Effect of Facial Masking on Practitioner Judgments of Men and Women with Parkinson's Disease: A Cross-Cultural Study

Linda Tickle-Degnen, PhD[1] Leslie Zebrowitz, PhD[2] Hui-ing Ma, ScD[3]

[1]Tufts University, USA [2]Brandeis University, USA [3]National Cheng Kung University, Taiwan

Introduction

Facially expressive people create more favorable impressions in daily life than inexpressive people.

Health care practitioners view patients with Parkinson's disease as having negative psychological attributes
- regardless of actual attributes
- possibly due to facial masking

Facial masking-- rigidity, slowness, poor motor control in face--looks like
- negative emotionality or apathy
- asocial personality
- dementia

Masking may be most discrediting for judgments of social competence:
- in cultures that value sociable individual expressivity (USA) vs. humble, muted expressivity (Taiwan).
- women vs. men, because of women's role as 'social glue'

Purpose: Test universality and cultural-specificity effects of facial masking on practitioners' initial impressions.

Hypotheses:
Practitioners would view moderately versus mildly masked patients as less competent socially, emotionally, & cognitively.

Culture and gender would moderate results due to differing values and gender roles.

Methods

Judgments of Video Clips

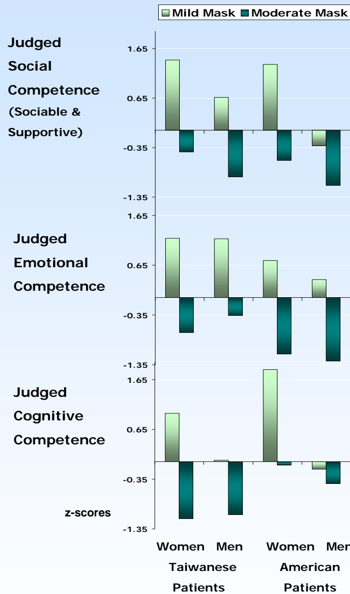
156 American and 128 Taiwanese practitioners (N=284)
- half novice, half experts
- rehabilitation therapists, nurses, & neurologists

Viewed 80 sec. interview clips
- 12 American patients (half women)
- 12 Taiwanese patients (half women)
- Half each group moderately masked
- Half each group mildly masked
- No depression or dementia
- Early stages of PD

Judged patient psychological, interpersonal, activity attributes on Likert scales formed into composite scores for judged competence.

Data Analysis:
- mixed between/repeated ANOVA
- regressions controlling for actual patient attribute scores

Results



Universal Effect of Masking

Expert and novice practitioners viewed moderately masked patients as less competent than mildly masked patients.
- regardless of actual attributes
- large effect sizes (r's ~ .80)
- p's < .0001

Specificity Effects of Masking

Practitioner and patient culture influenced the degree of negative masking bias in practitioner judgments (p's < .05):

More biased when judging
- sociability-- if practitioner or patient was American,
- social supportiveness-- if patient was Taiwanese,
- cognitive competence-- if practitioner or patient was Taiwanese.

Patient gender influenced the degree of negative masking bias in practitioner judgments (p's < .05):

More biased when judging women than men. This bias was the largest when judging American patients.

Conclusions

1. Facial masking has universally stigmatizing effect on practitioners' initial impressions of patients with PD.
2. Effects appear to relate to violation of norms, ethnic stereotypes and cultural values, indicating that practitioners' 'objective' view of the patient is filtered through a social and cultural lens.
3. Practitioner impressions were more polarized by masking differences in women patients than men patients, especially when judging American patients.
4. Expertise of practitioner did not moderate findings suggesting an implicit tendency to be overly influenced by facial expressivity when forming impressions.
5. Limitations: Short clips, speech was filtered from clips, selected sample of patients in early PD stages.

Clinical Implications

1. Increase practitioner sensitivity to socio-cultural effects on their impressions of people with PD.
2. Train practitioners to perceive valid nonverbal and verbal cues of competence in people with PD.
3. Use interview techniques that counter socio-cultural bias, increase patient communication, and produce variation in patient facial behavior.

References

1. Hemmesch AR, Tickle-Degnen L, Zebrowitz LA. The influence of facial masking and sex on older adults' impressions of individuals with Parkinson's disease. Psychol Aging 2009;24:542-549.
2. Lyons KD, Tickle-Degnen L, Henry A, Cohn E. Impressions of personality in Parkinson's disease: can rehabilitation practitioners see beyond the symptoms? Rehabil Psychol 2004;49:328-333.
3. Takahashi K, Tickle-Degnen L, Coster WJ, Latham N. Expressive behavior in Parkinson's disease as a function of interview context. Amer J Occup Ther 2010;64:483-494.
4. Tickle-Degnen L, Lyons KD. Practitioners' impressions of patients with Parkinson's disease: the social ecology of the expressive mask. Soc Sci Med 2004;58:603-614.

Acknowledgements

Funded by **National Institute of Neurological Disorders and Stroke** #R01 NS48059 awarded to Tickle-Degnen (PI) through Fogarty International Center's research initiative on **Stigma & Global Health**. Ma is Co-I. Zebrowitz is key consultant. Thanks to Pai-chuan Huang (primary research assistant).