

# Gender, Marital Interaction, and Patient Compliance in Couples Coping with Heart Failure\*

Audrey Cleary, Michael J. Rohrbaugh, & Varda Shoham, *University of Arizona*

Association for Psychological Science, New York, NY, May 2006

## Abstract

*In a study of couples coping with heart failure, associations between marital quality and medical adherence were stronger for women patients than for men. The association was clearest for a self-report measure of general marital quality and an observational measure of husband-demand/wife-withdraw interaction.*

## Background

Adherence to medical regimen is critical to successful management of congestive heart failure (CHF), an increasingly prevalent condition that threatens patient survival. In a recent study of 189 CHF patients and their spouses (Coyne, Rohrbaugh, et al., 2001; Rohrbaugh, Shoham, & Coyne, 2006), a composite measure of baseline marital quality predicted 8-year patient survival, and did so better for women than for men. Unfortunately, that study did not include measures of patient compliance (adherence), so it was not possible to determine if gender-moderated survival results reflect sex differences in behavioral pathways linking compliance to marital quality.

The present study examines marital relations and patient compliance in a new sample of couples coping with CHF, using parallel self-report and observational assessments of general marital quality and role-specific patterns of demand-withdraw interaction (DWI; Christensen & Heavey, 1993), in which one partner criticizes, pursues, nags, and demands, while the other distances, defends, avoids, and withdraws. DWI is of interest because which partner demands and which withdraws may depend not only on gender (as most research suggests) but also on which partner is the patient. In particular, a spouse's well-intentioned influence attempts may play a specific (ironic) role in maintaining poor patient compliance (Shoham & Rohrbaugh, 1997). In this case, the wife-demand/husband-withdraw pattern would be more relevant to male patients, while husband-demand/wife-withdraw should be more associated with poor compliance by women.

## Method

Participants were 60 CHF patients (43 men, 17 women) and their opposite-sex spouses recruited from University of Arizona cardiology clinics. Mean patient age was 64.3 years, and mean CHF severity (New York Heart Association class) was 2.3 on a 1-4 scale. Patients were 85% white and 42% college educated.

During separate interviews, the patient and spouse independently rated the patient's adherence to medical regimen in domains of medication, general diet, sodium intake, weight monitoring, exercise, and stress management. Patients and spouses also completed self-report measures of marital satisfaction, constructive communication, and demand-withdraw interaction. In addition, they participated in a videotaped discussion of a health-related disagreement, from which we obtained observational measures of positive couple interaction (Revised Marital Interaction Coding Scale, or RMICS; Heyman & Vivian, 2000), and of two demand-withdraw patterns (Heavey & Christensen, 1993): wife-demand/husband-withdraw (WD/HW) and husband-demand/wife-withdraw (HD/WW). The RMICS data also provided a couple-level observational measure of relationship quality based on the relative frequency of positive vs. negative exchanges.

## Results

Ratings of patient compliance by patients and spouses were moderately consistent across dimensions (alphas = .55, .70), though partner agreement was higher for some dimensions (e.g., exercise, weight monitoring) than for others (e.g., stress management). Overall, female patients received higher compliance/adherence ratings than male patients ( $p=.04$ ).

Despite the small number of female-patient couples, gender emerged as a significant or near-significant moderator variable in dyad-level regression analyses relating adherence to self-report measures of general marital quality and observational measures of DWI. Statistical effects for the observational (RMICS) measure of marital quality were in the same direction but not as strong.

Strikingly, the role structure of observed DWI patterns was related to the gender of the patient, with husbands more likely to take on the demanding role in female- than in male-patient couples, and wives more likely to demand when the patient was male. In other words, the participant's role as patient or spouse was more associated with who took on which DWI role than was the individual participant's sex.

Gender-linked DWI roles also appeared more important to the health behavior of women than men, as the HD/WW pattern was more strongly associated with non-compliance in female-patient couples than was the WD/HW pattern in male-patient couples. In particular, observed HD/WW interaction correlated significantly with multiple dimensions of adherence when the patient was female, but neither DWI pattern did so when the patient was male.

## Conclusions

These cross-sectional results highlight a possible behavioral pathway (adherence to medical regimen) through which marital quality may affect CHF survival. Our findings are also consistent with a broader literature indicating that the nature and quality of close relationships is more crucial to the health of women than of men (Kiecolt-Glaser & Newton, 2001; Rohrbaugh, Shoham & Coyne, in press).

Given that a sizable minority of CHF patients are female, understanding the apparent significance of marital functioning for medical adherence should be a priority for future research. In addition, clinicians working with female heart patients might profit from looking beyond the individual patient to the marital context in which the patient finds herself.

## References

- Christensen, A. & Heavey, C.L. (1993). Gender differences in marital conflict: The demand-withdraw interaction pattern. In Oskamp, S. & Costanzo, M. (Eds.), *Gender Issues in Contemporary Society* (pp. 113-141). Thousand Oaks, CA: Sage.
- Coyne, J.C., Rohrbaugh, M.J., Shoham, V., Cranford, J.A., Nicklas, J.M., & Sonnega, J. (2001). Prognostic importance of marital quality for survival of congestive heart failure. *American Journal of Cardiology*, *88*, 526-529.
- Heavey, C.L., Layne, C., & Christensen, A. (1993). Gender and conflict structure in marital interaction: A replication and extension. *Journal of Consulting and Clinical Psychology*, *61*, 16-27.
- Heyman, R.E. & Vivian, D. (2000). Rapid Marital Interaction Coding System manual. Available at [www.psy.sunysb.edu/marital](http://www.psy.sunysb.edu/marital).
- Kiecolt-Glaser, J.K. & Newton, T.L. (2001). Marriage and health: His and hers. *Psychological Bulletin*, *127*, 472-503.
- Rohrbaugh, M.J., Shoham, V., & Coyne, J.C. (in press). Effect of marital quality on 8-year survival of patients with heart failure. *American Journal of Cardiology*.
- Shoham, V. & Rohrbaugh, M.J. (1997). Interrupting ironic processes. *Psychological Science*, *8*, 151-153.

\* Supported by Award 0051286Z from the American Heart Association.

Correspondence address: Audrey Cleary, Department of Psychology, University of Arizona, P.O. Box 210068, Tucson, AZ 85721-0068 (e-mail: [acleary@email.arizona.edu](mailto:acleary@email.arizona.edu)).