

THE AUSTRALIAN ALCOHOL TREATMENT OUTCOME MEASURE (AATOM-C): PSYCHOMETRIC PROPERTIES

**Melanie Simpson, Peter Lawrinson, Jan Copeland &
Peter Gates**

Technical Report Number 288

ISBN: 978 0 7334 2584 4

NDARC

**©NATIONAL DRUG AND ALCOHOL RESEARCH CENTRE,
UNIVERSITY OF NEW SOUTH WALES, SYDNEY, 2007**

This work is copyright. You may download, display, print and reproduce this material in unaltered form only (retaining this notice) for your personal, non-commercial use or use within your organisation. All other rights are reserved. Requests and enquiries concerning reproduction and rights should be addressed to the information manager, National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW 2052, Australia.

Table of Contents

LIST OF TABLES	ii
APPENDICES	iii
ACKNOWLEDGEMENTS	iv
EXECUTIVE SUMMARY	v
1. INTRODUCTION	1
1.1 Background	1
1.2 Alcohol treatment in Australia: An overview	2
1.3 Outcome measurement: An overview	2
1.4 Steps towards development of AATOM-C	3
1.5 Aims	4
2. PHASE ONE: LITERATURE REVIEW AND CONTENT DEVELOPMENT	5
2.1 Review of available instruments	5
2.2 Establishment of the expert advisory group	5
2.2.1 Expert advisory group meeting	6
2.2.2 Expert advisory group feedback	6
2.2.3 Structure and content of the AATOM-C	7
2.2.4 Administering the AATOM-C	11
3.0 PHASE TWO: RELIABILITY AND VALIDITY TESTING OF THE AATOM-C	12
3.1 Aim	12
3.2 Method	12
3.2.1 Materials	12
3.2.2 Recruitment of treatment agencies	13
3.2.3 Recruitment of participants.....	14
3.2.4 Participants	14
3.3 Results: Psychometric properties of the AATOM-C	15
3.3.1 Characteristics of the participants	15
3.3.2 Test-retest and Inter-rater reliability	15
3.3.3 Concurrent validity	17
3.3.4 Internal reliability	18
3.3.5 AATOM-C structure	18
3.3.6 Content validity.....	19
3.4 Discussion	20
4.0 REFERENCES	22

LIST OF TABLES

Table 1:	Kappa coefficients (k) as a measure of test-retest reliability of AATOM-C categorical items.....	16
Table 2:	Test-retest intra class coefficients (ICC) reliability for AATOM-C health and well-being scale scores and items.....	16
Table 3:	Concurrent validity scores of the AATOM-C scales.....	18
Table 4:	Internal reliability of AATOM-C scales.....	18
Table 5:	Factor loadings of AATOM-C scale scores.....	19
Table 6:	Demographic characteristics of AATOM-C psychometric participants.....	28



APPENDICES

Appendix 1:	Demographic characteristics of AATOM-C psychometric participants.....	27
Appendix 2:	Distribution of AATOM-C scale scores.....	31
Appendix 3:	AATOM-C baseline interview.....	35
Appendix 4:	AATOM-C follow-up interview.....	49
Appendix 5:	AATOM-C score summary sheet (baseline).....	67



ACKNOWLEDGEMENTS

The Australian Alcohol Treatment Outcome Measure (AATOM) is being conducted by the National Drug and Alcohol Research Centre in collaboration with Turning Point Alcohol and Drug Centre Inc. The project is funded by the Alcohol Education and Rehabilitation Foundation Ltd.

The authors would like to thank the AATOM advisory group members for their input and advice regarding the structure and content of the AATOM instruments; the Network of Alcohol and other Drug Agencies (NADA) for their assistance in recruiting treatment agencies into the project; and the clinical staff and workers at participating alcohol treatment agencies for their interest and enthusiasm in becoming involved in the feasibility phase of the AATOM-C project and their valued help in the recruitment of participants.



EXECUTIVE SUMMARY

Approximately 57% of males and 39% of females report weekly consumption of alcohol, with one in three persons (39% of males, 30% of females) consuming alcohol in a manner that puts themselves at risk of alcohol-related harm on at least one occasion in the past 12 months (AIHW, 2002). With the exception of tobacco-related disorders, alcohol use disorders were the most common of the substance use disorders. The criteria for either alcohol abuse or alcohol dependence are met by 3% and 3.5% of persons, respectively (Teesson et al., 2000). The public health impact of alcohol use is substantial. In Australia, in 1998 it was estimated that approximately 3,200 died as result of the hazardous or harmful effects of alcohol consumption, with over 71,422 hospitalised (Ridolfo and Stevenson, 2001). Recent data highlights a 4% increase in the number of alcohol treatment episodes in the year 2004-05 from that of 2003-04, with alcohol (as the primary drug of concern) alone accounting for 50,324 episodes (AIHW, 2006b). Given the substantial outlay of public and private funds, healthcare providers are coming under increasing pressure to objectively demonstrate the effectiveness of the services they provide.

The Australian Alcohol Treatment Outcome Measure (AATOM-C) was developed for routine clinical use to monitor treatment outcomes for clients receiving treatment for problems arising from their alcohol use. It was designed to be a multi-dimensional, standardised, valid and reliable instrument for use by health professionals within the Australian context. As a clinical tool, the AATOM-C was designed to be brief, easy to administer and flexible enough to be incorporated into existing data collection and reporting practices across a range of treatment settings. Intended for both “one-off” and on-going evaluation of alcohol treatment service clients, the instrument covers a range of treatment outcomes useful for documenting the efficacy, effectiveness and cost-effectiveness of treatment whilst taking into account differences in client characteristics, treatment settings and services.

The AATOM Psychometrics project was conducted in Sydney by the National Drug and Alcohol Research Centre (NDARC) in collaboration with Turning Point Alcohol and Drug Centre Inc. Victoria.

The aim of this study was to determine reliability and validity of the AATOM-C in the context of Australian alcohol and other drug treatment services.

An expert advisory group was established to decide upon the content and format of the AATOM instruments. The group consisted of recognised experts within the alcohol and drug field including researchers, clinicians and policy makers.

Two versions of the AATOM instrument were developed: one intended for use amongst clinicians for the purpose of routine measurement of treatment outcome, useful for service development and funding requirements (the AATOM-C); and the other for use amongst researchers (the AATOM-R). This report focuses on the development of the AATOM-C.

The AATOM-C instrument is comprised of five sections assessing: client demographic and treatment information; health and well-being; alcohol use; other drug use; and health service utilisation. An electronic version of the AATOM-C was also developed in order to automate data collection, collation and reporting, thereby substantially reducing the burden of administration on clinicians.

To assess the psychometric properties of the AATOM-C instrument, 203 alcohol treatment service clients were recruited from a range of alcohol and other drug (AOD) treatment agencies across Sydney. Trained researchers conducted AATOM-C interviews with all study participants at two time points, approximately seven days apart. At the second time point, participants were also administered, in addition to the AATOM-C, analogous subscales from pre-existing instruments in order to assess concurrent validity. Scales and items within the AATOM-C were also assessed for internal, test-retest and inter-rater reliability. The results of the study demonstrate that the AATOM-C is, overall, a valid and reliable instrument, taking on average 11 minutes to administer.

The AATOM-C has the potential to be a very useful clinical tool for those working within the alcohol treatment field. It can assist with treatment planning and tracking client progress throughout the course of treatment and after treatment completion. It is intended that clients are administered the AATOM-C at the commencement of treatment in order to establish a “baseline” level of functioning; at regular intervals during the course of treatment; and, if possible, at a time-point following the cessation of treatment. Face-to-face administration of the AATOM-C is advised, although if the client has left treatment prior to the follow-up period a phone interview can be conducted. Follow-up reviews can be completed as regularly as every three months or as deemed necessary. To assist with the standardisation of data, the interview should at all times be conducted in accordance with the procedures set out in the administration and procedures manual.

NDARC