Hide Your Pain: The Effects of Intentional Pain on Pain Expression and Appraisal, Aggression, and Empathy

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Background
Intentional pain inflicted by others has been associated with:
1) Reduced expression of pain (possibly to not seem vulnerable)1
2) Increased self-reported pain intensity2

Only few studies have investigating both1,3 of these factors, so we aimed to replicate previous findings. In addition, intentional pain might also have interpersonal consequences such as aggression and reduced empathy.

Hypotheses
Intentional pain will be associated with:
1) Reduced facial pain expression
2) Increased self-reported pain (intensity, unpleasantness, and threat)
3) Increased aggression
4) Reduced empathy

Methods
N = 70 healthy, female participants (Mage = 21.51 years, SDage = 3.50 years) allocated to an Intentional Pain Group or a Control Group

Procedure
Participant and confederate
• Fake randomization

Control Group
(n = 34)
10 pain stimuli
Choose between 1 and 10
Intentional Pain Group
(n = 36)
1-10 pain stimuli

Facial Pain Expression
Videos coded with FACS

Self-report (0-10)
Pain intensity,
unpleasantness & threat

Aggression (1-10)
Amount of stimuli returned to confederate

Empathy Questionnaire

Results
Not aware of manipulation
27
Intentional Pain
25

Manipulation Awareness
Not aware of manipulation
27
1-25

Hypothesis 1: Facial Expression
• No differences in painful facial expression.
\( \eta^2 = .002, p = .10 \)
• STQ did not predict painful facial expression.
\( B = .02, \eta^2 = .04, p = .68 \)

Hypothesis 2: Self-Reported Pain
• Pain Intensity: Only sensitization across time.
\( F(3.51, 53.10) = 5.11, p = .001, \eta^2 = .08 \)
• Pain Unpleasantness: Again, only sensitization across time.
\( F(3.6, 54.60) = 9.92, p < .001, \eta^2 = .18 \)
• Threat of pain: Trend of sensitization.
\( F(2.79, 52.22) = 2.73, p = .05, \eta^2 = .05 \)
• STQ did not predict pain intensity.
\( B = .01, \eta^2 = .01, p = .31 \)
• STQ did not predict pain unpleasantness.
\( B = .02, \eta^2 = .02, p = .07 \)
• STQ and PCS did predict threat value of pain.
\( B = .03, \eta^2 = .04, p = .04 \)

Manipulation check

Hypothesis 3: Aggression
• Participants in the Intentional Pain group were more aggressive.
\( \beta = -3.387, p = .001, \eta^2 = .02 \)

STQ did predict aggression
\( B = .04, \eta^2 = .22, p = .05 \)

Hypothesis 4: Empathy
• No differences in empathy \( F(3, 67) = 1.18, p = .37 \) between groups, but PCS was associated with increased empathy
\( F(3, 67) = 5.39, p = .02, \eta^2 = .07 \)
• STQ \( (B = -.18, \eta^2 = -.23, p = .01) \) and PCS \( (B = -.46, \eta^2 = .27, p = .01) \) predicted levels of empathy.

Discussion
Manipulation check: Successful (but high levels of perceived social threat in both groups)
Intentional pain is associated with:
1) No changes in painful facial expression
2) Increased self-reported threat of pain
3) Increased aggression
4) Reduced empathy

Pain that is inflicted by others is perceived as more threatening and leads to interpersonal aggression and lower levels of empathy.

References

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