



UNIVERSITY OF LEEDS

This is a repository copy of *Multisystemic therapy versus management as usual in the treatment of adolescent antisocial behaviour (START): A pragmatic, randomised controlled, superiority trial.*

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/126503/>

Version: Accepted Version

Article:

Fonagy, P, Butler, S, Cottrell, D orcid.org/0000-0001-8674-0955 et al. (12 more authors) (2018) Multisystemic therapy versus management as usual in the treatment of adolescent antisocial behaviour (START): A pragmatic, randomised controlled, superiority trial. *The Lancet Psychiatry*, 5 (2). pp. 119-133. ISSN 2215-0366

[https://doi.org/10.1016/S2215-0366\(18\)30001-4](https://doi.org/10.1016/S2215-0366(18)30001-4)

© 2018 Elsevier Ltd. Licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International
<http://creativecommons.org/licenses/by-nc-nd/4.0/>

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

Table 2: A. Results of logistic regression of out-of-home placement and Cox proportional hazards model of time to first offence. B. Results of moderator analyses, where additional variables were included as interaction parameters in the primary analysis models

A. Analyses

Outcome	Effect of MST	95% CI	p value
Out-of-home placement (OR)	1.25	(0.77 to 2.05)	0.37
Time to first offence (HR)	1.06	(0.84 to 1.33)	0.64

B. Moderator analysis

Variable	Out-of-home placement			Time to first offence		
	Interaction	95% CI for	p value	Interaction	95% CI for	p value
	OR	OR		HR	HR	
Sex	1.01	(0.38 to 2.74)	0.98	0.94	(0.87 to 1.03)	0.19
Age	0.91	(0.63 to 1.33)	0.64	1.25	(0.97 to 1.62)	0.084
Early-onset CD	4.95	(1.74 to 14.0)	0.0026	1.19	(0.75 to 1.89)	0.47
Baseline ICUT score [†]	0.95	(0.90 to 1.00)	0.048	1.01	(0.99 to 1.03)	0.49
Baseline peer delinquency score [†]	0.91	(0.81 to 1.01)	0.085	0.92	(0.88 to 0.97)	0.00071
Baseline ABAS score [†]	1.00	(0.98 to 1.03)	0.69	1.00	(0.99 to 1.01)	0.93
No prior offence at baseline	0.53	(0.25 to 1.11)	0.39	NA*	NA*	NA*
CD + ADHD at baseline [†]	0.53	(0.18 to 1.58)	0.25	1.31	(0.79 to 2.17)	0.29
CD + depression at baseline [†]	1.29	(0.25 to 6.55)	0.76	0.94	(0.43 to 2.03)	0.87
Referral path [‡]	0.22	(0.02 to 2.48)	0.22	0.73	(0.39 to 1.35)	0.31

ABAS=Antisocial Beliefs and Attitudes Scale. ADHD=attention deficit hyperactivity disorder. CD=conduct disorder. HR=hazard ratio. ICUT=Inventory of Callous and Unemotional Traits. MST=Multisystemic Therapy. OR=odds ratio. *Non-offender at baseline parameter was not identifiable in the analysis of time to first offence as no individuals who were non-offenders at baseline went on to offend during the trial. All analyses are also adjusted for fixed centre effects. Each interaction is between a baseline measurement and treatment arm, and in each case regressions included all variables used in the main analysis but with an additional interaction term (and the main effect if the variable was not originally adjusted for). [†]Non-prespecified but recommended by the trial's Data Monitoring Committee. [‡]Most significant result out of six referral path tests.