

**Bauer A, Schwarz E, Mai C (2009):**

Environmental Medicine or Psychiatry?

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**Commentary on:** *Eis D, Helm D, Mühlinghaus T, et al. (2008): The German Multicentre Study on Multiple Chemical Sensitivity (MCS). Int. J. Hyg. Environ. Health 211 (5-6):658-681 (referred to as Eis et al., 2008)*

**Abstract:**

The MCS-Multicenter study has severe methodological shortcomings. In particular these are severely biased results because of “study center effects” in respect to central study variables. Furthermore, deviant recruiting of study participants and deviant usage of exclusion criteria in participating centres could be ascertained (Bauer and Schwarz, 2007). This was not mentioned in the methods section (see *Eis et al. 2008: p. 661*). Last but not least, there was a strongly deviant estimation of pollution-related and psychosomatic aspects contributing to the illness of the study participants. Those centres who for the most part did not see “any indication of an environmental medicine related disorder” diagnosed “somatization disorders” in large numbers. To interpret this, one has to know that the diagnosis of “somatization disorder” requires that the patient has a lot of unspecific problems (i.e. headache, memory problems, difficulties to concentrate, fatigue and others) and no somatic illness to explain these symptoms. If the attribution of symptoms to environmental causes is biased by centre then the same is true for the attribution of symptoms to psychiatric illness (Bauer et al., 2007). Moreover the correlation between the “somatization”-score of the SCL-90-R and questionnaires which assess symptoms of neurotoxicity is 50%-92%. This results in high „somatization“ scores in painters with exposure to organic solvents (Karlson et al., 2000; Bauer und Schwarz, 2006). The same is true for other instruments used to assess “somatization” and “depression” (i.e. CIDI). This is a problem of validity of the instruments used: they are not able to discriminate between the causes of the symptoms, and every application in clinically ill cohorts with neuropsychological or psychosocial side effects is questionable. Therefore the CIDI has “low to poor” correlation to clinical derived diagnoses (Becker et al., 2006).

The results of the MCS Multicentre Study are now being used extensively by insurance companies, expert witnesses, and courts of justice. We conclude that the results are difficult

to interpret because of severe methodological problems, and the widespread use of the results is not justified.

Only data which are independent of the bias caused by subjective opinions of the study-coworkers may be used. There were many interesting results in this respect which were not presented in this publication, therefore we would like to supply them (from Eis et al., 2003):

- The study participants had severe impairment of health and social well-being (p. 240);
- they were characterized as having “positive, active and problem-oriented coping” (p. 201-202);
- they had no tendency for self pity (p. 202);
- they encouraged themselves in coming to terms with the illness (p. 202);
- they had only slight tendencies for depressive reactions (p. 202); and
- there was no indication of recent or serious somatization disorders, depression, or anxiety disorders in 80% of the participants (Eis et al., 2005: p.115-117).

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