

Marketing Research

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The Impact of Emotions

- Objectives:
 - Our analysis will show how emotions affect people's lives and at what level of intensity based on the 1996 data available in the General Social Survey.

The Impact of Emotions

After the analysis was performed, we were able to draw conclusions and interpret our findings. We were also able to answer the following questions:

1. Which emotions predominate among US Citizens, and which emotions are attributed to either males or females?

The Impact of Emotions

2. Do people tend to blame others or do they take self-responsibility when getting angry?
- .
3. Which people do we get most angry at, and is there is a gender effect in those findings?

The Impact of Emotions

- Presenting our conclusions:

Our analysis will uncover which techniques people use to divert or change the intensity of their feelings as well as the roles gender differences might play.

Hypotheses

- Based on the data available for our analysis, we developed six hypotheses that are related to how emotions affect people's lives and to what degree.

Empirical Research for Hypothesis #1

- H1: Women have a less positive outlook on life than men.
- In some of the past research we found that in fact, women do have a less positive outlook in life than men. Reasons for this difference may rely on series of outside events that can occur throughout their lives, in which women are more vulnerable to react to them than men are. (Colvin 2006)

Empirical Research for Hypothesis #2

- H2: Women are more depressed, worried, sad, and angrier than men.
- Research indicates that more than 17 million Americans experience depression every year, and over half of them are women. In fact, women experience depression twice as often as men, and they often experience it earlier, longer, and more severely (Cornforth 2006).

Empirical Research for Hypothesis #3

- H3: Men and women who get angry, get angry at their spouses more than at other people.
- A previous unwanted situation may lead to anger and resentment at home where very often partners are taken for granted. Arguments with spouses sometimes may have nothing to do with one another, but it is a scapegoat to frustrations built in (Tucker-Ladd 2006).

Empirical Research for Hypothesis #4

- H4: Women are more content in marriage than men, while married people are more content than unmarried people.
- Studies argue that in fact women are more content in marriage than men as women have the tendency to perceive the promise of *permanency* as a feeling of well-being and security among other reasons (Niolon 2003).

Empirical Research for Hypothesis #5

- H5: Exercise is the best predictor of feeling content in regards to techniques used to change one's state of anger.
- Research has shown that exercising is very beneficial in assisting to channel out anger out of one's life (Messina 1999).

Empirical Research for Hypothesis #6

- H6: Men get angrier at themselves compared to women.
- The article “Men and Mental Health”, showed that in fact men do get angrier at themselves at twice the rate women do (Milsner 2001)

Methodology: Measures & Sample

- Hypothesis 1: Women have a less positive outlook on life than men.
- DV = “Positive outlook” (summated scale of feeling calm, happy, excited, overjoyed, content, at ease, proud)
- DV = Number of days
- IV = Gender (male, female)

Methodology: Measures & Sample

- Sample Size: M = 1285 F = 1619
- Missing M = 651 F = 804
- Valid Sample M = 634 F = 815

- Design: Descriptive Research
- Test: Independent Samples t-Test

Data Analysis for Hypothesis 1

- Hypothesis 1: Women have a less positive outlook on life than men.
- H_0 : The two means (men versus females) are equal
- H_A : The two means differ from each other

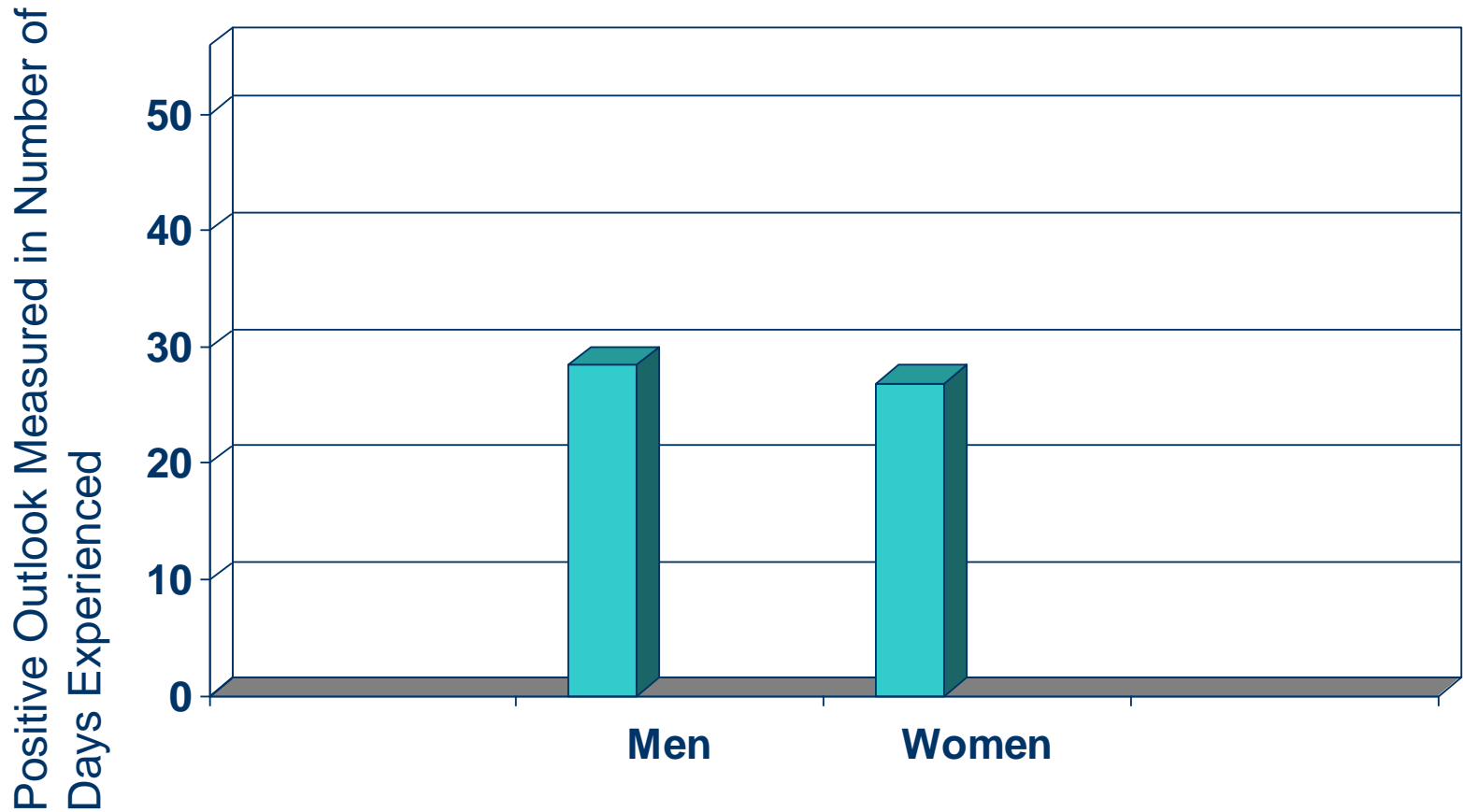
Results: H1

- A t-Test was conducted to evaluate whether women have a less positive outlook on life than men.
- t-Test was significant
- $t(1447) = 2.78, p < .01$.

Limitations: H1

- Participants were encouraged if they felt a certain way at any time during a day to make that day “count.” Thus, if respondent felt a certain way for just one second, it was counted as one whole day possibly skewing the data.
- Because respondents only self-rated once for 7 days, time might not reflect how respondents usually feel.

Interpretation: H1



Interpretation: H1

- Sample mean for women ($M=26.89$) was significantly different from the mean for men ($M=28.39$).
- Thus, men have a more positive outlook on more days than women.
- Results support the conclusion that women have a less positive outlook on life than men have, meaning women are less calm, happy, excited, overjoyed, content, proud and less at ease than men.

Methodology: Measures & Sample

- Hypothesis 2: Women are more depressed, worried, sad and angry than men.
- DV= Numerous emotions (depression, sadness, loneliness, worrying, calmness, pride)
- DV= Number of days
- IV = Gender (male, female)

Methodology: Measures & Sample

- Sample size
 - M = 635
 - F = 820
- Design: Descriptive Research
- Test: Independent Samples t-Test

Data Analysis for Hypothesis 2

- Hypothesis 2: Women are more depressed, worried, sad and angry than men.
- H_0 : The two means (men versus females) are equal.
- H_A : The two means differ from each other

Results: H2

- t-Test was conducted to evaluate where men and women differ in their emotions.
- t-Test for summated scale was significant
- $t(1455) = 3.38, p < .05$, meaning that there are gender differences in emotions.

Results: H2

- Specifically, gender differences found:
- Depression $t(1453) = -2.51, p < .05$
- Sadness $t(1452) = -3.87, p < .001$
- Loneliness $t(1451) = -3.38, p = .001$
- Worrying $t(1453) = -4.84, p < .001$
- Calmness $t(1455) = 3.39, p = .001$
- Pride $t(1453) = 2.85, p < .05$
- No gender differences were found in regards to happiness, anxiousness & tenseness, anger and being at ease.

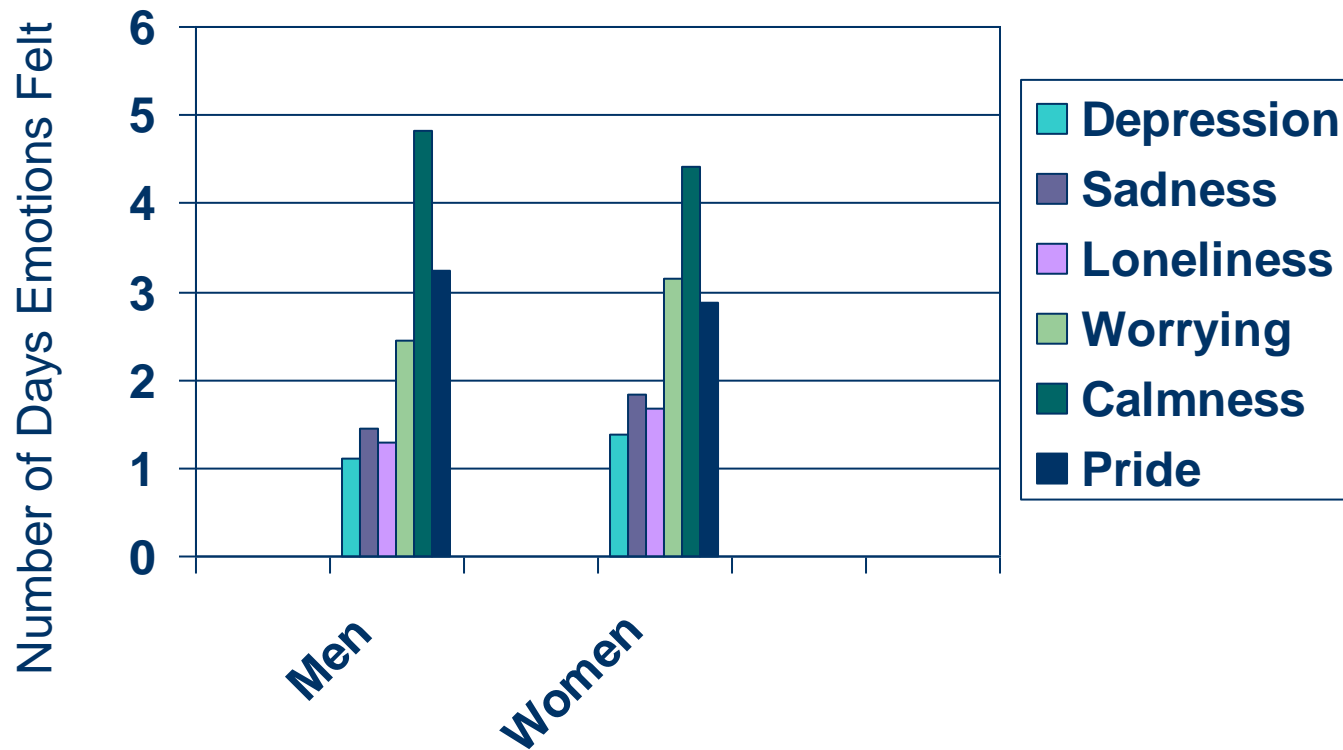
Interpretation: H2

- Based on the number of days people felt these emotions:
- Women feel more depressed (M=1.37) than men (M=1.12).
- Women feel more sad (M=1.84) than men do (M=1.44).
- Women feel more lonely (M=1.68) than men do (M=1.28).
- Women feel more worried (M=3.14) than men do (M=2.45).
- Women feel less calm (M=4.41) than men do (M=4.83).
- Women feel less proud (M=2.87) than men do (M=3.23).

Interpretation: H2

- This analysis supported our Hypothesis that women feel more depressed, worried and sad but we could not confirm that they feel angrier than men.
- The results indicate that women feel these negative emotions longer than men, suggesting that women are more likely to suffer from depression than men do.

Interpretation: H2



Limitations: H2

- Participants were encouraged if they felt a certain way at any time during a day to make that day “count.” Thus if respondents felt a certain way for just one second, it was counted as one whole day possibly skewing the data.
- Social desirability bias may have persuaded respondents to self-rate depression as less severe.

Methodology: Measures & Sample

- Hypothesis 3: Men and women who get angry, get angry at their spouses more than at other people.
- DV = Feeling angry (spouse, mother, father, friend, boss, co-worker, stranger, self)
- DV= interval (1=yes, 2=no)
- IV = Gender (male, female)

Methodology: Measures & Sample

Sample Size: M = 477

F = 641

Design: Descriptive Research

Test: Independent Samples t-Test

Data Analysis for Hypothesis 3

- Hypothesis 3: Men and women who get angry, get angry at their spouses more than at other people.
- H_0 : The two means (men versus females) are equal
- H_A : The two means differ from each other

Results: H3

- t-Tests were conducted to evaluate at whom men and women get angry at.
- t-Test for summated scale was significant.
- $t(1116) = 3.47, p < .05$, meaning that there are gender differences for whom they get angry at.

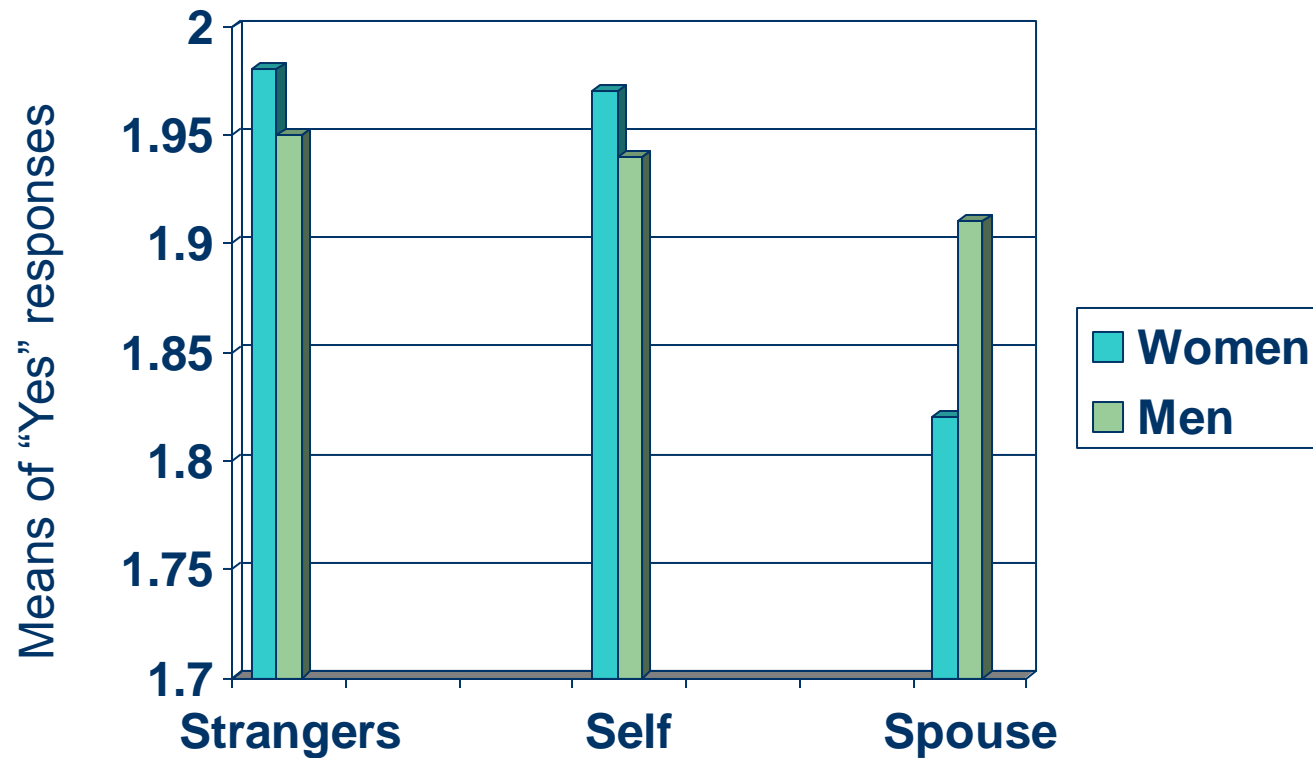
Results: H3

- When getting angry at strangers, women got angrier (M=1.98) than men (M=1.95) ($t(1116)=-2.65, p<.01$).
- When getting angry at self, women got angrier (M=1.97) than men (M=1.94) ($t(1116)=-2.84, p<.01$).
- When getting angry at spouse, men got angrier (M=1.91) than women (M=1.82) ($t(1116)=4.49, p<.001$).
- There were no gender differences for getting angry at mother, father, friend, boss, and co-worker.

Interpretation: H3

- This analysis did not support our hypothesis that when people are angry, they mostly get angry at their spouses; however, it did indicate that spouse is one of three groups people scapegoat their anger at.
- Results indicate that when people are angry, they get angry at strangers, at themselves, and at their spouses.
- Women show more anger towards themselves and strangers than towards their spouse.

Interpretation: H3



Limitations: H3

- Social desirability bias: Respondents might have answered how society would want them to answer (e.g., afraid to admit of getting angry at children for legal repercussions).
- Interviewer bias: Interviewers were instructed to probe “So that’s a co-worker” if unsure about chosen person, for example.

Methodology (H4): Measures

- Hypothesis 4: Women are more content in marriage than men, while married people are more content than non-married people.
- DV: Number of Days
- IV: Marital Status (married, widowed, divorced, separated, never married)
- IV: Gender (male, female)

Methodology: Analyses, & Sample

- Sample Size: $M = 636$
 $F = 817$
- Test: 2 X 5 Factorial ANOVA

Data Analysis for Hypothesis 4

- This analysis investigated the role of gender and marital status on contentment.
- Hypothesis 4: Women are more content in marriage than men, while married people are more content than non-married people.
- H_{01} : There is no main effect of gender
- H_{A1} : There is a main effect of gender
- H_{02} : There is no main effect of marital status
- H_{A2} : There is a main effect of marital status
- H_{03} : There is no interaction of gender and marital status
- H_{A3} : There is an interaction of gender and marital status

Results: H4

- 2x5 Factorial ANOVA was conducted.
- ANOVA indicated no significant interaction between gender and marital status, $F(4,1443) = 1.78, p > .10$.
- ANOVA indicated no significant main effect for gender, $F(1,1443) = .008, p > .05$.
- ANOVA did reveal a significant main effect for marital status, $F(4,1443) = 6.24, p < .001$.

Results: H4

- A non-significant gender main effect shows that men and women feel the same level of contentment, disputing that women feel more content in marriage than men do.
- Significant main effect for marital status means that there are differences in contentment, depending on type of marital status.

Post-hoc Analysis: H4

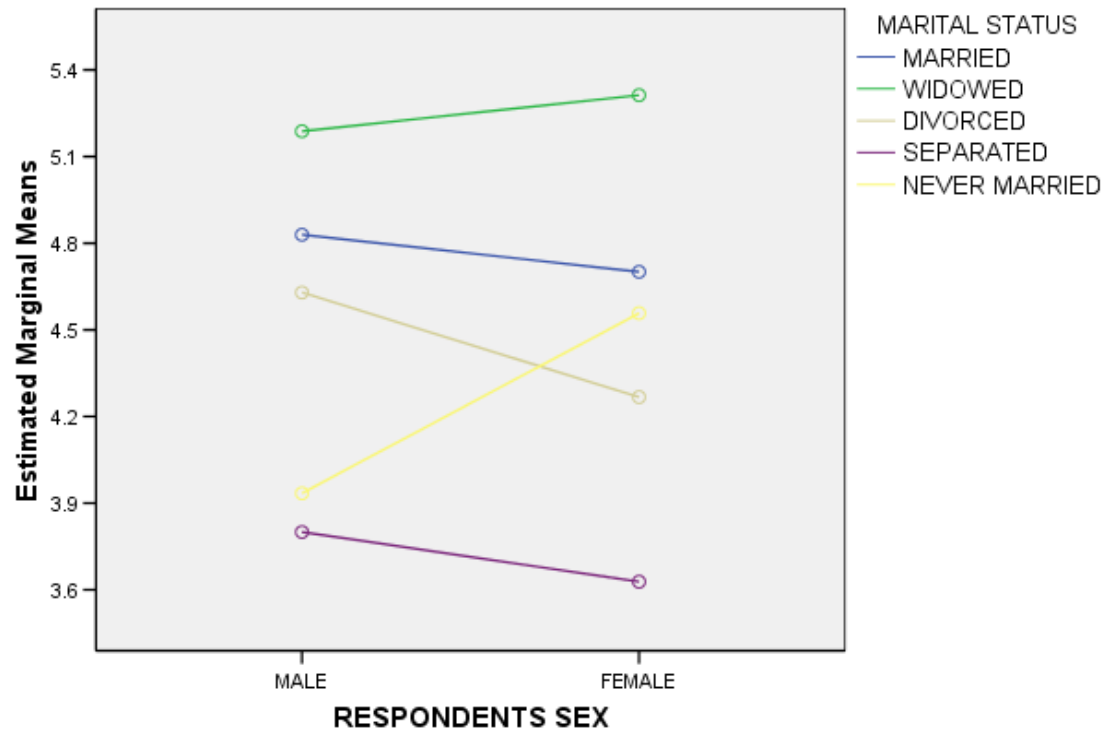
- Duncan post-hoc analysis concluded that married people ($M=4.77$) are more content than separated people ($M=3.71$) and are more content than never married people ($M=4.25$).
- Also, widowed people ($M=5.25$) are more content than divorced people ($M=4.45$), more content than never married people ($M=4.25$), and more content than separated people ($M=3.71$).

Interpretation: H4

- Overall, widowed people feel most content, followed by married people, divorced and people who were never married. The least content are people that are separated.
- Reasons that widows feel most content could be that they had satisfying relationships, know that their spouses are with them spiritually and can now focus on themselves.

Interpretation: H4

Estimated Marginal Means of FELT CONTENTED?



Limitations: H4

- Because respondents only self-rated once for 7 days, time might not reflect how respondents usually feel.
- Coding errors might have skewed data.

Methodology: Measures (H5)

- Hypothesis 5: Exercise is the best predictor of feeling content in regards to techniques to change state of anger.
- DV (Criterion) : Number of Days
- IV (Predictors) : Left situation, talked to person I was angry at, tried to accept situation, had drink or pill, exercised, waited for feelings to pass, yelled or hit something, tried to forget it, think about situation

Methodology: Sample & Analyses

- Sample size: 1112
- Design: Descriptive research
- Analysis: Regression
- Test: Overall model F-Test and t-Tests

Data Analysis for Hypothesis 5

- Hypothesis 5: Exercise is the best predictor of feeling content in regards to techniques to change state of anger.
- $H_0: b_1 = 0$ (Variables are not related)
- $H_A: b_1 \neq 0$ (Variables are related)
- Predictors: Left situation, talked to person I was angry at, tried to accept situation, had drink or pill, exercised, waited for feelings to pass, yelled or hit something, tried to forget it, think about situation

Results: H5

- Only 2% of variance in the DV (feeling content) can be explained by the 9 predictors, $R^2 = .02$, $F(9,1102) = 2.00$, $p < .05$.
- Regression Equation:
Feeling content ($b = -.09$), think about situation ($b = .86$), had drink/pill ($b = -.18$), talked to person I was angry at ($b = .23$), tried to forget ($b = .35$), exercised ($b = .24$), yelled/hit ($b = -.11$), waited for feelings to pass ($b = .04$), tried to accept situation ($b = .03$), and left the situation ($b = 1.84$).

Results: H5

- Out of all 9 predictors, only two are significant unique predictors of contentment: Had drink/pill ($t(9)= 2.69$, $p<.05$) and Exercised ($t(9)= 1.64$, $p=.10$).

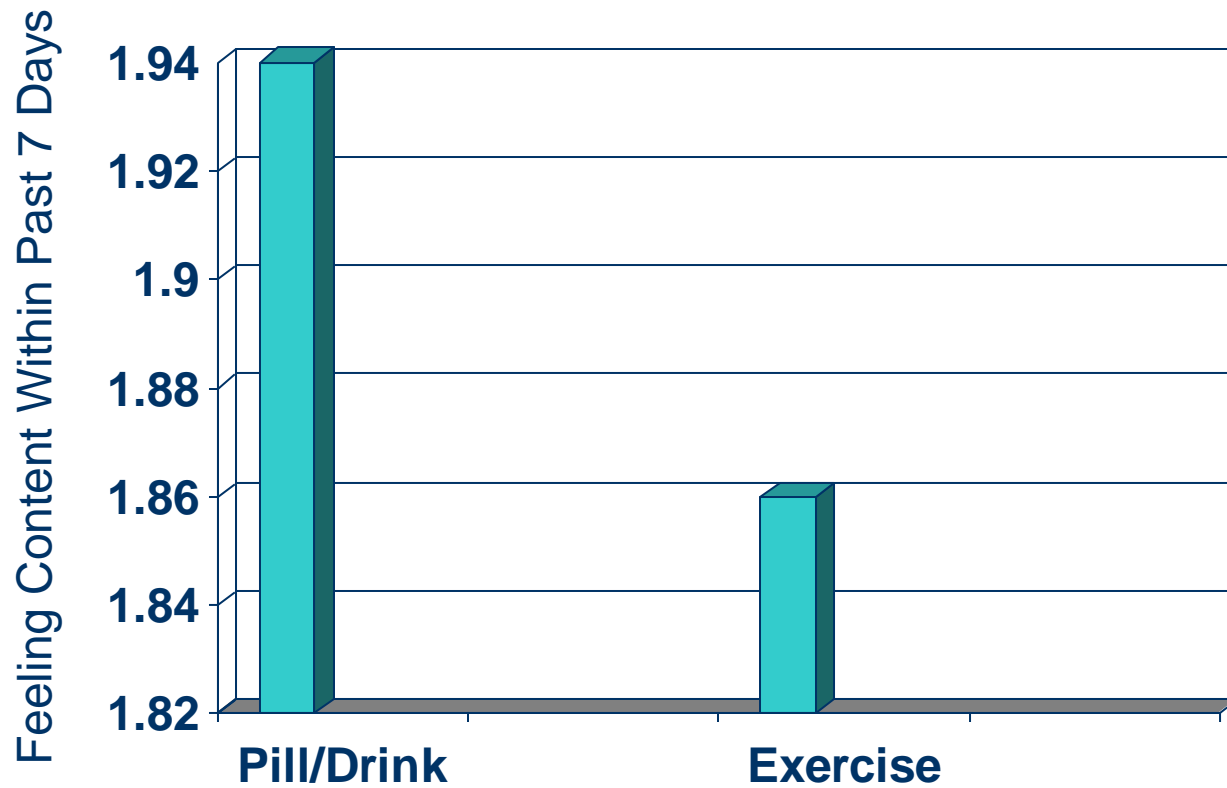
Interpretation: H5

- The multiple regression model suggests that only 2% of contentment can be explained by the predictors. Best techniques for feeling content are:
 1. Having drink or pill (standardized coefficient $b=.08$) followed by
 2. Exercise (standardized coefficient $b=.05$).

Interpretation: H5

- Interviewers' instructions were: "I'm going to show you a list of things that people **SOMETIMES** do to change their feelings."
- Based on this questions, it seems plausible why Pill/Drink is the best technique for feeling content.
- Nonetheless, this study found that Exercise is the 2nd best technique, which is in line with Thayer's results that Active Mood Management is the most successful technique for changing bad mood.

Interpretation: H5



Limitations: H5

- Interviewer instructions were: “I’m going to show you a list of things that people **SOMETIMES** do to change their feelings.”
- This explains why Drink/Pill is the best technique for contentment.
- If the interview would have been based on what techniques people **REGULARLY** use to change bad-mood state, techniques might have been more in line with empirical research.

Methodology: Measures (H6)

- Hypothesis 6: Men get angrier at themselves than women do.
- DV: Anger (yes, no)
- IV: Gender (male, female)

Methodology: Analysis (H6)

- Sample size: $M = 477$
 $F = 641$
- Design: Descriptive research
- Analysis: Chi-Square

Data Analysis for Hypothesis 6

- Hypothesis 6: Men get angrier at themselves than women do.
- H_0 : Gender and Anger are independent
- H_A : Gender and Anger are related

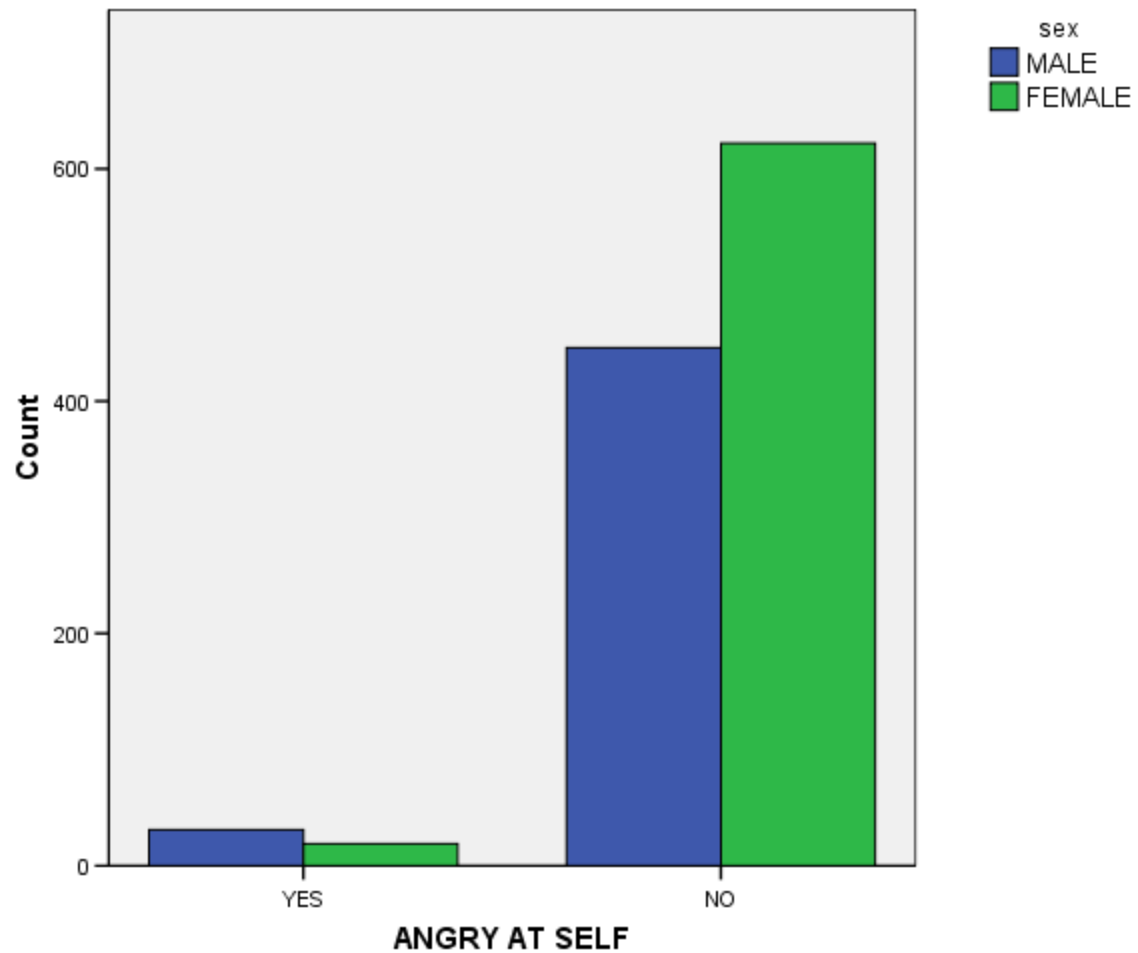
Results: H6

- $\chi^2 (1, N=1118) = 7.99, p < .01$, meaning that observed proportions do differ significantly from the expected proportions.

Interpretation: H6

- There is a relationship between gender and anger.
- Out of a total sample of 1118, 2.8% of men and 1.7% of women are angry at themselves, but 55.6% of women are not angry at themselves and 39.9% of men are not angry at themselves.
- Nonetheless, this analysis found support that more men get angry at themselves compared to women, which is in line with past empirical research findings.

Interpretation: H6



Limitations: H6

- Out of a total sample of 2904, 1786 respondent answers were missing, which could have tipped the scale to people actually showing anger at themselves more than not.
- Thus, the missing cases could have skewed the data.

Conclusions

- Women are more likely to become depressed than men, due to many factors.

Conclusions

- Women have a positive outlook less often than men.
- Women are less calm, happy, excited, overjoyed, content and proud than men.
- Women tend to get angry at themselves rather than scapegoat strangers or spouse.

Conclusions

- Men tend to get angry at themselves more often than women, proving that there is a relationship between gender and anger.
- Men are more angry at themselves than women.

Problem

- If men tend to get angry at themselves more often than women, why are women less content, happy, and have a higher rate of depression?

Solution

- Women do get angry at themselves less often than men yet, they also feel these negative emotions at a much higher intensity and for longer periods of time. Therefore, women increase the possibility that depression will be the outcome of these emotions.
- Men tend to get over their anger quickly and are more likely to scapegoat their anger, where as women are more likely to blame themselves.

Problem

- What is the best technique for relieving anger?
- Statistically, taking a drink/pill is what individuals prefer to deal with when experiencing anger and negative emotions.

Solution

- Although taking a drink/pill seems to be the best solution, exercise is actually the best method of relieving anger. Exercise is good for your body as well helping to release stress.
- Drinks/pills help you to escape your negative emotions yet, do not help your body to get rid of these emotions.

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