

PARENTAL REARING PRACTICES AND PERSONALITY IN ALCOHOLICS CLASSIFIED ACCORDING TO FAMILY HISTORY

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INTRODUCTION

The present study is based on a Meyerian psychobiological life history approach to the etiology of alcoholism, a disease characterized by a broad individual variation in its "natural history".

Attempts to bridge the gap between biological, e.g. genetic studies and psychosocial studies have led to a fruitful line of thinking suggesting a stress-diathesis model. The core of this model is made up by the concept of vulnerability which is the set up of all inherited and acquired characteristics of the individual predisposing to an unfavourable outcome in case of a disorder (1). In this model the previously dominant view of a mental illness in terms of a reductionistic relationship between cause and effect has been substituted by a continuous dialectic interplay of the individual with his environment. By this, reductionistic assumptions have been replaced in favour of alternative multifactorial models (2). Alcohol as a "disease process" meets the criteria for the stress-diathesis model, which emphasizes that a genetic susceptibility has to be shaped by environmental forces in order to end in a pathological manifestation. It has been maintained that there are temperamental traits being inherited in alcoholic families and that these predispositions through the interaction between physical and social environment influence personality development. Consequently, personality is one of the final instances where to establish an individual's susceptibility. As one of the possible environmental factors mentioned above, parental rearing practices have been suggested (3). Perris and coworkers have also developed a theoretical framework for linking together the experience of dysfunctional parental rearing and psychopathology (3).

The aim of this study is to elucidate the interaction between genetic (in terms of family loading) and environmental factors (in terms of parental rearing) in alcoholism. If there is a pedigree loading for alcoholism are there dysfunctional parental rearing patterns as well? Is a possible relationship between family history of alcoholism and childhood experiences also reflected by particular personality traits? In other words, how often are personality and family environment primary risk factors or mediating factors potentiating the risk emerging from a hereditary background? The present investigation is

part of a multinational research project initiated and co-ordinated by Perris and his group at Department of Psychiatry and WHO collaboration Center at Umeå University.

MATERIAL AND METHODS

Subjects

The sample comprised 62 male subjects meeting DSM-III-R diagnostic criteria for alcohol abuse and/or dependence. In addition, the fulfillment of Schuckit's criteria for primary alcoholism (4) was required as well as a minimum score of 10 on the Michigan Alcoholism Screening Test (MAST) (5). These requirements were set up in order to obtain a homogenous sample as possible.

Family history (FH) of alcoholism

Information about the occurrence of alcoholism in the family of the probands was obtained from the probands and other informants. The subjects were allocated to two family history groups: FH+(n=28, mean age 35.9 ± 11.9 yrs) with at least one parent or sibling with alcohol abuse and/or dependence and FH-(n=33, mean age 40.7 ± 10.2 yrs) without drinking problems in parents or siblings according to Penick's method (6).

Assessment of perceived parental rearing

The FHBU, an 81 items questionnaire developed by Perris et. al. (7) was applied. For the analyses the three factors rejection, emotional warmth and overprotection have been used. These factors have proved to have a highly satisfactory internal consistency and to be transferable across different cultural samples.

Personality assessment

The Karolinska Scales of Personality (KSP) developed by Schalling (8) was used. 135 items are grouped into fifteen subscales and into an aggression and a hostility factor.

Both questionnaires were completed by the subjects upon recovery to avoid results biased by a depressive state.

Statistical analysis

Mean scores and standard deviations have been calculated for the different scales and factors. Intergroup comparisons have been made by using the Mann-Whitney U-test. Spearman correlation coefficients were used for investigating relationships between parental rearing factors and personality characteristics.

RESULTS AND DISCUSSION

From table 1 significant differences as concerns the parental rearing factors "Rejection" and "Overprotection" between alcoholics with FH+ and controls

become obvious. For alcoholics with FH- the only difference regards is the "Rejection" factor. The reason for the more pronounced dysfunctional parental rearing in the alcoholics with a family loading might be the negative impact of parental alcoholism onto family life.

TABLE 1
DIFFERENCES IN EMBU FACTORS ACCORDING TO FH OF ALCOHOLISM

| EMBU factors | Alcoholics | Alcoholics | Controls |
|------------------|---------------|---------------|------------|
| | FH+ N = 28 | FH- N = 33 | N = 202 |
| FATHER | | | |
| Rejection | 47.1 ± 10.3 | 46.4 ± 9.8** | 39.6 ± 9.6 |
| Emotional warmth | 49.3 ± 9.1 | 47.3 ± 9.1 | 48.8 ± 8.7 |
| Overprotection | 40.3 ± 9.4** | 38.8 ± 8.2* | 35.3 ± 7.1 |
| MOTHER | | | |
| Rejection | 47.4 ± 9.2** | 44.5 ± 9.6* | 40.5 ± 9.2 |
| Emotional warmth | 50.4 ± 8.6 | 50.5 ± 8.4 | 52.1 ± 7.6 |
| Overprotection | 43.4 ± 9.8** | 41.1 ± 9.3 | 38.9 ± 7.4 |

* = $p < .01$

** = $p < .001$

As concerns personality significant differences emerged between alcoholics FH+ and controls for somatic and psychic anxiety, muscular tension, psychasthenia (i.e. indicators of neuroticism), impulsivity and socialization (i.e. indicators of a weak ego). In general, alcoholics with FH- scored somewhere between alcoholics FH+ and controls in most of the scales. Our results are in line with those obtained by Ryndelius (9) and Sandahl et al. (10) both using the KSP. From a review Barnes (11) concluded that increased neuroticism and a weak ego seem to be typical features of the alcoholic personality.

The relationships between child-rearing practices and personality traits in the alcoholic subgroups are depicted in tables 3 and 4. As concerns "overprotection" this factor was correlated with anxiety, muscular tension, impulsiveness, monotony avoidance, irritability, indirect aggression and socialization in alcoholics with a family loading. Most of these personality aspects are considered to be linked to genetic factors but mediated by parental rearing. A possible mechanism could be that overprotection during childhood may lead to dependency and subsequent alcohol abuse. As concerns a parental rearing characterized by "rejection" this factor was correlated with monotony

avoidance, socialization and aspects of aggression.

TABLE 2
PERSONALITY (KSP) SCORES ($\bar{x} \pm$ SDs) IN THE GENETIC SUBGROUPS

| KSP scales | Alcoholics | Alcoholics | Controls |
|--------------------------|------------------|-----------------|----------------|
| | FH+ (N = 28) | FH- (N = 33) | (N = 32) |
| Somatic anxiety | 22.6 \pm 5.2** | 19.5 \pm 3.8* | 16.5 \pm 4.0 |
| Psychic anxiety | 26.3 \pm 4.7* | 23.1 \pm 4.0 | 24.0 \pm 3.1 |
| Muscular tension | 23.0 \pm 5.8** | 19.6 \pm 3.1* | 14.3 \pm 2.8 |
| Social desirability | 26.7 \pm 4.3 | 28.1 \pm 5.0 | 28.7 \pm 4.2 |
| Impulsiveness | 24.5 \pm 3.3* | 21.8 \pm 3.2 | 21.9 \pm 3.1 |
| Monotony avoidance | 24.8 \pm 4.2 | 23.2 \pm 3.6 | 24.0 \pm 3.3 |
| Detachment | 25.5 \pm 4.5* | 23.7 \pm 4.2 | 22.0 \pm 3.2 |
| Psychasthenia | 26.5 \pm 3.5* | 24.1 \pm 5.2 | 22.1 \pm 3.2 |
| Socialization | 52.6 \pm 5.7* | 55.6 \pm 6.1* | 59.5 \pm 6.6 |
| Indirect aggression | 11.1 \pm 2.8 | 9.5 \pm 2.0 | 10.6 \pm 2.0 |
| Irritability | 11.4 \pm 2.1 | 11.5 \pm 2.2 | 10.4 \pm 1.8 |
| Verbal aggression | 12.8 \pm 2.3 | 11.5 \pm 2.2 | 11.8 \pm 2.2 |
| Guilt | 13.6 \pm 2.2 | 12.7 \pm 3.9 | 13.4 \pm 2.1 |
| Suspicion | 12.8 \pm 2.1* | 11.6 \pm 2.8 | 10.4 \pm 1.7 |
| Inhibition of aggression | 27.4 \pm 4.2 | 25.1 \pm 4.3 | 26.0 \pm 3.3 |
| Hostility factor | 26.4 \pm 3.6* | 24.3 \pm 3.6 | 23.8 \pm 3.5 |
| Aggression factor | 35.3 \pm 5.3* | 32.5 \pm 4.8 | 32.8 \pm 4.8 |

* = $p < .01$

** = $p < .001$

In the literature there is now a great deal of evidence suggesting a low level of MAO activity in platelets which is under genetic control, to be a vulnerability factor for alcoholism. The personality traits found in the present study as risk factors for alcoholism are similar to those related to low MAO activity, i.e. impulsivity, monotony avoidance and aggression in a study by Perris and co-workers (12), indicating a possible genetic predisposition to alcohol abuse.

Our investigation shows that there occur dysfunctional parental rearing practices in alcoholics independently of family loading, however more pronounced in alcoholics with a family history of alcoholism. The latter finding might reflect the deleterious effects of having an alcoholic parent as a

caregiver, in addition to a genetic predisposition.

TABLE 3
CORRELATION COEFFICIENTS BETWEEN KSP SCORES AND EMBU FACTORS IN DIAGNOSTIC GROUPS

| | EMBU overprotection | | | |
|--------------------------|---------------------|---------|---------|--------|
| | FATHER | | MOTHER | |
| | FH+ | FH- | FH+ | FH- |
| Somatic anxiety | 0.23** | 0.08 | 0.43** | 0.18 |
| Psychic anxiety | -0.14 | -0.17 | 0.24** | -0.02 |
| Muscular tension | 0.33** | 0.16 | 0.37** | 0.26 |
| Social desirability | -0.24** | 0.03 | -0.19* | -0.14 |
| Impulsiveness | 0.26** | -0.04 | -0.05 | 0.26** |
| Monotony avoidance | 0.36** | 0.09 | 0.47** | 0.15 |
| Detachment | -0.00 | 0.16 | 0.18 | 0.17 |
| Psychasthenia | 0.18 | 0.23* | 0.19 | 0.26* |
| Socialization | -0.13 | 0.24** | -0.47** | 0.06 |
| Indirect aggression | -0.19* | 0.12 | -0.24** | 0.23 |
| Irritability | 0.19* | 0.03 | 0.38** | 0.16 |
| Verbal aggression | 0.07 | -0.12 | 0.14* | 0.09 |
| Suspicion | 0.09 | 0.10 | 0.33 | 0.44** |
| Guilt | -0.01 | 0.28** | 0.16 | 0.36** |
| Inhibition of aggression | -0.17 | -0.22* | -0.12 | -0.11 |
| Aggression factor | 0.05 | -0.21** | 0.16* | 0.04 |
| Hostility factor | -0.08 | 0.21** | 0.18 | 0.37** |

* = < .01

** = < .001

To sum up, the results of this investigation point to the feasibility of a biopsychosocial approach to alcoholism. Admittedly the design outlined in the present study deserves further elaboration such as inclusion of biological parameters and more sophisticated statistical analyses.

TABLE 4
CORRELATION COEFFICIENTS BETWEEN KSP SCORES AND EMBU FACTORS IN DIAGNOSTIC GROUPS

| | EMBU rejection | | | |
|--------------------------|---------------------|--------------------|---------------------|---------------------|
| | FATHER | | MOTHER | |
| | FH+ | FH- | FH+ | FH- |
| Somatic anxiety | 0.03 | 0.07 | -0.00 | 0.19 ^x |
| Psychic anxiety | -0.09 | 0.17 [*] | -0.03 | 0.18 [*] |
| Muscular tension | 0.20 | 0.27 [*] | 0.14 | 0.30 |
| Social desirability | -0.02 | 0.14 | 0.11 | -0.00 |
| Impulsiveness | -0.14 | -0.12 | -0.08 | 0.28 ^{**} |
| Monotony avoidance | 0.41 ^{**} | 0.21 | 0.16 | 0.32 ^{**} |
| Detachment | -0.01 | 0.06 | 0.32 ^{**} | -0.17 |
| Psychasthenia | -0.14 | 0.16 | -0.38 ^{**} | 0.36 ^{**} |
| Socialization | -0.40 ^{**} | -0.24 | -0.38 ^{**} | -0.55 ^{**} |
| Indirect aggression | 0.23 | 0.44 ^{**} | -0.16 | 0.48 ^{**} |
| Irritability | 0.01 | 0.01 | -0.27 ^{**} | 0.09 |
| Verbal aggression | 0.21 | 0.44 ^{**} | -0.14 | 0.38 ^{**} |
| Suspicion | 0.04 | 0.14 | -0.06 | 0.00 |
| Guilt | -0.25 ^{**} | -0.02 | 0.02 | -0.01 |
| Inhibition of aggression | -0.57 ^{**} | 0.04 | -0.28 ^{**} | -0.07 |
| Aggression factor | 0.18 | 0.49 ^{**} | -0.20 | 0.36 ^{**} |
| Hostility factor | -0.27 ^{**} | -0.04 | -0.06 | -0.36 ^{**} |

* = < .01

** = < .001

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