don't have a clue how to

become an effective teacher right off the bat. What we are learning is that those graduate students who already know how to teach have a much easier time setting up a research program once they become an assistant professor. So, if we are really interested in helping young professors to become tenured, we should be teaching them how to teach while they are still in graduate school!

Demoret: Does teaching experience as graduate student help when searching for a job at a university?

Buskist: Absolutely. Having teaching experience while a graduate student is a huge edge in the very competitive assistant professor job market.

Middleton: Along those same lines, what are three tips you would give to a graduate student to prepare themselves for teaching?

Buskist: My first bit of advice is to seek out opportunities to teach. Being a teaching assistant is not the same thing as being a teacher of record, in which you are totally responsible for aspects of teaching a course. Colleges and universities are generally looking for new PhDs who have actual teaching experience above and beyond that afforded by being a teaching assistant.

The second thing is to find someone who's going to give you feedback, someone who can observe you teach and give you tips on how to do it better. I was talking to a graduate student from the University of Minnesota this morning. She has been teaching on her own as a teacher of record for a while. She's never had anybody even come in and observe her teaching. She's very enthusiastic but she's not the teacher she could be because she's not getting proper supervision.

The last thing I would say is to study teaching. There are a lot of ways you can do that. Pick the people in your department who are the best teachers and sit in on their classes. You can also do that across departments because you can get some great ideas from watching people in history, political science, economics, math, and statistics. Also, read. There are a lot of great books out there about teaching. Take some of the ideas you learn about in your study of teaching and bring them into your classroom. Go to teaching conferences and sit in on as many sessions as you possibly can. Going to a teaching conference is like walking into a warm embrace because the

people who attend these conferences want all of us to become better teachers. They want to see all of us succeed in the classroom. They are really concerned about the quality of teaching in the United States, and they want you to come into the fold, learn about good teaching, and then go back out so you can raise the level of teaching in your department.

Demoret: In your experience, what are some specific personal qualities of teachers that students attribute to high quality teachers?

Buskist: The number one quality that I found in my research with students is that they want teachers to have realistic expectations of the course load and they want the teacher to be fair. That's very, very important. They also want their teacher to be knowledgeable in the subject matter. Finally, students are very interested in having a relationship with a faculty member. What I mean by that is they want their teachers to take an interest in them as students. They want a faculty member who wants to be there in the classroom with them. They want a faculty member who is going to be encouraging, who may have a good sense of humor. They want somebody who's going to be enthusiastic about the discipline, about teaching, and about the students themselves. Those are the primary things that are on the top ten lists of what students think make the best teachers.

Middleton: You've been involved in a lot of athletic activities outside of teaching. Did that help your teaching in any way?

Buskist: I believe in a philosophy based on hard work and hard play. I like to find ways to reduce stress and fulfill my competitive nature through athletic events, and I'm glad we live in an era where people my age can compete. I've started and completed three Ironman events (2.4 mile swim, 112 mile bike, and 26.2 mile run). I started studying martial arts (TaeKwonDo) a couple of years ago. It, too, allows me opportunities to develop myself mentally and physically, and to compete. I think competition brings out the best in people, under the right circumstances. I think athletic competition is a wonderful endeavor, and when you think about it, there's no aspect of life that's not ultimately competitive.

Stastny: In your opinion, how valued are teachers in our society compared to other professionals?

Buskist: Well, if you take a look at an article that came

out recently in a popular magazine, the number one job in the United States was software engineer. The number two job was college professor. The number three job was psychologist. So, that's what the objective data say when you survey individuals about what they think the best jobs are. However, if you take a look at the pay scale for different jobs, then we see that the entertainment professions are most valued. For example, you have professional athletes and professional entertainers who are making tens of millions of dollars a year and you have, not just college teachers, but K-12 teachers, who are paid miserably. There's something wrong with that picture.

Middleton: How would you describe the ideal graduate student?

Buskist: I've actually been asked that question before by my graduate students. I'll tell you what my major professor, Hal Miller, once told me. His idea of the perfect graduate student was "someone who slept two hours a night and felt guilty." I think you have to be absolutely 110% committed to being a graduate student, otherwise, you'll never rise to the top, and it is all about rising to the top. It's not about being mediocre. You're going to be competing for jobs somewhere down the road, and you have to have some way to distinguish yourself. That takes a lot of hard work, and it takes a lot of sacrifice on your part. What you want to do is find a major professor who has impeccably high standards who is going to require you to study harder and smarter than you've ever studied in your life. That's going to make you better in the long run. My major professor instilled in me a work ethic and set of academic values that I still hold today.

Demoret: A lot of your life has been committed to teaching. What are some of the things your students have done that you're most proud of?

I am most proud of students who take advantage of the opportunities that college offers them ...

Buskist: I'm most proud of those students who feel a sense of accomplishment for what they themselves have achieved. As a teacher all you can do is provide the opportunity to learn. Students are the ones who have to make good on it. I am most proud of students who take advantage of the opportunities that college

offers them and work hard to accomplish things that they may not have thought possible.

Demoret: I think you found a way to answer my previous question because it seems like most teachers would highlight a select group of students that highlights their career, but it's interesting that you mention kind of a collective group of students in general. Which is probably why your students remember you, too.

Buskist: Thank you. Teaching as been an awful lot of fun and I have been very fortunate to have the opportunity to be a teacher. I can't think of anything else I would have rather devoted my working life to.

Stastny: What would you cite as the major factor for the perceived receding quality of the American educational system?

Buskist: Well, I'm glad you asked that question, and I'm glad you pointed out that the recession is perceived, because I don't think that kids today are, for lack of a better phrase, dumber than past generations of students. I am not sure why that perception was created or why it persists, but in my 25 plus years of college teaching, I have not seen any decline in the intellectual quality of students that attend college.

Stastny: I've have heard some studies cited about how international students outperform American students on things like mathematics; I was wondering what you thought about the implications of that for our educational system?

Buskist: I don't think that's a good metric to judge overall quality of education. In America, it's more about having a broad education than a specific one. It's about being educated as a citizen and being able to think broadly. I don't know if those specialized kinds of comparisons can necessarily tell us much about that.

Middleton: I actually have two questions, but they are related. What do you consider the greatest accomplishment in your academic life, and your greatest accomplishment outside of your academic life?

Buskist: The last question is the easiest, and that is my family. Comparing that to the first question is a little tougher; it's like comparing apples to oranges. While I was at BYU I heard a saying that has stuck with me for three decades—"no success outside the family can

compensate for lack of success within it."

I think my greatest accomplishment in academia, has been simply to...wow, this is really hard to describe...it's not any publication, it's not any talk, it's not any award. It's simply to have achieved the status of being a competent teacher. I've had a chance to think about psychology, to think about the world of students, and have had a role in helping them develop their futures, and I think that has been my greatest success. I think I'm good at that because that's what I enjoy the most.

Demoret: I want to go back to a comment you made a second ago about being educated as a citizen. Specifically, what did you mean by that?

Buskist: Remember that institutions provide opportunities, but it's up to the individual to realize those opportunities. I tell graduate students that whether you go to Harvard or BYU doesn't matter. What matters is that you take advantage of whatever opportunities present themselves while you are there. I think that American universities provide incredibly powerful opportunities to become educated. And what I mean by that is that you become a better thinker and better at solving life's problems, whether financial, personal, physical, or psychological. The other thing that I think it means is that you should have developed some sense of humanity and have as one of your life's priority a desire to help others who need it.

Miller: Do you think that is something that is being sufficiently emphasized in colleges today?

Buskist: I think it is being emphasized more and more. In particular, I think that psychology is taking a lead in promoting this idea. If you look at the people in Division 2, the Society for the Teaching of Psychology, you'll find their values reflect this sort of caring and compassion for others. Almost all of the important decisions within the Society are made with an eye toward the impact we can have on students as individuals and their needs—both now and in the future. How can teachers do the most good for the most people? That's a question that is at the very heart of Division 2.

Demoret: How do you keep students engaged in the classroom, and do you assign homework in your classes?

Buskist: I've never actually assigned homework as a college professor. I've found that the best way to help students learn is to engage them in thinking about psychology and its applications in their lives through classroom activities. As my friend Neil Lutsky at Carleton College likes to point out, you first have to capture students' attention if you want them to learn anything. The way I try to do that is by being an interesting, and yes, fun, teacher.

Stastny: How can a graduate student teaching introductory psychology for the first time establish rapport with his or her students?

Buskist: First rule: Learn students' names. Students like their teachers to know them by name. And they truly appreciate it when a teacher does know their name. Second: Be friendly-before class, after class, in the hallway, at the mall, in the restaurants, always. So, if I know your name, and I see you in a restaurant I can say "Hey, Marty, how are you doing?" We can then engage in conversation . . . and at some level connect as everyday people, not just teacher and student.

Middleton: What were your early research interests?

Buskist: My early interests followed the interests of my major professor. We applied behavior-analytic principles to understanding how people make choices. I also had a passing interest in taste-aversion learning, and Hal and I published a couple of papers in that area as well as in the "operant conditioning" of human behavior. Once I left BYU and after a one-year stint at Adams State College in Alamosa, Colorado, I came to Auburn and developed an interest in developing behavior-analytic models of human cooperation and competition. I worked in this area for about 4-5 years before my interest in teaching and research on teaching took off.

Demoret: Do you involve undergraduates in your research?

Buskist: Absolutely. We have a program at Auburn where students can take one of two courses and get credit for becoming a research assistant. So, whenever I have research that's appropriate at that level, I always solicit undergraduate help. If they do the work that they were "hired" to do, then they are always put on as a co-author on the finished product. In fact, I have several publications with undergraduates.

Stastny: What do you think are the advantages for faculty who work with undergraduates?

Buskist: I think the most important advantage is not about the research but about the faculty member becoming more aware of how undergraduates function. Not every faculty member is going to be sensitive to what undergraduates do because, quite frankly, a lot of faculty will turn an undergraduate over to a graduate student to supervise and never again see him or her. What I like to do is involve the undergraduates in all the lab meetings and conversations and let them know that I expect them to pitch in and contribute to the project. That helps me to get a feel for where their head is, and it gives me an opportunity to tune in to what undergraduates are thinking so that I am able to relate to them a little better. A second advantage is that it introduces them to the

What I like to do is involve the undergraduates in all the lab meetings and conversations and let them . . . pitch in and contribute to the project.

scholarly aspects of academia, and I think that's the best way to get introduced to scholarship. They get their hands a little dirty and the longer those students stay with you, the dirtier they get their hands, the more they like it, and the more influence you can have on them.

Middleton: How can instructors increase the appeal of their research to undergraduates?

Buskist: I think you have to be an interesting person. There has to be something about you as a teacher that draws students to you. It may be because you make class fun and interesting. It may be that you challenge students to think in a way they never have thought before. Or, it may be that you're just friendly and students find you approachable. For any of these reasons, or some combination of them, when it comes time for undergraduates to engage in a research experience they think about you. I think that if you're just up there dispassionately lecturing about psychology, then you won't turn anyone on to psychology. If you really want to have an impact, you've got to let the better aspects of your personality shine through.

Miller: Do you think there is value in having undergrad-

uates publish?

Buskist: Absolutely I do. Undergraduates can enter the scholarly arena in several different ways, and I think one of the best ways is through the programs that Psi Chi promotes—its conferences and its undergraduate research journal and through this journal. These opportunities provide a supportive, nurturing experience for students. If you start playing with the big dogs too soon, and you don't have thick enough skin, you're going to be completely discouraged. These folks can be nasty, even heartless, sometimes. We don't need to expose undergraduates to that. We don't even need to expose some assistant professors to that.

Stastny: I read on your home page that one of your hobbies is kayaking. How did you first become interested in kayaking?

Buskist: One of my graduate students a while back was a fellow by the name of Tom Sherburne. At that time, Tom was a world-class white water paddler. Shortly after I became his major professor, we were backpacking in North Carolina with my two oldest boys, Colin and Caden. On the way home, we stopped by a river where several kayakers were "playboating" around a small waterfall. When I mentioned to him that I would like to try kayaking, he said to me, "I promise you if you try kayaking, you'll never go backpacking again." Tom later took my boys and me kayaking, and I have not been backpacking since! It's amazing the sorts of things I have learned from my students!

Middleton: For all your traveling to different national

parks, which is your favorite?

Buskist: Hands down, Zion National Park. There's something about being captured within those walls that really speaks to me. I've been in Zion National Park every month of the year. I've seen it in every season. I've been there when I was the only person in the park. I've been there when it was overflowing with people in the summer. I've hiked every trail, every rim, both in and out of the park, and to me, it's my most special place. Second to that is Yosemite. But it's a far second.

Stastny: I read in one of your biographies that the historical person you would most like to meet is Charles Darwin. Why Darwin?

Buskist: When I was a graduate student studying for my comprehensive exams, I would often go to the library. I sometimes would take a break in my studies by wandering around the stacks. One day I came across Darwin's autobiography and started reading it. I was just captivated by it. I think his work and writing was fascinating especially when you consider the kind of contentions he had to put up with. What he did for science in the modern era is unsurpassed. Darwin is one of the most fascinating people who has ever lived, as far as I'm concerned.

Middleton: I think that's all the questions we have. Thanks for talking with us.

Buskist: My pleasure. Nice to meet you all.

Notes:

Notes:

Invitation to Contribute to the Special Features Section—I

Undergraduate students are invited to work in pairs and contribute to the Special Features section of the next issues of the *Journal of Psychological Inquiry*. The topic is:

Evaluating Controversial Issues

This topic gives two students an opportunity to work together on different facets of the same issue. Select a controversial issue relevant to an area of psychology (e.g., Does violence on television have harmful effects on children?—developmental psychology; Is homosexuality incompatible with the military?—human sexuality; Are repressed memories real?—cognitive psychology). Each student should take one side of the issue and address current empirical research. Each manuscript should make a persuasive case for one side of the argument.

Submit 3-5 page manuscripts. If accepted, the manuscripts will be published in tandem in the Journal.

Note to Faculty:

This task would work especially well in courses that instructors have students debate controversial issues. Faculty are in an ideal position to identify quality manuscripts on each side of the issue and to encourage students about submitting their manuscripts.

Procedures:

1. All manuscripts should be formatted in accordance with the APA manual (latest edition).
2. Provide the following information:
 - (a) Names, current addresses, and phone numbers of all authors. Specify what address and e-mail should be used in correspondence about your submission,
 - (b) Name and address of your school,
 - (c) Name, phone number, address, and e-mail of your faculty sponsor, and
 - (d) Permanent address and phone number (if different from the current one) of the primary author.
3. Include a self-addressed stamped envelope of proper size and with sufficient postage to return all materials.
4. Send three (3) copies of the a 3-5 page manuscript in near letter quality condition using 12 point font.
5. Include a sponsoring statement from a faculty supervisor. (Supervisor: Read and critique papers on content, method, APA style, grammar, and overall presentation.) The sponsoring statement should indicate that the supervisor has read and critiqued the manuscript and that writing of the essay represents primarily the work of the undergraduate student.

Send submissions to:

Dr. Richard L. Miller
Department of Psychology
University of Nebraska at Kearney
Kearney, NE 68849

Invitation to Contribute to the Special Features Section—II

Undergraduate students are invited to contribute to the Special Features section of the next issue of the *Journal of Psychological Inquiry*. The topic is:

Conducting Psychological Analyses – Dramatic

Submit a 3-5 page manuscript that contains a psychological analysis of a television program or movie. The Special Features section of the current issue (pp. 50-58) contains several examples of the types of psychological analysis students may submit.

Option 1—Television Program:

Select an episode from a popular, 30-60 min television program, describe the salient behaviors, activities, and/or interactions, and interpret that scene using psychological concepts and principles. The presentation should identify the title of the program and the name of the television network. Describe the episode and paraphrase the dialogue. Finally, interpret behavior using appropriate concepts and/or principles that refer to the research literature. Citing references is optional.

Option 2—Movie Analysis:

Analyze a feature film, available at a local video store, for its psychological content. Discuss the major themes but try to concentrate on applying some of the more obscure psychological terms, theories, or concepts. For example, the film *Guess Who's Coming to Dinner?* deals with prejudice and stereotypes, but less obviously, there is material related to attribution theory, person perception, attitude change, impression formation, and nonverbal communication. Briefly describe the plot and then select key scenes that illustrate one or more psychological principles. Describe how the principle is illustrated in the movie and provide a critical analysis of the illustration that refers to the research literature. Citing references is optional.

Procedures:

1. All manuscripts should be formatted in accordance with the APA manual (latest edition).
2. Provide the following information:
 - (a) Names, current addresses, and phone numbers of all authors. Specify what address and e-mail should be used in correspondence about your submission,
 - (b) Name and address of your school,
 - (c) Name, phone number, address, and e-mail of your faculty sponsor, and
 - (d) Permanent address and phone number (if different from the current one) of the primary author.
3. Include a self-addressed stamped envelope of proper size and with sufficient postage to return all materials.
4. Send three (3) copies of the a 3-5 page manuscript in near letter quality condition using 12 point font.
5. Include a sponsoring statement from a faculty supervisor. (Supervisor: Read and critique papers on content, method, APA style, grammar, and overall presentation.) The sponsoring statement should indicate that the supervisor has read and critiqued the manuscript and that writing of the essay represents primarily the work of the undergraduate student.

Send submissions to:

Dr. Richard L. Miller
Department of Psychology
University of Nebraska at Kearney
Kearney, NE 68849

Invitation to Contribute to the Special Features Section—III

Undergraduate students are invited to contribute to the Special Features section of the next issue of the *Journal of Psychological Inquiry*. The topic is:

Conducting Psychological Analyses – Current Events

Submit a 3-5 page manuscript that contains a psychological analysis of a current event. News stories may be analyzed from the perspective of any content area in psychology. The manuscript should describe the particular event and use psychological principles to explain people's reactions to that event.

Example 1: Several psychological theories could be used to describe people's reactions to the destruction of the World Trade Center on September 11, 2001. Terror management research has often shown that after reminders of mortality people show greater investment in and support for groups to which they belong and tend to derogate groups that threaten their worldview (Harmon-Hones, Greenberg, Solomon, & Simon, 1996). Several studies have shown the link between mortality salience and nationalistic bias (see Greenberg, Simon, Pyszczynski, & Solomon, 1992). Consistent with these findings, the news reported that prejudice towards African Americans decreased noticeably after 9/11 as citizens began to see all Americans as more similar than different.

Example 2: A psychological concept that could be applied to the events of September 11 would be that of bounded rationality, which is the tendency to think unclearly about environmental hazards prior to their occurrence (Slovic, Kunreuther, & White, 1974). Work in environmental psychology would help explain why we were so surprised by this terrorist act.

The analysis of a news event should include citations of specific studies and be linked to aspects of the news story. Authors could choose to apply several psychological concepts to a single event or to use one psychological theory or concept to explain different aspects associated with the event.

Procedures:

1. All manuscripts should be formatted in accordance with the APA manual (latest edition).
2. Provide the following information:
 - (a) Names, current addresses, and phone numbers of all authors. Specify what address and e-mail should be used in correspondence about your submission,
 - (b) Name and address of your school,
 - (c) Name, phone number, address, and e-mail of your faculty sponsor, and
 - (d) Permanent address and phone number (if different from the current one) of the primary author.
3. Include a self-addressed stamped envelope of proper size and with sufficient postage to return all materials.
4. Send three (3) copies of the a 3-5 page manuscript in near letter quality condition using 12 point font.
5. Include a sponsoring statement from a faculty supervisor. (Supervisor: Read and critique papers on content, method, APA style, grammar, and overall presentation.) The sponsoring statement should indicate that the supervisor has read and critiqued the manuscript and that writing of the essay represents primarily the work of the undergraduate student.

Send submissions to:

Dr. Richard L. Miller
Department of Psychology
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