Moods and burnout among physicians: Associations with prescribing medications, communicating with patients, and referrals for specialists and diagnostic tests

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Introduction: The quality of health care can be compromised by many factors and is a universal concern. Feelings and emotions may affect behavior in all medical encounters, although many health-care givers still believe that professional conduct is detached from subjective influences and is determined mainly by objective considerations. Indeed, the contribution of affective factors to physician behavior in medical settings has been studied empirically only infrequently. Affects include both transitory emotions, such as moods; and more stable states, such as burnout.

Burnout prevalence has been studied extensively in the medical literature. Physicians in all specialities were found to be vulnerable, as they are exposed to chronic stresses in the medical environment. It is commonly assumed that burnout has significant negative consequences on physician performance, but there is very little research concerning this assumption using objective outcome measures in healthcare settings. There is even less research on the effects of transitory moods on physician behavior. In this presentation we will describe some findings from two recent studies that included objective and subjective data concerning associations between affective conditions and several physician behavior *vis a vis* patients: referring for diagnostic tests and for specialists, talking, and presecribing medications.

Methods: The first study included 136 primary care physicians who responded in an interview to questionnaires assessing burnout and work and personal characteristics. The rates of prescriptions and referrals for diagnostic tests and specialists were obtained from the HMO data bases. The second study included 188 primary care physicians who responded to a self-report questionnaire assessing burnout and perceived behavior under positive and negative moods.

Results: In the first study we found that burnout was predicted by subjective workload and job satisfaction. Several objectively assessed referral behaviors were associated with burnout in correlational analyses. In multivariate analyses, only the rate of referrals to expensive imaging tests (e.g. MRI) was predicted independently and modestly by burnout.

In the second study, in five ANOVAs with repeated measures on mood states, the physicians reported that on good mood compared with negative mood days, they talked more, prescribed less and referred less (for all beahviors, $p < .001$). High compared with low burnout physicians had higher perceived rates of all referral behaviors. Significant mood*burnout interactions indicated that the effects of mood were stronger among high compared with low burnout physicians.

Discussion and possible implications: In the second study moods were perceived as having significant but different effects on each physician behavior. The negative mood decreased talking and increased prescribing and referral behaviors, and vice versa for the positive mood – it increased talking "at the expense" of prescribing medications and referring to tests and specialists. Burnout intensified the effects of moods. Although the literature focuses on burnout, transitory moods may have stronger effects on physician behavior and further studies are needed. Associations between affective states and referral behaviors should be further studied in larger samples, additional medical specialties and high quality data on referals and prescriptions.

Altogether, the above findings about the significant effects of moods, the intensification of mood effects by burnout, and the association between burnout and referrals to expensive imaging tests (e.g. MRI) suggest that the incremental effects of negative moods and burnout may impair quality of healthcare and may be costly to health services.

References:

Kushnir, T., Kushnir, J., Sarel, A., & Cohen, H. A. *Exploring physician perceptions of the impact of emotions on behaviour during interactions with patients.* Family Practice 2010; doi: 10.1093/fampra/cmq070