

ENGLISH SUMMARY: Functional diagnosis in forensic psychiatry: a review of the literature



Authors:

Prof. dr. J. van Os
Drs. N. Tan
Drs. S. Honings

Commission:

de heer prof. dr. W. van den Brink (AMC/UVA, voorzitter);
de heer dr. E. Bulten (Pompestichting);
mevrouw drs. E.M.H. van Dijk (WODC);
de heer drs. J.J.F.M. de Man (Ministerie van Veiligheid en Justitie/DJI);
de heer dr. Th. Rinne (NIFP);
de heer dr. J.C. van der Stel (Hogeschool Leiden).

Summary

Psychiatric diagnoses convey little information on prognosis or underlying mechanisms and therefore cannot be considered as 'functional'. It has been suggested that a more targeted approach that focusses on underlying transdiagnostic factors may improve the functionality of psychiatric diagnosis. In the area of forensic psychiatry, a more functional approach towards diagnosis, providing information on factors associated with onset and recurrence of offending behaviours, and thus needs for care, is urgently required.

In forensic psychiatry, a certain tension exists between need for care in the sense of prevention of repeat offending and need for care in the sense of helping the person to achieve meaningful goals and experience a meaningful existence. Creating a direct link between the notion of 'risk' and 'need for care' requires a correct understanding of concepts like probability and causality, and of the fact that findings in the literature that are based on group comparisons cannot be translated easily to the level of the individual.

The widely perceived need for quantification of risk and deterministic models of behaviour conflict with the epidemiological reality that statistical associations at the level of group comparisons have limited value for the process of prediction and causal explanation at the level of the individual.

The difficulty of implementing group-level findings at the level of the individual is one of the key challenges facing the practice of evidence-based medicine (1). To understand the difficulties involved, it is necessary to understand and take into account concepts like 'diagnostic likelihood ratio' of a risk factor (the ratio of true positives to false positives, a value of 10 indicating diagnostic usefulness); the 'relativity of relative risks' (the fact that a meta-analytic risk factor may be protective for one and toxic for another, depending on an underlying moderator variable) and 'prevention paradox' (in the area of prediction, focusing on the high-risk group, whilst intuitively appealing to the lay person, yields insufficient effect given that most transitions typically occur in the low-risk group).

Against this background, a literature study was conducted in search of transdiagnostic factors that would explain the onset and recurrence of offending behaviours and thus might contribute to a more functional diagnostic practice in forensic psychiatry. To this end, 213 meta-analyses were conducted and 19 existing meta-analyses were interpreted. Existing meta-analyses yielded 11 factors with relevance for functional diagnosis; meta-analyses from the literature search yielded 12 factors that largely overlapped with the 11 factors derived from existing meta-analyses.

Most of the identified factors already have found their way into existing risk assessment instruments, or are present indirectly through associations with other factors. The literature search thus does not identify much in terms of novel factors that can be added to existing risk-assessment instruments to enhance their functionality. The results of the literature search suggest that all factors identified should be considered as a cluster of related effects, forming a background of risk that can be used in the context of functional diagnosis, however without sufficient predictive power at the level of the individual.

While the literature search encountered many publications, the reports that were analysed majorly were characterized by a lack of hypothesis-driven questions and much room for bias, confounding, selective reporting, selective analyses and undisclosed multiple testing. The analysis of the literature revealed an urgent need for more coordination and collaboration between forensic psychiatric researchers. Furthermore, classic group-based approaches have limited value for improving functional diagnosis at the level of the individual, given low predictive power.

The literature study revealed that implementation of risk assessment in general psychiatry currently would not be useful. The method of 'bureaucratic control of the unpredictable' would result in high costs and the withdrawal of funding from other activities that do have a base in science. There are also ethical and possibly legal reasons for not implementing routine risk assessment in general psychiatry. Implementation of risk assessment in general psychiatry because of political pressure should be preceded by a thorough and binding analysis of costs and benefits. Blind implementation of national risk assessment databases that cannot contribute usefully to functional diagnosis in forensic psychiatry should be avoided. Instead of the classical high-risk approach towards intervention on the basis of screening, a population approach focussing on, for example, increased awareness and enhanced diagnostic-forensic skills among professionals working in mental health services, may be more effective.

In order to further the aim of functional diagnosis in forensic psychiatry, more research is required into the nature and extent of association between a range of transdiagnostic factors on the one hand, and individual risk trajectories and needs on the other. A coordinated research effort with a specific focus on individual prediction, for example from the perspective of dynamic system theory, based on analysis of intensive time series of observational or experimental data, using single case experimental designs, holds promise as an alternative to group-based comparisons that cannot inform sufficiently on individual variability.

References

1. Greenhalgh T, Howick J, Maskrey N, Evidence Based Medicine Renaissance G. Evidence based medicine: a movement in crisis? *BMJ*. 2014;348:g3725.