HUMOR, HARDINESS, AND HEALTH

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Abstract

Personality factors, including humor, can reduce the effect of stress on symptoms of poor health. One personality factor that has shown promise is hardiness (Kobasa, 1979; Maddi & Kobasa, 1984; Bartone, 1989a, 1995). Persons who have a high degree of hardiness do not react as much to stress with symptoms of poor health. Self report measures of humor [warm humorous style, competent humorous style (Craik, et al, 1996), use of humor to cope with stress, reputation for clowning], hardiness, stress, and health were obtained from 77 female and 190 male freshmen students enrolled in introductory psychology. Gender differences in humor, hardiness, and health were notable. Consistent with the results of other studies, men were more likely to have been “class clowns” and rate their “competent humor style” higher, even though women rate themselves as high as men do on warm humorous style. Hardiness is positively related to having a warm humorous style, and to health among men. Among men, warm humorous style is associated with health.

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Humor, Hardiness, and Health*

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The opinions expressed in this paper do not represent the official position of any US Army Agency
Testing whether laughter is the best medicine
Research Background

- Hardy personality research involves
  - Commitment, control, challenge
  - Hardiness fosters stress resistance

- Humor research
  - Martin: Coping humor buffers stress
  - West Point: Cadets using coping humor survive cadet basic training better.
Research Questions

- Confirmatory:
  - Do hardy cadets have better health?
  - Do cadets with a good sense of humor have better health?

- Exploratory:
  - What is the role of clowning and complaining about offensive jokes in health and stress appraisal?
Methods

- 77 female, 190 male freshmen surveyed
- Questionnaire measured:
  - Hardiness
  - Humor
  - Stress
  - Symptoms
  - Health status and health system use
Hardiness Theory

- Based on existential personality theory, Maddi & Kobasa (1984)
- Commitment--belief that life and work is worthwhile
- Control--belief that one can plan and make it work
- Challenge--Enjoys change in routine
Effects of Hardiness

- Low hardy people have symptoms proportional to stress level
- High hardy people react less to stress
- Hardiness studied in students, bus drivers, patients, athletes, soldiers in the Gulf War, peacekeeping forces.
Humor measures

- **Warm Humor** --(4Q)*,
  - I have a good sense of humor
  - I can maintain group morale thru humor
- **Competent Humor**--(3Q)*
  - I am very good at making clever retorts
  - I can tell long, complex anecdotes

- Re: stress past weeks, make jokes about it.
- Reputation as “class clown” in past
- Feels free to complain about offensive jokes

*(Craik et.al., 1996)*
Perceived stress

- Academic stress
  - Academic
  - Time Schedule
  - Overall stress
- Social & Family stress
  - Social and relationships
  - Family
- Responses range from 1 “very low” to 5 “very high”
Symptoms

- 32 items, for example:
  - colds, back pain, allergies, skin rashes
  - headaches, trouble sleeping, upset stomach
  - loss of appetite, overly tired, joint injury

- Responses range from
  - 1 “not at all” to
  - 4 “very often”

- Mean score over all items
Health

- Five questions
  - Describe health status: excellent (0) to poor (3)
  - # times on sick call, this year
  - # times on profile, this year
  - # weeks on profile, this year
  - # times hospitalized, this year.

- High scores indicate poor health
Results

- Gender differences in
  - humor
  - hardiness, stress, symptoms and health
- Correlations between
  - Humor and Hardiness
  - Humor and Stress
  - Humor and Health
  - Hardiness and Health
Warning!

Management wishes to apologize in advance for the complexity of the following results.
### Mean scores on humor

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm humor</td>
<td>4.1</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Competent humor</td>
<td>3.5</td>
<td>3.8*</td>
<td></td>
</tr>
<tr>
<td>Jokes re stressful situations</td>
<td>2.7</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Reputation as &quot;class clown&quot;</td>
<td>2.8</td>
<td>2.2*</td>
<td></td>
</tr>
<tr>
<td>Complain re offensive jokes</td>
<td>3.7</td>
<td>3.7</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

*High agreement = 5, low agreement = 1*
Gender and humor

- Men and women =
  - Warm humor
  - Jokes about stress
  - Can complain about offensive joke

- Men higher
  - Competent humor
  - Class clown

- These 5 variables inter-correlate differently for men and women.
Mean scores on Hardiness, stress, & health

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardiness</td>
<td>35.4</td>
<td>36.3</td>
</tr>
<tr>
<td>Academic stress</td>
<td>4.1</td>
<td>4.4*</td>
</tr>
<tr>
<td>Social &amp; family stress</td>
<td>2.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Symptoms</td>
<td>1.6</td>
<td>1.7*</td>
</tr>
<tr>
<td>Poor health</td>
<td>-0.1</td>
<td>0.2*</td>
</tr>
</tbody>
</table>

*p < .05

•Highest hardiness = 60, lowest = 0
Gender, hardiness, stress & health

- Men and women =
  - Hardiness
  - Social & family stress

- Women higher in
  - Academic stress
  - Symptoms
  - Poor health
Humor and hardness

<table>
<thead>
<tr>
<th></th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm humor</td>
<td>.27*</td>
<td>.33*</td>
</tr>
<tr>
<td>Competent humor</td>
<td>.14</td>
<td>.14</td>
</tr>
<tr>
<td>Jokes re stressful situations</td>
<td>.10</td>
<td>.23*</td>
</tr>
<tr>
<td>Reputation as &quot;class clown&quot;</td>
<td>.05a</td>
<td>-.29*</td>
</tr>
<tr>
<td>Complain re offensive jokes</td>
<td>.24*</td>
<td>.05</td>
</tr>
</tbody>
</table>

*p < .05  a male and female rs not =, p<.05
Hardiness correlates with

- **Positive R**
  - Warm Humor M + F
  - Can complain M
  - Stress joking F

- **Negative R**
  - Class clown F

- Hardiness has different functions in the humor of men and women
Comment on last slide

- Hardy cadets have a warm sense of humor-
  - makes theoretical sense
  - not due to response bias

- Hardiness has different effects on the way men and women use or react to clowning, or offensive joke telling.
Humor and stress appraisal

<table>
<thead>
<tr>
<th>Correlations with social and family stress</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm humor</td>
<td>.07</td>
<td>-.07</td>
</tr>
<tr>
<td>Competent humor</td>
<td>.27*</td>
<td>-.06</td>
</tr>
<tr>
<td>Jokes re stressful situations</td>
<td>.03</td>
<td>-.05</td>
</tr>
<tr>
<td>Reputation as &quot;class clown&quot;</td>
<td>.18*</td>
<td>.24*</td>
</tr>
<tr>
<td>Complain re offensive jokes</td>
<td>.18*</td>
<td>-.14</td>
</tr>
</tbody>
</table>

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Humor and Social Stress

- Social stress is highest for class clowns, M & F
- Social stress is high for M with competent humor, not for F
- Social stress is high for M who can complain about offensive jokes, but not for F
Clowning & Social Stress

- Male & female clowns report above average social and family stress: Why?
  ➔ Clowns may be the target of peer pressure.
  ➔ Maybe clowns joke a lot with parents.
Humor and academic stress

- None of the five humor variables correlate significantly with academic stress, either for males or females.
- Do cadets need to learn how to laugh at academic stress?
Humor and health

<table>
<thead>
<tr>
<th>Correlation with Poor Health</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm humor</td>
<td>-.15(^a) *</td>
<td>.16</td>
</tr>
<tr>
<td>Competent humor</td>
<td>.01</td>
<td>.10</td>
</tr>
<tr>
<td>Jokes re stressful situations</td>
<td>.03</td>
<td>.21</td>
</tr>
<tr>
<td>Reputation as &quot;class clown&quot;</td>
<td>-.07</td>
<td>.13</td>
</tr>
<tr>
<td>Complain re offensive jokes</td>
<td>-.16*</td>
<td>-.07</td>
</tr>
</tbody>
</table>

*p < .05 \(^a\) male and female rs not =, p < .05
Humor and Health (2)

- M with warm humor have good health--the opposite seems true in F
- M who feel free to complain about offensive jokes have better health.
- None of the humor variables relate to symptoms.
**Hardiness and Health**

<table>
<thead>
<tr>
<th>Correlation with Hardiness</th>
<th>Symptoms</th>
<th>Poor health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>-.31*</td>
<td>-.06</td>
</tr>
<tr>
<td>Male</td>
<td>-.29*</td>
<td>-.16*</td>
</tr>
</tbody>
</table>

*p < .05

*a male and female rs not =, p<.05*
Stress and health

<table>
<thead>
<tr>
<th>Correlation with Academic stress</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms</td>
<td>-.08</td>
<td>.14</td>
</tr>
<tr>
<td>Poor health</td>
<td>-.17*</td>
<td>.14(^a)</td>
</tr>
</tbody>
</table>

\(^*p < .05\) \(\text{a male and female rs not} =, p<.05\)

- The theory assumes that high stress is associated with poor health.
- Note: no significant correlations between social stress and health.
## Hospitalization and academic stress

<table>
<thead>
<tr>
<th>Academic stress group</th>
<th>Female</th>
<th></th>
<th>Male</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Hospitalized</td>
<td>N</td>
<td>% Hospitalized</td>
<td>N</td>
</tr>
<tr>
<td>Lowest</td>
<td>33</td>
<td>3</td>
<td>19</td>
<td>37</td>
</tr>
<tr>
<td>2nd</td>
<td>5</td>
<td>21</td>
<td>13</td>
<td>47</td>
</tr>
<tr>
<td>3rd</td>
<td>14</td>
<td>22</td>
<td>9</td>
<td>33</td>
</tr>
<tr>
<td>Highest</td>
<td>16</td>
<td>31</td>
<td>7</td>
<td>72</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>77</td>
<td>11</td>
<td>189</td>
</tr>
</tbody>
</table>
Stress and health for high and low hardiness groups

- Bartone & Priest (2001) showed that stress correlates strongly with symptoms for low-hardy females, but not for high-hardy females.
- I.e., Hardiness protects women from the ill effects of stress.
Low stress, poor health males
Why?

- Unique to this sample
- Too little stress or challenge in a person’s life can lead to boredom and does not stimulate good performance.
- Poor health may cause lowering stress by lowering expectations --- (the Alfred E Neuman, “What me worry?”, effect.)
Confirmations of other research

- Sex differences in humor and health
- Hardiness works for some groups not for others.
- Some types of humor relate to better health
Other findings not supported

- Coping humor works for cadets in summer training, but not in the academic year.
- Low stress is not usually related to poor health, except in this sample of males.
Puzzle

Why is it that only female class clowns seem at greater risk for poor health?

Perhaps the social acceptance of male clowns makes the consequences of playing the role less dangerous.
Future research

- Need more detailed information on class clown histories, and confronting objectionable humor.
- Need longitudinal follow up with actual health visits.
- Need meta-analysis to evaluate humor-health literature for clues.
Conclusions

- Moderate support for the effect of hardiness and warm humor on health was found.
- The relation between social stress and clowning is worth further exploration.