

Wellness and Problem Behavior - different sides of the coin?



M. Bartels¹, J.J. Hudziak^{2,1}, C.E.M. van Beijsterveldt¹, and D.I. Boomsma¹

 $^1\, \text{Department of Biological Psychology, Vrije Universiteit, Amsterdam, The Netherlands (m.bartels@psy.vu.nl)}$

² Departments of Psychiatry and Medicine, University of Vermont, Burlington, VT, USA

Introduction

Psychiatry and clinical psychology have focused largely on psychopathology rather than on positive behavior or wellness. This has led to a definition of wellness as the absence of emotional and/or behavioral problems. The question is if wellness and psychopathology are indeed part of the same continuum.





'Wellness'	'Normal' Behavior	'Problem' Behavior
	65%	35%
25%	40%	35%

Method

Data on Wellness, measured as Quality of Life (QL), and on psychopathology, measured as Internalizing (INT) and Externalizing (EXT) Problem Behavior are collected in a sample of adolescent twins pairs (n= 1050) and siblings (238 brothers and 280 sisters of twins) from the Netherlands Twin Register. The adolescents were asked to rate quality of life on a 0 to 10 scale (Cantril, 1965) and fill in the Youth Self Report (Achenbach & Rescorla., 2001)

Results

On a scale from 0 to 10, twins rate their lives as being 7.69 (oldest) and 7.64 (youngest), while their non-twin siblings value their lives at 7.49. This is in line with the Dutch average score, which is 7.6. Phenotypic correlations reveal a negative association of -.25 between QL and INT and -.40 for QL and EXT. Further, adolescents who show both INT and EXT problems ($T \ge 65$) or only EXT feel less happy (p=.000) and adolescents who show only INT feel even unhappier (p=.000). Genetic and environmental correlations are estimated using bivariate genetic analyses. The genetic correlation between QL and EXT is -.48 for boys and -.37 for girls. Genetic correlations between QL and INT are higher (-.75 for boys and -.62 for girls). These correlations indicate that QL and Problem Behavior are influenced by an overlapping set of genes while trait specific genes also seem to play a role. Shared environmental correlations are -.59 for QL and EXT in boys, and -1.0 for QL and EXT in girls and QL and INT for both boys and girls, indicating that the same shared environmental factors, with opposite effects, are of importance

Conclusion

Wellness and Problem Behavior are part of the same continuum. In particular, those environmental factors shared by family members that influence wellness in a positive manner, have a negative effect on externalizing and internalizing problems. The less than perfect genetic correlation indicates that QL and INT or EXT can be considered biologically partly different constructs