Do Angry Women Choose Alcohol?

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Introduction: Previous Studies

- Drinking motivated by anger (cf. Dimeff & Marlatt, 1995)
- Anger management key to alcohol treatment (regarding women specifically) (Maisto et. al., 2009)
- Strong link between anger and risky driving (Lonczak et. al., 2007)
- Women more likely to use alcohol to relieve negative emotions (Morissette, 1994)
- Anger’s effects on drinking difficult to control
- Aggression is not the same as anger
  - Study: Interaction with deviant children reports negative emotions, consuming more alcohol (Pelham et. al. 1997)
  - Why is it difficult to find controlled studies of anger’s effects on drinking?
    - Relationship between hostility and depression
Testing the effects on alcohol consumption
(Marlatt, Kosturn & Lang, 1975)

- Three groups (male and female participants)
- Anger Provocation
- Participants who could not retaliate significantly drank more wine than those who could.
  - Drinking to relieve anger and hostility vs
  - Retaliating to relieve anger and hostility
- Third condition: participants who were not provoked did not show any significant change from either groups
  - 1)frustration 2)Social anxiety 3)unknown reasons
- An aggressive individual does not necessarily provoke anger
  - Fear
Do angry women choose alcohol?

- Took into consideration: anger provocation, anger measurement, drinking by female participants, drinking expectancies.
- Different manipulation to provoke anger
  - Men = aggressive attitude
  - Women = condescending and insulting attitude
- “Female Specific” anger provocation
Anger Provocation

- Effectiveness of provocation
  - Self-Report
  - Multiple Affect Adjective Check list– Revised (MAACL-R; Zuckerman & Lubin)
  - Series of Likert-type scale (measured anger, anxiety, happiness, and contentment) (Walk, 1956)
  - Labeled “Anger”
- No contamination by other negative emotions
Alcohol Consumption

- No alcohol for women of childbearing age (NIAAA) (1989)
- Alternate for alcohol—non alcoholic beer
  - Drinking behavior
- Taste-rating task to measure beverage consumption
- Addition of comparison beverage (ginger ale)
  - Allowed measurement of selection of alcohol and amount consumed
Determining drinking behavior

- Use of alcohol as a coping strategy
- Alcohol Expectancy Questionnaire (AEQ; Brown et. al., 1987)
  - Measures expectations of relaxation and assertiveness
Purpose

- Study the effect of “female-specific” anger provocation on alcohol consumption by young adult women
- When provoked female participants would be more likely to choose an alcoholic beverage
Method

- Participants
- Materials
- Recruitment
- Initial Data collection
- Anger Provocation manipulation
- Drinking Behavior
- Debriefing
Participants

- 30 women
- Mean age: 22.5 years
- Mean years of education: 15.87
- 2 participants had to be excluded
  - Detected deception in anger provocation phase of study
  - Qualified for alcohol dependence diagnosis
Materials

- Quantity-Frequency Index
- Multiple Affect Adjective Checklist-Revised
- Likert-type Feeling Thermometer
- Alcohol Expectancy Questionnaire
Recruitment

- Local newspapers
- Flyers
- $250 drawing
- Confederates
  - 7 female undergraduate psychology majors
- Experimenters
  - 2 undergraduates
- Graduate Research Coordinator
Initial Data Collection

- Participant and Confederate
  - Demographic inventory
  - QFI
  - Baseline MAACL-R
  - Feeling Thermometer
- Breathalyzer assessment
Anger Provocation Manipulation

- 2 experimental conditions
  - Provocation (n=15)
  - No Provocation (n=15)
- Anagrams
Drinking Behavior

- 4 beverages
  - 2 non-alcoholic beer and 2 Ginger Ale
  - Rate the taste of each
- How much did participant drink?
Debriefing

- 1) assess effectiveness of deceptions
- 2) assess and mollify any lingering emotional distress
- 3) help participant understand importance of research and enlist as “research partner”
Results

 Verification of anger provocation

  Ratings from participants on the Feeling Thermometer scales and the subscales of the MAACL-R were subjected to independent sample t-tests

  High MAACL-R hostility scores (M=3.14, SD=2.88) for participants in Provocation condition compared to Non-Provocation condition (M=0.36, SD=0.63)

  Higher Feeling Thermometer anger scores (M=3.07, SD=1.98) for participants in Provocation condition compared to Non-Provocation condition (M=1.50, SD=.76)

  No significant changes between groups when looking at analyses of remaining MAACL-R scales and the Feeling Thermometer scales
Beverage consumption

(P) Average of 170.0 ml of placebo beer (SD=81.34) and 181.79 ml (SD=112.36) of ginger ale

(NP) Average of 120.07 ml (SD=78.38) of placebo beer and 199.5 ml (SD=151.71) of ginger ale
A univariate analysis of covariate was conducted

condition was the fixed factor

amount of placebo beer was the dependent variable

Covariates

Pre-manipulation Anger Feeling Thermometer and the MAACL-R negative emotion subscales (hostility, anxiety, and depression)

Baseline negative affect

Anger manipulation

Result of analysis was significant, $F (1, 22)=4.61$, $p<.05$

Provocation drank more than Non-Provocation condition

Ginger ale

Results not significant $F (1, 22)=.050$, $p>.05$
Bivariate correlations

- assertiveness expectancies
- relaxation expectancies
- placebo beer consumed

- No significant correlations in Non-Provocation group

- Significant positive correlation between assertiveness and “beer” consumed in Provocation group

- Provoked women believed “More alcohol=More assertive” (r=.54; p<.05)

- No significant correlation between relaxation expectancies and placebo drinking
Do (H)Angry Women Really Choose Alcohol?

- What Presents this Question from the Research:

  Experimental Evidence displayed Increased Feelings of:
  - Problem Solving
  - Assertion
  - Hostility
  - Anxiety, etc.?
Control

- Control Tested two times and proved to be significantly different than manipulation
Limitation

- Non Alcoholic Beer
- Response “placebo effect”
- Small Population
- Limited Demographics
- Self Response Survey
- Peer Pressured Anger!
Bottom Line

- Increased Anger and Hostility
- Experimental Evidence Could Help In Alcoholics Courses
- Limited Data