

Health of the Nation Outcome Scales (HoNOS)

Notat fra Kunnskapscenteret
Systematisk litteratursøk med sortering
November 2014

Nasjonalt kunnskapssenter for helsetjenesten
Postboks 7004, St. Olavs plass
N-0130 Oslo
(+47) 23 25 50 00
www.kunnskapssenteret.no
Notat: ISBN 978-82-8121-901-4

November 2014

 kunnskapssenteret

Tittel	Health of the Nation Outcome Scales (HoNOS)
English title	Health of the Nation Outcome Scales (HoNOS)
Institusjon	Nasjonalt kunnskapssenter for helsetjenesten
Ansvarlig	Magne Nylenna, direktør
Forfattere	Dalsbø, Therese Kristine, seniorrådgiver, Nasjonalt kunnskapssenter for helsetjenesten Harboe, Ingrid, forskningsbibliotekar Nasjonalt kunnskapssenter for helsetjenesten Johan Siqveland, seniorrådgiver, Nasjonalt kunnskapssenter for helsetjenesten Leiknes, Kari Ann, prosjektleder, Nasjonalt kunnskapssenter for helsetjenesten
ISBN	978-82-8121-901-4
Notat	November – 2014
Prosjektnummer	9927
Publikasjonstype	Notat - Systematisk litteratursøk med sortert referanseliste
Antall sider	14 (111 inklusiv vedlegg)
Oppdragsgiver	Helsedirektoratet
Emneord(MeSH)	Psychometrics; Reproducibility of Results; Dimensional Measurement Accuracy; HoNOS; Health of the Nations Outcome Scale
Sitering	Dalsbø TK, Harboe I, Siqveland J, Leiknes KA. Health of the Nation Outcome Scales (HoNOS)– systematisk litteratursøk med sortert referanseliste. Notat 2014. Oslo: Nasjonalt kunnskapssenter for helsetjenesten, 2014.

Nasjonalt kunnskapssenter for helsetjenesten fremskaffer og formidler kunnskap om effekt av metoder, virkemidler og tiltak og om kvalitet innen alle deler av helsetjenesten. Målet er å bidra til gode beslutninger slik at brukerne får best mulig helsetjenester. Kunnskapssenteret er formelt et forvaltningsorgan under Helsedirektoratet, men har ingen myndighetsfunksjoner og kan ikke instrueres i faglige spørsmål.

Nasjonalt kunnskapssenter for helsetjenesten
Oslo, november 2014

Hovedfunn

Nasjonalt kunnskapssenter for helsetjenesten fikk i oppdrag fra Helse- direktoratet å utføre et systematisk litteratursøk med påfølgende sortering av mulig relevante publikasjoner. Oppdraget var å finne litteratur/forskning og gi en oversikt over om de psykometriske egenskapene til den engelske testen Health of the Nation Outcome Scales (HoNOS).

Metode

Vi utarbeidet en søkestrategi for et systematisk litteratursøk. Vi søkte i relevante nettsider og medisinske databaser i september 2014. Søket var avgrenset tilbake til 1996, året HoNOS ble introdusert. To personer gikk uavhengig av hverandere gjennom identifiserte referanser og vurderte relevans i forhold til de forhåndsdefinerte inklusjonskriteriene.

Resultater

- Vi identifiserte totalt 200 referanser. Av disse var 71 mulig relevante.
- 71 inkluderte referanser fordelte seg slik:
 - 3 Oversiktsartikler
 - 23 Bruk av HoNOS i klinisk praksis
 - 45 Psykometriske studier av HoNOS

Tittel:

Health of the Nation Outcome Scales (HoNOS)

Publikasjonstype:

Systematisk
litteratursøk med
sortering

Systematisk litteratursøk med sortering er resultatet av å

- søke etter relevant litteratur ifølge en søkestrategi og
- eventuelt sortere denne litteraturen i grupper presentert med referanser og vanligvis sammendrag

Svarer ikke på alt:

- Ingen kritisk vurdering av studienes kvalitet
- Ingen analyse eller sammenfatning av studiene
- Ingen anbefalinger

Hvem står bak denne publikasjonen?

Kunnskapssenteret har gjennomført oppdraget etter forespørsel fra Helsedirektoratet

Når ble litteratursøket utført?

Søk etter studier ble avsluttet september 2014.

Key messages

The Norwegian Directorate of Health commissioned the Norwegian Knowledge Center for The Health Services to undertake a systematic literature search and provide an overview of the available documentation on the psychometric properties of the original version of the Health of the Nation Outcome Scales (HoNOS).

Methods

We pre-defined a strategy for a systematic literature search. We searched relevant web sites and medical databases for relevant research. The search was performed in September 2014 and restricted to 1996, the year HoNOS was introduced. Two members of the project team independantly read the titles and assessed the references accorting to our pre-defined inclusion criteria.

Results

- The search yielded 200 references. Only 71 were potentially relevant.
- 71 included references about:
 - 3 Reviews
 - 23 Utility and use of HoNOS in clinical practis
 - 45 Psychometric studies about HoNOS

Title:

Health of the Nation Outcome Scales (HoNOS) – systematic literature search and reference list

Type of publication:

Systematic reference list

A systematic reference list is the result of a search for relevant literature according to a specific search strategy. The references resulting from the search are then grouped and presented with their abstracts.

Doesn't answer everything:

- No critical evaluation of study quality
- No analysis or synthesis of the studies
- No recommendations

Publisher:

Norwegian Knowledge Centre for the Health Services. Commissioned by the Norwegian Directorate of Health.

Updated:

Last search for studies: September, 2014.

Innhold

HOVEDFUNN	2
KEY MESSAGES	3
INNHold	4
FORORD	5
INNLEDNING	6
Bakgrunn	6
Health of the Nation Outcome Scales	6
Problemstilling og målsetting	6
METODE	7
Litteratursøk	7
Inklusjonskriterier	7
Eksklusjonskriterier	8
Artikkelutvelging	8
RESULTAT	9
Resultat av søk	9
Resultat av sorteringen	10
DISKUSJON	11
REFERANSELISTE	12
VEDLEGG	13
Vedlegg 1: Søkestrategier	13
Vedlegg 2: Inkluderte referanser med sammendrag	16
Vedlegg 3: Ekskluderte referanser med sammendrag	47

Forord

Nasjonalt kunnskapssenter for helsetjenesten fikk i oppdrag fra Helsedirektoratet å finne forskning om psykometriske egenskapene til den engelske testen Health of the Nation Outcome Scales (HoNOS). Forskningen i vår referanseliste kan utgjøre et relevant dokumentasjonsgrunnlag for å forstå grunnlaget og begrensningene til den engelske versjonen av testen.

Prosjektgruppen har bestått av:

- Ingrid Harboe, forskningsbibliotekar, Kunnskapssenteret
- Therese Kristine Dalsbø, seniorrådgiver, Kunnskapssenteret
- Johan Siqveland, seniorrådgiver, Kunnskapssenteret
- Kari Ann Leiknes, seniorforsker, Kunnskapssenteret

Gro Jamtvedt
Avdelingsdirektør

Marianne Klemp
Seksjonsleder

Kari Ann Leiknes
Prosjektleder

Innledning

Bakgrunn

Bestillingen fra Helsedirektoratet var å finne forskning om de psykometriske egenskapene til den engelske testen Health of the Nation Outcome Scales (HoNOS) for voksne med psykiske lidelser (<http://www.rcpsych.ac.uk/crtu/healthofthenation.aspx>). For å løse denne bestillingen har vi utført et systematisk litteratursøk i relevante databaser og nettsider. Vi har også gått gjennom søkeresultatet og fjernet dubletter og sortert ut alle ikke-relevante referanser. Dette gjøres basert på tittel og eventuelt sammendrag. Referanser som ble antatt å være mulig relevante ble ikke innhentet i fulltekst, men de ble sortert i ulike kategorier.

Health of the Nation Outcome Scales

I 1993 ga det britiske Helsedepartementet den psykiatriske forskningsenheten (Royal College of Psychiatrists' Research Unit) i oppdrag å utvikle et instrument for å måle helse og sosial fungering hos personer med alvorlig psykiske lidelser. Etter tre år med utvikling og testing ble et instrument ferdigstilt og publisert av Wing, Curtis og Beever (1, 2). Instrumentet består av 12 deler som måler atferd, uførhet, symptomer og sosial fungering og er beskrevet nærmere på nettsiden til den britiske psykiaterforeningen: <http://www.rcpsych.ac.uk/traininpsychiatry/conferencestraining/courses/honos/whatishonos.aspx>

Problemstilling og målsetting

Hva finnes av internasjonal dokumentasjon om de psykometriske egenskapene (validitet, reliabilitet eller normering) av den engelske testen HoNOS for voksne? Å gi en deskriptiv oversikt over et systematisk litteratursøk for engelsk HoNOS for voksne. Vi har ikke søkt etter HoNOS for andre populasjoner.

Metode

Litteratursøk

Vi søkte systematisk etter litteratur i følgende databaser:

- Embase (Ovid)
- Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) PsycINFO (Ovid)
- Cochrane Library (se vedlegg for hvilke databaser)
- Centre for Reviews and Dissemination (se vedlegg for hvilke databaser)
- Web of Science (ISI)
- PubMed

Forskningsbibliotekar Ingrid Harboe planla og utførte samtlige søk. Den fullstendige søkestrategien er presentert i vedlegg 1. Søk etter studier ble avsluttet september 2014.

Vi la bestillingen til grunn ved utarbeiding av litteratursøket og søkte etter forskning som oppfylte våre inklusjonskriterier for populasjon og test. Vi brukte ikke filter for studiedesign, men avgrenset søket ved å fjerne dyrestudier og publikasjonstypene comment, editorial, erratum, letter og note.

Vi søkte etter referanser til relevant forskning på nettsiden til den britiske foreningen for psykiatere som står som eier av Health of the Nation Outcome Scales. Mer informasjon om Royal College of Psychiatrists er tilgjengelig på deres webside <http://www.rcpsych.ac.uk/>

Vi har søkt etter forskning fra 1996 til september 2014 i elektroniske kilder. Begrunnelsen for dette er at HoNOS ble lansert i 1996.

Inklusjonskriterier

Populasjon:

Voksne

Test:

Engelsk versjon av Health of the Nation Outcome Scales (HoNOS)

Psykometriske egenskaper:	<ul style="list-style-type: none">• Validitet• Reliabilitet• Normdata• Bruk av HoNOS i klinisk eller forskningspraksis
Studiedesign:	Alle studiedesign
Språk:	Engelsk
Publikasjonsår:	Fra og med 1996

Eksklusjonskriterier

Test:	Andre versjoner av HoNOS som HoNOSCA ¹ for barn/ungdom og subskala varianter tilrettelagt for «spesielle» populasjoner bl.a. HoNOS65+ (HoNOS for voksne over 65 år), HoNOS-ABI (HoNOS Acquired Brain Injury), HoNOS-LD (HoNOS Learning Disabilities).
--------------	--

Artikkelutvelging

To personer i prosjektgruppen (Dalsbø og Leiknes) gikk gjennom alle titler og sammendrag for å vurdere relevans i henhold til inklusjonskriteriene. Vi gjorde vurderingene uavhengig av hverandre og sammenlignet resultatene i etterkant. Der det var uenighet om vurderingene, ble inklusjon eller eksklusjon avgjort ved konsensus.

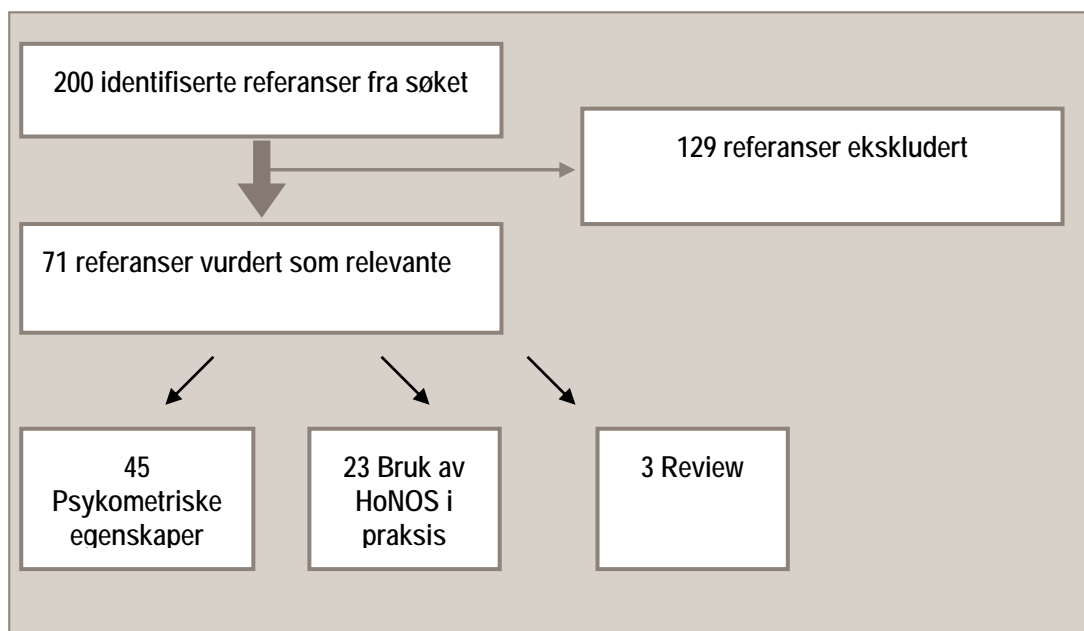
¹ Det finnes egne oversikter om barne- og ungdomsversjonen her: <http://www.psyktest-barn.no/CMS/ptb.nsf/pages/honosca>

Resultat

Resultat av søk

Søket resulterte i 317 referanser. Etter dublett kontroll satt vi igjen med 200 referanser. Vi vurderte 71 av de identifiserte referansene som mulig relevante i henhold til inklusjonskriteriene (3-73). Disse er presentert i vedlegg 2.

Vi ekskluderte 129 referanser. Disse er presentert i vedlegg 3. Det var 57 referanser som ikke var på engelsk eller omhandlet andre språkversjoner enn den engelske HoNOS (74-130). I gjennomgangen fra søket var det 16 referanser som ikke handlet om HoNOS (131-146). Det var 31 referanser til barne- og ungdomsversjonen av HoNOSCA (147-177). Totalt 25 referanser til andre delskalaer som LG, ABI og 65, ble ekskludert (178-202).



Figur 1. Flytskjema over identifisert forskning

Resultat av sorteringen

De mulig relevante referansene ble sortert i tre kategorier ut fra formålet til studien (se tabell 1). I vedlegg 2 presenterer vi referansene fordelt i kategoriene og alfabetisk etter førsteforfatter med sammendrag der de var tilgjengelige. Vi oppgir full referanse og sammendrag av artikkelen slik de fremkom i de elektroniske databasene i referanselisten.

Tabell 1: Antall artikler sortert etter

Artikkelens formål	Antall referanser: 71
Review	3
Bruk av HoNOS i praksis	23
Psykometriske egenskaper	45

I søket fant vi frem til tre oversiktsartikler (19, 52, 62). De øvrige 68 referansene var til enkeltstudier. Vi fant 23 referanser til studier der HoNOS ble brukt i praksis (5, 6, 8-10, 23, 24, 26-28, 30, 31, 34, 37, 44, 45, 49, 53, 60, 64, 65, 68, 73). I 45 av referansene så det ut til at de psykometriske egenskapene til HoNOS ble studert (3, 4, 7, 11-18, 20-22, 25, 29, 32, 33, 35, 36, 38-43, 46-48, 50, 51, 54-59, 61, 63, 66, 67, 69-72).

De tre oversiktsartiklene har forskjellige målsettinger (19, 52, 62). Oversikten til Delaffon (19) og medarbeidere fra 2012 så på bruken av HoNOS. De inkluderte 585 artikler og konkluderte med at HoNOS hadde utviklet seg over tid og at den nå brukes i flere land og både i klinikk og i forskningsøyemed (19). Pirkis og medarbeidere publiserte i 2005 (52) en oversikt over de psykometriske egenskapene til HoNOS. De konkluderte med at HoNOS var adekvat for bruk i rutinemessig monitorering av resultater innen mental helse (52). Oversikten av Trauer fra 1998 (62) så på bruken av HoNOS som erstatning for klinisk vurdering for å vurdere effekter av helseintervensjoner både innen privat og offentlig sektor (62).

Diskusjon

Vi benyttet kun databaser og nettsider for identifisering av litteratur og kan derfor ha gått glipp av potensielt relevante studier som ikke er publisert på nettet eller indeksert i databaser. Andre måter å identifisere studier på, som søk i referanselister, kontakt med eksperter på fagfeltet og upublisert litteratur, er ikke utført i dette oppdraget. Vi gjennomfører ingen kvalitetsvurdering av artiklene.

Ved en full forskningsoppsummering ville vi ha innhentet artiklene i fulltekst for endelig vurdering opp mot inklusjonskriteriene. Inkluderte studier ville så blitt kvalitetsvurdert i henhold til våre sjekklister og resultater sammenstilt og diskutert.

Referanseliste

1. Wing JK, Curtis RH, Beevor A. Health of the Nation Outcomes Scales (HoNOS). I: Rush JAJ, First MB, Blacker D, red. Handbook of Psychiatric Measures Chapter 7 2nd. Wasington, DC London, England: American Psychaitric Publishing Inc.; 2008. s. 92-95.
2. Wing JK, Curtis RH, Beevor AS. HoNOS: Health of the Nation Outcome Scales: Report on Research and Development July 1993-December 1995. . London: 1996

Vedlegg

Vedlegg 1: Søkestrategier

Dato: 03.09.2014

Databaser: Ovid MEDLINE, Embase, (Ovid), PsycINFO, Cochrane Library, Centre for Reviews and Dissemination, Web of Science, PubMed

Avgrensning: Engelsk språk

Publikasjonsår: 1996-2014

Resultat: 200 referanser (317 inkludert dubletter)

Felles søk, Ovid, Databaser:

Embase 1980 to 2014 Week 34,

Ovid **MEDLINE**(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily, Ovid MEDLINE(R) and Ovid OLDMEDLINE(R) 1946 to present,

PsycINFO 1987 to August Week 4 2014

Resultat: 185 referanser

#	Searches	Results
1	(Health* of the Nation* Outcome* Scale* or HoNOS*).tw.	1114
2	Psychometrics/	134179
3	exp Psychometry/ use emez	61384
4	Test Validity/	46074
5	Test Reliability/	33504
6	"reproducibility of results"/ or dimensional measurement accuracy/	422583
7	(Consistenc* or dependabilit* or psychometr* or reliabilit* or validit* or reproducibilit*).tw.	742795
8	or/2-7	1097041
9	1 and 8	358
10	exp Animals/	36799270
11	Humans/	28595420
12	10 not (10 and 11)	8203850
13	news.pt.	165027

14	comment.pt.	599636
15	editorial.pt.	816024
16	comment on.cm.	599635
17	comment reply.dt.	84478
18	letter.dt.	14540
19	or/12-18	9705550
20	1 not 19 [UTEN psychomtery, ikke aktuell]	1085
21	9 not 19 [med psychomtery]	351
22	remove duplicates from 21	185
23	limit 22 to yr="1996 -Current"	185
24	23 use emez	120
25	23 use pmoz	23
26	23 use psyc3	7
27	23 use psyc4	6
28	23 use psyc5	4
29	23 use psyc6	9
30	23 use psyc7	3
31	23 use psyc8	13
32	23 use psyc9	0
33	23 use psyc10	1
34	23 use psyc11	2
35	or/26-34	31

Database: Cochrane Library

Resultat: 3 systematiske oversikter

13 kontrollerte studier

- #1 ((Health* near/3 Nation* Outcome* Scale*) or HoNOS*):ti,ab,kw
- #2 MeSH descriptor: [Psychometrics] this term only
- #3 MeSH descriptor: [Reproducibility of Results] explode all trees
- #4 MeSH descriptor: [Dimensional Measurement Accuracy] this term only
- #5 (Consistenc* or dependabilit* or psychometr* or reliabilit* or validit* or reproducibilit*):ti,ab,kw
- #6 #2 or #3 or #4 or #5
- #7 #1 and #6 Publication Year from 1996 to 2014

Database: Centre for Reviews and Dissemination

Resultat: 5 referanser (derfor er ikke søket avgrenset til psykomteri)

1 (((Health* near3 Nation* Outcome* Scale*) or HoNOS*)) FROM 1996 TO 2014

Vi gikk gjennom alle treffene, uten avgrensning til Psykometri, men fant ingen relevante treff.

Database: Web of Science

Resultat: 116 referanser

3 116 #2 AND #1

Refined by: Databases: (WOS) AND DOCUMENT TYPES:
(ARTICLE OR ABSTRACT OR CLINICAL TRIAL)
Timespan=1996-2014

2 910,952 TOPIC: ((Consistenc* or dependabilit* or psychometr* or reliabilit* or validit* or reproducibilit*)) OR TITLE: ((Consistenc* or dependabilit* or psychometr* or reliabilit* or validit* or reproducibilit*))
Timespan=1996-2014

1 324 TOPIC: ("Health* of the Nation* Outcome* Scale") OR TITLE: ("Health* of the Nation* Outcome* Scale") OR TOPIC:(HoNOS*) OR TITLE: (HoNOS*)
Refined by: DOCUMENT TYPES: (ARTICLE OR ABSTRACT OR CLINICAL TRIAL)
Timespan=1996-2014

Database: PubMed

Resultat: 5 referanser

Search Search (pubstatusaheadofprint) AND ((Health* of the Nation* Outcome* Scale or HoNOS[Title/Abstract]))

Vi søkte ikke etter publiserte studier som ikke er indeksert (epub ahead of print).

Vedlegg 2: Inkluderte referanser med sammendrag

3. Adams M, Palmer A, O'Brien JT, Crook W. **Health of the nation outcome scales for psychiatry: Are they valid?** Journal of Mental Health 2000;9(2):193-198.
Record no: 36
Abstract: The study investigates the performance of the recently developed Health of the Nation Outcome Scales (HoNOS) by validating scores against three other well-validated instruments for assessing psychiatric symptoms and social functioning. A consecutive sample of 100 admissions to an acute psychiatric ward were assessed at admission and discharge. Scores on the HoNOS were compared to those on the Brief Psychiatric Rating Scale, Symptom Checklist 90-Revised and the Social Adjustment Scale. Only half the correlations between HoNOS scales and the psychometric measures were significant and these were not particularly high (range 0.21-0.55 for significant correlations). Overall HoNOS scores were relatively low despite the high level of morbidity in the sample. This study casts doubt on the validity of the HoNOS. Modifications to the scales are needed with clearer anchoring definitions for the scale points and a specified training programme to ensure accurate use. Further studies of validity are required.
4. Amin S, Singh SP, Croudace T, Jones P, Medley I, Harrison G. **Evaluating the health of the nation outcome scales. Reliability and validity in a three-year follow-up of first-onset psychosis.** British Journal of Psychiatry 1999;174(MAY):399-403.
Record no: 38
Abstract: Background: The HoNOS has been developed as a routine measure of outcomes in mental health. Aims: To explore the validity and interrater reliability of HoNOS in a first-onset psychosis follow-up study. Method: Between 1992 and 1994 we ascertained a cohort of all persons with first-onset psychosis. We re-assessed these people at 3 years (n=166) with several outcome scales, including HoNOS. Patients' keyworkers also completed the HoNOS. We estimated concurrent validity by calculating correlations between HoNOS and other scales, and interrater reliability. Results: Researcher HoNOS correlated highly with other scales ($0.46 < p < 0.86$; $P < 0.001$). Keyworker HoNOS correlations were lower ($0.41 < p < 0.51$; $P < 0.05$), but still significant for all scores except the HoNOS-social subscale ($0.12 < p < 0.28$). Agreements between researcher and keyworker HoNOS were modest ($0.47 < ICC < 0.85$). Conclusions: In this research cohort HoNOS correlates well with established outcome scales. Keyworker ratings show similar, but weaker, relationships; its use in routine settings may require further training for calibration of severity. Declaration of interest: Supported by Trent National Health Service Executive.
5. Audin K, Margison FR, Clark JM, Barkham M. **Value of HoNOS in assessing patient change in NHS psychotherapy and psychological treatment services.** The British Journal of Psychiatry 2001;178:561-566.
Record no: 44
Abstract: Determined whether Health of the Nation Outcome Scales (HoNOS) provides an adequate assessment for psychotherapy services which is sensitive to change. HoNOS ratings from 1,688 patients from 8 out-patient psychotherapy services were collected. Of these, 362 also had ratings

posttreatment. Mean scores, pre- to posttreatment differences, and reliable and clinically significant change criteria were calculated for HoNOS items and for total scores. The mean total HoNOS rating was 8.93, which is comparable to psychiatric out-patients. Only 3 items showed sufficient variability to use in assessing pre- to post-treatment change. Significant limitations were found in rating items that commonly present to psychotherapists. The lack of variability in most items limits HoNOS's usefulness in this population. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

6. Batla A, Bhatia KP, Fisher L, Joyce EM, Price G, Edwards MJ. **Outcome after inpatient rehabilitation for patients with functional movement disorders.** *Movement Disorders* 2013;28:S426.

Record no: 49

Abstract: Objective: We aimed to assess outcomes of an inpatient rehabilitation program for patients with severe FMD. Background: Functional movement disorders (FMD) can be difficult to treat, and multidisciplinary rehabilitation is suggested for those with severe symptoms, but evidence in support of such treatment is limited. We aimed to assess outcomes and responsiveness of measurement tools in FMD patients attending a 4 week multidisciplinary inpatient program for FMD. Methods: Consecutive patients with FMD admitted for in-patient multidisciplinary rehabilitation therapy to a specialised neuropsychiatric unit at the National Hospital for Neurology and Neurosurgery were included. patients were asked to complete questionnaires at admission and discharge. The questionnaires included Health of the Nation outcome scale (HoNOS), hospital anxiety and depression score (HADS), Illness perception questionnaire (IPQ-R), Patient health questionnaire 15 (PHQ15), and work and social adjustment scale (WSA). Clinical global impression (CGI) recorded as "How is your health now compared to when you first attended?" at discharge was used to identify response. Results: 18 patients were included (14 females). Mean age 44.6 (SD 14.7) The phenotype of movement disorders included Tremor (33.3%), Gait disturbance (33.3%), dystonia (16.7%), myoclonus (5.6%), Chorea(5.6%) and mixed movement disorder(5.6%). There were 12 responders (66.7%). 4 patients had no change and 2 rated themselves as worse after the rehabilitation program. The overall CGI change was significantly better from admission to discharge ($p = 0.002$). HoNOS score was most responsive to the CGI outcome and changed from admission to discharge significantly ($p < 0.001$). There was no significant change observed on HADS, IPQ, PHQ15 and WSA scores. Conclusions: Inpatient rehabilitation can help patients with FMD with 2/3rd patients reporting benefit at discharge. This improvement was captured by the HoNOS, but not by the other scales used to assess patients. Long-term follow up and a further validation of the reliability and responsiveness of these tools in FMD is ongoing. (Table presented).

7. Bebbington P, Brugha T, Hill T, Marsden L, Window S. **Validation of the Health of the Nation Outcome Scales.** *The British Journal of Psychiatry* 1999;174:389-394.

Record no: 50

Abstract: The Health of the Nation Outcome Scales (HoNOS) were developed to assess the outcome of severe mental disorders in relation to the Health of the Nation Strategy for England. The purpose of this study was to validate HoNOS. 115 psychiatric patients were assessed by keyworkers using HoNOS, and by research workers using measures that included the Schedules for Clinical Assessment in Neuropsychiatry and the Social Behavior Schedule; research workers also completed HoNOS in the light of this additional

material. These assessments were repeated after 6 wks. The performance of HoNOS in the hands of keyworkers was generally poor, in relation both to the research workers' rating of HoNOS and to the criterion instruments. Performance was particularly poor when the change in scores was used as a measure of outcome. Results suggest that there are serious problems in using HoNOS as a routine measure of clinical status in busy psychiatric services. Its performance is probably related to the training and experience of keyworkers. Sequential ratings are not a good method for assessing outcome. Managers and planners should be cautious in adopting HoNOS, but it is worthy of consideration in developing a set of locally agreed upon outcome measures. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

8. Berk M, Ng F, Dodd S, Callaly T, Campbell S, Bernardo M, et al. **The validity of the CGI severity and improvement scales as measures of clinical effectiveness suitable for routine clinical use.** Journal of Evaluation in Clinical Practice 2008;14(6):979-983.

Record no: 54

Abstract: Objective: The Clinical Global Impression Scale (CGI) is established as a core metric in psychiatric research. This study aims to test the validity of CGI as a clinical outcome measure suitable for routine use in a private inpatient setting. Methods: The CGI was added to a standard battery of routine outcome measures in a private psychiatric hospital. Data were collected on consecutive admissions over a period of 24 months, which included clinical diagnosis, demographics, service utilization and four routine measures (CGI, HoNOS, MHQ-14 and DASS-21) at both admission and discharge. Descriptive and comparative data analyses were performed. Results: Of 786 admissions in total, there were 624 and 614 CGI-S ratings completed at the point of admission and discharge, respectively, and 610 completed CGI-I ratings. The admission and discharge CGI-S scores were correlated ($r = 0.40$), and the indirect improvement measures obtained from their differences were highly correlated with the direct CGI-I scores ($r = 0.71$). The CGI results reflected similar trends seen in the other three outcome measures. Conclusions: The CGI is a valid clinical outcome measure suitable for routine use in an inpatient setting. It offers a number of advantages, including its established utility in psychiatric research, sensitivity to change, quick and simple administration, utility across diagnostic groupings, and reliability in the hands of skilled clinicians. 2008 The Authors.

9. Bradley GM, Couchman GM, Perlesz A, Nguyen AT, Singh B, Riess C. **Multiple-family group treatment for English- and Vietnamese-speaking families living with schizophrenia.** Psychiatric services (Washington, DC) 2006;57(4):521-530.

Record no: 5

Abstract: OBJECTIVE: This study, which was the first evaluation in Australia of multiple-family group treatment, explored the effectiveness of this approach for a newly arrived non-English speaking migrant group, first-generation Vietnamese families, and for English-speaking families. METHODS: Thirty-four pairs of English-speaking consumers and family members and 25 Vietnamese-speaking pairs were randomly assigned to a multiple-family group or a control group. All consumers had a diagnosis of schizophrenia. The multiple-family group intervention (26 sessions over 12 months) was delivered as an adjunct to case management services, which all consumers received. Outcomes, which were measured immediately after treatment and 18 months later, included the number of relapse episodes; the presence and severity of symptoms, as measured by the Brief Psychiatric

Rating Scale (BPRS) and the Scale for the Assessment of Negative Symptoms; and social functioning, as measured by the Family Burden Scale, the Health of the Nation Outcome Scale, and the Quality of Life Scale. RESULTS: Relapse rates immediately after treatment were significantly lower for the multiple-family group than for the control group (12 and 36 percent), and relapse rates were also lower during the follow-up period (25 and 63 percent). BPRS ratings were significantly lower for participants in the multiple-family group, and vocational outcomes also improved. The reductions in relapse and symptoms were similar for the English-speaking and the Vietnamese-speaking family groups; sample size precluded statistical analysis of differences. CONCLUSIONS: Multiple-family group treatment is an effective cognitive-behavioral intervention in the treatment of schizophrenia. The findings suggest continued application of and research on family interventions for non-English speaking migrant populations.

10. Brann P, Alexander M, Coombs T. **Routine outcome measurement in youth mental health: A comparison of two clinician rated measures, HoNOSCA and HoNOS.** Psychiatry Research 2012;200(2-3):884-889.

Record no: 57

Abstract: Mental health services engagement in routine outcome measurement has created a demand for a coherent infrastructure. Two clinician instruments for adolescents (HoNOSCA) and adults (HONOS) are used across many countries. However, the increasing emphasis on youth suggests protocols with historically driven age divisions may obscure outcomes. The current study examines these instruments' congruence with regard to youth mental health. Members of national mental health expert panels rated four vignettes before discussing perceived strengths and weaknesses. The instruments were strongly correlated and HoNOSCA resulted in more severe symptom scores. Most subscales and scales correlated as predicted with some important exceptions. 'Problems with family relationships', tracked by HoNOSCA, did not correlate with its HoNOS counterpart. Qualitative feedback indicated using the HoNOSCA scale 'School attendance' for vocational attendance would improve its applicability to young people. The instruments have a strong relationship. While either could be used, HoNOS will underestimate symptom severity in youth. The importance of family relationships for young people suggests that HoNOSCA is preferable. While sited in the Australian context, these findings should be applicable to other countries using these instruments, and should interest services considering the continuity of youth presentations and their outcomes. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

11. Brooks R. **The reliability and validity of the Health of the Nation Outcome Scales: Validation in relation to patient derived measures.** Australian and New Zealand Journal of Psychiatry 2000;34(3):504-511.

Record no: 62

Abstract: Objective: The Health of Nation Outcome Scales (HoNOS) was developed to assess mental health outcomes. The aim of the studies is to examine the psychometric properties, reliability and validity of the HoNOS. Method: Three studies were conducted within St John of God Hospitals in New South Wales, Australia. They examined the reliability and the validity of the HoNOS. The first study examined the interrater reliability of the HoNOS, before and after staff training in the use of the HoNOS. The second study examined the validity of the HoNOS with the Symptom Checklist 90 Revised (SCL90-R) and the third study examined the validity of the HoNOS with the

Short-Form 36 (SF-36). Results: The first study showed an improvement in the interrater reliability (IRR) of the HoNOS due to training. However, a generally unsatisfactory IRR (range 0.50-0.65) was achieved. The second study found no correlation between the SCL90-R and the HoNOS on admission ($r = 0.04$) and discharge ($r = 0.06$). The third study found no significant correlation between the Mental Component Score of the SF-36 and the HoNOS on admission ($r = -0.033$) nor on discharge ($r = -0.104$). Conclusions: The HoNOS has at best moderate interrater reliabilities. Further, the validity of the HoNOS is under question, that is, it does not correlate with a major measure of mental health symptoms, nor with a major measure of health status. As such, it is concluded that the psychometric properties of the HoNOS do not warrant its use as a routine measure.

12. Browne S, Doran M, McGauran S. **Health of the Nation Outcome Scales (HoNOS): Use in an Irish psychiatric outpatient population.** Irish Journal of Psychological Medicine 2000;17(1):17-19.

Record no: 63

Abstract: Objectives: To evaluate the clinical utility and validity of the Health of the Nation Outcome Scales (HoNOS) in an Irish catchment area psychiatric service. Method: One hundred consecutive outpatients were assessed using the HoNOS and Global Assessment of Functioning (GAF) scales. Results: It was feasible to administer HoNOS in day-to-day clinical practice. There was a statistically significant correlation between the HoNOS and GAF scores. Attenders at the outpatient department had significantly lower HoNOS scores compared to individuals assessed on domiciliary visits or at the day hospital. Individuals with schizophrenia had significantly higher HoNOS scores compared to affective disordered patients. However, this difference was confined to the Social subscale of HoNOS. Conclusions: Although these findings indicate that HoNOS has significant convergent and criterion validity as a measure of psychiatric morbidity, its widespread use in day-to-day clinical practice may be premature.

13. Burgess P, Trauer T, Coombs T, McKay R, Pirkis J. **What does 'clinical significance' mean in the context of the Health of the Nation Outcome Scales?** Australasian Psychiatry 2009;17(2):141-148.

Record no: 64

Abstract: Objective: The aim of this paper was to improve understanding of what 'clinical significance' means in relation to the Health of the Nation Outcome Scales (HoNOS) and its older persons and child/adolescent equivalents (the HoNOS65+ and HoNOSCA). Method: An anonymous, web-based survey was completed by 94 outcome measurement experts, most of whom had clinical responsibilities. Respondents were asked to indicate for acute inpatient and ambulatory settings: the rating on each item which represented a clinically significant problem; the relative importance of each item in determining overall clinical severity; and the items which would not be expected to improve between admission and review, admission and discharge, review and review, and review and discharge. Results: A score of 2 ('mild problem but definitely present') on each HoNOS/HoNOS65+/HoNOSCA item resonates with experts as being evidence of a clinically significant problem that requires active monitoring or intervention. In the main, all items on these instruments are viewed as equally important in making an overall judgement of clinical severity. The items making up the impairment and, to a lesser extent, social subscales are least likely to demonstrate change during the course of an episode of care, according to expert opinion. Generally, these findings apply across instruments and service settings. Conclusions: Overall, the findings provide support for the

content validity and clinical utility of the HoNOS/HoNOS65 +/-HoNOSCA. Further exploration of the question of clinical significance as reflected in these instruments could take a number of forms.

14. Chaplin R, Perkins R. **HoNOS: A cautionary tale of their use in a rehabilitation service.** *Psychiatric Bulletin* 1999;23(1):20-21.
Record no: 70
Abstract: Aims and method. Health of the Nation Outcome Scales (HoNOS) were piloted in 248 patients with serious persistent mental health problems. Staff were trained by a cascade approach and rated patient outcome after six months. Results. There was poor interrater reliability between nurses and psychiatrists/psychologists. Outcome measured by HoNOS often contrasted with clinical experience. Clinical implications. HoNOS were not a reliable or valid measure of outcome. The scales are now completed only under supervision.
15. Cheah VC, Parker G, Hadzi-Pavlovic D, Gladstone G, Eyers K. **Development of a measure profiling problems and needs of psychiatric patients in the community.** *Social Psychiatry and Psychiatric Epidemiology* 1998;33(7):337-344.
Record no: 71
Abstract: We argue the advantages of a measure profiling common problems faced by psychiatric patients in the community and indicating a likely need for service recognition, review and possible assistance. We describe the development of such a measure, the 35-item Profile of Community Psychiatry Clients (PCPC), and the identification of four relevant domains. Component scales assess coping limitations, behavioural problems, levels of social support and organic problems. High test-retest reliability was established, and a number of tests of the measure's validity were undertaken. Discriminant validity was established by demonstrating that those case managed by a community mental health service returned significantly higher scale scores than a comparison group who, while having a similar diagnostic profile, were not case managed. Additionally, scale scores were associated with a number of categorical and dimensional validators reflecting aspects of service need, and distinctly with service costs. We demonstrate that PCPC scores correspond with scores generated by the Life Skills Profile (LSP), a measure of disability, and examine the extent to which PCPC scales correspond to those contained in the Health of the Nation Outcome Scales (HoNOS). We argue for the scale's capacity to provide both a profile of central problems faced by patients and their likely need for community-based service assistance.
16. Cheah YC, Parker G, Roy K. **Evaluation and validation of a measure profiling needs and problems of psychiatric patients in the community: A Malaysian study.** *Social Psychiatry and Psychiatric Epidemiology* 2000;35(4):170-176.
Record no: 72
Abstract: Background: The Profile of Community Psychiatry Clients (PCPC) was developed in a Sydney-based sample of those with a mental illness as a 35- item measure of likely need for Service recognition, review and possible assistance. Methods: This study has three principal objectives. Firstly, to test the utility of the PCPC measure in a very different region and culture. Secondly, to review the factor structure in an independent sample. Thirdly, to pursue the extent to which the PCPC might serve as a measure of likely need, by obtaining three differing reference viewpoints of need (i.e. clients, their carers, and case managers) and examining responses against PCPC

scores. The PCPC was given to a sample of 333 Malaysian clients living in the community, together with two other measures of morbidity and disability. In addition, case managers, family members and clients were requested to directly rate the level of need for service assistance. Results: A principal components analysis favoured a six-factor solution, with PCPC factor scores and total scores intercorrelated with subscale and total scores on the Life Skills Profile (LSP) and Health of the Nation Outcome Scales (HoNOS). The correlation coefficients supported the concurrent validity of the derived PCPC scales. Family members rated the clients' needs as greater than did case managers who, in turn, rated severity of needs greater than the clients themselves. Most importantly, PCPC scores correlated more highly than did LSP and HoNOS scores with need estimates derived by all three rating groups, providing strong support for the PCPC meeting its objective as a measure of putative need. In addition, a refined 23-item version of the PCPC was derived, which retained the capacity of the PCPC to correlate strongly with needs estimates. Conclusions: This Malaysian study supports the use of the PCPC in a culture where service provision and family support for those with a mental illness vary considerably from Western regions, while its validation as a measure of need for service is supported.

17. Chopra PK, Couper JW, Herrman H. **The assessment of patients with long-term psychotic disorders: Application of the WHO Disability Assessment Schedule II.** Australian and New Zealand Journal of Psychiatry 2004;38(9):753-759.

Record no: 73

Abstract: Objectives: To evaluate the use of the World Health Organization Disability Assessment Schedule II (WHODAS II), a patient questionnaire measuring disability, in patients treated for long-term psychotic disorders. Method: The study was conducted at St. Vincent's Mental Health Service, Melbourne, Australia. Twenty patients with long-term psychotic disorders under the care of either the residential Community Care Unit or the outpatient Mobile Support and Treatment Service were selected. For all 20 patients a clinician assessment of disability and functional status was recorded using the International Classification of Impairments, Disabilities and Handicaps-2 (ICIDH-2), Life Skills Profile (LSP) and Health of the Nation Outcome Scale (HoNOS). The WHODAS II survey was then administered to each patient. The WHODAS II was re-administered by a second rater within 5 days of the initial assessment for the purpose of test-retest reliability analysis. Each patient also completed the WHO Quality of Life instrument (brief version) (WHOQOL-BREF), a self-report questionnaire on quality of life. Results: The WHODAS II was experienced as relatively complex and at times difficult to administer with full co-operation in this clinical context. Overall, test-retest reliability was fair. The information it yielded gave valuable insights into patients' experiences. Most of the participants reported fewer impairments in mental functions and fewer activity limitations than reported by clinicians. However, patients reported significant restrictions in participation in social activities and limitations due to environmental barriers. The WHOQOL-BREF highlighted difficulties experienced by patients in their participation in society, through exploring difficulties and satisfaction with various aspects of life experience and this instrument was well accepted. Conclusions: The self-reported experience of patients is needed alongside clinician-rated measures to assess outcomes in people with long-term psychotic disorders. The WHODAS II records and measures patients' own experiences of disability. It may be used together with the WHOQOL-BREF, a distinct and complementary self-report assessment of quality of life.

18. Davies GR. **The Psychiatric Impairment Rating Scale: Is it a valid measure?** Australian Psychologist 2008;43(3):205-212.

Record no: 74

Abstract: The Psychiatric Impairment Rating Scale (PIRS) was introduced as part of the Workcover legislation in NSW and has since been adopted in other States. There has been significant criticism of its validity and structure, but no supporting research. This study was undertaken to examine the validity of the use of the PIRS to assess psychiatric impairment. This study assesses the concurrent validity of the PIRS by comparing it with the Comcare and Social Security scales and the Health of the Nation Outcome Scale, together with two self-report measures. It also examines the relationship between the PIRS subscales. A high level of ordinal concordance was demonstrated between all scales although the ratings obtained had major systematic variations between scales in both level and distribution. The scoring technique in the PIRS transforms normally distributed scores to a skewed distribution with a preponderance of low scores. The PIRS is a valid scale for ordering the severity of psychological disability but it measures disability rather than impairment. The form of scoring does not provide a proportionate or statistically meaningful measure. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

19. Delaffon V, Anwar Z, Noushad F, Ahmed AS, Brugha TS. **Use of health of the nation outcome scales in psychiatry.** Advances in Psychiatric Treatment 2012;18(3):173-179.

Record no: 76

Abstract: Routine outcome measures are essential to chart individual patient progress and evaluate models of service provision. The Health of the Nation Outcome Scales (HoNOS) were commissioned by the Royal College of Psychiatrists as a simple, brief measure for this purpose. It is one of the most widely used outcome measures in mental health services globally and has been translated into at least seven languages. Its use has broadened beyond its original purpose and in several countries collection of HoNOS data is mandatory. We review 585 potential articles to chart the development and evolution of HoNOS, as well as its psychometric properties, qualitative attributes and uses in clinical practice and research. The potential barriers to implementation of HoNOS on a wide scale are considered and its future role in evaluating effectiveness and benchmarking of services are discussed.

20. Duke B. **HoNOS in the consultation liaison psychiatry setting: Is it valid?** Australasian Psychiatry 2010;18(6):547-550.

Record no: 80

Abstract: Objective: The aim of this paper was to assess whether the Health of the Nation Outcome Scales (HoNOS) is a valid outcome measure in the consultation liaison psychiatry (CL) setting. Methods: Statistical analysis was performed on 6 months of HoNOS data from a busy metropolitan CL service. Results: There were statistical differences between the HoNOS scores of groups referred for different types of mental health follow up, but also wide ranges within, and substantial overlap between, each of these groups. HoNOS item analysis demonstrated significant contributions to changes in HoNOS scores across multiple items. Conclusions: Although the HoNOS appears to have validity as a measure of severity of mental illness in the CL setting at a population level, concerns can be raised about its usefulness as a measure of change in the severity of mental illness in this setting. 2010 The Royal Australian and New Zealand College of Psychiatrists.

21. Eagar K, Trauer T, Mellso G. **Performance of routine outcome measures in adult mental health care.** The Australian and New Zealand journal of psychiatry 2005;39(8):713-718.

Record no: 81

Abstract: OBJECTIVE: To examine the performance of two widely used outcome measures in public adult mental health services. METHOD: As part of a larger study, clinical staff in eight New Zealand District Health Board areas collected consumer outcomes data for a period of 6 months. Among other measures, the Health of the Nation Outcome Scales (HoNOS) and Life Skills Profile (LSP-16) were completed at the start and end of episodes of care, as well as at 90-day reviews. RESULTS: The performance of these two measures was examined in relation to compliance with the data collection protocol, item completion rates, certain psychometric properties, the relationship between them and the relationship of each instrument to the age, sex, principal psychiatric diagnosis and legal status of the consumer. Compliance with the HoNOS was superior to the LSP-16, but the reverse was true for completion. The two instruments were strongly correlated, but not enough to suggest that one may substitute for the other. A five-subscale structure for the HoNOS was supported. Certain HoNOS subscales were associated with age, but the total score was not, and differences between the sexes were small. Some large diagnostic differences were observed on both instruments. All LSP-16 summary scores and all HoNOS summary scores apart from Depression were higher (worse) in involuntary episodes. Only one LSP-16 item, relating to work potential, was related to age and men generally scored higher (worse) than women. CONCLUSION: From a technical perspective, the HoNOS and LSP-16 appear suitable for routine collection. New Zealand has adopted the HoNOS for routine use but not the LSP-16 because of local concerns about its appropriateness and acceptability. The clinician-rated measures reported here need to be complemented by both consumer-rated and family/carer measures.

22. Ecob C, Croudace TJ, White IR, Evans JE, Harrison GL, Sharp D, et al. **Multilevel investigation of variation in HoNOS ratings by mental health professionals: A naturalistic study of consecutive referrals.** International Journal of Methods in Psychiatric Research 2004;13(3):152-164.

Record no: 82

Abstract: Episodes of mental healthcare in specialist psychiatric services often begin with the assessment of clinical and psychosocial needs of patients by healthcare professionals. Particularly for patients with complex needs or severe problems, ratings of clinical and social functioning at the start of each episode of care may serve as a baseline against which subsequent measures can be compared. Currently, little is known about service variations in such assessments on referrals from primary care. We set out to quantify variability in initial assessments performed by healthcare professionals in three CMHTs in Bristol (UK) using the Health of the Nation Outcome Scales (HoNOS). We tested the hypothesis that variations in HoNOS total and sub-scale scores are related to referral source (general practices), healthcare assessor (in CMHTs) and the assessor's professional group. Statistical analysis was performed using multilevel variance components models with cross-classified random effects. We found that variation due to assessor substantially exceeded that due to referral source (general practices). Furthermore, patient variance differed by assessor profession for the HoNOS - Impairment scores. Assessor variance differed by assessor profession for the HoNOS - Social scores. As HoNOS total and subscale scores show much larger variation by assessor than by referral source, investigations of HoNOS scores must take assessors

into account. Services should implement and evaluate interdisciplinary training to improve consistency in use of rating thresholds; such initiatives could be evaluated using these extensions of multilevel models. Future research should aim to integrate routine diagnostic data with continuous outcomes to address selection effects (of patients to assessors) better.

23. Gilbert MM, Chamberlain JA, White CR, Mayers PW, Pawsey B, Liew D, et al. **Controlled clinical trial of a self-management program for people with mental illness in an adult mental health service - the Optimal Health Program (OHP)**. Australian health review 2012;36(1):1-7.

Record no: 9

Abstract: OBJECTIVE: The objective of this study was to evaluate the effect and cost-effectiveness of a self-management intervention, delivered as part of routine care in an adult mental health service. METHOD: In a community mental health setting, routine care was compared with routine care plus a nine-session intervention (the Optimal Health Program) using a non-randomised controlled design. Adult (18-65 years) consumers of mental health services in the Australian Capital Territory were eligible for participation. RESULTS: The Optimal Health Program was associated with significant improvements in health and social functioning as measured by the Health of the Nation Outcome Scale (average change relative to control: -3.17; 95% CI -4.49 to -1.84; P<0.001). In addition, there was a reduction in hospital admissions in the treatment group (percentage of time in hospital reduced from 3.20 to 0.82; P=0.07). This translated into a net cost saving of over AU\$6000 per participant per year (uncertainty range AU\$744 to AU\$12656). CONCLUSIONS: This study shows promising results for incorporating a self-management program into routine care to improve the health and social functioning of mental health consumers in a cost-effective manner.

24. Goldney RD, Fisher LJ, Walmsley SH. **The Health of the Nation Outcome Scales in psychiatric hospitalisation: a multicentre study examining outcome and prediction of length of stay**. Australian & New Zealand Journal of Psychiatry 1998;32(2):199-205.

Record no: 94

Abstract: OBJECTIVE: The Health of the Nation Outcome Scales (HoNOS) is a reliable instrument, useful in detecting change in symptoms and functioning during psychiatric hospitalisation. The present study examines its utility in predicting length of stay of patients in six private psychiatric hospitals in four Australian States.

METHOD: The HoNOS was administered on admission and discharge in six private psychiatric hospitals in Australia.

RESULTS: There were significant differences in total score and in all sub-scales between admission and discharge. There were no significant associations between total HoNOS scores and length of stay, either for individual hospitals or for specific diagnosis-related groups. There were only very weak associations, of doubtful practical clinical significance, between length of stay of all patients and individual HoNOS sub-scales.

CONCLUSION: While the HoNOS is of some value in providing a readily administered and understood measure for clinicians, on the basis of these findings it is unlikely to be of utility in predicting length of stay or in offering a 'gate-keeping' service in decision-making in regard to the allocation of resources for individual patients.

25. Hansen L, Kingdon D. **Rating suicidality in schizophrenia: Items on global scales (HoNOS and CPRS) correlate with a validated**

suicidality rating scale (InterSePT). Archives of Suicide Research 2006;10(3):249-252.

Record no: 104

Abstract: The use of general scales such as the Health of the Nation Outcome Scale (HoNOS) and the Comprehensive Psychopathological Rating Scale (CPRS) are widespread. Both scales contain non-validated items on suicidality. This study aimed to establish whether an association between these suicidality items and the validated scale, InterSePT exists. Forty patients with a diagnosis of schizophrenia or schizo-affective disorder were assessed using the three scales. A highly significant association between the two items and the validated scale was found. The suicidality items from HoNOS and CPRS appear to be strong indicators of suicidality in this patient population. The findings allow for use of the suicidality items in clinical assessments and re-investigation of suicidality of other studies where these general rating scales have been used.

26. Happell B, Sundram S, Wortans J, Johnstone H, Ryan R, Lakshmana R. **Assessing nurse-initiated care in a mental health crisis assessment and treatment team in Australia.** Psychiatric services (Washington, DC) 2009;60(11):1527-1531.

Record no: 13

Abstract: OBJECTIVE: This pilot study in a specialist mental health crisis assessment and treatment setting compared patients' outcomes and level of satisfaction in nurse-initiated care and in treatment as usual. METHODS: Initially, the nurse's decision making in 51 cases was evaluated and rated by a psychiatrist (February 2005 to May 2005). A quasi-experimental design was then used to compare nurse-initiated care (experimental group) with treatment as usual (control group) in terms of consumer and caregiver satisfaction and outcome. A total of 103 clients of a mental health crisis assessment and treatment team were randomly assigned to the two groups. Differences were determined by comparing the Health of the Nation Outcomes Scale (HoNOS) scores and consumer and caregiver satisfaction surveys. Data were collected over a 12-month period (September 2005 to September 2006). The nurse who initiated treatment in the experimental group was a nurse practitioner candidate, meaning that the nurse had not yet completed the requirements to be endorsed as a nurse practitioner but was operating as a nurse practitioner but under the direct supervision of a consultant psychiatrist. RESULTS: There were no significant differences between nurse-initiated care and treatment as usual in terms of HoNOS scores or consumer and caregiver satisfaction. This was not due to clinical or demographic differences between the two groups nor to an inadequate sample size. Overall, the nurse was found to follow best or acceptable clinical practices. CONCLUSIONS: The findings indicate that the nurse practitioner role can potentially initiate safe and effective mental health care and treatment that is as satisfying as that initiated by a physician. Additional, larger-scale research is required to determine the generalizability of these findings.

27. Hooke GR, Page AC. **Predicting outcomes of group cognitive behavior therapy for patients with affective and neurotic disorders.** Behavior Modification 2002;26(5):648-659.

Record no: 113

Abstract: An attempt was made to predict outcomes following group Cognitive Behavior Therapy (CBT) for patients with affective and neurotic disorders. A group of 348 patients at a private psychiatric clinic, treated in a group CBT program, completed the Depression, Anxiety, and Stress Scale (DASS) before

and after treatment. Prior to treatment, data from the Locus of Control of Behavior (LCB), a Global Assessment of Function (GAF), the Health of the Nation Outcome Scales (HoNOS), and the Rosenberg Self Esteem Scale (RSE) were also collected. Results indicated that posttreatment stress scores of all patients were predicted by pretreatment stress and self-esteem. Among patients with neurotic disorders, posttreatment anxiety was predicted by initial anxiety and self-esteem whereas among patients with affective disorders, posttreatment anxiety scores were predicted by initial anxiety and GAF. For patients with neurotic disorders, self-esteem did not predict variance in posttreatment depression in addition to that explained by pretreatment depression. In contrast, for patients with affective disorders, pretreatment depression and Locus of Control predicted posttreatment depression.

28. Hope ML, Page AC, Hooke GR. **The value of adding the Quality of Life Enjoyment and Satisfaction Questionnaire to outcome assessments of psychiatric inpatients with mood and affective disorders.** *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care & Rehabilitation* 2009;18(5):647-655.

Record no: 114

Abstract: Purpose: In the domain of mental health outcomes, increasing interest has been shown in complementing traditional symptom measures with measures of a patient's quality of life. The objective of this study was to evaluate the value of including the Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q) in the routine assessment battery used at a psychiatric hospital. Methods: The sample consisted of 1,276 consecutive inpatients treated at a private psychiatric hospital over a two-year period. Admission and discharge data were collected for the Q-LES-Q, the mental health subscales of the Medical Outcomes Short Form Questionnaire (SF-36), the Depression Anxiety Stress Scales, and the Health of the Nation Outcome Scale. Results: Large patient improvements from admission to discharge were seen across all instruments (effect sizes from 0.8 to 1.5), including the Q-LES-Q (effect size 1.3). The Q-LES-Q correlated with existing symptom measures, and regression analyses revealed that quality of life predicted length of hospital stay even after symptoms of depression and anxiety were taken into account. Conclusions: Although the Q-LES-Q was correlated with symptom measures already in use, it added to the ability to predict patient length of stay, and showed some divergence from measures of clinical outcomes. This pattern was seen despite intentionally restricting the sample to patients with mood and affective disorder diagnoses. The value of considering quality of life in a comprehensive assessment of mental health outcomes is discussed. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

29. Hunter R, McLean J, Peck D, Pullen I, Greenfield A, McArthur W, et al. **The Scottish 700 outcomes study: A comparative evaluation of the Health of the Nation Outcome Scale (HoNOS), the Avon Mental Health Measure (AVON), and an Idiographic Scale (OPUS) in adult mental health.** *Journal of Mental Health* 2004;13(1):93-105.

Record no: 116

Abstract: Background: Although many outcome measures are available, there is little empirical evidence to help clinicians to decide which to adopt in clinical, as opposed to research settings. Aims: To assess the content validity and levels of agreement between professionals and service users of three approaches to outcome measurement - a standard measure devised by mental health professionals (Health of the Nation Outcome Scale, HoNOS), a

standard measure devised by service users and health professionals in partnership (the Avon Mental Health Measure, AVON), and an idiographic scale the Outcome of Problems of Users of Services (OPUS). Method: The three measures were completed by nearly 700 predominantly long-term users of mental health services, and by their key worker clinicians. All major psychiatric diagnoses were represented in the cohort. A small sub-sample had repeat testing after 3 months to assess sensitivity to change of the three measures. Results: Agreement between the three measures was low. Avon was more likely to detect problems, and to produce agreement between service users and key-workers, than HoNOS. Both omit key problem areas elicited using OPUS. All measures were sensitive to change. Conclusion: The Avon detects problems that service users judge to be important. Declaration of interest: The current study was funded wholly by the Chief Scientist Office of the Scottish Executive; RH has in the past been in receipt of educational support from a number of pharmaceutical companies.

30. Kelly C, Sharkey V, Morrison G, Allardyce J, McCreadie RG. **Nithsdale schizophrenia surveys 20: Cognitive function in a catchment-area-based population of patients with schizophrenia.** British Journal of Psychiatry 2000;177(OCT.):348-353.

Record no: 121

Abstract: Background: Cognitive deficits are a core aspect of schizophrenia but there has been no study of cognitive function in a catchment-area-based population of patients with schizophrenia. Aims: To assess cognitive function in a population of patients with schizophrenia, and relate it to community functioning. Method: All patients with schizophrenia in Nithsdale, south-west Scotland, were identified (n=182). Measures of assessment were: National Adult Reading Test (NART), Mini-Mental State Examination (MMSE), Rivermead Behavioural Memory Test (RBMT), Executive Interview (EXIT), FAS Verbal Fluency and Health of the Nation Outcome Scales (HoNOS). Results: We assessed 138 patients, mean age 48 years (standard deviation (s.d.) 15). Only 14% were in-patients. The mean premorbid IQ as assessed by NART was 98 (s.d. 14); 15% of patients had significant global cognitive impairment (MMSE); 81% had impaired memory (RBMT); 25% had executive dyscontrol (EXIT); and 49% had impaired verbal fluency (FAS). Scores on the functional impairment sub-scale of HoNOS correlated with all measures of cognitive impairment. Conclusions: Cognitive dysfunction is pervasive in a community-based population of patients with schizophrenia. Declaration of interest: None.

31. Kennedy C, Yellowlees P. **The effectiveness of telepsychiatry measured using the Health of the Nation Outcome Scale and the Mental Health Inventory.** Journal of telemedicine and telecare 2003;9(1):12-16.

Record no: 123

Abstract: In a telepsychiatry project in rural Queensland, data were collected from 124 patients attending hospital and general practice facilities for mental health-care and then again at follow-up one year later. Thirty-two of the patients were dealt with using telepsychiatry. Two health status scales were used to measure effectiveness: the Health of the Nation Outcome Scale (HoNOS), administered by the practitioners; and the Mental Health Inventory (MHI), which was self-administered by the patients. There was a significant difference between the initial assessment and follow-up groups on most subscales of the HoNOS, but no significant difference between the face-to-face and telepsychiatry groups. Similarly, the MHI results showed a significant difference on all subscales between the initial assessment and follow-up groups, but no significant difference between the face-to-face and

telepsychiatry groups. Individuals who used and did not use telepsychiatry all had improved health outcome scores on the HoNOS and MHI during the study period. Telepsychiatry was as effective as face-to-face care.

32. Kisely S, Campbell LA, Cartwright J, Cox M, Campbell J. **Do the health of the nation outcome scales measure outcome?** Canadian Journal of Psychiatry 2010;55(7):431-439.
Record no: 125
Abstract: Objective: Among mental health outcome measures that have been developed for routine use, most of the information concerns the Health of the Nation Outcome Scales (HoNOS). This instrument is widely used in Europe, Australia, and New Zealand, but not in Canada. We tested its sensitivity and predictive validity under conditions that would resemble, as closely as possible, routine use. Method: Treating clinicians were asked to assess patients of all ages referred to outpatient mental health facilities of 2 district health authorities in Nova Scotia using either the HoNOS for adults or the HoNOS for Children and Adolescents (HoNOSCA). Data were entered using the existing routine administrative data system. Results: We obtained at least 1 rating on 4620 patients, giving a completion rate of 82%. On follow-up, ratings for the global score and most of the individual items were sensitive to change (n = 808). After adjusting for confounders, a baseline HoNOS score was significantly associated with subsequent in and outpatient service use including admissions, bed days, and psychiatric contacts (n = 1359). Conclusions: HoNOS has satisfactory sensitivity and predictive validity for routine use. We could introduce the adult version and HoNOSCA simultaneously and collect data using routine databases. Given the widespread routine use of HoNOS internationally, using the same outcome measure in Canada would enable comparisons of illness severity and outcomes between jurisdictions.
33. Kisely S, Campbell LA, Crossman D, Gleich S, Campbell J. **Are the Health of the Nation Outcome Scales a valid and practical instrument to measure outcomes in North America? A three-site evaluation across Nova Scotia.** Community Mental Health Journal 2007;43(2):91-107.
Record no: 126
Abstract: We tested the usability, sensitivity and validity of the Health of the Nation Outcome Scales (HoNOS) in routine clinical practice in North America. Three pilot sites provided ratings on all inpatient and outpatient referrals over 4 months using versions covering children and adolescents (HoNOSCA), working-age adults and the over-65s. Data were entered using the routine administrative data system. Sixty-one percent of eligible patients had at least one HoNOS rating (n = 485). Following the initial rating, subsequent completion rates reached 80%. Ratings were sensitive to time and setting, with significantly higher scores in inpatients than outpatients. Individual diagnoses had different patterns of scores, further supporting validity. 2006 Springer Science+Business Media, Inc.
34. Kisely S, Xiao J, Crowe E, Paydar A, Jian L. **The effect of community treatment orders on outcome as assessed by the Health of the Nation Outcome Scales.** Psychiatry Research 2014;215(3):574-578.
Record no: 127
Abstract: Many studies of outpatient commitment have assessed effects on health service use rather than psychiatric symptomatology. We examined whether patients on one form of outpatient commitment, community treatment orders (CTOs), had better outcomes on the Health of the Nation

Outcome Scales (HoNOS). Cases and controls from three linked Western Australian databases were matched on age, sex, diagnosis and time of hospital discharge. These databases cover the entire state (population = 2.3 million). We compared HoNOS scores of CTO cases and controls at baseline, six-, and twelve-month follow-up, using multivariate analyses to further control for confounders. We identified 1296 CTO cases between 2004 and 2009 along with the same number of controls matched on age, sex, discharge date and mental health diagnosis (total n = 2592). HoNOS scores were available for 1433 (55%) of the patients who could have had these recorded at baseline (748 CTO cases and 685 controls). There was no significant difference in HoNOS scores at six- and twelve-month follow-up between CTO cases and controls after adjusting for potential confounders at each time-point. Although the study was limited by missing data, outpatient commitment in the form of CTOs may not result in better psychiatric outcomes as measured by the HoNOS. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

35. Lambert G, Caputi P, Deane FP. **Sources of information when rating the Health of the Nation Outcome Scales.** International journal of mental health nursing 2002;11(2):135-138.

Record no: 133

Abstract: Mental health nurses will play an important role in the administration of the routine outcome measures currently being implemented across Australia, including the Health of the Nation Outcome Scales (HoNOS). Prior research has implied that sources of information may be responsible in part for the mixed reliability and validity of the HoNOS. This study examines which sources of information clinicians use when making a HoNOS rating. Twenty-one mental health clinicians that had been using the HoNOS routinely for 2 years were surveyed to determine the sources of information they used when making a rating. In addition, 12 specific HoNOS ratings were reviewed to obtain data about 'actual' sources utilized. More than half of all information used when completing a HoNOS rating was obtained from interviewing the client or from direct observation of the client. The main secondary sources used included medical records and consulting with family and carers and other staff. Collateral information from general practitioners and police was used in only a small percentage of cases. There was high variability amongst clinicians with regard to how much each source was used. Training mental health workers in routine use of the HoNOS should encourage clinicians to use a range of sources of information when making a rating.

36. Lelliott P, Beevor A, Hogman G, Hyslop J, Lathlean J, Ward M. **Carers' and Users' Expectations of Services - User version (CUES-U): A new instrument to measure the experience of users of mental health services.** British Journal of Psychiatry 2001;179(JULY):67-72.

Record no: 135

Abstract: Background: No existing instrument measures all or even most of the issues considered important by users of mental health services. Aims: To develop and test a self-assessment instrument to enable users of mental health services to rate their experience across the range of domains that they consider to be important. Method: Relevant domains were identified and a new instrument was drafted and field tested to examine its psychometric properties. Results: The 17-item, self-rated Carers' and Users' Expectations of Services - User version (CUES-U) appears acceptable to most service users. Its items have reasonable test-retest reliability and a 'total CUES-U score' correlates significantly with a total score of the Health of the Nations

Outcome Scales (Spearman's $p=0.42$; $P < 0.01$). Conclusions: The development and testing of CUES-U suggest that it might be feasible to apply a self-rated measure of the expectations and experience of users of mental health services.

37. Lopez-Morinigo JD, Fernandes AC, Chang CK, Hayes RD, Broadbent M, Stewart R, et al. **Suicide completion in secondary mental healthcare: a comparison study between schizophrenia spectrum disorders and all other diagnoses.** BMC Psychiatry 2014;14(1):213.

Record no: 27

Abstract: Background Suicide completion is a tragic outcome in secondary mental healthcare. However, the extent to which demographic and clinical characteristics, suicide method and service use-related factors vary across psychiatric diagnoses remains poorly understood, particularly regarding differences between schizophrenia spectrum disorders (SSD) and all other diagnoses, which may have implications for suicide prevention in high risk groups. Methods 308 patients who died by suicide over 2007-2011 were identified from the South London and Maudsley NHS Foundation Trust Biomedical Research Centre Case Register. Demographic, clinical, services use-related factors, full risk assessment ratings and the Health of the Nation Outcome Scale (HONOS) scores were compared across psychiatric diagnoses. Specifically, differences between patients with and without SSD were investigated. Results Patients with SSD ended their lives at a younger age, were more frequently of Black ethnicity and had higher levels of social deprivation than other diagnoses. Also, these patients were more likely to have HONOS and risk assessment completed. However, patients who had no SSD scored significantly higher on self-injury and depression HONOS items and they were more likely to have the following risk assessment items: suicidal ideation, hopelessness, feeling no control of life, impulsivity and significant loss. Of note, disengagement was more common in patients with SSD, although they had been seen by the staff closer to the time of suicide than in all other diagnoses. Whilst hanging was the most common suicide method amongst patients with non-SSD, most service users with a SSD diagnosis used jumping (from heights or in front of a vehicle). Conclusions Suicide completion characteristics varied between SSD and other diagnoses in patients receiving secondary mental healthcare. In particular, although clinicians tend to more frequently recognize suicide risk as a focus of concern in patients who have SSD, who are therefore more likely to have a detailed risk assessment documented; known suicide risk factors appear to be more relevant in patients with non-SSD. Hence, the classic suicide prevention model might be of little use for SSD.

38. McClelland R, Trimble P, Fox ML, Stevenson MR, Bell B. **Validation of an outcome scale for use in adult psychiatric practice.** Quality in Health Care 2000;9(2):98-105.

Record no: 145

Abstract: Objective - To clarify the usefulness, acceptability, sensitivity, and validity of version 4 of the Health of the Nation Outcome Scale (HoNOS), a scale developed to meet the requirement for a clinically acceptable outcome scale for routine use in mental illness services. Design - Patients with a range

of mental illnesses were rated on the HoNeS at the beginning and end of an episode by interviews with mental health professionals. Subjects - 934 patients from eight diagnostic categories were rated by 129 mental health professionals at 17 sites; 250 were also rated on a range of comparison scales. Outcome measures - Comparison of patients' scores at the beginning and end of an episode using individual item scores, dimensional subscores, and the total score. Results - HoNOS scores decreased by almost 50% between the beginning and end of episodes. They varied with the severity of the setting and discriminant analysis showed that the HoNOS had a moderate level of discriminatory power. Correlation analysis showed acceptable levels of agreement with independent scales, although the accuracy of ratings of some items at the beginning of an episode was affected by information deficits. Conclusion - The findings indicate that HoNOS is sensitive to change across time and to differences in illness type and severity, and has a sufficient degree of both construct and criterion related validity to fulfil the requirements of a mental health outcome scale for routine use in clinical settings.

39. McKay R, Coombs T. **An exploration of the ability of routine outcome measurement to represent clinically meaningful information regarding individual consumers.** *Australasian Psychiatry* 2012;20(5):433-437.

Record no: 147

Abstract: OBJECTIVE: Evidence that feedback on outcome measures can improve consumer outcomes is building but clinician engagement remains inconsistent. Clinicians can interpret and utilize familiar measures but have difficulty in relating to routine outcome measures like the Health of the Nation Outcomes Scales (HoNOS). This paper aims to explore and illustrate how these measures can represent clinically meaningful information regarding individual consumers.

METHOD: Exploration of the aspects of individual clinical states and scenarios that can be represented using the HoNOS and Kessler-10 (K-10) will be used to illustrate their utility in clinical practice.

RESULTS: Routine outcome measures have the capacity to represent aspects of consumer symptoms, individual functioning and the need for support relevant to clinical care. These measures may be considered using pattern recognition and reflective practice to answer the following questions. Have we adequately assessed the consumer? Is there agreement between the consumer and clinician? Has anything changed?

CONCLUSIONS: While it may be difficult to relate to the total scores on outcome measures, information from within such measures, individual items and subscales can be presented in a manner that is clinically meaningful. Where clinicians are familiar with the measures, this ability is already being used. The challenge is to make it 'routine'.

40. McNaught M, Caputi P, Oades L, Deane F. **Testing the validity of the recovery assessment scale using an Australian sample.** *Australian and New Zealand Journal of Psychiatry* 2007;41(5):450-457.

Record no: 148

Abstract: Objective: Mental health services in Australia are increasingly becoming recovery orientated. However, there are varying meanings for recovery and few measures that specifically target recovery outcomes. The current study aimed to assess the construct and concurrent validity of a patient self-report measure, the Recovery Assessment Scale (RAS). Method: Participants were 168 individuals with severe and persistent psychiatric disability who were participants in the Australian Integrated Mental Health

Initiative (AIMhi) project. They completed self-report recovery and other mental health measures and their case workers completed the Health of the Nation Outcome Scales. Exploratory and confirmatory factor analyses were carried out to examine the factor structure of the RAS. Results: Exploratory factor analysis of the RAS produced five factors that were replicated using confirmatory techniques. Each factor has satisfactory internal reliability (Cronbach alpha range = 0.73-0.91). The factors displayed convergent validity with positive and significant correlations with other recovery measures. Concurrent validity was demonstrated with significant but lower correlations with symptoms and clinician-rated measures of psychiatric functioning. Conclusion: The factors of the RAS are consistent with the consumer literature on recovery. Correlations with other variable suggest that the RAS is measuring something different from traditional symptom or functional mental health measures. Further research is needed to clarify the extent to which the RAS is able to capture the range of recovery experiences that have been described by patients.

41. Mellso G. **Analysis of a patient database to examine the "goodness of fit" to an externalising/emotional categorical classification.** Asia-Pacific Psychiatry 2010;2 (3):A1.

Record no: 149

Abstract: Background: It has been proposed that there would be gains in the validity of the psychiatric classification system if many of the present "neurotic" or personality disorders were subsumed into two over-arching groups, externalising and emotional disorders. Aim: If diagnostic sub-categories from the first digit coding structures within ICD-10 do have clinical phenomenology commonalities aligning with the major externalising/emotional distinction, this would be further support for its potential utility. It would provide some "face validity" support to the proposed classification. Method: The distributions of the HoNOS derived information in relation to the proposed clusters of emotional disorders and extrinsic disorders and then separately to their constituent diagnostic categories, were examined. Results: Statistically significant differences in the profiles between the emotional and the extrinsic groupings are consistent with the proposed classification. The HoNOS measures of self harm, depression, and drug and alcohol consumption were the three most significant discriminators between the two groups. However, details of the profile differences within the two groups suggest further examination is required.

42. Mellso GW, Bower A, Baxendine SL. **Externalising and emotional categories, diagnostic groups and clinical profiles.** International Journal of Mental Health Systems 2010;4(20).

Record no: 150

Abstract: Background: It has been proposed that gains would be made in the validity of the psychiatric classification system if many of the present 'neurotic' or personality disorders were subsumed into two over-arching groups, externalising and emotional disorders. If diagnostic sub-categories from the first digit coding structures within ICD-10 do, in fact, share clinical phenomenology that align with the major externalising/emotional distinction, this further supports the proposal and contributes to face validity. The aim of the study was to examine the distribution of particular psychopathology within and between two proposed over-arching groupings - externalising and emotional disorders - in a clinical sample. Method: The distributions of HoNOS derived information in relation to the proposed clusters of emotional disorders and extrinsic disorders are examined. Results:

Statistically significant differences in profiles between the emotional and the externalising groupings are consistent with the proposed classification development. The HoNOS (Health of Nation Outcome Scale) measures of self harm, depression, aggression, occupational/leisure problems and drug and alcohol consumption are the five most significant discriminators between the two groups. Discussion: The details of the profile differences within the two overarching groups suggest that further examination is required. Useful work could include examination in credibly large and unselected patient populations of the factor structure demonstrated in non patient samples. Prospective comprehensive trials of the contributions the proposed classification could make to clinical decision making would also help illuminate this area. 2010 Mellsop et al; licensee BioMed Central Ltd.

43. Miller K, Walterfang M, Randhawa S, Scholes A, Mocellin R, Velakoulis D. **Validity and reliability of the Behavioural Assessment Tool for Cognition and Higher Function (BATCH) in neuropsychiatric patients.** Australian and New Zealand Journal of Psychiatry 2007;41(8):697-704.

Record no: 152

Abstract: Objective: Patients with mental health disorders frequently have difficulties with their cognitive functioning. Assessment of cognition in this population can be complicated by psychiatric symptomatology, making standard written and verbal assessment methods difficult. In these situations, observations by nursing and allied staff of patients' routine activities provide an important source of information about cognitive ability. The Behavioural Assessment Tool for Cognition and Higher Function (BATCH) was developed to record observations of patients' daily functioning under subheadings that reflect cognitive domains. Its capacity to provide a measure of cognitive function through observational means was assessed in a neuropsychiatric unit. Method: A consecutive sample of 76 adult neuropsychiatry inpatients were assessed over 6 months using BATCH. BATCH measures the frequency of given behaviours grouped under 10 functional and cognitive domains: orientation, attention/concentration, personal responsibility, volition, adaptation, problem-solving/judgement, executive function, memory, language, and visuospatial function. Data from routine standardized cognitive (Mini-Mental Status Examination, MMSE; Neuropsychiatry Unit Cognitive Screening Tool, NUCOG), psychiatric (Neuropsychiatric Inventory; Health of the Nation Outcome Scale) and functional (Bristol Activities of Daily Living Scale; Barthel Index) instruments were collected to determine the relative contribution of cognitive function to scores on the BATCH. Results: A strong correlation was found between total BATCH scores and total NUCOG and MMSE scores. BATCH and NUCOG subdomains correlated significantly in all subscales. BATCH demonstrated very high internal consistency. Linear regression analysis showed that the strongest determinant of BATCH scores was cognitive function as measured on the NUCOG. A significant subscale x group effect showed lower BATCH scores in memory, orientation, attention, executive function and language in dementia sufferers compared to psychiatric and neurological patient groups. Conclusion: BATCH scores correlated strongly with pencil-and-paper measures of cognitive function. BATCH provides clinicians with a means of assessing cognitive function through behavioural observation, thus enabling assessment of patients with behavioural disturbance or severe psychopathology. This tool has practical application for adult and aged clients across all observational mental health settings.

44. Milne D, Reichelt K, Wood E. **Implementing HoNOS: An eight stage approach**. *Clinical Psychology & Psychotherapy* 2001;8(2):106-116.

Record no: 153

Abstract: The Health of the Nation Outcome Scales (HoNOS) were developed as a brief way to quantify progress towards the national target of improving significantly the health and social functioning of mentally ill people (Wing et al., 1998). As an instrument, HoNOS was regarded as adequate for this purpose and so field testing was deemed to be the next task. However, the implementation of an outcome measure such as HoNOS under routine service conditions represents a significant implementation challenge. Therefore, we conducted an eight stage approach to implementation, with a sample of multi-disciplinary care managers from one county in the UK (N = 30). The results of shadowing and initial interviews indicated that significant barriers to implementation were insufficient staff and the high level of routine demands on staff for the completion of paperwork. These barriers outweighed the perceived boosters, including the favourable responses of colleagues and the benefits of data feedback from HoNOS. More staff, standardized training in the use of HoNOS, regular feedback and less paperwork were amongst ten suggestions for facilitating implementation. During a pilot period, staff received training, used HoNOS and were given graphical feedback of the HoNOS results. They were then re-interviewed, at which time they reported becoming fairly positive about the use of HoNOS and definitely valued the implementation approach. However, it is concluded that the routine use of HoNOS will require continued effort from staff and their managers (e.g. refresher training courses) and alternative or additional outcome measures may be necessary to provide useful clinical information. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

45. Nagel T, Robinson G, Condon J, Trauer T. **Approach to treatment of mental illness and substance dependence in remote Indigenous communities: results of a mixed methods study**. *Australian journal of rural health* 2009;17(4):174-182.

Record no: 18

Abstract: **OBJECTIVE:** To develop and evaluate a culturally adapted brief intervention for Indigenous people with chronic mental illness. **DESIGN:** A mixed methods design in which an exploratory phase of qualitative research was followed by a nested randomised controlled trial. **SETTING:** Psycho-education resources and a brief intervention, motivational care planning (MCP), were developed and tested in collaboration with aboriginal mental health workers in three remote communities in northern Australia. **PARTICIPANTS:** A total of 49 patients with mental illness and 37 carers were recruited to a randomised controlled trial that compared MCP (n = 24) with a clinical control condition (treatment as usual, n = 25). **INTERVENTION:** The early treatment group received MCP at baseline and the late treatment group received delayed treatment at six months. **MAIN OUTCOME MEASURES:** The primary outcome was mental health problem severity as measured by the health of the nation outcome scales. Secondary measures of well-being (Kessler 10), life skills, self-management and substance dependence were chosen. Outcome assessments were performed at baseline, six-month, 12-month and 18-month follow up. **RESULTS:** Random effects regression analyses showed significant advantage for the treatment condition in terms of well-being with changes in health of the nation outcome scales ($P < 0.001$) and Kessler 10 ($P = 0.001$), which were sustained over time. There was also significant advantage for treatment for alcohol dependence ($P = 0.05$), with response also evident in cannabis

dependence ($P = 0.064$) and with changes in substance dependence sustained over time. **CONCLUSIONS:** These results suggest that MCP is an effective treatment for Indigenous people with mental illness and provide insight into the experience of mental illness in remote communities.

46. Newnham EA, Harwood KE, Page AC. **Evaluating the clinical significance of responses by psychiatric inpatients to the mental health subscales of the SF-36.** *Journal of Affective Disorders* 2007;98(1-2):91-97.

Record no: 160

Abstract: Background: The Mental Health subscales of the Medical Outcomes Short Form Questionnaire (SF-36; [Ware, J.E., Snow, K.K., Kosinski, M., Gandek, B., 1993. SF-36 Health Survey: Manual and Interpretation Guide. Boston: The Health Institute, New England Medical Center]) are increasingly being used to evaluate treatment outcomes, but data to assess the clinical significance of changes are absent. The present study applied Jacobson and Truax's [Jacobson, N.S., Truax, P. 1991. Clinical significance: a statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology* 59, 12-19] criteria for clinical significance to the mental health items of the SF-36. Method: Admission and discharge data were collated from 1830 consecutive inpatients at a psychiatric hospital, using the SF-36, the Depression Anxiety Stress Scale, the Quality of Life Enjoyment and Satisfaction Questionnaire and the clinician-rated Health of the Nation Outcome Scale. Results: Appropriate improvement cut-off scores for the mental health subscales of the SF-36 are reported, and significant differences were found between outcome groups according to clinically significant improvement. Limitations: Clinical significance as a means of assessing outcome should be used with caution in inpatient settings, as further improvement is often expected upon discharge from the hospital. Conclusions: Assessing clinically significant improvement is an effective means of measuring treatment outcome in terms of quality of life and symptom improvement in psychiatric care. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

47. Newnham EA, Harwood KE, Page AC. **The subscale structure and clinical utility of the Health of the Nation Outcome Scale.** *Journal of Mental Health* 2009;18(4):326-334.

Record no: 161

Abstract: Background: The Health of the Nation Outcome Scale HoNOS has been adopted with enthusiasm by service providers and clinicians, but criticism regarding the appropriate factor structure has emerged. Aims: The current study aimed to determine an appropriate factor structure that is both psychometrically sound and clinically meaningful. Method: HoNOS data for 6475 inpatients at admission and 6308 at discharge from an Australian psychiatric clinic were assessed in two studies. Results: The results of confirmatory factor analyses support the use of a new four factor model that includes anti-social, physical and psychological impairment, symptom, and socio-economic factors. The four factor structure demonstrated greater sensitivity to change than alternatives and factorial stability. In addition, the model is both parsimonious and clinically useful. Conclusions: When administering the HoNOS for patients with mood and/or anxiety disorders, it appears the new four factor model is an appropriate means of interpreting scores. 2009 Informa UK Ltd All rights reserved.

48. Ng F, Trauer T, Dodd S, Callaly T, Campbell S, Berk M. **The validity of the 21-item version of the Depression Anxiety Stress Scales as a**

routine clinical outcome measure. Acta Neuropsychiatrica 2007;19(5):304-310.

Record no: 162

Abstract: Objective: This study aimed to test the validity of the 21-item Depression Anxiety Stress Scales (DASS-21) as a routine clinical outcome measure in the private in-patient setting. We hypothesized that it would be a suitable routine outcome instrument in this setting. Method: All in-patients treated at a private psychiatric hospital over a period of 24 months were included in the study. Data were collected on demographics, service utilization, diagnosis and a set of four routine measures both at admission and discharge. These measures consisted of the Clinical Global Impressions (CGI) scales, Health of the Nation Outcome Scales (HoNOS), the Mental Health Questionnaire (MHQ-14) and DASS-21. The results of these measures were compared. Results: Of 786 admissions in total, the number of fully completed (ie paired admission and discharge) data sets for the DASS-21 depression, anxiety and stress subscales were 337, 328 and 347, respectively. All subscales showed statistically significant reductions in mean scores from admission to discharge ($P < 0.001$) and were significantly correlated with all MHQ-14 subscales and significantly related to CGI scale categories. The total DASS-21 and total HoNOS scores were also significantly correlated. Conclusions: The findings from the present study support the validity of DASS-21 as a routine clinical outcome measure in the private in-patient setting. 2007 Blackwell Munksgaard.

49. O'Brien S, McFarland J, Kealy B, Pullela A, Saunders J, Cullen W, et al. **A randomized-controlled trial of intensive case management emphasizing the recovery model among patients with severe and enduring mental illness.** Irish journal of medical science 2012;181(3):301-308.

Record no: 19

Abstract: BACKGROUND: There is increasing interest in the application of recovery principles in mental health services. AIMS: We studied the implementation of a programme of intensive case management (ICM) emphasizing recovery principles in a community mental health service in Ireland. METHODS: Eighty service attenders with severe and enduring illness characterized by significant ongoing disability were randomized into (1) a group receiving a programme of ICM and (2) a group receiving treatment as usual (TAU). Groups were compared before and after the programme for general psychopathology using the Brief Psychiatric Rating Scale (BPRS) (clinician rated) and How are You? scale (self-rated). The Functional Analysis of Care Environments (FACE) scale provided assessment of multiple functional domains. RESULTS: The overall group (mean age 44.5 ± 13.2 years; 60% male) had mean total Health of the Nation Outcome Scale (HoNOS) scale scores of 10.5 ± 4.6 , with problems in social functioning especially prominent (mean social subscale score 5.0 ± 2.7). The ICM group were younger ($p < 0.01$) with higher baseline scores on the HoNOS social subscale and BPRS ($p < 0.05$). An analysis of covariance, controlling for these baseline differences, indicated greater improvement in BPRS scores ($p = 0.001$), How are You? scores ($p = 0.02$) and FACE domains for cognition, symptoms and interpersonal relationships (all $p < 0.001$) in the ICM group. The ICM group underwent greater changes in structured daily activities that were linked to improved BPRS scores ($p = 0.01$). CONCLUSIONS: A programme of ICM emphasizing recovery principles resulted in significant improvement across psychopathological and functional domains. Improvements were linked to enhanced engagement with structured daily

activities. Recovery-oriented practices can be integrated into existing mental health services and provided alongside traditional models of care.

50. Orrell M, Yard P, Handysides J, Schapira R. **Validity and reliability of the health of the nation outcome scales in psychiatric patients in the community.** British Journal of Psychiatry 1999;174(MAY):409-412.

Record no: 165

Abstract: Background: The Health of the Nation Outcome Scales (HoNOS) have been developed for assessing the effectiveness of mental health services. Aims: To investigate the validity and reliability of the HoNOS in patients in contact with mental health services. Method: Subjects (age range 19-64) came from day hospitals, acute in-patient units and out-patient clinics in general practice. We obtained the opinions of experienced professionals, advocacy groups and patient groups to evaluate consensual and content validity. Results: One hundred patients were assessed using the package of rating scales. Interrater and test-retest reliability were good for some items and poor for others. The HoNOS had good criterion validity: acute in-patients had higher scores than day patients and out-patients. HoNOS also had good concurrent validity, correlating well with other scales. Comments suggested that the HoNOS was a useful and suitable scale for this population but psychotic symptoms and certain social factors were not sufficiently covered. Conclusion: The HoNOS had good validity but variable reliability. It may be better than existing scales because of the wide range of areas which it covers. Declaration of interest: Funded by Hertfordshire Health Agency.

51. Page AC, Hooke GR, Rutherford EM. **Measuring mental health outcomes in a private psychiatric clinic: Health of the Nation Outcome Scales and Medical Outcomes Short Form SF-36.** Australian and New Zealand Journal of Psychiatry 2001;35(3):377-381.

Record no: 168

Abstract: This study reports on data collected from the routine use of the Health of the Nation Outcome Scales (HoNOS) and the Medical Outcomes Short Form (SF-36). Three main aims were addressed in using these measures: (a) to establish patient disability levels; (b) to determine the level of treatment effectiveness; and (c) to explore the ability of these instruments to predict length of stay and mood change. The clinician-rated HoNOS and the patient-rated SF-36 were included in the assessment battery, at admission and discharge, of 754 consecutive inpatients at one private psychiatric facility over a 2-year period. The sample, on admission, was comparable in illness severity to levels reported at other Australian private psychiatric facilities. Treatment was shown to be effective, and the degree of changes in HoNOS ratings compared favorably with other private psychiatric facilities. Certain factors underlying the structure of the HoNOS and the SF-36 only weakly predicted length of stay and changes in depression and anxiety levels. The HoNOS and the SF-36 provided valid and reliable data on patient function, with the HoNOS being most sensitive to treatment change. However, neither instrument proved useful in predicting length of stay or levels of depression and anxiety at discharge. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

52. Pirkis JE, Burgess PM, Kirk PK, Dodson S, Coombs TJ, Williamson MK. **A review of the psychometric properties of the Health of the Nation Outcome Scales (HoNOS) family of measures.** Health and Quality of Life Outcomes 2005;3(76).

Record no: 173

Abstract: Background: The Health of the Nation Outcome Scales was developed to routinely measure outcomes for adults with mental illness. Comparable instruments were also developed for children and adolescents (the Health of the Nation Outcome Scales for Children and Adolescents) and older people (the Health of the Nation Outcome Scales 65+). All three are being widely used as outcome measures in the United Kingdom, Australia and New Zealand. There is, however, no comprehensive review of these instruments. This paper fills this gap by reviewing the psychometric properties of each. Method: Articles and reports relating to the instruments were retrieved, and their findings synthesised to assess the instruments' validity (content, construct, concurrent, predictive), reliability (test-retest, inter-rater), sensitivity to change, and feasibility/utility. Results: Mostly, the instruments perform adequately or better on most dimensions, although some of their psychometric properties warrant closer examination. Conclusions: Collectively, the Health of the Nation Outcome Scales family of measures can assess outcomes for different groups on a range of mental health-related constructs, and can be regarded as appropriate for routinely monitoring outcomes. 2005 Pirkis et al., licensee BioMed Central Ltd.

53. Prabhu R, Browne MO. **The use of the Health of the Nation Outcome Scale in an outreach rehabilitation program.** Australasian Psychiatry 2008;16(3):195-199.

Record no: 174

Abstract: Objective: The aim of this paper is to describe the use of the Health of the Nation Outcome Scale (HoNOS) in an outreach-based rehabilitation program in regional Victoria, Australia. Method: Routine outcome measures (ROM), including the HoNOS, were introduced in the Stepping Stones Recovery Program (SSRP) in 2002. HoNOS data routinely collected for 122 patients between 2003 and 2006 was examined for sensitivity in capturing clinical changes by using paired t-tests. Results: There was a statistically significant decrease in total HoNOS scores as well as scores on subsets of 'impairment' and 'symptomatic problems'. HoNOS scores reflected positive changes in patients and were useful as a global overview, but did not tap into process issues that are more clinically meaningful. Conclusions: The SSRP provided a wide range of interventions and promoted a structured collaborative approach which could be the main reason for the uptake of ROM in this service. There are significant hurdles in integrating ROM in routine clinical practice, such as feasibility issues and clinician attitudes, along with larger systemic issues that need to be addressed. The introduction of ROM in Australia has resulted in strongly polarized viewpoints. Suggestions for facilitating the administration and use of ROM in routine clinical practice are discussed. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

54. Preston NJ. **The Health of the Nation Outcome Scales: Validating factorial structure and invariance across two health services.** Australian and New Zealand Journal of Psychiatry 2000;34(3):512-519.

Record no: 175

Abstract: Objective: The Health of the Nation Outcome Scale (HoNOS) was developed in the mid-1990s as an inclusive and comprehensive instrument to measure patient outcomes in four main factors: behaviour, impairment, symptoms and social problems. This paper attempts to investigate whether similar health services rate the HoNOS with equivalent psychometric calibration. Method: The purpose of this study was to test for invariant construct interpretation of the instrument across two equivalent health services, using simultaneous confirmatory factor analysis. Results: Although

the four-factor model of the HoNOS was confirmed, structural non-invariance occurred, casting doubt on the equivalent interpretability and generalisability of the instrument across similar health services. Conclusions: Over-inclusiveness, lack of specificity and questionable independence of observations may have contributed to the non-invariant factor structure between the two health services. Such results shed some doubt on the ability of the HoNOS and like observational instruments to provide equivalent comparisons between health services.

55. Rees A, Richards A, Shapiro DA. **Utility of the HoNOS in measuring change in a Community Mental Health Care population.** *Journal of Mental Health* 2004;13(3):295-304.
Record no: 178
Abstract: Given that, for many community health care teams, the Health of the Nation Outcome Scales (HoNOS) is the audit tool of choice, further work is needed to establish the viability of using this instrument to assess health change. The aim was to assess the usefulness of the HoNOS in measuring change in a population on the caseloads of community mental health teams. Key workers or care co-ordinators of 195 selected patients on the caseloads of a national sample of 10 generic community mental health teams rated patients on the HoNOS four times over a period of 4-6 months. Patients had previously received a primary diagnosis of anxiety, depression, psychosis, personality disorder, or substance misuse on the Manchester Audit Tool. In this population, the HoNOS marginally discriminated amongst diagnoses, and was associated with severity and complexity but not chronicity. Scores on the HoNOS changed differentially over time according to diagnosis and severity. A change of 3 to 4 points on the HoNOS is small, but statistically significant, and may be a useful basis for tracking the clinical improvement of neurotic patients, and the clinical stability of those with psychosis. (PsycINFO Database Record (c) 2012 APA, all rights reserved).
56. Rock D, Preston N. **HoNOS: is there any point in training clinicians?** *Journal of psychiatric and mental health nursing* 2001;8(5):405-409.
Record no: 180
Abstract: This study examines the impact of training and clinical experience on the inter-rater reliability of the HoNOS. Following either standard or modified HoNOS training, two groups of registered mental health nurses (RMHNS) were tested for inter-rater reliability (IRR) using a standard case vignette. In addition, another group of nurses and two nonclinical comparison groups had their IRR tested using the same vignette but without receiving any HoNOS training. There was no significant difference between IRR scores post-training compared with the pre-training scores. This is the case whether the recommended or modified training programmes were used. In addition, there is no significant difference between nurses and the comparison group, characterized by nonclinical work experience in a mental health setting. All four groups achieved adequate IRR. Finally, the comparison group with no regular exposure to mental health patients but experience using rating scales are significantly less reliable than the other four groups. The results suggest two possible interpretations. The first is that the HoNOS scales are so well designed that only familiarity with psychiatric patients and no experience with rating scales is sufficient to achieve adequate IRR even without training. Alternatively, the use of written vignettes does not provide a valid measure of HoNOS IRR.
57. Rosenbaum S, Van Der Ploeg H, Tiedemann A, Sherrington C. **Physical activity levels amongst inpatients with Post Traumatic Stress**

Disorder: Is self-report a valid measure? Journal of Science and Medicine in Sport 2012;15:S21.

Record no: 181

Abstract: Introduction: The physical health of people with a mental illness is often compromised, and those with mental health conditions such as Post Traumatic Stress Disorder (PTSD) are often less likely to be physically active than the general population. Hence, it is important to accurately assess physical activity among inpatients being treated for PTSD. This study aimed to determine the construct validity of the International Physical Activity Questionnaire (IPAQ-short form) for use in PTSD inpatients. Methods: Inpatients of the adult-trauma program at St John of God Hospital in Sydney (Australia) were recruited over a twelve-month period (n=59, 85% male; 49% police officers). Participants wore an Actigraph accelerometer for 7 days, at the end of which participants self completed the IPAQ-short predominantly. Analyses determined the construct validity of the IPAQ against the accelerometer using the Spearman rho correlation coefficients. Results: The Spearman correlation between total physical activity based on the IPAQ and moderate to vigorous physical activity from the questionnaire was 0.462. Compliance with wearing the accelerometer was lower than usual, 20/59 participants (33.89%) recorded 3 or less valid days out of a total of 7, whilst only 8/59 (13.56%) had the maximum 7 valid days. The IPAQ was completed somewhat better, 7/59 (11.86%) were incomplete primarily due to sudden or early discharge, and 8/59 (13.56%) reported values considered erroneously high, which had to be capped as per the IPAQ scoring manual. When stratifying by severity of illness, based on the Health of the Nation Outcome Scale (HoNOS), the Spearman correlation was 0.591 for those with a greater illness severity (HoNOS total >21; n=20), and 0.377 for those with lower severity scores (HoNOS total <20; n=16). Discussion: The IPAQ short form self-report questionnaire has acceptable construct validity for estimating physical activity participation of inpatients with PTSD. Poor compliance with wearing an objective activity monitor in this population might make the use of supervised self-report questionnaires or interviews more suitable for the assessment of physical activity.

58. Slade M, Cahill S, Kelsey W, Powell R, Strathdee G. **Threshold 2: The reliability, validity and sensitivity to change of the Threshold Assessment Grid (TAG).** Acta Psychiatrica Scandinavica 2002;106(6):453-460.

Record no: 186

Abstract: Objective: This study investigated the psychometric properties of the Threshold Assessment Grid (TAG), a new assessment of the severity of mental health problems. Method: A total of 605 patients were recruited from 10 mental health adult and elderly services in London, UK. TAG ratings and other standardized definitions of severe mental illness were completed by referrers. TAG, Global Assessment of Functioning (GAF), Camberwell Assessment of Need Short Appraisal Schedule (CANSAS) and Health of the Nation Outcome Scale (HoNOS) ratings were completed by mental health service staff. Construct validation on extreme groups was investigated. Results: Construct and concurrent validity were good. Referrer TAG scores predicted mental health team view of referral suitability, but not whether assessments were offered. Test - retest reliability was good, interrater reliability ranged from good to poor in different domains (but adequate for total TAG score), internal consistency was appropriate. Sensitivity to change requires further investigation. Conclusion: The TAG can be recommended for use by all agencies when making referrals to mental health services.

59. Stewart M. **Service user and significant other versions of the Health of the Nation Outcome Scales.** Australasian Psychiatry 2009;17(2):156-163.

Record no: 188

Abstract: Objectives: The aim of this paper was to test the measurement properties of self-report (SR) and significant other (SO) versions of the Health of the Nation Outcome Scales (HoNOS). Method: SR and SO HoNOSs, with content closely paralleling the clinician HoNOS but with item 8 expanded into scales rating each difficulty separately, were developed and trialed with Early Intervention for Psychosis service users and their significant others. Results: Satisfactory agreement was found between SR, SO and clinician HoNOSs, and between the SR and SO on most additional items. Conclusions: Results suggest adequate validity of the measures. The additional items proved useful for identifying comorbidities that may have been under-recognized. Results suggest that SR and SO versions of the HoNOS can be valid and valuable for triangulating and recording the perspectives of different stakeholders in promoting recovery.

60. Sugarman P, Walker L, Dickens G. **Managing outcome performance in mental health using HoNOS: Experience at St Andrew's Healthcare.** Psychiatric Bulletin 2009;33(8):285-288.

Record no: 189

Abstract: AIMS AND METHOD: Modern mental healthcare providers must demonstrate service-level clinical effectiveness to key stakeholders. We introduced two performance indicators of clinical effectiveness based on outcome data from routinely collected Health of the Nation Outcome Scales (HoNOS) and HoNOS-secure assessments across St Andrew's Healthcare, a charity providing in-patient services in Northampton and Essex. We present outcome data from the period 2004-2007. RESULTS: The indicators showed consistent 90-day improvement rates and increasing stability over time. The validity of results is supported by levels of change along predicted lines among different patient cohorts. CLINICAL IMPLICATIONS: It is possible and beneficial to use routine outcome measures to demonstrate clinical effectiveness at service level. The future of managing mental health outcomes will be in electronic health records systems.

61. Summerfield P, Witts P. **A pilot study investigating the inter-rater reliability of two Health of the Nation Outcome Scales.** Clinical Psychology Forum 1999 (126):24-27.

Record no: 190

Abstract:

62. Trauer T. **The health of the nation outcome scales in outcome measurement: A critical review.** Australasian Psychiatry 1998;6(1):11-14.

Record no: 194

Abstract: Outcome measurement has become a 'hot' topic in recent years. Escalating costs of health care have focused attention on economic approaches, like Diagnostically Related Groups (DRGs, [1]), casemix [2], and managed care [3]. The philosophical bases of these approaches include notions of accountability and 'value for money', and these have led in turn to a requirement to demonstrate the beneficial impact of interventions. In both the public and private arenas, it seems that clinical judgement is no longer sufficient. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

63. Trauer T. **The subscale structure of the Health of the Nation Outcome Scales(HoNOS)**. *Journal of Mental Health* 1999;8(5):499-509.
Record no: 195
Abstract: Data from a large field trial were used to test the propositions that the HoNOS is a unidimensional scale and that the original subscale structure fits the data and is valid. Low inter-item correlations suggest that the scale is not unidimensional. Low internal consistencies of the original subscales were also found. Confirmatory factor analysis was used to test the fit of the original subscales, which was found to be poor. An alternative subscale structure is described which fits the data much better, differentiates diagnostic groups better, and accounts for movements between in-patient and out-patient status better. The implications of the findings are discussed.
64. Trauer T. **Use of a routine outcome measure in a consultation-liaison mental health service**. *Australasian Psychiatry* 2004;12(2):139-144.
Record no: 196
Abstract: OBJECTIVE: The problem severity of patients seen by a psychiatric consultation- liaison service was studied through the use of a routine outcome measure.
METHODS: Ratings on the Health of the Nation Outcome Scales (HoNOS) over nearly 3 years in the emergency department, general hospital, and on admission to the acute psychiatric unit were compared.
RESULTS: Mean HoNOS total scores in the emergency department were not significantly different from those at admission to the acute psychiatric unit, but were significantly higher than those in the general hospital. Mean scores in all three settings were higher than those obtained at case review of psychiatric patients in the community. Despite differences in age, sex, and psychiatric diagnosis between the three hospital settings, differences in mean HoNOS total scores remained substantially unchanged after adjustment for these factors. Most HoNOS assessments were performed by medical staff.
CONCLUSIONS: The suspected high levels of problem severity and comorbidity of patients seen by a psychiatric consultation-liaison service were confirmed through the use of a routine outcome measure.
65. Trauer T. **Consumer and service determinants of completion of a consumer self-rating outcome measure**. *Australasian Psychiatry* 2004;12(1):48-54.
Record no: 197
Abstract: OBJECTIVE: To study the relative contribution of consumer, clinician and service factors to whether or not consumers completed a self-rating measure in the context of routine outcome measurement.
METHODS: Four Victorian mental health services commenced routine outcome measurement in their adult services in mid-2000. Clinician-completed measures (Health of the Nation Outcome Scales (HoNOS) and Life Skills Profile (LSP)) and a consumer self-rated measure (Behaviour and Symptom Identification Scale (BASIS)) were entered into specialized software. Analyses were restricted to assessments conducted at review in the community.
RESULTS: Wide differences were observed between the four agencies in the rates of completion of the self-rating measure. Overall, consumer characteristics associated with greater likelihood of completion were lower age, non-organic diagnosis, lesser severity as measured by the HoNOS, and lesser disability as measured by the LSP. A more focused analysis showed that agency, lower age, and higher compliance were most reliably associated with completion. Significant proportions of clinicians had no recorded instances of consumer self-rating associated with their assessments.

CONCLUSIONS: Service and clinician factors appear to be equally important as consumer factors in whether or not a self-rating measure was completed. Information systems designed for outcomes measurement should include indications of whether or not a self-rating was invited, and, if not, why not. The results suggest that consumer self-rating is not yet firmly established in the outcomes measurement culture.

66. Trauer T, Callaly T, Hantz P, Little J, Shields RB, Smith J. **Health of the nation outcome scales. Results of the Victorian field trial.** British Journal of Psychiatry 1999;174(MAY):380-388.

Record no: 198

Abstract: Background: In Victoria, Australia, systematic assessment of outcomes in mental health services are being instituted, Aims: To carry out a large- scale field trial of the Health of the Nation Outcome Scales (HoNOS). Method: 2137 clients were rated by mental health workers on the HoNOS, and about half were rated again within a few months. Results: While interrater reliability of the total score was satisfactory, that of some individual items was unacceptable. Significant associations with age and gender were found, and clients with nonpsychotic disorders obtained higher (i.e. worse) ratings than those with psychotic disorders. There were relationships between service use and HoNOS total score. For the group as a whole, total scores had not changed at the second rating, but admissions and discharges were associated with increases and decreases in total score. Among clients in the community, there was no relationship between change in HoNOS total score and frequency of contacts. Conclusions: Certain items, notably II and 12, were unreliable. The absence of evidence of sensitivity to change may be due to the short re- rating interval, little real change in the clients, or the characteristics of the scale itself. Declaration of interest: None.

67. Trauer T, Nagel T. **Outcome measurement in adult Indigenous mental health consumers.** Advances in Mental Health 2012;11(1):106-116.

Record no: 199

Abstract: Little is known about the performance of outcome instruments with consumers of different cultural backgrounds. We report a study of using routine outcome measures with Indigenous adult mental health consumers, whereby mental health clinicians used two leading Australian measures with consumers who self-identified as Indigenous. Mean scores on most items were different from the predominantly non-Indigenous national averages; some, particularly those assessing accommodation and occupation, were worse while others (those assessing depression) were better. Scores were consistently worse when more informants were involved in the assessment. A set of good practice principles for the use of standardized measures with Indigenous consumers was developed. They recommend using informants whenever possible, ratings should objectively reflect underlying disadvantage and behaviours that are not sanctioned or accepted within the local culture, but not phenomena that are socially or culturally accepted. Despite the advice and training, most assessments did not involve additional informants. The (mainly non-Indigenous) clinicians mostly indicated no additional difficulty in using the outcome measures with the Indigenous consumers, although clinicians reported greater difficulty in completing them when additional informants were present. In 52% of assessments, clinicians felt that the scales reflected the consumer's problems reasonably, and in 22%, well. Perceived validity was positively associated with consumer engagement. The study provides qualified support for the practice of using the HoNOS and LSP for routine outcome assessment with Indigenous consumers. The main provisos are that clinicians need to maximize the engagement of

consumers and try to ensure involvement of additional informants to reduce the chances of invalid assessments. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

68. Tulloch AD, Khondoker MR, Thornicroft G, David AS. **Home treatment teams and facilitated discharge from psychiatric hospital.**

Epidemiol Psychiatr Sci 2014;1-13.

Record no: 28

Abstract: Aims. There has been little research into the facilitated discharge (FD) function of Home Treatment Teams (HTTs). We aimed to explore and describe the prevalence and associations of FD and to estimate its effects on bed days during the index admission (length of stay corrected for ward leave) and on readmission. Methods. Descriptive and regression analyses of data collected by South London and Maudsley NHS Foundation Trust on discharges from its general psychiatric wards, with multiple imputation of missing covariate values. Results. Overall, 29% of our sample of 7891 hospital admissions involved a FD. FD was associated with female gender, diagnosis of a severe mental illness, previous home treatment, having a longer previous admission, neither being discharged to a new address nor to a care home, having no other community team and having HoNOS item scores consistent with an active depressive or psychotic mental illness. In the regression analysis, FD was associated with 4.0 fewer bed days (95% confidence interval -6.7 to -1.3; $p = 0.0004$). There was no effect on readmission. Conclusions. Our analysis provides some support for the effectiveness of FD in slightly reducing the time spent in hospital and suggests that this may be achieved without increasing the rate of readmission. Further studies in this area are important, especially given existing research that suggests that the introduction of HTTs in England and Wales was associated with little or no change in service utilisation.

69. Webster J, Bretherton F, Goulter NS, Fawcett L. **Does an educational intervention improve the usefulness of the Health of the Nation Outcome Scales in an acute mental health setting?** International Journal of Mental Health Nursing 2013;22(4):322-328.

Record no: 206

Abstract: The purpose of the current study was to measure the effect of an educational intervention on the Health of the Nation Outcome Scales (HoNOS) completion rates. Additionally, interrater reliability and accuracy amongst nurses completing the instrument was assessed. We used a pre- and post-intervention design with videoed vignettes providing the basis for the educational intervention. Mental health nurses were assessed four times: at baseline, immediately after the intervention, 1week later and again, 2months after the intervention. There was a non-statistical increase in the number of patients assessed on admission using the HoNOS from 12.5% to 22.6%. Interrater reliability was low and did not improve through the course of the study. Intraclass correlation coefficients ranged 0.41-0.48. Accuracy was poor when discrete scoring between 0-4 was analyzed but improved when scores were dichotomised to reflect a clinically significant cut-off of 2 or more. The intervention improved completion rates marginally but interrater reliability and accuracy were low and did not improve over the study period. Opportunities for improvement were identified. 2012 Australian College of Mental Health Nurses Inc.

70. Williams B, Speak B, Hay P, Muncer SJ. **An evaluation of the independence of the Health of the Nation Outcome Scales.** Australas Psychiatry 2014.

Record no: 31

Abstract: OBJECTIVE: In this study the independence of the scales/items in the Health of the Nation Outcome Scales (HoNOS) was empirically investigated. METHOD: Parallel analysis using random column permutation and bootstrapping were used to compare the factor structure, intercorrelations and Cronbach's alpha from the original HoNOS study and also recently collected HoNOS ratings. Random permutation ensures that the data has the same distributions as the data it is based on, but that the variables are now independent. RESULTS: It is shown that both of the real HoNOS data sets are significantly different to the independent items data in many ways. An examination of fit statistics from confirmatory factor analysis is also used to show that the independence model is a very poor fit to the data. CONCLUSIONS: It is clear that the 12 HoNOS scales are unlikely to be independent. There is a need for more research to clarify the appropriate structure of HoNOS, and also to consider whether some of the items need either replacing or augmenting.

71. Wing J, Lelliott P, Chaplin RH. **Reliability and validity of HoNOS (multiple letters) [2]**. Psychiatric Bulletin 1999;23(6):375.

Record no: 207

Abstract:

72. Wing JK, Beevor AS, Curtis RH, Park SBG, Hadden S, Burns A. **Health of the nation outcome scales (HoNOS): Research and development**. British Journal of Psychiatry 1998;172(JAN.):11-18.

Record no: 208

Abstract: Background: An instrument was required to quantify and thus potentially measure progress towards a Health of the Nation target, set by the Department of Health, 'to improve significantly the health and social functioning of mentally ill people'. Method: A first draft was created in consultation with experts and on the basis of literature review. This version was improved during four stages of testing: two preliminary stages, a large field trial involving 2706 patients (rated by 492 clinicians) and tests of the final Health of the Nation Outcome Scales (HoNOS), which included an independent study (n=197) of reliability and relationship to other instruments. Results: The resulting 124-item instrument is simple to use, covers clinical problems and social functioning with reasonable adequacy, has been generally acceptable to clinicians who have used it, is sensitive to change or the lack of it, showed good reliability in independent trials and compared reasonably well with equivalent items in the Brief Psychiatric Rating Scales and Role Functioning Scales. Conclusions: The key test for HoNOS is that clinicians should want to use it for their own purposes. In general, it has passed that test. A further possibility, that HoNOS data collected routinely as part of a minimum data set, for example for the Care Programme Approach, could also be useful in anonymised and aggregated form for public health purposes, is therefore testable but has not yet been tested.

73. Wunderink L, Delespaul P, Van Der Gaag M, De Haan L, Linszen D, Mulder N, et al. **Measuring functional remission: A tool for clinical practice and preliminary data on symptomatic and functional remission and recovery**. Early Intervention in Psychiatry 2012;6:113.

Record no: 210

Abstract: Objective: Development of a clinical tool to measure functional capacity, test its feasibility in routine clinical practice, and sample preliminary data relating functional remission to symptomatic remission and

recovery. Method: A Dutch working group on functional remission consensus criteria developed a tool to assess functional remission in routine clinical practice. The instrument assesses functioning in three domains: 1. Independent living and self-care, 2. Working, studying and targeted activity, 3. Social contacts (family, friends, neighbors, colleagues). It has a three point rating for each domain, 0 = completely autonomous/independent, 1 = partially independent, and 2 = dependent on professional or non-professional care. Adequate autonomous functioning is considered to be present if all domain scores are 0. In at least 8 large mental health care organizations a pilot has been conducted to test the feasibility of the instrument in routine clinical practice. It includes about 700 first measurements, 70 test-retest measurements and 350 follow-up measurements. It also allows relating the results to symptomatic remission, general outcome (HoNOS) and quality of life (MANSA). Results: We will present data both on first and multiple episode patients showing the feasibility of using this instrument in clinical practice and testing its validity; results will be available around August this year. Conclusion: A dedicated instrument reliably measuring essential domains of functional capacity was still lacking, though functional remission is an important constituent of recovery. Its routine measurement would promote benchmarking of clinical rehabilitation programs. This tool is a promising candidate for routine clinical use.

Vedlegg 3: Ekskluderte referanser med sammendrag

74. Aartsen MJ, Spitsbaard AK, Van Baarsen C, Dhondt ADF, Mascini M, Nefs A, et al. **A multi-centre study of the reliability, validity and sensitivity to change of the HoNOS65+ in psychiatry for older persons.** [Dutch] **Een multicenterstudie naar betrouwbaarheid, validiteit en gevoeligheid voor verandering van de HoNOS65+ binnen de ouderenpsychiatrie.** Tijdschrift voor Psychiatrie 2010;52(8):543-553.

Record no: 32

Abstract: BACKGROUND: Within the mental health care services for older persons there is a growing need for insight into and evaluation of the results of clinical treatment. The Health of the Nations Outcome Scales 65+ (HoNOS65+) is a promising instrument for the assessment of mental, social and physical health in older persons, but it is not yet known whether it is valid for older persons in the Netherlands. AIM: To assess the reliability, validity and sensibility to change of the HoNOS65+ when applied to older persons with psychiatric disorders. METHOD: The bio-psycho-social level of functioning of clients aged 60 and over (n = 168) receiving mental health care was assessed by means of existing and validated measuring instruments and the results were compared with those obtained with the HoNOS65+. Three months later the population sample was re-assessed in order to test the extent to which the HoNOS65+ was sensitive to change. RESULTS: The reliability and validity of the HoNOS65+ could be ascertained for 168 clients aged 60 and over. After three months 116 clients were re-assessed so that the sensitivity of the HoNOS65+ to change could be noted. CONCLUSION: The HoNOS65+ is a reliable and valid instrument for assessing clients with affective disorders such as depression and anxiety and for detecting changes in clients' problems and functioning. No conclusions could be reached regarding the reliability and validity of the HoNOS65+ when used for clients with other psychiatric disorders because the clinical subgroups were too small for patterns to be detected.

75. Adamis D, Giannakopoulou DF, Konstantopoulou A, Michailides M. **Translation and standardization of the HoNOSCA (Health of the Nation Outcome Scales for Children and Adolescents) scale in a Greek sample.** *Clinical child psychology and psychiatry* 2011;16(4):567-573.

Record no: 34

Abstract: The Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) is a brief measure of outcomes. Evidence for the effectiveness of patient treatments conducted in mental health services is limited in Greece. Thus, in an attempt to employ an easily administered and valid outcome measure, to assess outcomes in clinical practice for children and adolescents, but also to be able to compare the results across countries, the HoNOSCA was the measure of choice. In this study we have translated and validated it in a Greek sample. We have investigated the inter-rater reliability, intraclass correlation, concurrent validity, and clinical change across time, of the HoNOSCA Greek translation. The results show that the Greek translation of HoNOSCA is a reliable and valid instrument. It can be used for clinical, managerial, research and audit purposes, but, most importantly, to facilitate multinational clinical research and comparison of data with other countries.

76. Adamis D, Papanikolaou V, Michailidis M, Macdonald AJ. **Validation of the Greek version of the Health of the Nation Outcome Scales for Elderly People (HoNOS65+, version 3).** *Aging & mental health* 2013;17(2):258-264.

Record no: 35

Abstract: There is a growing need for evaluation of the results of mental health services and clinical treatment in older people, but evidence for effectiveness is limited in Greece. The Health of the Nations Outcome Scales for Elderly People (HoNOS65+) are promising instruments for the assessment of mental, physical and social health in older persons. They have been translated into the Greek language but have not been validated. The aim was to assess the inter-rater reliability, intraclass correlation, concurrent validity, internal consistency and sensitivity to change of HoNOS65+ in a Greek sample of older people with mental health problems. Two samples, one of inpatients in a psychiatric hospital and the other of older people living in the community were used. In order to test the extent to which the HoNOS65+ were sensitive to change the first sample was reassessed after two months and the second after three months. For each participant HoNOS65+ were completed by two independent raters, and the clinician rated blindly each participant on the Stockton Geriatric Rating Scale and a scale which measured behavioural, physical, cognitive and emotional status. In both groups (inpatients n = 50, community n = 65), the inter-rater reliability, intraclass correlation and concurrent validity were high while internal consistency of the scales taken together was low. At reassessment in 98 participants, HoNOS65+ showed changes comparable to clinician ratings. The Greek version of HoNOS65+ can achieve high levels of reliability, validity and sensitivity to change for measuring outcomes in older people with mental health problems.

77. Andreas S, Harfst T, Dirmaier J, Kawski S, Koch U, Schulz H. **Erratum: Die Health of the Nation Outcome Scales: Entwicklung und erste psychometrische Analysen einer deutschen Version (HoNOS-D) (Psychotherapie Psychosomatik Medizinische Psychologie (2004) 54 (96)). [German].** *PPmP Psychotherapie Psychosomatik Medizinische Psychologie* 2004;54(5):197.

Record no: 39

Abstract:

78. Andreas S, Harfst T, Dirmaier J, Kowski S, Koch U, Schulz H. A **psychometric evaluation of the german version of the 'Health of the Nation Outcome Scales, HoNOS-D': On the feasibility and reliability of clinician-performed measurements of severity in patients with mental disorders**. *Psychopathology* 2007;40(2):116-125.

Record no: 40

Abstract: Background: The assessment of the severity of a mental illness is a central component in the treatment of patients with mental disorders in both the in- and outpatient settings. In Great Britain, the 'Health of the Nation Outcome Scales, HoNOS' were developed to assess the health and social functioning of patients with mental disorders. Aims: To examine the psychometric properties, especially the feasibility and reliability, of a German version of the HoNOS (HoNOS-D) and to thus provide international data for the comparison of different mental health services. Sampling and Methods: The HoNOS was translated into German (HoNOS-D) in an extensive and multilayered consensus procedure. The HoNOS-D was then reviewed within the framework of a pilot study on quality assurance measures implemented by the German statutory health insurance institutes in 11 hospitals. Assessments were made of the psychometric qualities of feasibility and reliability using a representative sample of patients with mental and behavioral disorders. Results: An analysis of the feasibility of the HoNOS-D showed a range of missing values between 1.3 and 4.5% for 11 of the 12 items. An item analysis showed that three items of the HoNOS-D are particularly positively skewed. In most instances, the individual items of the rating scale exhibited only slight correlations to each other. With regard to retest reliability, satisfactory intraclass correlations between 0.80 and 0.91 were seen for 9 of the 12 items. Conclusions: The authors of the original version of the HoNOS [Wing et al.:Br J Psychiatry 1998;172:11-18] primarily emphasized the feasibility of the instrument and the independence of the individual items and dimensions. The analysis of the missing values showed satisfactory results for feasibility. The intercorrelation matrix of the individual items also exhibited only few correlations >0.30. The retest reliability also proves to be satisfactory for the majority of the items. The narrow distribution of some of the items must be critically discussed in comparison to analyses of results in other countries (e.g. Great Britain) and other settings (e.g. inpatient psychiatric hospitals or outpatient psychotherapy). Copyright 2007 S. Karger AG.

79. Andreas S, Harfst T, Rabung S, Mestel R, Schauenburg H, Hausberg M, et al. **The validity of the German version of the Health of the Nation Outcome Scales (HoNOS-D): A clinician-rating for the differential assessment of the severity of mental disorders**. *International Journal of Methods in Psychiatric Research* 2010;19(1):50-62.

Record no: 41

Abstract: The Health of the Nation Outcome Scales (HoNOS) is an internationally established clinician-rating instrument for the differential assessment of the severity of patients with mental disorders. The aim of this study was to examine the validity of the German version of the HoNOS (HoNOS-D). Evaluation of validity, including factor validity, convergent and discriminant validity and sensitivity to change, was conducted on a large, virtually representative, clinical sample of patients with mental disorders in inpatient psychotherapy (Study 1, N= 3169). Additional assessment of criterion-based validity was completed using another clinical sample of

patients with mental disorders (Study 2, N= 55). Although factor validity of the HoNOS-D and its total score could not be confirmed as expected, the majority of single items of the HoNOS-D proved to be valid in terms of convergent validity, criterion-based validity and sensitivity to change. Hence, single items, rather than the total score of the HoNOS-D, can be recommended for obtaining a picture of the impairment of patients with mental disorders in the clinical setting. Copyright 2010 John Wiley & Sons, Ltd.

80. Andreas S, Harries-Hedder K, Schwenk W, Hausberg M, Koch U, Schulz H. **Is the Health of the Nation Outcome Scales appropriate for the assessment of symptom severity in patients with substance-related disorders?** *Journal of Substance Abuse Treatment* 2010;39(1):32-40.

Record no: 42

Abstract: The Health of the Nation Outcome Scales (HoNOS) is an internationally established clinician-rated instrument. The aim of the study was to assess the psychometric properties in inpatients with substance-related disorders. The HoNOS was applied in a multicenter, consecutive sample of 417 inpatients. Interrater reliability coefficients, confirmatory factor analysis, and regression tree analyses were calculated to assess the reliability and validity of the HoNOS. The factor validity of the HoNOS and its total score could not be confirmed. After training, all items of the HoNOS revealed sufficient values of interrater reliabilities. As the results of the regression tree analyses showed, the single items of the HoNOS were one of the most important predictor of service utilization. The HoNOS can be recommended for obtaining detailed ratings of the problems of inpatients with substance-related disorders as a clinical application in routine mental health care at present. Further studies should include comparisons of HoNOS and Addiction Severity Index. 2010 Elsevier Inc.

81. Andreas S, Rabung S, Mestel R, Koch U, Hausberg M, Schulz H. **Does a more specified version of the HoNOS (Health of the Nation Outcome Scales) increase psychometric properties of the inventory?** *Psychopathology* 2011;44(4):261-271.

Record no: 43

Abstract: Background: The Health of the Nation Outcome Scales (HoNOS) is a clinician-rated instrument for the differentiated measurement of severity in patients with mental disorder. Item 8 of the instrument, assessing 'Other mental and behavioral problems', is particularly relevant for patients with affective disorders, anxiety disorders, and eating and personality disorders. However, some studies have shown that the scale possesses unsatisfactory psychometric properties. The objective of the present study was therefore to validate the psychometric properties of a more specified version of the HoNOS-D item 8. Methods: The instrument's reliability and validity were tested using a large, representative, clinical sample of patients with mental disorders (study 1: n = 1,918 and n = 1,357). Additional tests of reliability and criterion validity were performed using a further clinical sample of patients with mental disorders (study 2: N = 55). Results: The extended version of the HoNOS provides a differentiated picture of additional problem areas for the patient. Although inter-rater reliability indicates a need for more detailed instructions, the problem areas of item 8 proved on the whole to be suitable for measuring the extent and severity of mental problems that are present in addition to the primary problem. Conclusion: In order to make the extended assessment of the HoNOS useful for clinical routine practice, a supplemental glossary is needed. Copyright 2011 S. Karger AG, Basel.

82. Ausin B, Munoz M, Perez-Santos E. **Development of the self-administered Spanish version of the Health of the Nation Outcome Scales for Older Adults: HoNOS65+A**. *European Psychiatry* 2010;25(3):164-171.

Record no: 45

Abstract: Objectives: The purpose of this study is to develop a self-administered version of the Health of the Nation Outcome Scales for Older Adults (HoNOS65+) in Spanish - the HoNOS65+A - and to study its reliability and validity. Methods: There are two phases in the study: construction of the HoNOS65+A and the study of its psychometric properties. In the second phase, 179 users of 10 services for older people of Madrid were interviewed. They completed the HoNOS65+A, the Spanish version of the HoNOS65+, and other instruments that evaluate similar constructs. Reliability (internal consistency with the other-administered HoNOS65+, intraclass) and validity (concurrent, discriminant, and criterion validity) were analyzed. Results: High reliability indexes (intraclass correlation coefficients) were found for all the scales (HoNOS65+ and HoNOS65+A), except for items 4 and 6. Moreover, the HoNOS65+A has satisfactory concurrent (except 4, 6, and 9) and discriminant validity (except for items 4 and 10). Considering all these data and some theoretical points the items 4 and 6 have eliminated from the scale. Upon eliminating items 4 and 6, the analysis of the reliability (Cronbach's Alpha) and criterion validity (discriminant function among autonomous and assisted people) presents positive values. Conclusion: The results indicate that the HoNOS65+A is a useful measure that does not assess a homogeneous area but instead different aspects of health and psychosocial functioning. 2009 Elsevier Masson SAS.

83. Bech P, Bille J, Schutze T, Sondergaard S, Waarst S, Wiese M. **Health of the Nation Outcome Scales (HoNOS): Implementability, subscale structure and responsiveness in the daily psychiatric hospital routine over the first 18 months**. *Nordic Journal of Psychiatry* 2003;57(4):285-290.

Record no: 51

Abstract: The Health of the Nation Outcome Scales (HoNOS) includes 12 items designed to measure the problems patients have when admitted to a psychiatric hospital and to monitor to what extent these problems have diminished at discharge from hospital. The Danish version of the HoNOS was translated from the original English version in accordance with the WHO guidelines for scale translation. The HoNOS was evaluated for inter-staff agreement using a case vignette from the English training sessions. The HoNOS was then applied in a consecutive sample of 1769 inpatients over a period of 18 months. This sample covered 89% of all admissions in this period and was found representative with regard to age and gender. The diagnostic distribution according to ICD-10 showed that half of the patients were listed within schizophrenia and mood disorders. The HoNOS profile, using all 12 items of the scale, showed that schizophrenia was associated with hallucinations or delusional symptoms, with social and cognitive problems; mania with aggressive behaviour, with drinking or drug-taking and with anxiety; whereas depression was associated with suicidal behaviour, physical illness and depressed mood. Long-term stay in hospital was associated with a higher level of psychopathological symptoms at admission... (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

84. Bech P, Bille J, Waarst S, Wiese M, Borberg L, Treufeldt P, et al. **Validity of HoNOS in identifying frequently hospitalized patients with ICD-10 mental disorders.** Acta Psychiatrica Scandinavica 2006;113(6):485-491.

Record no: 52

Abstract: Objective: To identify frequently hospitalized patients by using the outcome and severity measure Health of the Nation Outcome Scales (HoNOS) in combination with the International Classification of Diseases (ICD)-10 in patients consecutively admitted to a psychiatric hospital. Method: All full-time in-patients and all day-hospital patients were considered. Frequently hospitalized patients were defined as those with 10 or more hospitalizations. Results: The total HoNOS score at admission was found valid to discriminate between frequently and non-frequently hospitalized patients as well as in ranking the ICD-10 diagnosis by severity of symptoms and social problems. Frequently hospitalized patients were predominantly found within the diagnoses of schizophrenia and bipolar affective disorders. In these groups, high HoNOS scores were significantly associated with a longer stay in hospital. Improvement during hospitalization as measured by the HoNOS was significantly better for bipolar than for schizophrenic patients. Conclusion: HoNOS was found to be a clinically relevant supplement to ICD-10 in identifying frequently hospitalized patients. 2005 Blackwell Munksgaard.

85. Benito BA, Munoz Lopez M, Estevez Ma AQ. **Spanish adaptation of the Health of the Nation Outcome Scales for Older Adults (HoNOS65+).** [Spanish] Adaptacion espanola de las escalas de resultados para personas mayores HoNOS65+ (Health of the Nation Outcome Scales for Older Adults). Revista Espanola de Geriatria y Gerontologia 2007;42(2):88-95.

Record no: 53

Abstract: Introduction: the Health of the Nation Outcome Scales for Older Adults (HoNOS65+) consists of 12 scales that measure the health and psychosocial problems of older adults with a mental health problem. These scales can be used routinely in clinical settings and are a useful instrument to assess outcomes in older adults. The aim of this study was to translate the HoNOS65+ into Spanish and to determine the reliability and validity of the Spanish version of the HoNOS65+. Material and methods: the English HoNOS65+ version was translated into Spanish, using the back translation method. The sample was drawn from older adults attending 10 services for the elderly in the autonomous community of Madrid and 250 people were assessed using the HoNOS65+ and other more detailed and domain-specific scales. Reliability (internal consistency, inter-rater reliability) and validity (concurrent, construct) were examined. Results: the Spanish version of the HoNOS65+ shows good psychometric properties in terms of reliability and validity. Conclusions: the official Spanish HoNOS65+ version was accepted by the Royal College of Psychiatrists and can be freely downloaded (www.rcpsych.ac.uk).

86. Broersma TW, Sytma S. **The Health of Nation Outcome Scale as clinical outcome indicator in elderly psychiatry.** [Dutch] De Health of the Nation Outcome Scale als effectmaat in de ouderenpsychiatrie. Tijdschrift voor gerontologie en geriatrie 2010;41(1):13-18.

Record no: 61

Abstract: The Health of the Nation Outcome Scales65+(HoNOS65+) seems to be a useful instrument for effect measuring in elderly psychiatry. The instrument is implemented as an outcome measure within a psychiatric unit

for older persons. From 244 patients a repeated assessment is completed: at the start of the treatment and at discharge. Our goal is to determine the sensitivity of change of the Health of the Nation Outcome Scales⁶⁵⁺ for patients who are in treatment for a limited period. The sensitivity of change is examined for outpatients and inpatients and for four diagnostic groups (mood disorders, organic disorders, psychotic disorders and others) according to their DSM-IV diagnoses. Comparisons between first and second assessment were done using pairwise t-tests. Inpatients as well as outpatients showed a significant change between intake and discharge. This also holds for all four diagnostic groups. The conclusion is that the HoNOS 65+ is sensitive to change and meets the criteria for a clinical outcome indicator in elderly psychiatric patients.

87. Buwalda VJA, Draisma S, Smit J, Swinkels J, Van Tilburg W. **Validation of two measuring instruments for routine outcome monitoring in psychiatry: The HORVAN study. [Dutch] Validering van twee meetinstrumenten voor routine outcome monitoring in de psychiatrie: De HORVAN-studie.** Tijdschrift voor Psychiatrie 2011;53(10):715-726.

Record no: 66

Abstract: BACKGROUND: Transparency in psychiatry can be increased by the use of routine outcome monitoring (ROM) instruments. Instruments should be easy to use and take very little time to complete; they also need to have psychometric qualities, be sensitive to change, and provide information about patients' symptoms, and about interpersonal and social functioning. AIM: To investigate to what extent the combination of Health of the Nation Outcome Scales (HONOS) and the Outcome Questionnaire (OQ) in the Dutch situation meets the above-mentioned quality criteria and to examine how the combination relates to the Symptom Checklist (SCL-90). METHOD: Data for 148 patients collected at three measurement moments were available for analysis. The psychometric qualities of the instruments and their sensitivity to change were checked carefully. RESULTS: The three scales showed high values for internal consistency (Cronbach's alpha). The HONOS total score and the subscales of the OQ correlated reasonably well with the SCL-90 total score (convergence validity). At the first measurements, patients with a comorbid diagnosis had the lowest scores (discrimination validity). The clinically significant change between T1 and T2 and between T2 and T3 was sufficiently high for all three measuring instruments. CONCLUSION: The combination of the HONOS rating scale and the self-report list OQ seems to be suitable for ROM in psychiatry.

88. Canuto A, Rudhard-Thomazic V, Herrmann FR, Delaloye C, Giannakopoulos P, Weber K. **Assessing depression outcome in patients with moderate dementia: Sensitivity of the HoNOS65+ scale.** Journal of the Neurological Sciences 2009;283(1-2):69-72.

Record no: 68

Abstract: To date, there is no widely accepted clinical scale to monitor the evolution of depressive symptoms in demented patients. We assessed the sensitivity to treatment of a validated French version of the Health of the Nation Outcome Scale (HoNOS) 65+ compared to five routinely used scales. Thirty elderly inpatients with ICD-10 diagnosis of dementia and depression were evaluated at admission and discharge using paired t-test. Using the Brief Psychiatric Rating Scale (BPRS) "depressive mood" item as gold standard, a receiver operating characteristic curve (ROC) analysis assessed the validity of HoNOS65+F "depressive symptoms" item score changes. Unlike Geriatric Depression Scale, Mini Mental State Examination and

Activities of Daily Living scores, BPRS scores decreased and Global Assessment Functioning Scale score increased significantly from admission to discharge. Amongst HoNOS65+F items, "behavioural disturbance", "depressive symptoms", "activities of daily life" and "drug management" items showed highly significant changes between the first and last day of hospitalization. The ROC analysis revealed that changes in the HoNOS65+F "depressive symptoms" item correctly classified 93% of the cases with good sensitivity (0.95) and specificity (0.88) values. These data suggest that the HoNOS65+F "depressive symptoms" item may provide a valid assessment of the evolution of depressive symptoms in demented patients. 2009 Elsevier B.V. All rights reserved.

89. Canuto A, Weber K, Gold G, Notaridis G, Michon A, Giardini U, et al. **Structured assessment of mental health status in psychogeriatrics: Validity of the French HoNOS65+.** Canadian Journal of Psychiatry 2007;52(1):37-45.

Record no: 69

Abstract: Objective: To assess the reliability, validity, and feasibility of a French version of the Health of the Nation Outcome Scales for Elderly People (HoNOS65+). Method: Twenty mental health professionals completed the scale for 126 elderly patients. We assessed interrater reliability in inpatient and outpatient settings, together with construct and discriminant validity, as well as concurrent validity compared with several widely used clinical instruments. Results: Excellent agreement among raters was observed in the outpatient subgroup (kappa range 0.77 to 1.00), whereas interrater reliability was modest in the inpatient subgroup (kappa values < 0.55). In cases where the patient-caregiver relationship lasted more than 1 month, the reliability of the scale improved. Construct validity analysis revealed no subscale structure. All items except "self-injury" displayed high concurrent validity (significant Spearman correlations with 8 other questionnaires). In terms of discriminant validity, the "cognitive impairment" (area under the curve [AUC] 0.91) and "depressive symptoms" (AUC 0.79) items showed high sensitivity and specificity values. Conclusion: Our results indicate that the French version of HoNOS65+ is a promising clinical assessment tool to evaluate mental disorders in the elderly in outpatient settings. We support its use in routine clinical practice, with the condition that a relatively long and individualized patient-caregiver relationship has been established.

90. Fassaert T, Lauriks S, van de Weerd S, Theunissen J, Kikkert M, Dekker J, et al. **Psychometric properties of the Dutch version of the Self-Sufficiency Matrix (SSM-D).** Community Mental Health Journal 2014;50(5):583-590.

Record no: 84

Abstract: Measuring treatment outcomes can be challenging in patients who experience multiple interlinked problems, as is the case in public mental health care (PMHC). This study describes the development and psychometric properties of a Dutch version of the self-sufficiency matrix (SSM-D), an instrument that measures outcomes and originates from the US. In two different settings, clients were rated using the SSM-D in combination with the Health of the Nation Outcome Scales (HoNOS) and the Camberwell assessment of need short appraisal schedule (CANSAS). The results provided support for adequate psychometric properties of the SSM-D. The SSM-D had a solid single factor structure and internal consistency of the scale was excellent. In addition, convergent validity of the SSM-D was indicated by strong correlations between HoNOS and CANSAS, as well as between several subdomains. Further research is needed to establish whether the results

presented here can be obtained in other PMHC settings. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

91. Fassino S, Amianto F, Gastaldo L, Leombruni P. **Anger and functioning amongst inpatients with schizophrenia or schizoaffective disorder living in a therapeutic community.** *Psychiatry & Clinical Neurosciences* 2009;63(2):186-194.

Record no: 85

Abstract: AIMS: This study explored the functional correlates of anger amongst therapeutic community inpatients.

METHODS: The sample consisted of 44 subjects diagnosed with schizophrenic/schizoaffective disorder who were involved in a community treatment program. Assessment involved administration of the Health of Nation Outcome Scales and the Global Assessment of Functioning as well as self-evaluations using the Social Adaptation Self-evaluation Scale. Psychopathology was assessed with the Positive and Negative Symptoms Scale. Angry feelings and coping skills were self-assessed with the State-Trait Anger Expression Inventory and the Symptom Checklist-90 Hostility Scale. Multiple regression analyses correlated anger with functioning, controlling for psychopathology.

RESULTS: Angry feelings related to self-harm, hyperactivity, physical problems, and to global weight independently from Positive and Negative Symptoms Scale scores. They also predicted interest and pleasure in housekeeping, quality of social relationships and relational exchanges.

CONCLUSIONS: Results showed that angry feelings were not merely derivations of schizophrenic psychopathology; rather, they were independently related to self-damaging behaviors, to attentional demands towards the staff, to agreement to community tasks and to low quality of social relationships. Indeed, anger was related to adaptation's level in a therapeutic community setting demonstrated by subjects with psychoses and it may represent an indirect measure of their experienced quality of life. Therapeutic and management approaches to anger amongst subjects with schizophrenia are discussed.

92. Frigerio A, Vanzin L, Pastore V, Nobile M, Giorda R, Marino C, et al. **The Italian preadolescent mental health project (PrISMA): rationale and methods.** *International Journal of Methods in Psychiatric Research* 2006;15(1):22-35.

Record no: 88

Abstract: The Italian preadolescent mental health project (PrISMA--Progetto Italiano Salute Mentale Adolescenti) is the first Italian study designed to estimate the prevalence of mental disorders in preadolescents (10-14 years old) living in urban areas, and to analyse the demographic and biological correlates of emotional and behavioural problems. This paper describes the rationale, methods and the analysis plan of the project. The design of the study used a two-stage sampling procedure, one screening stage of emotional and behavioural problems in a large sample of subjects attending public and private schools and a second stage of diagnostic assessment in a sample including all high scorers and a proportion of low scorers. In the screening stage, parents of preadolescents were asked to fill in the Child Behavior Checklist (CBCL), whereas in the second stage preadolescents and their parents were administered the Development and Well Being Assessment for the assessment of mental disorders together with the Strengths and Difficulties Questionnaire and two scales (C-GAS and HoNOSCA) designed to evaluate the functioning of the preadolescent in different areas. Genetic samples were collected during the screening stage, after parents gave their

informed written consent. The findings of this study are expected to allow an adequate planning of interventions for the prevention and the treatment of mental disorders in preadolescence as well as efficient health services.

93. Gigantesco A, Picardi A, De Girolamo G, Morosini P. **Discriminant validity of the Health of the Nation Outcome Scales in Italian psychiatric residential facilities. [Italian] Validita discriminante della Health of the Nation Outcome Scales nelle strutture residenziali psichiatriche italiane.** Italian Journal of Psychopathology 2005;11(1):20-25.

Record no: 91

Abstract: Introduction: The Health of the Nation Outcome Scales (HoNOS) was developed in the mid-1990s as a comprehensive short instrument to measure patient outcomes in mental health services. The opinions about the reliability and validity of the HoNOS are very controversial. Objectives: To analyse the convergent and discriminant validity of the HoNOS in a large, national representative sample of psychiatric patients living in residential facilities. Method: A wide sample of patients with psychotic disorders, admitted to 265 Italian Residential Facilities (RFs), were rated by trained research assistants and local staff on the HoNOS, Social and Occupational Functioning Assessment Scale (SOFAS), Life Skill Profile (LSP), Physical Health Index (PHI) and presence of positive symptoms. Discriminant function analysis was employed to analyse the ability of the HoNOS items to correctly classify patients belonging to 4 groups defined according to the presence of positive symptoms and considerable psychosocial or physical disability. The convergent validity of the HoNOS with the above-mentioned established measures was examined by means the Pearson correlation coefficient. Results: On the whole, the pattern of correlations between HoNOS and the other corresponding measures was found to be coherent. Yet the correlations had modest or moderate values, except the correlation between the HoNOS subscale Social Problems and SOFAS that was 0.59. In discriminant function analysis, the classification procedure correctly classified 55.7% of the patients. Conclusions: Although HoNOS has many advantages with regard to brevity, it may lack sufficient discriminant power for certain patient groups. Further, it correlates modestly with a major measure of disability, and poorly with a major measure of physical health status. As such, it is concluded that the properties of the HoNOS do not warrant its use as a routine measure without supplementary measures.

94. Gigantesco A, Picardi A, De Girolamo G, Morosini P. **Discriminant ability and criterion validity of the HoNOS in Italian psychiatric residential facilities.** Psychopathology 2007;40(2):111-115.

Record no: 92

Abstract: Background: The Health of the Nation Outcomes Scales (HoNOS) was developed as an inclusive and comprehensive instrument to assess patient outcomes in 4 main domains: behaviour, cognitive and physical impairment, symptoms and social functioning/context. Concerns about the reliability and validity of the HoNOS have been raised. The aim of this study was to further investigate the discriminatory ability of the HoNOS; criterion validity was also examined. Sampling and Methods: A broad sample of patients with psychotic disorders, admitted to 265 Italian residential facilities, were rated by trained research assistants and local staff on the HoNOS, Global Assessment of Functioning, Life Skills Profile, and Physical Health Index. Discriminant function analysis was used to examine the ability of the HoNOS items to correctly classify patients with positive symptoms, substantial psychosocial impairment or physical disability. The HoNOS

criterion validity was also examined. Results: On the whole, the pattern of correlations between the HoNOS and the other corresponding measures was consistent. However, the majority of the correlations were only moderate. In discriminant function analysis, the classification procedure correctly classified 55.7% of the patients. Conclusions: Although the HoNOS has many advantages in its brevity, it may lack sufficient discriminatory ability for certain patient groups. Further, it correlates only moderately with measures of disability and physical health status. These findings suggest that the HoNOS alone might be insufficient for routine evaluation and should probably be supplemented by additional measures. Copyright 2007 S. Karger AG.

95. Groleau R, Bigras M, Cote G. **Validation of a sorting of cards Q for the evaluation of the social adaptation in psychiatry.** *Revue de Psychoeducation* 2013;42(1):135-160.

Record no: 99

Abstract: This study presents the development and validation of a Q-Sort for assessing social adaptation of psychiatric patients (Q-ASP). The Q-Method is thought to provide useful qualitative and quantitative data for the participant observers of social adaptation of patients at risk for violence and addiction in the process of psychiatric rehabilitation, 33 patients were evaluated by clinicians using the Q-ASP. The results confirmed that the Q-ASP had an excellent stability ($r = 0.95$) and converged with the HoNOS ($r = 0.62$) as expected. Interrater reliability was fair ($r = 0.70$) and experts agreed ($r = 0.81$) to describe an optimum profile of a patient that is likely to socially adapt to his/her community. The main advantage of the Q-ASP is to provide a behavioral profile of risks and protective factors related to adaptation of psychiatric patients in their social environment. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

96. Gunther O, Roick C, Angermeyer MC, Konig HH. **The EQ-5D in alcohol dependent patients: Relationships among health-related quality of life, psychopathology and social functioning.** *Drug and Alcohol Dependence* 2007;86(2-3):253-264.

Record no: 100

Abstract: Objective: The EQ-5D, a short generic health-related quality of life (HRQOL) questionnaire, can derive preference-based index scores (e.g. EQ VAS, British and German EQ-5D indices) for economic evaluation. This study examined if the EQ-5D could be a valid measure describing and valuing HRQOL in alcohol dependent individuals. Methods: In a sample of 103 individuals diagnosed with alcohol dependence (ICD-10 F10.2), we compared the EQ-5D against a quality of life measure (WHOQoL-BREF), a utility scale (TTO), measures of psychopathology (SCL-90R, CGI-S) and measures of social functioning (GAF, GARF, SOFAS, HoNOS). Results: The response rate to EQ-5D dimensions was >98%. Twelve percent of the individuals indicated "extreme problems" in at least one dimension. Different response levels in the dimension "anxiety/depression" were associated with largest effect sizes ($|d|$) of differences in mean scores of the WHOQoL-BREF domain "mental" ($|d| = 1.17$), the SCL-90R scales "obsessive-compulsive" ($|d| = 1.15$), "depression" ($|d| = 1.16$), "anxiety" ($|d| = 1.10$) and "GSI" ($|d| = 1.09$) indicating a similarity between the underlying constructs; concerning the dimensions "self-care", "usual activities", "pain/discomfort" and "mobility" effect sizes were generally lower ($0.74 < |d| < 1.07$) or insignificant. The EQ-5D VAS score (mean 58.0), the British EQ-5D index (mean 0.74) and the German EQ-5D index (mean 0.85) showed moderate correlations with other scales ($0.28 < r < 0.60$). Conclusion:

Seventeen out of 30 hypothesized relationships between similar constructs of the EQ-5D and measures used for comparison were confirmed, possibly favoring EQ-5D's validity. However, the EQ-5D showed a moderate ceiling effect. Further confirmatory research is needed to support the EQ-5D suitability for economic evaluation in alcohol dependent populations. 2006 Elsevier Ireland Ltd. All rights reserved.

97. Gunther OH, Roick C, Angermeyer MC, König H-H. **Responsiveness of EQ-5D utility indices in alcohol-dependent patients.** *Drug and Alcohol Dependence* 2008;92(1-3):291-295.

Record no: 101

Abstract: Introduction: The EQ-5D provides community-based preference weights (utilities) for calculating quality adjusted life years (QALYs) in cost-utility analysis. This study aimed to analyze the responsiveness of EQ-5D-based utilities in patients with alcohol dependence. Methods: In an observational longitudinal cohort study of alcohol-dependent patients (N = 52), three different EQ-5D-based utilities (EQ-Index United Kingdom, United States, and Germany) were calculated and compared with the scores of the WHOQOL-BREF (mental domain), HoNOS (total score), and GAF at baseline and at 18 months. Patients were categorized with more/same/less problems according to their self reported consumption of alcohol (patient-based anchor) and their problem status due to alcohol consumption using a question of the HoNOS scale (clinician-based anchor). Effect sizes (ES) were used to compare longitudinal changes in scores within each group; regression analysis was used to derive difference scores in health status associated with a shift from "same" to "less" problems according to the two anchors. Results: ES were rather trivial to medium for all EQ-5D indices (ranging from 0.10 to 0.59) related to a shift from "same" to "less" problems in the two anchors. Differences in scores of the EQ-5D indices revealing a shift from "same" to "less" problems according to the two anchors were not significant. Conclusions: These results suggest that the EQ-5D indices are less responsive and require larger patient samples to detect meaningful clinical differences compared to the other used instruments. Additional research is needed to compare societal and clinical views on relevant change in health status in this patient group. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

98. Hansen JP, Østergaard B, Nordentoft M, Hounsgaard L. **Cognitive adaptation training combined with assertive community treatment: a randomised longitudinal trial.** *Schizophrenia research* 2012;135(1-3):105-111.

Record no: 103

Abstract: BACKGROUND: Cognitive adaptation training (CAT) targets the adaptive behaviour of patients with schizophrenia and has shown promising results regarding the social aspects of psychosocial treatment. As yet, no reports have appeared on the use of CAT in combination with assertive community treatment (ACT). Our purpose was to evaluate the effect of CAT in comparison with ACT, focusing on social functions (primary outcome), symptoms, relapse, re-hospitalisation, and quality of life of outpatients with schizophrenia. METHODS: The trial was a parallel, randomised, multicentre trial conducted in three centres treating patients with a first episode of schizophrenia disorder. A total of 62 outpatients diagnosed as having schizophrenia were randomly assigned to CAT+ACT or ACT alone. The CAT was conducted in the patient's home and included instruction in prompting for specific actions. The treatment lasted for 6 months, and the patients were assessed at baseline and at 6- and 9-month follow-ups. RESULTS: The

results of mixed-effects regression models indicated no significant differences between intervention group and control group at 6 and 9 months in any outcome [Global Assessment of Functioning at 6 months ($p=0.32$) and the Health of the Nation Outcome Scales social subscale at 6 months ($p=0.30$)]. **CONCLUSION:** The results from this trial differ from previous CAT trials because use of CAT showed no significant effects. However, the low number of participants may have been responsible for these results. Thus, additional studies are needed to determine whether the use of some elements of CAT can help to make ACT more economically effective.

99. Hasselberg N, Grawe RW, Johnson S, Ruud T. **An implementation study of the crisis resolution team model in Norway: are the crisis resolution teams fulfilling their role?** BMC health services research 2011;11:96.

Record no: 110

Abstract: The establishment of crisis resolution teams (CRTs) is part of the national mental health policy in several Western countries. The purpose of the present study is to describe characteristics of CRTs and their patients, explore the differences between CRTs, and examine whether the CRTs in Norway are organized according to the international CRT model. The study was a naturalistic study of eight CRTs and 680 patients referred to these teams in Norway. Mental health problems were assessed using the Health of the Nation Outcome Scales (HoNOS), Global Assessment of Functioning Scales (GAF) and the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10). None of the CRTs operated 24 hours a day, seven days a week (24/7 availability) or had gate-keeping functions for acute wards. The CRTs also treated patients who were not considered for hospital admission. Forty per cent of patients waited more than 24 hours for treatment. Fourteen per cent had psychotic symptoms, and 69% had affective symptoms. There were significant variations between teams in patients' total severity of symptoms and social problems, but no variations between teams with respect to patients' aggressive behaviour, non-accidental self-injury, substance abuse or psychotic symptoms. There was a tendency for teams operating extended hours to treat patients with more severe mental illnesses. The CRT model has been implemented in Norway without a rapid response, gate-keeping function and 24/7 availability. These findings indicate that the CRTs do not completely fulfil their intended role in the mental health system.

100. Hustoft K, Larsen TK, Auestad B, Joa I, Johannessen JO, Ruud T. **Predictors of involuntary hospitalizations to acute psychiatry.** International Journal of Law & Psychiatry 2013;36(2):136-143.

Record no: 117

Abstract: **INTRODUCTION:** There is little knowledge of predictors for involuntary hospitalizations in acute psychiatric units.

METHOD: The Multi-center study of Acute Psychiatry included all cases of acute consecutive psychiatric admissions in twenty acute psychiatric units in Norway, representing about 75% of the acute psychiatric units during 2005-2006. Data included admission process, rating of Global Assessment of Functioning and Health of the Nation Outcome Scales.

RESULTS: Fifty-six percent were voluntary and 44% involuntary hospitalized. Regression analysis identified contact with police, referral by physicians who did not know the patient, contact with health services within the last 48 h, not living in own apartment or house, high scores for aggression, level of hallucinations and delusions, and contact with an out-of office clinic within the last 48 h and low GAF symptom score as predictors for involuntary

hospitalization. Involuntary patients were older, more often male, non-Norwegian, unmarried and had lower level of education. They more often had disability pension or received social benefits, and were more often admitted during evenings and nights, found to have more frequent substance abuse and less often responsible for children and were less frequently motivated for admission. Involuntary patients had less contact with psychiatric services before admission. Most patients were referred because of a deterioration of their psychiatric illness.

CONCLUSION: Involuntary hospitalization seems to be guided by the severity of psychiatric symptoms and factors "surrounding" the referred patient. Important factors seem to be male gender, substance abuse, contact with own GP, aggressive behavior, and low level of social functioning and lack of motivation. There was a need for assistance by the police in a significant number of cases. This complicated picture offers some important challenges to the organization of primary and psychiatric health services and a need to consider better pathways to care. Copyright 2013 Elsevier Ltd. All rights reserved.

101. Koch N, Wasserfallen J-B, Camus D, Gebel S, Bonsack C. **Implementing validated routine outcome assessment in psychiatry: A field study.** Schweizer Archiv fur Neurologie und Psychiatrie 2013;164(4):134-144.

Record no: 128

Abstract: The objectives of this observational study were twofold: firstly, to examine the feasibility of implementing the Health of the Nation Outcome Scales (HoNOS) in a psychiatry department and secondly, to assess whether information recorded with HoNOS provides meaningful information on patients' clinical characteristics and outcomes for clinical management purposes. HoNOS is a widely used instrument designed for measurement of clinical mental health outcomes by mental healthcare workers. We implemented it in the four hospitals of the department of psychiatry of a Swiss teaching hospital. Doctors and nurses were instructed to assess each patient using HoNOS at admission and discharge. A total of 2,414 patients admitted to one of the four hospitals during implementation from February 15, 2010 to March 31, 2011 were rated with HoNOS. The main outcomes of the study were compliance rates with HoNOS assessments, HoNOS scores (at admission, discharge and the change in scores) and feedback on HoNOS use from clinicians. Of the 2,414 admitted patients, 2,121 patients were discharged by the end of the study; 2,154 (89%) had a HoNOS assessment at admission and 1,737 (82%) were assessed both at admission and discharge. Return rates for the different scales varied between 75% and 99% at admission and discharge. HoNOS scores were sensitive and specific in describing patients' clinical profiles. The instrument was considered easy to use. Implementation of HoNOS in routine patient care is feasible and provides meaningful information for hospital management on clinical characteristics and outcome of their patients' populations. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

102. Konig HH, Gunther OH, Angermeyer MC, Roick C. **Utility assessment in patients with mental disorders: Validity and discriminative ability of the time trade-off method.** Pharmacoeconomics 2009;27(5):405-419.

Record no: 129

Abstract: Background: Preference-based health-state values, also referred to as utility scores, are considered an important measure of outcome in the evaluation of healthcare. A common approach to elicit utility scores is the use of the time trade-off (TTO) method; however, the data on TTO utility scores in patients with mental disorders are scarce. Objective: To analyse the TTO

method in patients with mental disorders in terms of discriminative ability, validity and the refusal to trade life time (zero trade). Methods: In patients with affective (n = 172), schizophrenia spectrum (n = 166) and alcohol-related (n = 160) mental disorders, TTO utilities were administered through a standardized interview. Measures of quality of life (QOL) [EQ-5D, WHOQOL-BREF], subjective (SCL-90R) and objective (CGI-S) psychopathology, and functioning (GAF, GARF, SOFAS, HoNOS) provided comparison. Discriminative ability was analysed by assessing frequency distributions of TTO utilities. Validity was analysed by assessing the correlation of TTO utilities with all other scores. The association of a patient's QOL, sociodemographic and disease-related variables with zero trade was analysed by logistic regression. Results: Of patients with affective/schizophrenic/alcohol-related mental disorders, 153/143/145 (89/86/91%), respectively, completed the TTO elicitation; 29/43/28% of the respondents were zero traders. The mean TTO utility was 0.66/0.75/0.61 and the median was 0.85/0.95/0.75. TTO utility scores discriminated well among more impaired mental health states, but discrimination was limited among less impaired health states. In patients with affective and alcohol-related mental disorders, TTO utility scores were significantly correlated (mostly moderate: $0.3 > r > 0.5$) with all other scores. However, in schizophrenic patients, TTO utility scores were only a little correlated with other subjective measures and not correlated with objective measures. QOL was significantly associated with zero trade; the influence of the other variables on zero trade was negligible. Conclusions: TTO utility scores in patients with affective or alcohol-related mental disorders were reasonably valid, but discriminative ability was compromised by a ceiling effect due to zero trade. In schizophrenic patients, validity of TTO utility scores was not demonstrated. 2009 Adis Data Information BV.

103. König HH, Roick C, Angermeyer MC. **Validity of the EQ-5D in assessing and valuing health status in patients with schizophrenic, schizotypal or delusional disorders.** *European Psychiatry* 2007;22(3):177-187.

Record no: 130

Abstract: Purpose: The EQ-5D is a generic questionnaire generating a health profile and a single index score for health-related quality of life. This study aimed to analyse the discriminative ability and validity of the EQ-5D in patients with schizophrenic, schizotypal or delusional disorders. Subjects and methods: One hundred sixty-six patients with schizophrenic, schizotypal or delusional disorders (ICD-10 F2) completed the EQ-5D. Measures of quality of life (WHOQOL-BREF), utility (TTO), subjective (SCL-90R) and objective (PANSS, CGI-S) psychopathology, and functioning (GAF, GARF, SOFAS, HoNOS) provided comparison. Discriminative ability was analysed by assessing frequency distributions of EQ-5D scores. Validity of the EQ-5D self-classifier was analysed by assessing differences in related other scores grouped by response levels of EQ-5D items. Validity of the visual analogue scale (EQ VAS) and the EQ-5D index (UK social tariff) was analysed by assessing their correlation with all other scores. Results: Seventy-nine percent of respondents reported problems in at least one of the EQ-5D dimensions (anxiety/depression 57%, usual activities 45%, pain/discomfort 44%, self-care 29%, mobility 22%). The mean EQ VAS score/EQ-5D index was 65.7/0.71. The four most frequently reported EQ-5D health states covered 45% of all respondents. For almost all EQ-5D dimensions, different response levels were associated with significantly different scores of measures used for comparison. Correlation of EQ VAS score and EQ-5D index were largest with scores of subjective measures (SCL-90R: -0.50 and -

0.73; WHOQOL mental subscore 0.62 and 0.58; always $P < 0.001$).
Discussion and conclusion: The EQ-5D showed a moderate ceiling effect and seems to be reasonably valid in this patient group. 2006 Elsevier Masson SAS. All rights reserved.

104. Kortrijk HE, Mulder CL, van der Gaag M, Wiersma D. **Symptomatic and functional remission and its associations with quality of life in patients with psychotic disorder in Assertive Community Treatment teams.** *Comprehensive Psychiatry* 2012;53(8):1174-1180.

Record no: 131

Abstract: OBJECTIVES: The aims of the present study were (1) to determine the proportion and characteristics of patients treated in Assertive Community Treatment teams who achieve symptomatic remission (SR) and/or functional remission (FR) and (2) to explore the association between both types of remission and (3) their bearing on quality of life (QoL).

METHODS: Data comprised assessments from 278 patients who were repeatedly assessed using the Positive and Negative Syndrome Scale to assess SR, the Health of the Nation Outcome Scales to assess FR, and a shortened version of the Manchester Short Assessment to assess QoL. chi(2) Tests and a logistic regression analysis were used to analyze the relation between patient and treatment characteristics and achieving SR or FR. A Kruskal-Wallis test, Mann-Whitney U tests, and a logistic regression analysis were used to analyze the relationship between remission status and QoL.

RESULTS: After a mean treatment duration of 2.4 years, 26% met the criteria for SR and 30% for FR. Prescription of antipsychotic medication was associated with achieving both SR and FR. Approximately half of the patients who achieved SR also achieved FR. Achieving FR was associated with better QoL. Patients in SR did not have better QoL than did patients not in SR.

CONCLUSIONS: Remission of symptoms in patients treated in Assertive Community Treatment teams was not a prerequisite for FR or vice versa. FR, not SR, was associated with better QoL. Copyright 2012 Elsevier Inc. All rights reserved.

105. Lauzon S, Corbiere M, Bonin JP, Bonsack C, Lesage AD, Ricard N. **Validation of the French version of the Health of the Nation Outcome Scale (HoNOS-F). [French]**

Validation de la version française du Health of the Nation Outcome Scales (HoNOS-F). *Canadian Journal of Psychiatry* 2001;46(9):841-846.

Record no: 134

Abstract: Objective: This study reports the validation of the French version of the Health of the Nation Outcome Scales (HoNOS-F), a questionnaire developed to measure health and social functioning of people with mental illness. Method: Once each statement was tested for readability, the scale was administered to 3 samples of people suffering from severe mental disorders to estimate its reliability and validity. More specifically, tests were run to establish the internal consistency, the stability, and the interrater reliability of the HoNOS-F. Confirmative factor analyses and mean differences according to age, sex, and diagnosis were also conducted to evaluate respectively construct- and criterion-related validity. Results: Coefficients obtained from the various tests show that the scale is reliable only when the total score is used. The confirmatory factor analyses indicate that the observed data do not fit the 2 proposed models, a unidimensional model and a 4-dimension model. However, the scale did show criterion-related validity. Conclusions: Results of the present study converge with those obtained on the original widely used English version. Therefore, we suggest that clinicians use the questionnaire by referring to each item separately and by

considering such patient characteristics as age, sex, and diagnosis. We also suggest that researchers wishing to evaluate health and social functioning of persons with serious mental disorders use the total score. Caution is, however, warranted when interpreting the total score for a French-speaking population, because the factorial solution 1-dimension model did not prove to be satisfactory.

106. Lora A, Bai G, Bianchi S, Bolongaro G, Civalenti G, Erlicher A, et al. **The Italian version of HoNOS (Health of the Nation Outcome Scales), a scale for evaluating the outcome and the severity in mental health services.** *Epidemiologia e Psichiatria Sociale* 2001;10(3):198-204.

Record no: 137

Abstract: Discusses the effectiveness of the Italian version of the HoNOS (Health of the Nation Outcome Scales; J. K. Wing et al, 1998), a scale for evaluating treatment outcome and symptom severity in mental health services. The reproducibility of assessments among different observers at mental health facilities in Italy is examined. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

107. Lovaglio PG, Monzani E. **Validation aspects of the health of the nation outcome scales.** *International Journal of Mental Health Systems* 2011;5(20).

Record no: 138

Abstract: Background: The purpose of the current study was the psychometric evaluation of the Health of the Nation Outcome Scales (HoNOS), an instrument developed to meet the necessity of a clinically acceptable outcome scale for routine use in mental illness services. Methods: The study participants included 2,162 outpatients and residential inpatients (rated on the HoNOS on three occasions during the year 2000) with a range of mental illnesses in different diagnostic groups from ten Mental Health Departments, located in the area of Milan (Italy). Principal Component Analysis, Confirmatory Factor Analysis, Discriminant Analysis and Partial Credit Rasch Model were used to assess two sources of validity: the internal structure and the relationships with other variables. Results: The results of the 12-item HoNOS demonstrate a significant departure from unidimensionality, confirmed by the Rasch analysis (which identified three misfitting items). However, HoNOS scores demonstrate stability and precision of item difficulties over time. Discriminant analysis showed that HoNOS scores have an acceptable level of discriminatory power in predicting the severity of patients' conditions (as represented by setting). Conclusions: It was concluded that the Italian version of the HoNOS does not measure a single, underlying construct of mental health status. The internal structure validity analysis recommends a note of caution to use a summary index of the HoNOS scores, given the presence of multidimensionality and misfit. Nonetheless, the finding that the instrument is more multidimensional than unidimensional does not preclude the use of the HoNOS as a clinically valid tool for routine outcome assessment. In fact, item scores have demonstrated sufficient reliability (over diagnostic groups and care settings) and high precision in time, indicating that HoNOS items can be utilized as valid measurement instruments in longitudinal analyses. 2011 Lovaglio and Monzani; licensee BioMed Central Ltd.

108. Lovaglio PG, Monzani E. **Health of the nation outcome scales evaluation in a community setting population.** *Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation* 2012;21(9):1643-1653.

Record no: 139

Abstract: To explore the internal structure of the health of the nation outcome scales (HoNOS-12), proposing a shorter one-dimensional version for routine use in community-oriented mental health services. A validation study involving four mental health departments, located in the province of Milan (Italy). Eligible patients were outpatients and residential inpatients rated on three occasions during the year 2009, with a range of mental illnesses and diagnoses. Methodologically, we use both exploratory factor analysis (EFA) with holdout validation and Rasch approaches and parallel analysis. EFA, Rasch analysis and parallel analysis demonstrate a large violation of unidimensionality. Both EFA (training sample) and Rasch analyses yield convergent results, generating the same unidimensional abbreviated version of the HoNOS-12, resulting in a six-item scale (HoNOS-6) which demonstrates unidimensionality, good item fit, a solid factor structure (strong loadings and communalities) and acceptable model fit, evaluated using confirmatory factor analysis on a validation sample. The HoNOS-12 does not measure a single, underlying construct of mental health status. Nevertheless, the instrument can be utilized in a reduced version (HoNOS-6), as a clinically acceptable outcome scale (measuring self-perceived clinical and social needs for community support, rather than global mental disorder) for routine use in a community setting population.

109. Mak K-K, Lai C-M, Ko C-H, Chou C, Kim D-I, Watanabe H, et al.

Psychometric properties of the revised chen internet addiction scale (cias-r) in chinese adolescents. Journal of Abnormal Child Psychology Mar 2014 (Pagination):No Pagination Specified.

Record no: 142

Abstract: The Revised Chen Internet Addiction Scale (CIAS-R) was developed to assess Internet addiction in Chinese populations, but its psychometric properties in adolescents have not been examined. This study aimed to evaluate the factor structure and psychometric properties of CIAS-R in Hong Kong Chinese adolescents. 860 Grade 7 to 13 students (38 % boys) completed the CIAS-R, the Young's Internet Addiction Test (IAT), and the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) in a survey. The prevalence of Internet addiction as assessed by CIAS-R was 18 %. High internal consistency and inter-item correlations were reported for the CIAS-R. Results from the confirmatory factor analysis suggested a four-factor structure of Compulsive Use and Withdrawal, Tolerance, Interpersonal and Health-related Problems, and Time Management Problems. Moreover, results of hierarchical multiple regression supported the incremental validity of the CIAS-R to predict mental health outcomes beyond the effects of demographic differences and self-reported time spent online. The CIAS is a reliable and valid measure of internet addiction problems in Hong Kong adolescents. Future study is warranted to validate the cutoffs of the CIAS-R for identification of adolescents with Internet use problems who may have mental health needs. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

110. Meneghelli A, Alpi A, Cascio MT, Hafner H, Maurer K, Preti A, et al. **Italian validation of the "Early Recognition Inventory for the retrospective assessment of the Onset of Schizophrenia Checklist": Reliability, validity and instructions for use. [Italian] Versione Italiana della "Early Recognition Inventory for the retrospective assessment of the Onset of Schizophrenia Checklist": Affidabilità, validità e istruzioni per l'uso.** Journal of Psychopathology 2014;20(2):186-198.

Record no: 151

Abstract: Objectives: Screening questionnaires are often used at first-contact with psychiatric services to identify, among those displaying psychological distress, those who need more in-depth assessment. The Early Recognition Inventory for the retrospective assessment of the Onset of Schizophrenia Checklist (ERiraos-CL) may be a useful tool to prompt further screenings in young help-seekers, who are experiencing symptoms that are compatible with a prodromic state of psychosis. This study describes the psychometric properties of the Italian version of ERiraos-CL in high risk and early onset populations. Materials and methods: The study was carried out as part of Programma2000 in Milan (Italy). Participants were 113 individuals with a diagnosis of First Episode Psychosis (FEP) and 97 individuals with a diagnosis of high-risk psychosis (UHR). The ERiraos-CL reliability was measured by internal consistency (Cronbach alpha) and by test-retest stability after 6 months (intraclass correlation coefficient). The concurrent validity of ERiraos-CL was assessed by correlation with the Brief Psychiatric Rating Scale (BPRS) and with the Health of the Nation Outcome Scales (HoNOS). The discriminant validity of this tool was assessed by comparing scores between FEP and URP with threshold at 10, which is slightly less than the threshold that discriminates between at risk cases and non-cases (12). Results: Internal consistency was good for all the scales in both samples, with low values for ERiraos-CL. Retest stability after 6 months of ERiraos-CL was acceptable (> 0.70) in both diagnostic groups. In both groups, ERiraos-CL correlated positively with HoNOS and BPRS. ERiraos-CL discriminates effectively between FEP and UHR. The two groups differ statistically by symptoms that qualify for the presence of an active episode of psychosis: suspiciousness/distrust, ideas of self-reference, changes in perception, paranoid ideation and hallucinations. Conclusions: The Italian version of the ERiraos-CL has good psychometric properties that make it suitable for routine use as a scale for the identification of the cases that might benefit from a more in-depth assessment of the risk of psychosis.

111. Morosini P, Gigantesco A, Mazzarda A, Gibaldi L. **HoNOS-Rome: An expanded, customized, and longitudinally oriented version of the HoNOS. [Italian] HoNOS-Roma: Una versione ampliata, personalizzabile e che facilita la compilazione ripetuta nel tempo dello strumento HoNOS.** *Epidemiologia e Psichiatria Sociale* 2003;12(1):53-62.

Record no: 155

Abstract: Aims - To clarify the acceptability, reliability and factorial validity of a new Italian version of the HoNOS called HoNOS-Rome. Its main innovations are both in design and in contents. Methods - Face validity was assessed by surveying 3 focus groups. Reliability was assessed in 8 different pairs of raters on a sample of 24 patients; construct validity was analysed by factor analysis using a sample of 187 patients at 6 day centres. Acceptability was investigated by means an anonymous questionnaire filled by professionals that were using the instrument. Results - Time of completion was low (range 4-12 minutes), the tool proved very acceptable and the reliability was good (weighted kappa > 0.71 for all items). Factor analysis was consistent with the division of HoNOS-Rome into four sensible factors accounting for 52% of the total variance. Conclusions - The findings indicate that HoNOS-Rome has a satisfactory degree of acceptability, construct validity and reliability, and may promote the routine evaluation of outcomes in mental health services.

112. Mulder CL, Staring ABP, Loos J, Buwalda VJA, Kuijpers D, Sytema S, et al. **The Health of the Nation Outcome Scales (HONOS) in Dutch**

translation as an instrument for routine outcome assessment. [Dutch] De Health of the Nation Outcome Scales (HONOS) als instrument voor 'routine outcome assessment'. Tijdschrift voor Psychiatrie 2004;46(5):273-284.

Record no: 158

Abstract: BACKGROUND: The Health of the Nation Outcome Scales (HONOS) is a scaling device routinely used by the mental health services in Anglo-Saxon countries in order to map a patient's mental state and any changes that may have occurred in it. Up till recently the scaling device had not been applied in the Netherlands. AIM: To investigate the usefulness and the psychometric qualities of the HONOS in Dutch translation as an instrument for 'routine outcome assessment'. METHOD: Trained personnel used the HONOS to find the scores of 559 patients in various institutions in the Netherlands. The HONOS (12 items) measures behavioural problems, impairments, symptoms and social problems. The reliability, validity and structure of the HONOS were investigated. RESULTS: The reliability of the HONOS was found to be fair to good. The validity was considered to be satisfactory for the following reasons: item patterns of various syndromes differed in the expected manner, total scores varied according to treatment intensities, and the HONOS related fairly well to other scales. Subscale analysis revealed a psychotic and a neurotic dimension. CONCLUSION: The HONOS provides insight at both individual and group level into the seriousness of problems in the areas of interest and into changes that have occurred in those areas. The HONOS scaling device has reasonably good psychometric qualities, can be administrated in a short time, is not dependent on psychiatric diagnosis or language and is regarded as useful by both clinicians and patients. The subscale structure of the HONOS needs further investigation.

113. Nugter M, Buwalda V, Dhondt A, Draisma S. **The use of HoNOS in the treatment of patients.** Tijdschrift voor Psychiatrie 2012;54(2):153-159.

Record no: 163

Abstract: Background: In order to use outcome scores for making decisions about treatment, practitioners need to know the course of scores of several groups of patients. Aim: To test the applicability of methods for computing cut-off scores and individual changes. Method: Using Health of the Nation Outcome Scales (Honos), we analysed repeated assessments of 699 adults and 414 elderly patients in different treatment settings. Results: Mean Honos scores and cut-off scores differentiated between patient groups reasonably well. Scores and threshold values for elderly patients were relatively high. The reliable change index showed few individual changes even for groups where change was expected. The effect size and the standard error of measurement were found to be more sensitive to change. Conclusion: More research is needed before the findings can be generalised. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

114. Oiesvold T, Bakkejord T, Sexton JA. **Concurrent validity of the Health of the Nation Outcome Scales compared with a patient-derived measure, the Symptom Checklist-90-Revised in out-patient clinics.** Psychiatry Research 2011;187(1-2):297-300.

Record no: 164

Abstract: The psychometric properties of the Health of the Nation Outcome Scales (HoNOS) have been questioned. The present study examined the concurrent validity of the HoNOS against a patient-derived measure (the Symptom Checklist-90-R (SCL-90-R)) in out-patients. This relationship has previously only been investigated in in-patients. The study considered newly

admitted patients, and only those with a complete data set were analyzed (N= 118). Internal consistency (Cronbach's alpha) and effect sizes were calculated on pre- and post-treatment data. Concurrent validity was assessed using correlation (Spearman's rho) as well as agreement (kappa) on reliable and clinically significant change (RCSC). The internal consistencies associated with the SCL-90-R were satisfactory, a property shared only by the HoNOS sum score. The pre- to post-treatment changes in both instruments corresponded to medium to large effect sizes and were comparable in size. However, the correlations between the two were low, as was their agreement. This suggests that the HoNOS and the SCL-90-R measure somewhat different phenomena. The findings shed doubt on whether the patient-derived measures should be regarded as the "gold standard". The instruments seem to complement each other. 2010 Elsevier Ltd.

115. Ostergaard SD, Bille J, Soltoft-Jensen H, Lauge N, Bech P. **The validity of the severity-psychosis hypothesis in depression.** *Journal of Affective Disorders* 2012;140(1):48-56.

Record no: 166

Abstract: Background: Psychotic depression (PD) is classified as a subtype of severe depression in the current diagnostic manuals. Accordingly, it is a common conception among psychiatrists that psychotic features in depression arise as a consequence of depressive severity. The aim of this study was to determine whether the severity of depressive and psychotic symptoms correlate in accordance with this severity-psychosis hypothesis and to detect potential differences in the clinical features of PD and non-psychotic depression (non-PD). Methods: Quantitative analysis of Health of the Nation Outcome Scales (HoNOS) scores from all patients admitted to a Danish general psychiatric hospital due to a severe depressive episode in the period between 2000 and 2010 was performed. Results: A total of 357 patients with severe depression, of which 125 (35%) were of the psychotic subtype, formed the study sample. Mean HoNOS scores at admission differed significantly between patients with non-PD and PD on the items hallucinations and delusions (non-PD = 0.33 vs. PD = 1.37, $p < 0.001$), aggression (non-PD = 0.20 vs. PD = 0.36, $p = 0.044$) and on the total score (non-PD = 10.55 vs. PD = 11.87, $p = 0.024$). The HoNOS scores on the two items depression and hallucinations and delusions were very weakly correlated. Limitations: Diagnoses were based on normal clinical practice and not formalized research criteria. Conclusions: The symptomatology of PD and non-PD differs beyond the mere psychosis. Furthermore, severity ratings of depressive and psychotic symptoms are very weakly correlated. These findings offer further support to the hypothesis stating that the psychotic- and non-psychotic subtypes of depression may in fact be distinct clinical syndromes. 2012 Elsevier B.V.

116. Parabiaghi A, Barbato A, D'Avanzo B, Erlicher A, Lora A. **Assessing reliable and clinically significant change on Health of the Nation Outcome Scales: method for displaying longitudinal data.** *The Australian and New Zealand journal of psychiatry* 2005;39(8):719-725.

Record no: 169

Abstract: OBJECTIVE: Many authors recommended that reliable and clinically significant change (RCSC) should be calculated when reporting results of interventions. To test the reliability of the Health of the Nation Outcome Scales (HoNOS) in identifying RCSC, we applied the Jacobson and Truax model to two HoNOS assessments in a large group of people evaluated in 10 community mental health services in Lombardy, Italy, in 2000. METHOD:

The HoNOS was administered to 9817 patients; of these, 4759 (48%) were re-assessed. Reliable change (RC) was calculated using Cronbach's alpha (alpha), as a parameter of the reliability of the measure. Clinical significance cut-offs were calculated using a classification of severity based on HoNOS items. RESULTS: In the whole sample, the clinical improvement cut-off was 11 and the remission cut-off was 5. Considering the severe patients, the clinical improvement cut-off was 12. The RC index calculated on the whole group and on the subgroup of severe patients indicated that eight-point and seven-point changes, respectively, were needed to be confident that a real change had occurred. Longitudinal changes were depicted on two-dimensional graphs as examples of reporting RCSC on HoNOS total scores in a routine data collection: 91.6% of the whole sample (4361) was stable, 5.6% (269) improved and 1.8% (129) worsened. CONCLUSION: Our study proposes a methodological framework for computing RCSC normative data on a widely used outcome scale and for identifying different degrees of clinical change.

117. Parabiaghi A, Kortrijk HE, Mulder CL. **Defining multiple criteria for meaningful outcome in routine outcome measurement using the Health of the Nation Outcome Scales.** Social Psychiatry and Psychiatric Epidemiology 2014;49(2):291-305.

Record no: 170

Abstract: Purpose: Using the reliable and clinically significant change approach, we aimed to identify meaningful outcome indicators for the Health of the Nation Outcome Scales (HoNOS) and to combine them in a single model. We applied these indicators to the 1-year outcome of two large samples of people attending community mental health services in Italy (cohort 1) and the Netherlands (cohort 2). Methods: Data were drawn from two studies on routine outcome assessment. The criteria for meaningful outcome were defined on both study cohorts and both language versions of the scale. The model combined (a) two criteria for adequate change (at least 4 or 8 points change), (b) two cut-offs for clinically significant change (a total score of 10 was the threshold between mild and moderate illness, 13 between moderate and severe illness), and (c) a method for classifying stable subjects in three degrees of severity (stable in mild, moderate or severe illness). Results were compared with those given by the effect size (ES) and analysis of variance and covariance (ANOVA and ANCOVA). Results: For the proposed approach the outcome of cohort 1 was better than cohort 2, with 65-67 % of its subjects showing a positive outcome compared to only 45-46 %. The other reference methods (ES and ANOVA), however, showed a greater improvement for cohort 2. ANCOVA indicated that the differences were due to regression to the mean (RTM) which showed opposite effects across the two cohorts. Conclusions: The proposed approach proved valuable and generalizable for interpreting outcome on HoNOS, scarcely influenced by the RTM effect. Its introduction could benefit outcome evaluation and management. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

118. Pec O, Cechova D, Pecova J, Dragomirecka E, Seleпова P, Probstova V, et al. **HoNOS (Health of the Nations Outcome Scales) - An adaptation of the tool for the assessment of symptoms and social functions in serious mentally ill in the Czech conditions and its use. [Czech] HoNOS (Hodnoceni zdravotniho stavu) - Adaptace nastroje na hodnoceni symptomu a socialnich funkci u zavazne dusevne nemocnych v ceskych podminkach a jeho pouziti.** Ceska a Slovenska Psychiatrie 2009;105(6-8):245-249.

Record no: 171

Abstract: The English version of the assessment tool HoNOS (Health of the Nations Outcome Scales) has been translated into the Czech language and adapted to the Czech cultural conditions. The tool is feasible not only for evaluation of health status in patients for a routine practice of psychiatric services, but also as a follow-up outcome measure. The instrument is constructed for an assessment of symptoms as well as social functions. The two versions of the scale were submitted for the adaptation: the version for external evaluators and the version for patients. The reliability and validity of the Czech adaptation has been proven as satisfactory.

119. Phuaphanprasert B, Srisurapanont M, Silpakit C, Pannarunothai S, Udomratn P, Geater A, et al. **Reliability and validity of the Thai version of the health of the Nation Outcome Scales (HoNOS)**. Journal of the Medical Association of Thailand 2007;90(11):2487-2493.

Record no: 172

Abstract: Background: Measurement in psychiatric services is important for the development of a psychiatric tool for budget allocation. Objective: To translate the Health of the Nation Outcome Scales (HoNOS) into Thai and to assess its psychometric properties. Material and Method: The HoNOS was translated into Thai, by using the standard of "forward-backward" translation procedure. Two psychiatric nurses interviewed subjects together but independently rated their scores. The subjects were 23 acute inpatients and 23 sub-acute inpatients. The reliability and validity was assessed. Results: The Cronbach's alpha coefficient of the Thai HoNOS was 0.68. It had a high correlation ($r > 0.80$) with the Brief Psychiatric Rating Scale (BPRS), the Global Assessment of Functioning (GAF) and the Clinical Global Impression (CGI). It suggested high concurrent validity. It had a satisfactory power ($p < 0.05$) in discriminating overall clinical outcomes between acute and sub-acute psychiatric inpatients. Conclusion: The Thai HoNOS fulfils the requirements of a psychiatric outcome scale for routine use in inpatient service.

120. Preti A, Pisano A, Cascio MT, Galvan F, Monzani E, Meneghelli A, et al. **Validation of the Health of the Nation Outcome Scales as a routine measure of outcome in early intervention programmes**. Early Intervention in Psychiatry 2012;6(4):423-431.

Record no: 176

Abstract: Aim: So far, no study has assessed the validity of the Health of the Nation Outcome Scales (HoNOS) in patients enrolled in early intervention programmes, nor has any study evaluated the validity of the HoNOS in people at ultra high-risk (UHR) of psychosis. This study set out to assess the validity and reliability of the HoNOS as a measure of outcome in the patients enrolled in an early intervention programme. Methods: The concurrent, discriminant and predictive validity, and the reliability of the HoNOS as a measure of outcome in an early intervention programme were assessed in 87 first-episode psychosis (FEP) patients, and in 81 patients at UHR of psychosis. Results: Reliability indexes were good in the FEP sample, and less good in the UHR sample. HoNOS total scores differentiated between FEP and UHR patients, and the HoNOS subscales proved able to assess a specific profile of symptoms in the two samples, demonstrating a helpful adjunctive measure of health status without complete overlap with other scales. Sensitivity to change was also very good, again with differences between FEP and UHR patients. HoNOS scores at intake did not predict failure to attain remission in FEP patients. There were too few cases of transition to psychosis ($n=2$) to assess predictive validity of HoNOS in the UHR sample.

Conclusion: HoNOS possesses satisfactory sensitivity and validity to be used in the routine assessment in early intervention programmes. 2012 Wiley Publishing Asia Pty Ltd.

121. Santone G, Rucci P, Muratori ML, Monaci A, Ciarafoni C, Borsetti G.

Attitudes toward medication in inpatients with schizophrenia: a cluster analytic approach. *Psychiatry Research* 2008;158(3):324-334.

Record no: 183

Abstract: Attitudes toward medication (ATM) exert an influential role on compliance. Ninety-nine inpatients with schizophrenia were administered the Rating of Medication Influences scale (ROMI). Patients were also rated using: i) the Health of the Nation Outcome Scales, ii) the Global Assessment of Functioning scale, iii) the Clinical Global Impression, Severity scale, and iv) the WHO Quality Of Life assessment, Brief Version. Seventy-seven subjects (77.8%) completed the ROMI interview. Cluster analysis identified the following four clusters: i) Ambivalence (n=17; 22%); ii) Problems with Patient, Family, Alliance (n=11; 14.3%); iii) Medication Affinity, Positive Influence from Others (n=30; 39%); and iv) Illness, Medication, Label Distress (n=19; 24.7%). Clusters did not differ in demographic or clinical variables except for depressed mood and physical well-being, which were, respectively, lower and higher in patients with mostly negative ATM. Based on rater assessment, psychotic symptoms were related to negative ATM independently of their severity, and the family played a central role in the expression of negative attitudes. ATM were relatively independent of clinical and psychosocial variables. The existence, in each cluster, of both external and inner motivations underpinning ATM suggests that therapeutic interventions must take into account both patients and their broader living contexts.

122. Sytema S, Wunderink L, Bloemers W, Roorda L, Wiersma D. **Assertive community treatment in the Netherlands: a randomized controlled trial.** *Acta psychiatrica Scandinavica* 2007;116(2):105-112.

Record no: 22

Abstract: OBJECTIVE: Assertive community treatment is rapidly implemented by many European mental health services, but recently the evidence base has been questioned. Positive results of randomized trials in the USA were not replicated in the UK. The question is whether the UK findings are representative for other European countries with modern mental health services. METHOD: Open randomized controlled trial of long-term severely mentally ill patients [Health of the Nation Outcome Scales (HoNOS) total score ≥ 15], assigned to assertive community treatment (n = 59) or to standard community mental health care (n = 59). Primary outcome: sustained contact; housing stability and admission days. This trial is registered as an International Standard Randomized Clinical Trial, number ISRCTN 11281756. RESULTS: Assertive community treatment was significantly better in sustaining contact with patients, but not in reducing admission days. No differences in housing stability, psychopathology, social functioning or quality of life were found. CONCLUSION: The results are in agreement with UK studies. However, the sustained contact potential of assertive community treatment is important, as too many patients are lost in standard care.

123. Tenneij N, Didden R, Veltkamp E, Koot HM. **Reliability and validity of the HoNOS-LD and HoNOS in a sample of individuals with mild borderline intellectual disability and severe emotional and**

behavior disorders. Journal of Mental Health Research in Intellectual Disabilities 2009;2(3):188-200.

Record no: 191

Abstract: In this study, psychometric properties of the Health of the Nation Outcome scales (HoNOS) and Health of the Nation Outcome Scales for People with Learning Disabilities (HoNOS-LD) were investigated in a sample (n = 79) of (young) adults with mild to borderline intellectual disability (ID) and severe behavior and mental health problems who were admitted for treatment. Informant pairs were 14 direct care staff and 15 psychiatrists/psychologists who completed both the HoNOS and HoNOS-LD as well as other scales (i.e., Social Functioning Scale for the Mentally Retarded [SRZ-P], Adult Behavior Checklist [ABCL]). Generally, internal consistency was fair to good for both scales, and intraclass coefficients for (sub)scales ranged from fair to good. Low Intraclass Correlation Coefficients (ICCs) were found for several items from both scales. Outcomes pertaining to criterion validity were mixed. Finally, although we found a positive relationship between scores on the HoNOS and HoNOS-LD and those of the ABCL, the relationships between scores of both HoNOS and HoNOS and the SRZ-P were negative. It is concluded that both HoNOS and HoNOS-LD may be used in clients with mild to borderline ID and that outcomes may depend on the type of rater. The HoNOS-LD may be more suitable for assessing general functioning of clients with mild to borderline ID than the HoNOS. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

124. Theodoridou A, Jaeger M, Ketteler D, Kawohl W, Lauber C, Hoff P, et al. **The concurrent validity and sensitivity of change of the german version of the health of the nation outcome scales in a psychiatric inpatient setting.** Psychopathology 2011;44(6):391-397.

Record no: 192

Abstract: Background: The Health of the Nation Outcome Scales (HoNOS) were developed to assess the severity of a mental illness. They are used as outcome measures in different countries, and are meanwhile translated from the original English version into many languages, among others into German (HoNOS-D). We conducted a study in order to estimate the concurrent validity and sensitivity to change using clinical parameters as ICD-10 diagnoses, as well as the Clinical Global Impression Scale (CGI), and the Association for Methodology and Documentation in Psychiatry (AMDP) psychopathology scale, a frequently used psychopathological rating system, in a representative clinical sample. Sampling and Methods: Data on the three instruments (CGI, AMDP, HoNOS-D) were collected at admission and discharge of 100 psychiatric inpatients using a representative clinical sample. Experienced clinicians completed the CGI, AMDP and HoNOS-D. Descriptive and comparative data analyses were performed. We estimated the concurrent validity by calculating correlations between the HoNOS and other scales. Secondly, we examined the differences between HoNOS scores related to diagnoses and demographic parameters. Thirdly we calculated change criteria and outcome effect size for the HoNOS. Results: Even in a small clinical sample (n = 100), the HoNOS-D items are highly correlated with the corresponding AMDP syndromes (p < 0.003). The HoNOS-D score is associated with the CGI score (p < 0.01). Correlations of HoNOS symptoms, behavior and impairment items with AMDP syndromes as well as differences in diagnoses were appropriate and comprehensible as regards clinical content, and change on the HoNOS total score is statistically significant (t = 6.57, d.f. = 89, p < 0.0001). Conclusion: This study is the first to investigate the concurrent validity of HoNOS-D concerning

psychopathology using the AMDP rating system in a clinical sample of patients with mental disorders in an inpatient setting. HoNOS-D can be recommended for routinely screening outcomes in inpatient psychiatric settings. Our analysis showed that HoNOS-D covers psychopathology corresponding to the AMDP rating system. A limitation of the study is that the study sample comprised only an inpatient population; there may well be differences compared to an outpatient sample. Copyright 2011 S. Karger AG, Basel.

125. Valdes-Stauber J, Vietz J, Kilian R. **[Stepwise Outpatient Care.]**. Psychiatr Prax 2014.

Record no: 29

Abstract: Objective: To assess possible differences in clinical, social, care, and satisfaction profile of patients treated by outpatient clinics or office based psychiatrists. Method: The study sample consists of 100 patients of a psychiatric outpatient clinic and 100 patients treated by office based psychiatrists in the same catchment area. Patients were examined using standardized assessment instruments for severity of illness (HoNOS, CGI), general (GAF) and specific functional impairment (PSP), and satisfaction with psychiatric services (ZUF-8). Chi-square tests, univariate ANOVAs and stepwise multivariate logistic regression models were applied. Results: Compared with patients treated by office based psychiatrists, patients treated by the outpatient clinic showed higher HoNOS and CGI scores, lower GAF and PSP scores, and had more often a disability pension, a legal guardianship, a schizophrenia diagnosis, suicide attempts, hospitalizations, and therapeutic contacts. However, there were no significant differences regarding care satisfaction. Conclusion: The assessed outpatient clinic met the German statutory criteria for its legitimation. However, care needs have to be specified in a better way, and the different care intensity as well as concrete interventions between both settings have to be specified more accurately.

126. Vargas ML, Quintanilla P, Bega B, Lozano A, Martinez Sanchez JM, Lopez Gomez D, et al. **Identification of psychosocial necessities associated with aging in schizophrenia.** European Archives of Psychiatry and Clinical Neuroscience 2011;261:S100.

Record no: 202

Abstract: Objective: Recovery is one emergent objective in the treatment of schizophrenia. This construct is based in one positive perspective of the mental health. The schizophrenia life course is associated with one improving in the quality of live as well as one decline in the severity of the symptoms. The purpose of the study is to detect the psychosocial necessities related to aging in schizophrenia. Methods: The study has two stages. Firstly we used qualitative methodology by mean of nominal groups. One hundred and six people composed by schizophrenia patients (mean age 44 years), relatives and professionals detected forty psychosocial needs related with aging. They were grouped in one 10-item scale (Psychosocial Risk Scale - PRS). In the second step, this scale was administered to a different sample of 39 schizophrenia subjects and 8 subjects with affective disorders. HONOS, BPRS, Clinical Global Impression and Global Functioning were measured. Inter-rater and test-retest reliability were studied. Principal components analysis with varimax rotation was used to determine the dimensional structure of the psychosocial needs. Results: Three dimensions explained the 65.2% of the variance in the PRS. They were "personal development" (36.2%, composed by economical resources, health habits, occupation and environment factors); "personal autonomy" (14.7%, composed by housing,

family and primary care team) and "psychiatric treatment" (14.3%, composed by pharmacological treatment and mental health team). The global inter-rater reliability was Spearman's Rho = 0.85 (P<0.001, bilateral) and test-retest Spearman's Rho = 0.81 (P<0.001, bilateral). The psychosocial risk correlates Spearman's Rho = 0.46 (P<0.001, bilateral) with the clinical global impression, but did not importantly correlated with the rest of tests. Conclusion: Personal development is the most important dimension to take in account for the recovery of schizophrenia people during the process of aging.

127. Vargas ML, Quintanilla P, Lozano A, Sendra-Gutierrez JM, De La Calle Sanz A, Castro Carbajo S, et al. **Psychosocial risk associated with aging in severe mental disorder: Validation and grading of the FEAFES Castilla y Leon Psychosocial Risk Scale (PRS)**. [Spanish] **Riesgo psicossocial asociado al envejecimiento en el trastorno mental grave: Validacion y baremacion de la Escala de Riesgo Psicossocial FEAFES Castilla y Leon (ERP)**. *Rehabilitacion Psicossocial* 2013;10(1):3-10.

Record no: 203

Abstract: Introduction. Aging in people with Severe Mental Disorders (SMD) is a health problem that associates specific psychosocial risk factors. The FEAFES Castilla y Leon Psychosocial Risk Scale (PRS) is a tool specifically constructed to measuring this risk. The objective is to study the reliability and validity of the scale and its dimensional structure, as well as reporting normative data for its clinical use. Method. The scale was used in a simple of 74 SMD people in Castilla y Leon. Its internal consistence, dimensional structure, inter-rater reliability, test-retest reliability and association with the psychosocial functioning level (GAF), symptoms severity (CGI, BPRS), disease-related problems (HoNOS) and healthy global level (SF-36) were studied. Results. PRS is a reliable scale, with internal consistence Cronbach's alpha of 0,783. Equally it has a high test-retest and inter-rater reliability and a moderate association with related constructs. PRS structure explains for 60% of the variance in three dimensions: Personal autonomy, health support and family support. One cut-off point of 18 points is proposed for diagnosing psychosocial risk. Discussion. PRS is a valid and reliable instrument to the detection of aged-related psychosocial risk in people with SMD.

128. Veerbeek MA, Oude Voshaar RC, Pot AM. **Psychometric properties of the Dutch version of the Health of the Nation Outcome Scales for older adults (HoNOS 65+) in daily care**. *International Journal of Nursing Studies* 2013;50(12):1711-1719.

Record no: 204

Abstract: Background: The Health of the Nation Outcome Scales (HoNOS) is widely used to evaluate mental health care outcomes. For appropriate use and interpretation in routine clinical practice, further validation of the adapted version for older clients (HoNOS 65+) is needed. Objective: The aim of this study is to compare scoring profiles produced by different categories of professionals, assess the internal consistency of the sum score and proposed subscales, and concurrent validity of the total sum score of the Dutch version of HoNOS 65+. Methods: We used baseline data from fourteen mental health care organizations participating in the Mental health care Monitor Older adults (MEMO), a nationwide routine outcome monitoring system. A total of 767 older clients, referred for gerontopsychiatric disorders, were administered HoNOS 65+ by non-academic (primarily nurses, n = 430) or academic professionals (psychologists/physicians, n = 337). Demographics and full DSM-IV

classification, including the Global Assessment of Functioning (GAF), were derived from the electronic medical dossier. Results: HoNOS 65+ seemed to discriminate between clients with and without a depressive disorder, adjustment disorder, anxiety disorder and psychotic disorder on the items expected. In clients suffering from a depressive or psychotic disorder, nurses/social workers and physicians/psychologists did not differ in scoring on all items of HoNOS 65+. In clients with an adjustment disorder or anxiety disorder, professions differed in rating on two items. Confirmatory Factor Analyses supported neither the factor structure of the original HoNOS nor the initially reported structure of HoNOS 65+ version. Cronbach's alpha of the total sum score was 0.60. Internal consistency of previously identified subscales was low. A new set of subscales could not be identified satisfactorily. A medium-sized correlation of the HoNOS 65+ sum score and the GAF was found ($r = -.30, p < .001$). Conclusions: It is preferable to use individual HoNOS 65+ items, to evaluate care outcomes. The HoNOS 65+ items discriminate between clients with and without a particular diagnosis. Nonetheless, in some of the most prevalent gerontopsychiatric disorders rating differs between professionals with different educational backgrounds. 2013 Elsevier Ltd.

129. Veerbeek MA, Oude Voshaar RC, Pot AM. **Effectiveness and predictors of outcome in routine out-patient mental health care for older adults.** *Int Psychogeriatr* 2014;1-10.

Record no: 30

Abstract: ABSTRACT Background: Meta-analyses show efficacy of several psychological and pharmacological interventions for late-life psychiatric disorders, but generalization of effects to routine mental health care for older people remains unknown. Aim of this study is to investigate the improvement of functioning within one year of referral to an outpatient mental health clinic for older adults. Methods: Pre-post measurement of the Health of Nations Outcome Scale 65+ (HoNOS 65+) in 704 older people referred for psychiatric problems (no dementia) to any of the seven participating mental health care organizations. Results: The pre-post-test Cohen's d effect size was 1.08 in the total group and 1.23 in depressed patients, the largest subgroup. Linear regression identified better functioning at baseline, comorbid personality disorder, somatic comorbidity and life events during treatment as determinants of a worse outcome. Conclusions: Functioning of older persons with psychiatric problems largely improves after treatment in routine mental health care.

130. Vita A, Deste G, Barlati S, De Peri L, Giambra A, Poli R, et al. **Interview-based assessment of cognition in schizophrenia: Applicability of the Schizophrenia Cognition Rating Scale (SCoRS) in different phases of illness and settings of care.** *Schizophrenia Research* 2013;146(1-3):217-223.

Record no: 205

Abstract: Introduction: The Schizophrenia Cognition Rating Scale (SCoRS), an interview-based assessment of cognition, has proved to be a valid measure of cognitive performance in patients with schizophrenia. Objective: The aims of this study were to analyze the validity of this scale in a naturalistic setting representative of the Italian system of psychiatric care, and to test whether the SCoRS could be appropriately used in different phases of illness and contexts of care. Methods: Eighty-six patients with schizophrenia (DSM-IV-TR criteria) (N = 59 clinically stabilized patients; N = 27 recently hospitalized patients) were administered the SCoRS. The reliability of SCoRS was assessed and global ratings were correlated with neurocognitive, clinical, and

psychosocial functioning measures. Results: SCoRS inter-rater and test-retest reliability were high. In clinically stabilized patients, SCoRS global ratings were significantly correlated with composite scores of cognitive performance (global cognitive index: $r = -0.570$, $P < 0.001$), symptoms (Positive and Negative Syndrome Scale (PANSS) total score: $r = 0.602$, $P < 0.001$), and psychosocial functioning (Global Assessment of Functioning (GAF): $r = -0.532$, $P < 0.001$; Health of the Nation Outcome Scale (HoNOS): $r = 0.433$, $P < 0.001$). On the other hand, no such correlations were found in recently hospitalized patients. Correlations with neuropsychological and functional measures were less significant as the severity of the patients' symptoms, especially positive symptoms, increased. Conclusion: The SCoRS is a valid measure of cognitive performance and is related to psychosocial functioning, especially in clinically stable patients with schizophrenia. The usefulness of the SCoRS in patients recently admitted to hospital for an acute phase of illness is uncertain. 2013 Elsevier B.V.

131. Dhankhar DS, Sharma N, Mishra T, Kaur N, Singh S, Gupta S. **Totally extraperitoneal repair under general anesthesia versus Lichtenstein repair under local anesthesia for unilateral inguinal hernia: A prospective randomized controlled trial.** *Surgical Endoscopy and Other Interventional Techniques* 2014;28(3):996-1002.

Record no: 6

Abstract: Background: Lichtenstein repair (preferably under local anesthesia) or totally extraperitoneal repair (TEP) are both good options for treating uncomplicated unilateral inguinal hernia. We performed a prospective randomized trial to compare the outcome of TEP repair under general anesthesia versus open Lichtenstein inguinal hernioplasty under local anesthesia. Methods: Adult men with primary unilateral inguinal hernia without any history of lower abdominal surgery were assessed for inclusion in the study. Of the 194 patients assessed for eligibility for recruitment in the trial, 72 were recruited in the trial and randomized into two groups of 36 patients each. A per-protocol analysis was performed. Patients were followed for a period of 3 months. Pain was assessed by a visual analog scale, and quality of life was assessed by the SF-36 Health Survey Questionnaire, version 2. Results: A total of 59 patients were analyzed at the end of the study, 30 in the Lichtenstein group and 29 in the TEP group. The operating time ($75.93 + 13.68$ vs. $64.77 + 12.66$ min, $p = 0.002$) and total operating room time ($102.66 + 15.676$ vs. $72.64 + 12.25$ min, $p < 0.001$) were significantly longer in the TEP group. Postoperative pain scores in the TEP group were lower than the scores in Lichtenstein group, but the difference was not statistically significant. There was significantly more use of analgesics and higher C-reactive protein levels in the Lichtenstein group. Quality of life and patient satisfaction were similar in both groups. Conclusions: Lichtenstein repair under local anesthesia is as good as TEP under general anesthesia. The shorter operating room time, smaller mesh size, and lower cost of local anesthetic drugs all contribute to make Lichtenstein repair the better choice for repair of uncomplicated unilateral inguinal hernia, especially in developing nations with scarce resources. 2013 Springer Science+Business Media.

132. Dowsey MM, Castle DJ, Knowles SR, Monshat K, Salzberg MR, Choong PFM. **The effect of mindfulness training prior to total joint arthroplasty on post-operative pain and physical function: Study protocol for a randomised controlled trial.** *Trials* 2014;15(1).

Record no: 7

Abstract: Background: Osteoarthritis is a leading cause of disability in developed nations. In Australia it afflicts 16.5% of the adult population. Total joint arthroplasty is considered the treatment of choice for end stage osteoarthritis. The number of total joint arthroplasties undertaken in Australia has doubled over the last decade (more than 80,000 procedures in 2011). The incidence of pre-operative psychological distress in this group of patients is reported between 30% and 60% and pre-operative psychological distress is associated with poorer pain and functional outcomes after surgery. This study will use a mindfulness-based psychological intervention to enhance outcomes in people undergoing total joint arthroplasty and, in addition, will test hypotheses about coping with chronic illness in an aged population. This study is the first of its kind and will provide a greater understanding of the role of a mental health enhancement program on the physical recovery of total joint arthroplasty patients. **Methods/Design:** One hundred and fifty people with end-stage arthritis on the waiting list for total hip or knee arthroplasty will be recruited and randomly allocated to one of two groups using computer-generated block randomisation. A randomised controlled trial adhering to CONSORT guidelines will evaluate the efficacy of a mindfulness training program (weekly group-based classes in mindfulness practice, 2 1-Feb hours, for 8 weeks plus a 7-hour Saturday session in Week 6) prior to total joint arthroplasty, compared to a "standard care" group who will undergo routine total joint arthroplasty. Primary outcomes will be evaluated by a blinded examiner at baseline, 3 and 12 months post-surgery, using a validated self-reported pain and physical function scale. Secondary outcomes will include i) a range of validated measures of psychological wellbeing and ii) health economic analysis. All analyses will be conducted on an intention to treat basis using linear regression models. Health economic modelling will be applied to estimate the potential cost-effectiveness of mindfulness training and total joint arthroplasty. **Trial registration:** Australian New Zealand Clinical Trials Registry (ANZCTR12611001184965). Date of registration; 15th November 2011. 2014 Dowsey et al.; licensee BioMed Central Ltd.

133. Fransen SR, Leonard-Martin TC, Feuer WJ, Hildebrand PL. **Clinical evaluation of patients with diabetic retinopathy: accuracy of the Inoveon diabetic retinopathy-3DT system.** *Ophthalmology* 2002;109(3):595-601.

Record no: 87

Abstract: **PURPOSE:** This study analyzed the accuracy of the Inoveon Diabetic Retinopathy (DR-3DT) system (Inoveon Corp., Oklahoma City, OK), a scalable evaluation method for the management of diabetic retinopathy using high-quality digital retinal imaging. **DESIGN:** An independent, masked, cross-sectional, clinical validation study. **PARTICIPANTS:** Two hundred ninety adult patients with diabetes from the Chickasaw Nation's Carl Albert Indian Health Facility in Ada, Oklahoma. **METHODS:** All participants underwent DRS7 imaging using a Zeiss FF450 fundus camera with images recorded on 35-mm film and a Kodak DCS520 digital camera back. Masked double grading with independent third reader adjudication yielded an Early Treatment Diabetic Retinopathy Study (ETDRS) Final Retinopathy Severity Scale Level (ETDRS Level) and macular edema stage for each eye. The presence of greater-than-or-equal ETDRS Level 53, questionable or definite clinically significant macular edema in either eye, or ungradeable images was defined as a threshold event requiring referral. **MAIN OUTCOME MEASURES:** Accuracy (sensitivity, specificity, predictive values) of the digital system relative to the film "gold standard" on the threshold referral criteria per patient. **RESULTS:** All patients with gradeable

35-mm slides from at least one eye were included in this per patient analysis (n = 290). The prevalence of threshold events was 19.3%. The sensitivity of the digital system in detecting threshold events was 98.2% (95% confidence interval [CI], 90.5%-100.0%) and specificity 89.7% (95% CI, 85.1%-93.3%). The positive predictive value was 69.5% and negative predictive value 99.5% for this sample. CONCLUSIONS: When compared with the "gold standard," Inoveon's DR-3DT system provides highly accurate diabetic retinopathy referral decisions. Given their inherent advantages, high-quality digital imaging systems could replace the film "gold standard" as the basis for scalable, accessible, diabetic retinopathy evaluation.

134. Kendall PC, Butcher JN, Holmbeck GN. **Handbook of research methods in clinical psychology (2nd ed.)**. Handbook of research methods in clinical psychology (2nd ed). Hoboken, NJ: John Wiley & Sons Inc; US; 1999. pp. xvi, 752.

Record no: 122

Abstract: (from the cover) Presents perspectives on the role of research in clinical psychology and theoretical and methodological models that span the spectrum of clinical research. Intended for use at the graduate school level, this 2nd edition covers relevant aspects of and tactics for conducting clinical research, and includes: expanded coverage of specific methodological issues in all aspects of clinical research; focus chapters on specific methods and topics; updated chapters on new areas of research; and discussions of research issues relevant to special populations. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

135. Kielhofner G, Fan CW, Morley M, Garnham M, Heasman D, Forsyth K, et al. **A psychometric study of the model of human occupation screening tool (MOHOST)**. Hong Kong Journal of Occupational Therapy 2010;20(2):63-70.

Record no: 124

Abstract: This study examined the psychometric properties of the Model of Human Occupation Screening Tool (MOHOST) using item response theory and classical test theory approaches for clients with psychiatric disorders. Data, including demographic variables and scores on the MOHOST and a version of the Health of the Nation Outcomes Scale, were retrieved from case records of 1039 adult psychiatric service users. Participants ranged in age from 18 to 102 and 57 were female and 43 were male. Most (94) were unemployed, retired, or receiving other education or training. The items that make up each of the MOHOST subscales demonstrated good discriminant validity and excellent goodness of fit showing that the items measured the MOHO constructs unidimensionally. All subscales were able to distinguish clients into at least three statistically distinct strata and showed convergence with an independent measure of functioning. Findings from this study must take into account implicit limitations associated with the use of Rasch analysis and classical test theory. At the same time, results did support use of the MOHOST for research and clinical purposes. The MOHOST demonstrated good construct validity, item separation reliability, and concurrent validity. As a measure of occupational participation, the MOHOST offers practitioners and researchers a valid and reliable measure of volition, habituation, communication/interaction skills, process skills, motor skills, and environmental influences on participation. 2010 Elsevier.

136. Koniak-Griffin D, Anderson NL, Verzemnieks I, Brecht ML. **A public health nursing early intervention program for adolescent mothers:**

outcomes from pregnancy through 6 weeks postpartum. Nursing research 2000;49(3):130-138.

Record no: 14

Abstract: **BACKGROUND:** Adolescent pregnancy and parenting remain a major public concern because of their impact on maternal-child health and on the social and economic well-being of the nation. Federal welfare reform legislation has created an urgent need for community-based nursing intervention programs to improve health and social outcomes for disadvantaged adolescent mothers and to promote their self-sufficiency. **OBJECTIVE:** To evaluate the effects of an early intervention program (EIP) that uses a public health nursing model on health and social outcomes of adolescent mothers and their children and on the quality of mother-child interaction. **METHODS:** Pregnant adolescents referred to a county health department were randomly assigned to an experimental (EIP) or control (traditional public health nursing [TPHN]) group. The sample included 121 adolescents from predominantly minority and impoverished backgrounds who were followed from pregnancy through 6 weeks postpartum. Intense and comprehensive home visitation by public health nurses and preparation-for-motherhood classes were provided to adolescents in the EIP. Health outcomes were determined on the basis of medical record data. Other measures included maternal self-report on selected behaviors, nurse interviews, and the Nursing Child Assessment Teaching Scale (NCATS). **RESULTS:** Early findings indicate reduced premature birth and low-birth-weight (LBW) rates for young mothers receiving both forms of public health nursing care. No significant differences between groups were found for infant birth weight or type of delivery. Infants in the EIP had significantly fewer total days of birth-related hospitalization and rehospitalization than those in the TPHN group during the first 6 weeks of life ($\chi^2(1) = 6.41$; $p = 0.01$). Adolescents in the EIP demonstrated significantly more positive educational outcomes (e.g., lower school dropout rates) than those in the TPHN group ($\chi^2(1) = 6.76$; $p < 0.009$). **CONCLUSIONS:** The early findings of this study demonstrate that pregnant adolescents benefit from both traditional and more intense public health nursing care in terms of prenatal and perinatal outcomes. The EIP was associated with decreased infant morbidity during the first 6 weeks of life and decreased maternal school dropout. Long-term outcomes for the EIP are being evaluated.

137. Mohr DC, Hart S, Vella L. **Reduction in disability in a randomized controlled trial of telephone-administered cognitive-behavioral therapy.** Health psychology 2007;26(5):554-563.

Record no: 16

Abstract: **OBJECTIVE:** The authors examined the efficacy of telephone-administered cognitive-behavioral therapy (T-CBT) and telephone-administered supportive emotion-focused therapy (T-SEFT) in reducing disability among disabled patients with multiple sclerosis and depression. Telephone administration of therapy allowed care to be delivered to a more disabled population. This is a secondary analysis of a randomized controlled trial; the primary outcome results for depression are reported in D. C. Mohr, S. L. Hart, L. Julian, C. Catledge, L. Honos-Webb, L. Vella, et al. (2005). **DESIGN:** A randomized controlled trial, comparing 16 weeks of T-CBT with T-SEFT. **MAIN OUTCOME MEASURES:** Disability was measured using Guy's Neurological Disability Scale; fatigue was measured using the Fatigue Impact Scale; depression was measured using the Hamilton Depression Rating Scale and the Beck Depression Inventory-II. **RESULTS:** Patients in both treatments showed significant improvements in disability and fatigue. These improvements were related to reductions in depression. T-CBT

produced significantly greater decreases in disability and fatigue, compared with T-SEFT, even after controlling for depression. The greater benefit of T-CBT on disability was mediated by physical fatigue. CONCLUSION: These findings support the hypothesis that significant reductions in disability can be achieved by reducing depression in patients with multiple sclerosis. There was also evidence that further reductions could be achieved through CBT-specific interventions that include a focus on symptoms such as fatigue management.

138. Moreno R, Nababan Herfina Y, Ota E, Wariki Windy MV, Ezoë S, Gilmour S, et al. **Structural and community-level interventions for increasing condom use to prevent the transmission of HIV and other sexually transmitted infections.** Cochrane Database of Systematic Reviews 2014 (7):CD003363.

Record no: 25

Abstract: Background: Community interventions to promote condom use are considered to be a valuable tool to reduce the transmission of human immunodeficiency virus (HIV) and other sexually transmitted infections (STIs). In particular, special emphasis has been placed on implementing such interventions through structural changes, a concept that implies public health actions that aim to improve society's health through modifications in the context wherein health-related risk behavior takes place. This strategy attempts to increase condom use and in turn lower the transmission of HIV and other STIs. Objectives: To assess the effects of structural and community-level interventions for increasing condom use in both general and high-risk populations to reduce the incidence of HIV and STI transmission by comparing alternative strategies, or by assessing the effects of a strategy compared with a control. Search methods: We searched the Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library, from 2007, Issue 1), as well as MEDLINE, EMBASE, AEGIS and ClinicalTrials.gov, from January 1980 to April 2014. We also handsearched proceedings of international acquired immunodeficiency syndrome (AIDS) conferences, as well as major behavioral studies conferences focusing on HIV/AIDS and STIs. Selection criteria: Randomized control trials (RCTs) featuring all of the following. 1. Community interventions ('community' defined as a geographical entity, such as cities, counties, villages). 2. One or more structural interventions whose objective was to promote condom use. These type of interventions can be defined as those actions improving accessibility, availability and acceptability of any given health program/technology. 3. Trials that confirmed biological outcomes using laboratory testing. Data collection and analysis: Two authors independently screened and selected relevant studies, and conducted further risk of bias assessment. We assessed the effect of treatment by pooling trials with comparable characteristics and quantified its effect size using risk ratio. The effect of clustering at the community level was addressed through intra-cluster correlation coefficients (ICCs), and sensitivity analysis was carried out with different design effect values. Main results: We included nine trials (plus one study that was a subanalysis) for quantitative assessment. The studies were conducted in Tanzania, Zimbabwe, South Africa, Uganda, Kenya, Peru, China, India and Russia, comprising 75,891 participants, mostly including the general population (not the high-risk population). The main intervention was condom promotion, or distribution, or both. In general, control groups did not receive any active intervention. The main risk of bias was incomplete outcome data. In the meta-analysis, there was no clear evidence that the intervention had an effect on either HIV seroprevalence or HIV seroincidence when compared to controls: HIV incidence (risk ratio (RR)

0.90, 95% confidence interval (CI) 0.69 to 1.19) and HIV prevalence (RR 1.02, 95% CI 0.79 to 1.32). The estimated effect of the intervention on other outcomes was similarly uncertain: Herpes simplex virus 2 (HSV-2) incidence (RR 0.76, 95% CI 0.55 to 1.04); HSV-2 prevalence (RR 1.01, 95% CI 0.85 to 1.20); syphilis prevalence (RR 0.91, 95% CI 0.71 to 1.17); gonorrhoea prevalence (RR 1.16, 95% CI 0.67 to 2.02); chlamydia prevalence (RR 0.94, 95% CI 0.75 to 1.18); and trichomonas prevalence (RR 1.00, 95% CI 0.77 to 1.30). Reported condom use increased in the experimental arm (RR 1.20, 95% CI 1.03 to 1.40). In the intervention groups, the number of people reporting two or more sexual partners in the past year did not show a clear decrease when compared with control groups (RR 0.90, 95% CI 0.78 to 1.04), but knowledge about HIV and other STIs improved (RR 1.15, 95% CI 1.04 to 1.28, and RR 1.23, 95% CI 1.07 to 1.41, respectively). The quality of the evidence was deemed to be moderate for nearly all key outcomes. Authors' conclusions: There is no clear evidence that structural interventions at the community level to increase condom use prevent the transmission of HIV and other STIs. However, this conclusion should be interpreted with caution since our results have wide confidence intervals and the results for prevalence may be affected by attrition bias. In addition, it was not possible to find RCTs in which extended changes to policies were conducted and the results only apply to general populations in developing nations, particularly to Sub-Saharan Africa, a region which in turn is widely diverse.

139. Mutabazi V, Kaplan SA, Rwamasirabo E, Bitega JP, Ngeruka ML, Savio D, et al. **HIV prevention: male circumcision comparison between a nonsurgical device to a surgical technique in resource-limited settings: a prospective, randomized, nonmasked trial.** *Journal of acquired immune deficiency syndromes (1999)* 2012;61(1):49-55.

Record no: 17

Abstract: BACKGROUND: Randomized controlled trial studies have shown that male circumcision (MC) can reduce the risk of HIV infection by 53%-60%. The Joint United Nations Program on HIV and AIDS announced a 5-year plan to voluntarily circumcise 20 million men by 2015. There are more than 38 million males in sub-Saharan Africa that could benefit from MC for HIV prevention by 2015. Surgical MC is impractical for nation-wide coverage in resource-limited settings. Rwanda intends to launch a voluntary MC program to reach 2 million adult men in 2 years, an unattainable goal with surgical MC. This study was designed to compare a new nonsurgical device with surgical MC to assess nonsurgical MC suitability for scale-up.

METHODS: Prospective, randomized controlled trial in Rwanda in which the PrePex device was used for nonsurgical MC and the dorsal-slit method for surgical MC (ratio: 2:1). Subjects were healthy adult male volunteers aged 21-54 years. The primary endpoint, set by World Health Organization, was total MC procedure time. **FINDINGS:** Of 217 eligible subjects, 144 were randomized to the PrePex/nonsurgical arm and 73 to the surgical arm. All subjects were circumcised in 10 working days. Nonsurgical MC was bloodless, without anesthesia, sutures, or sterile setting and with mean procedure time of 3.1 minutes (skin to skin), was significantly shorter than mean surgical procedure time (15.4 minutes skin to skin) ($P < 0.0001$). There were no device-related adverse events. Healing time of the PrePex arm was longer than the surgical arm. **CONCLUSION:** PrePex, the nonsurgical MC, takes significantly less time than surgical, is as safe, does not require injections or sterile settings, is bloodless and seems to be suitable for nurses.

140. Sareen J, Isaak C, Bolton SL, Enns MW, Elias B, Deane F, et al. **Gatekeeper training for suicide prevention in first nations community members: A randomized controlled trial.** *Depression and anxiety* 2013;30(10):1021-1029.

Record no: 20

Abstract: Background Gatekeeper training aims to train people to recognize and identify those who are at risk for suicide and assist them in getting care. Applied Suicide Intervention Skills Training (ASIST), a form of gatekeeper training, has been implemented around the world without a controlled evaluation. We hypothesized that participants in 2 days of ASIST gatekeeper training would have increased knowledge and preparedness to help people with suicidal ideation in comparison to participants who received a 2-day Resilience Retreat that did not focus on suicide awareness and intervention skills (control condition). Methods First Nations on reserve people in Northwestern Manitoba, aged 16 years and older, were recruited and randomized to two arms of the study. Self-reported measures were collected at three time points - immediately pre-, immediately post-, and 6 months post intervention. The primary outcome was the Suicide Intervention Response Inventory, a validated scale that assesses the capacity for individuals to intervene with suicidal behavior. Secondary outcomes included self-reported preparedness measures and gatekeeper behaviors. Results In comparison with the Resilience Retreat (n = 24), ASIST training (n = 31) was not associated with a significant impact on all outcomes of the study based on intention-to-treat analysis. There was a trend toward an increase in suicidal ideation among those who participated in the ASIST in comparison to those who were in the Resilience Retreat. Conclusions The lack of efficacy of ASIST in a First Nations on-reserve sample is concerning in the context of widespread policies in Canada on the use of gatekeeper training in suicide prevention. 2013 Wiley Periodicals, Inc.

141. Schrank B, Riches S, Coggins T, Rashid T, Tylee A, Slade M. **WELLFOCUS PPT - modified positive psychotherapy to improve well-being in psychosis: Study protocol for a pilot randomised controlled trial.** *Trials* 2014;15(1).

Record no: 184

Abstract: Background: The promotion of well-being is an important goal of recovery oriented mental health services. No structured, evidence-based intervention exists that aims to increase the well-being in people with severe mental illness such as psychosis. Positive psychotherapy (PPT) is a promising intervention for this goal. Standard PPT was adapted for use with people with psychosis in the UK following the Medical Research Council framework for developing and testing complex interventions, resulting in the WELLFOCUS Model describing the intended impact of WELLFOCUS PPT. This study aims to test the WELLFOCUS Model, by piloting the intervention, trial processes, and evaluation strategy. Methods/Design: This study is a non-blinded pragmatic pilot RCT comparing WELLFOCUS PPT provided as an 11-session group therapy in addition to treatment as usual to treatment as usual alone. Inclusion criteria are adults (aged 18-65 years) with a main diagnosis of psychosis who use mental health services. A target sample of 80 service users with psychosis are recruited from mental health services across the South London and Maudsley NHS Foundation Trust. Participants are randomised in blocks to the intervention and control group. WELLFOCUS PPT is provided to groups by specifically trained and supervised local therapists and members of the research team. Assessments are conducted before randomisation and after the group intervention. The primary outcome measure is well-being assessed by the Warwick-Edinburgh Mental Well-

being Scale. Secondary outcomes include good feelings, symptom relief, connectedness, hope, self-worth, empowerment, and meaning. Process evaluation using data collected during the group intervention, post-intervention individual interviews and focus groups with participants, and interviews with trial therapists will complement quantitative outcome data. Discussion: This study will provide data on the feasibility of the intervention and identify necessary adaptations. It will allow optimisation of trial processes and inform the evaluation strategy, including sample size calculation, for a future definitive RCT. Trial registration: Current Controlled Trials ISRCTN04199273 - WELLFOCUS study: an intervention to improve well-being in people with psychosis, Date registered: 27 March 2013, first participant randomised on 26 April 2013. 2014 Schrank et al.; licensee BioMed Central Ltd.

142. Tousignant M, Corriveau H, Kairy D, Berg K, Dubois MF, Gosselin S, et al. **Tai Chi-based exercise program provided via telerehabilitation compared to home visits in a post-stroke population who have returned home without intensive rehabilitation: Study protocol for a randomized, non-inferiority clinical trial.** *Trials* 2014;15(1).

Record no: 23

Abstract: Background: The incidence of strokes in industrialized nations is on the rise, particularly in the older population. In Canada, a minority of individuals who have had a stroke actually receive intensive rehabilitation because most stroke patients do not have access to services or because their motor recovery was judged adequate to return home. Thus, there is a considerable need to organize home-based rehabilitation services for everyone who has had a stroke. To meet this demand, telerehabilitation, particularly from a service center to the patient's home, is a promising alternative approach that can help improve access to rehabilitation services once patients are discharged home. Methods/Design: This non-inferiority study will include patients who have returned home post-stroke without requiring intensive rehabilitation. To be included in the study, participants will: 1) not be referred to an Intensive Functional Rehabilitation Unit, 2) have a Rankin score of 2 or 3, and 3) have a balance problem (Berg Balance Scale score between 46 and 54). Participants will be randomly assigned to either the teletreatment group or the home visits group. Except for the delivery mode, the intervention will be the same for both groups, that is, a personalized Tai Chi-based exercise program conducted by a trained physiotherapist (45-minute session twice a week for eight consecutive weeks). The main objective of this research is to test the non-inferiority of a Tai Chi-based exercise program provided via telerehabilitation compared to the same program provided in person at home in terms of effectiveness for retraining balance in individuals who have had a stroke but do not require intensive functional rehabilitation. The main outcome of this study is balance and mobility measured with the Community Balance and Mobility Scale. Secondary outcomes include physical and psychological capacities related to balance and mobility, participants' quality of life, satisfaction with services received, and cost-effectiveness associated with the provision of both types of services. Study/trial registration: ClinicalTrials.gov: NCT01848080. 2014 Tousignant et al.; licensee BioMed Central Ltd.

143. Callaly T, Trauer T, Hantz P. **Integration of outcome measures into clinical practice.** *Australasian Psychiatry* 1998;6(4):188-190.

Record no: 67

Abstract: 'The new value formula for mental health care expresses a relationship between outcomes, consumer satisfaction and cost' [1]. Interest

in assessing outcomes in psychiatry has significantly escalated over the past few years. One outcome measure, the Health of the Nation Outcome Scales (HoNOS [2]) has received particular attention recently in Australia. HoNOS is being widely used in the private psychiatric sector and is currently being considered as one of a group of outcome measures which the Victorian Department of Human Services hopes to introduce into general use in the public psychiatric sector soon. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

144. Goldney R, Fisher LJ, Walmsley S, Kent P, Cooper AW. **A pilot study of the health of the nation outcome scale as a measurement of outcome in a private psychiatric hospital.** Australasian Psychiatry 1996;4(6):319-321.

Record no: 93

Abstract: In this era of increasing accountability in health care there is a need for an easily administered reliable instrument to assess the outcome of patients treated for psychiatric illness. This need has been reviewed comprehensively by Andrews et al.. One of the several instruments they recommended was the Health of the Nation Outcome Scale instrument (HoNOS)- This paper describes the introduction of the HoNOS in a private hospital setting. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

145. McClintock K, Mellsop G. **Development of a culturally sophisticated psychiatric outcome measure.** Asian Journal of Psychiatry 2011;4:S81.

Record no: 146

Abstract: All mental health services in New Zealand participate in a mandated programme to monitor the outcomes for psychiatric service users. The central, standardised measure used by most services is the Health of Nations Outcome Scale (HoNoS). Because of the NZ foundation document signed by the indigenous Maori and representatives of the English Queen, the population proportion and strength of Maori in New Zealand and their strong cultural identity a psychiatric outcome measure consistent with the holistic Maori concept of health was developed. From the versions trialled in a number of "by Maori for Maori" mental health services to examine their acceptability, utility and reliability, a final format was accepted.

146. Page A. **Reply to Dr Stafrace. 'Doubts about HoNOS'.** The Australian and New Zealand journal of psychiatry 2002;36(4):558-559.

Record no: 167

Abstract:

147. Bertisch H. **Psychosis and neuropsychological impairment as predictors of outcome in adolescent inpatients.** Dissertation Abstracts International: Section B: The Sciences and Engineering 2005;66(4-B):2296.

Record no: 55

Abstract: There is a great amount of empirical support for a relationship between schizophrenia and poor functional outcome in adult populations. There is a smaller amount of research to suggest that independent of schizophrenia, the presence of psychosis in any disorder may predict poor outcome. Few studies have examined the relationship between psychosis and functional outcome in the unique population of individuals transitioning from adolescence to adulthood. Due to the poorer diagnostic reliability with adolescents, it may be helpful to study these patients in terms of the presence of psychosis across disorders, rather than restricting it to diagnostic

category. There also exists a well-established relationship between neuropsychological impairment across etiologies and poor functional prognosis. The purpose of this study was to clarify the relationship between psychosis, global neuropsychological impairment, and functional outcome in an adolescent inpatient sample. One hundred and two adolescents who were psychiatrically hospitalized in the mid-1990's and had valid cognitive and diagnostic assessments from this hospitalization were interviewed about 5.9 years post-discharge. The presence of psychosis in these cases was measured by the identification of five relatively independent sources of information from the diagnostic assessments, therapist ratings, and chart review. Subjects with at least two of these indicators were considered to be Psychotic. Neuropsychological impairment was measured by using a combination variable including the VIQ-PIQ discrepancy and a PIQ score below 80 points. Functional outcome was primarily measured using a modified version of the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA). Neither the presence of psychosis nor global neuropsychological impairment predicted most types of functional outcome in this study. The lack of findings may be due to an insensitivity of the variables defined for this study to detect differences in outcome and points to a need for a quantitative measure of the severity of psychosis, particularly for adolescents. In addition, the prevalence of diffuse neuropsychological impairment was found to be rare in this young inpatient sample. Future research should utilize prospective designs to study the severity of psychosis and process-specific cognitive domains in the prediction of outcome. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

148. Bilenberg N. **Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA): Results of a Danish field trial.** *European Child and Adolescent Psychiatry* 2003;12(6):298-302.

Record no: 56

Abstract: Introduction: Assessment of the effectiveness of clinical practice requires appropriate outcome measures. Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) is a recently developed measure of outcome for use in child and adolescent mental health services (CAMHS). The aims of the present study were to evaluate sensitivity to change, face validity and clinical feasibility of HoNOSCA in a Danish field trial. Method: A prospective design in which HoNOSCA, Global Assessment of Psychosocial Disability (GAPD) and a clinician rated global outcome measure were completed at 15 field sites. 173 patients were rated both at initial assessment and at follow-up after three months. Results: HoNOSCA demonstrated satisfactory face validity. There was a strong correlation between HoNOSCA scores and GAPD scores ($r = 0.6, P < 0.001$) and a highly significant association (ANOVA ($F = 25.4, P < 0.001$)) between change in HoNOSCA scores and global clinical ratings of change. Mean HoNOSCA scores varied between psychiatric diagnoses. Conclusions: HoNOSCA is a sensitive and valid measure of change for children and adolescents attending CAMHS.

149. Brann P, Coleman G. **On the meaning of change in a clinician's routine measure of outcome: HoNOSCA.** *Australian and New Zealand Journal of Psychiatry* 2010;44(12):1097-1104.

Record no: 58

Abstract: Objective: With the advent of routine outcomes across Australia and New Zealand, clinicians, managers, parents and children will be interested in change on these measures. This paper presents a number of approaches and the implications. Method: Health of the Nations Outcome Scales for Children

and Adolescents (HoNOSCA) collected during clinical practice for 911 patients were examined for changes over time, clinical significance, treatment status, effect size, and reliable and clinically significant change. Results: Statistically significant changes in symptom severity were found related to treatment status and to changes in the number of clinically significant scales. An effect size of almost one standard deviation was noted and the proportion of patients who improved was examined. While the reliable change index was calculated, there are clinical complications with this approach. The impact of the capacity to change on specific scales illustrates a critical issue in describing outcomes. Conclusion: From a number of perspectives, change in HoNOSCA total and scale scores is valid. However, several clinical dilemmas must be faced in deciding which approach should be used. The implications of these choices may affect clinicians, patients, carers and managers in understanding change. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

150. Brann P, Coleman G, Luk E. **Routine outcome measurement in a child and adolescent mental health service: an evaluation of HoNOSCA. The Health of the Nation Outcome Scales for Children and Adolescents.** Australian & New Zealand Journal of Psychiatry 2001;35(3):370-376.

Record no: 60

Abstract: OBJECTIVE: This paper evaluates a range of properties for a clinician-based instrument designed for routine use in a child and adolescent mental health service (CAMHS).

METHOD: The Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) is a new outcome measure with great promise. Case vignettes were used to examine interrater reliability. HoNOSCA was implemented for routine outpatient use by multidisciplinary staff with a return rate of 84%. The 305 ratings obtained at assessment were analysed by age, gender and diagnosis. A sample of 145 paired ratings with a 3-month interval were examined for the measurement of change over time.

RESULTS: Interrater reliability of the total score indicates moderate reliability if absolute scores are used and good reliability if the total score is used for relative comparisons. Most scales have good to very good reliability. The scales discriminated between age and gender in the expected way. HoNOSCA correlated with clinicians' views of change and was sensitive to change over a 3-month period. The total score seemed a proxy for severity.

CONCLUSION: Routine outcome instruments must be explored in settings where they will be used and with realistic training. HoNOSCA appears to be of value in routine outcome measurement and although questions remain about reliability and validity, the results strongly support further investigation.

151. Chaplin R, Roach S, Johnson H, Thompson P. **Inpatient Children and Adolescent Mental Health Services (CAMHS): outcomes of young people with and without intellectual disability.** J Intellect Disabil Res 2014.

Record no: 26

Abstract: BACKGROUND: Little is known about the effectiveness of inpatient care for young people with co-morbid mental illness and intellectual disability (ID). This study aims to compare the demographics and outcome of young people with mental illness with or without ID admitted to psychiatric hospital. A secondary aim is to look into the outcome of those with ID admitted to general mental health young people's units. METHOD: Data were collected on the outcome of young people's admissions to specialist ID

and general adolescent mental health units as part of a larger quality improvement project run by the College Centre for Quality Improvement. Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) scores were completed by local clinical staff at admission and discharge on 38 young people with and 113 people without ID from 14 units. RESULTS: Young people with mental disorders significantly improved clinically over the admission whether or not they had ID. There were no differences between the groups in age or use of the Mental Health Act but people admitted with ID were more likely to be male and had longer lengths of stay. Admission to a general adolescent unit was associated with clinical improvement for people with ID. CONCLUSIONS: This study needs replication because of the small sample and incomplete data but it suggests that young people with ID and mental disorders significantly improve clinically when admitted to hospital as do their non-disabled peers.

152. Deighton J, Croudace T, Fonagy P, Brown J, Patalay P, Wolpert M. **Measuring mental health and wellbeing outcomes for children and adolescents to inform practice and policy: A review of child self-report measures.** Child and Adolescent Psychiatry and Mental Health 2014;8(1).

Record no: 75

Abstract: There is a growing appetite for mental health and wellbeing outcome measures that can inform clinical practice at individual and service levels, including use for local and national benchmarking. Despite a varied literature on child mental health and wellbeing outcome measures that focus on psychometric properties alone, no reviews exist that appraise the availability of psychometric evidence and suitability for use in routine practice in child and adolescent mental health services (CAMHS) including key implementation issues. This paper aimed to present the findings of the first review that evaluates existing broadband measures of mental health and wellbeing outcomes in terms of these criteria. The following steps were implemented in order to select measures suitable for use in routine practice: literature database searches, consultation with stakeholders, application of inclusion and exclusion criteria, secondary searches and filtering. Subsequently, detailed reviews of the retained measures' psychometric properties and implementation features were carried out. 11 measures were identified as having potential for use in routine practice and meeting most of the key criteria: 1) Achenbach System of Empirically Based Assessment, 2) Beck Youth Inventories, 3) Behavior Assessment System for Children, 4) Behavioral and Emotional Rating Scale, 5) Child Health Questionnaire, 6) Child Symptom Inventories, 7) Health of the National Outcome Scale for Children and Adolescents, 8) Kidscreen, 9) Pediatric Symptom Checklist, 10) Strengths and Difficulties Questionnaire, 11) Youth Outcome Questionnaire. However, all existing measures identified had limitations as well as strengths. Furthermore, none had sufficient psychometric evidence available to demonstrate that they could reliably measure both severity and change over time in key groups. The review suggests a way of rigorously evaluating the growing number of broadband self-report mental health outcome measures against standards of feasibility and psychometric credibility in relation to use for practice and policy. 2014 Deighton et al.; licensee BioMed Central Ltd.

153. Eggleston MJ, Watkins WG. **Mental health services for children and adolescents in New Zealand, outcomes, and the Health of the Nation Outcome Scale for Children and Adolescents (HoNOSCA).** The New Zealand medical journal 2008;121(1271):83-91.

Record no: 83

Abstract: Patients and their families as well as communities, service providers, and funders of services would be united in their desire that children and adolescents who require mental health services should receive those services. There would also be agreement that treatment delivered by these services should be safe, effective, and (given that resources for these mental health services are limited) delivered in a timely and cost-effective manner. Furthermore, there would be a consensus that outcomes of treatment are extremely important and that there is a need to evaluate these in a valid manner. This article reviews current access to Child and Adolescent Mental Health Services (CAMHS) in New Zealand as well as issues relevant to the introduction of routine outcome measurement in these services; and critically appraises the psychometric properties and clinical utility of the first routine outcome measure introduced for CAMHS by the Ministry of Health (MOH)--the Health of the Nation Outcome Scale for Children and Adolescents (the HoNOSCA). It is argued that the evidence base for the implementation of routine outcome measurement is poor, that systematic evaluation of its introduction should occur, and that already under-funded CAMHS should be adequately resourced to support the additional work involved.

154. Garralda ME, Yates P, Higginson I. **Child and adolescent mental health service use. HoNOSCA as an outcome measure.** British Journal of Psychiatry 2000;177(JUL.):52-58.

Record no: 89

Abstract: Background: HoNOSCA (Health of the Nation Outcome Scales for Children and Adolescents) is a recently developed measure of outcome for use in child and adolescent mental health services (CAMHS). Aims: To examine HoNOSCA's sensitivity to change, convergent validity and clinical usefulness. Method: Prospective study of new CAMHS attenders. Questionnaires completed by clinicians, parents and referrers at initial assessment and after 6 months. Results: Follow-up HoNOSCA on 203 children indicated statistically significant change. There were significant associations between change in HoNOSCA scores, changes in other clinician- and parent-rated scales ($r=0.51$ to 0.32) and in global outcome ratings by referrers, parents and clinicians. Intraclass correlation coefficients for the summated HoNOSCA scores were high. HoNOSCA change was positively correlated with initial HoNOSCA score ($r=0.46$, $P < 0.001$) and it was linked to psychiatric diagnosis. Conclusions: HoNOSCA is a sensitive, valid measure of change among CAMHS attenders. Declaration of interest: The study was funded by the NorthThames Regional Health Authority.

155. Goodyer I, Dubicka B, Wilkinson P, Kelvin R, Roberts C, Byford S, et al. **Selective serotonin reuptake inhibitors (SSRIs) and routine specialist care with and without cognitive behaviour therapy in adolescents with major depression: randomised controlled trial.** BMJ (Clinical research ed) 2007;335(7611):142.

Record no: 10

Abstract: OBJECTIVE: To determine whether a combination of a selective serotonin reuptake inhibitor (SSRIs) and cognitive behaviour therapy (CBT) together with clinical care is more effective in the short term than an SSRI and clinical care alone in adolescents with moderate to severe major depression. DESIGN: Pragmatic randomised controlled superiority trial. SETTING: 6 outpatient clinics in Manchester and Cambridge. PARTICIPANTS: 208 adolescents, aged 11-17, with moderate to severe major or probable major depression who had not responded to a brief initial

intervention. Adolescents with suicidality, depressive psychosis, or conduct disorder were included. INTERVENTIONS: 103 adolescents received an SSRI and routine care; 105 received an SSRI, routine care, and CBT. The trial lasted 12 weeks, followed by a 16 week maintenance phase. MAIN OUTCOME MEASURES: Change in score on the Health of the Nation outcome scales for children and adolescents (primary outcome) from baseline with 12 weeks as the primary and 28 weeks as the follow-up end point. Secondary measures were change in scores on the mood and feelings questionnaire, the revised children's depression rating scale, the children's global assessment scale, and the clinical global impression improvement scale. RESULTS: At 12 weeks the treatment effect for the primary outcome was -0.64 (95% confidence interval -2.54 to 1.26, P=0.50). In a longitudinal analysis, there was no difference in effectiveness of treatment for the primary (average treatment effect 0.001, -1.52 to 1.52, P=0.99) or secondary outcome measures. On average there was a decrease in suicidal thoughts and self harm. There was no evidence of a protective effect of cognitive behaviour therapy on suicidal thinking or action. By 28 weeks, 57% were much or very much improved with 20% remaining unimproved. CONCLUSIONS: For adolescents with moderate to severe major depression there is no evidence that the combination of CBT plus an SSRI in the presence of routine clinical care contributes to an improved outcome by 28 weeks compared with the provision of routine clinical care plus an SSRI alone. TRIAL REGISTRATION: Current Controlled Trials ISRCNT 83809224.

156. Goodyer IM, Dubicka B, Wilkinson P, Kelvin R, Roberts C, Byford S, et al. **A randomised controlled trial of cognitive behaviour therapy in adolescents with major depression treated by selective serotonin reuptake inhibitors. The ADAPT trial.** Health technology assessment (Winchester, England) 2008;12(14):iii-iv, ix-60.

Record no: 11

Abstract: OBJECTIVES: To determine if, in the short term, depressed adolescents attending routine NHS Child and Adolescent Mental Health Services (CAMHS), and receiving ongoing active clinical care, treatment with selective serotonin reuptake inhibitors (SSRIs) plus cognitive behaviour therapy (CBT) compared with SSRI alone, results in better healthcare outcomes. DESIGN: A pragmatic randomised controlled trial (RCT) was conducted on depressed adolescents attending CAMHS who had not responded to a psychosocial brief initial intervention (BII) prior to randomisation. SETTING: Six English CAMHS participated in the study. PARTICIPANTS: A total of 208 patients aged between 11 and 17 years were recruited and randomised. INTERVENTIONS: All participants received active routine clinical care in a CAMHS outpatient setting and an SSRI and half were offered CBT. MAIN OUTCOME MEASURES: The duration of the trial was a 12-week treatment phase, followed by a 16-week maintenance phase. Follow-up assessments were at 6, 12 and 28 weeks. The primary outcome measure was the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA). Secondary outcome measures were self-report depressive symptoms, interviewer-rated depressive signs and symptoms, interviewer-rated psychosocial impairment and clinical global impression of response to treatment. Information on resource use was collected in interview at baseline and at the 12- and 28-week follow-up assessments using the Child and Adolescent Service Use Schedule (CA-SUS). RESULTS: Of the 208 patients randomised, 200 (96%) completed the trial to the primary end-point at 12 weeks. By the 28-week follow-up, 174 (84%) participants were re-evaluated. Overall, 193 (93%) participants had been assessed at one or more time points. Clinical characteristics indicated that

the trial was conducted on a severely depressed group. There was significant recovery at all time points in both arms. The findings demonstrated no difference in treatment effectiveness for SSRI + CBT over SSRI only for the primary or secondary outcome measures at any time point. This lack of difference held when baseline and treatment characteristics were taken into account (age, sex, severity, co-morbid characteristics, quality and quantity of CBT treatment, number of clinic attendances). The SSRI + CBT group was somewhat more expensive over the 28 weeks than the SSRI-only group ($p=0.057$) and no more cost-effective. Over the trial period there was on average a decrease in suicidal thoughts and self-harm compared with levels recorded at baseline. There was no significant increase in disinhibition, irritability and violence compared with levels at baseline. Around 20% ($n=40$) of patients in the trial were non-responders. Of these, 17 (43%) showed no improvement by 28 weeks and 23 (57%) were considered minimally ($n=10$) or moderately to severely worse ($n=13$). CONCLUSIONS: For moderately to severely depressed adolescents who are non-responsive to a BII, the addition of CBT to fluoxetine plus routine clinical care does not improve outcome or confer protective effects against adverse events and is not cost-effective. SSRIs (mostly fluoxetine) are not likely to result in harmful adverse effects. The findings are broadly consistent with existing guidelines on the treatment of moderate to severe depression. Modification is advised for those presenting with moderate (6-8 symptoms) to severe depressions (>8 symptoms) and in those with either overt suicidal risk and/or high levels of personal impairment. In such cases, the time allowed for response to psychosocial interventions should be no more than 2-4 weeks, after which fluoxetine should be prescribed. Further research should focus on evaluating the efficacy of specific psychological treatments against brief psychological intervention, determining the characteristics of patients with severe depression who are non-responsive to fluoxetine, relapse prevention in severe depression and improving tools for determining treatment responders and non-responders.

157. Gowers S, Bailey-Rogers SJ, Shore A, Levine W. **The Health of the Nation Outcome Scales for Child & Adolescent Mental Health (HoNOSCA)**. *Child Psychology & Psychiatry Review* 2000;5(2):50-56.

Record no: 95

Abstract: The child and adolescent version of the Health of the Nation Outcome Scales (HoNOSCA) represents the first attempt at a routine outcome measure for Child and Adolescent Mental Health Services in the UK. This article reviews the development of the HoNOSCA. Extensive field trials suggest that the scales are acceptable to clinicians from the various disciplines working in this area and are also valid and reliable. A growing number of services are now using the scales in audit and research, supported by the national HoNOSCA base that provides training and coordinates further developments. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

158. Gowers S, Levine W, Bailey-Rogers S, Shore A, Burhouse E. **Use of a routine, self-report outcome measure (HoNOSCA-SR) in two adolescent mental health services. Health of the Nation Outcome Scale for Children and Adolescents**. *The British journal of psychiatry : the journal of mental science* 2002;180:266-269.

Record no: 96

Abstract: BACKGROUND: The Health of the Nation Outcome Scale for Children and Adolescents (HoNOSCA) is an established outcome measure for child and adolescent mental health. Little is known of adolescent views on

outcome. AIMS: To develop and test the properties of an adolescent, self-rated version of the scale (HoNOSCA-SR) against the established clinician-rated version. METHOD: A comparison was made of 6-weekly clinician-rated and self-rated assessments of adolescents attending two services, using HoNOSCA and other mental health measures. RESULTS: Adolescents found HoNOSCA-SR acceptable and easy to rate. They rated fewer difficulties than the clinicians and these difficulties were felt to improve less during treatment, although this varied with diagnosis and length of treatment. Although HoNOSCA-SR showed satisfactory reliability and validity, agreement between clinicians and users in individual cases was poor. CONCLUSIONS: Routine outcome measurement can include adolescent self-rating with modest additional resources. The discrepancy between staff and adolescent views requires further evaluation.

159. Gowers SG, Clark AF, Roberts C, Byford S, Barrett B, Griffiths A, et al. **A randomised controlled multicentre trial of treatments for adolescent anorexia nervosa including assessment of cost-effectiveness and patient acceptability - the TOuCAN trial.** Health technology assessment (Winchester, England) 2010;14(15):1-98.

Record no: 12

Abstract: OBJECTIVE: To evaluate the clinical effectiveness and cost-effectiveness of inpatient compared with outpatient treatment and general (routine) treatment in Child and Adolescent Mental Health Services (CAMHS) against specialist treatment for young people with anorexia nervosa. In addition, to determine young people's and their carers' satisfaction with these treatments. DESIGN: A population-based, pragmatic randomised controlled trial (RCT) was carried out on young people age 12 to 18 presenting to community CAMHS with anorexia nervosa. SETTING: Thirty-five English CAMHS in the north-west of England co-ordinated through specialist centres in Manchester and Liverpool. PARTICIPANTS: Two hundred and fifteen young people (199 female) were identified, of whom 167 (mean age 14 years 11 months) were randomised and 48 were followed up as a preference group. INTERVENTIONS: Randomised patients were allocated to either inpatient treatment in one of four units with considerable experience in the treatment of anorexia nervosa, a specialist outpatient programme delivered in one of two centres, or treatment as usual in general community CAMHS. The outpatient programmes spanned 6 months of treatment. The length of inpatient treatment was determined on a case-by-case basis on clinical need with outpatient follow-up to a minimum of 6 months. MAIN OUTCOME MEASURES: Follow-up assessments were carried out at 1, 2 and 5 years. The primary outcome measure was the Morgan-Russell Average Outcome Scale (MRAOS) and associated categorical outcomes. Secondary outcome measures included physical measures of weight, height, body mass index (BMI) and % weight for height. Research ratings included the Health of the National Outcome Scale for Children and Adolescents (HoNOSCA). Self report measures comprised the user version of HoNOSCA (HoNOSCA-SR), the Eating Disorder Inventory 2 (EDI-2), the Family Assessment Device (FAD) and the recent Mood and Feelings Questionnaire (MFQ). Information on resource use was collected in interview at 1, 2 and 5 years using the Child and Adolescent Service Use Schedule (CA-SUS). Satisfaction was measured quantitatively using a questionnaire designed for the study and qualitative (free) responses on it. The questionnaire data were supplemented by qualitative analysis of user and carer focus groups. RESULTS: Of the 167 patients randomised, 65% adhered to the allocated treatment. Adherence was lower for inpatient treatment (49%) than for general CAMHS (71%) or specialist outpatient

treatment (77%) ($p = 0.013$). Every subject was traced at both 1 and 2 years, with the main outcome measure completed (through contact with the subject, family members or clinicians), by 94% at 1 year, 93% at 2 years, but only 47% at 5 years. A validated outcome category was assigned for 98% at 1 year, 96% at 2 years and 60% at 5 years. There was significant improvement in all groups at each time point, with the number achieving a good outcome being 19% at 1 year, 33% at 2 years and 64% (of those followed up) at 5 years. Analysis demonstrated no difference in treatment effectiveness of randomisation to inpatient compared with outpatient treatment, or, specialist over generalist treatment at any time point, when baseline characteristics were taken into account. Generalist CAMHS treatment was slightly more expensive over the first 2 years of the study, largely because greater numbers were subsequently admitted to hospital after the initial treatment phase. The specialist outpatient programme was the dominant treatment in terms of incremental cost-effectiveness. Specialist treatments had a higher probability of being more cost-effective than generalist treatments and outpatient treatment had a higher probability of being more cost-effective than inpatient care. Parental satisfaction with treatment was generally good, though better with specialist than generalist treatment. Young people's satisfaction was much more mixed, but again better with specialist treatment, including inpatient care. **CONCLUSION:** Poor adherence to randomisation (despite initial consent to it), limits the assessment of the treatment effect of inpatient care. However, this study provides little support for lengthy inpatient psychiatric treatment on clinical or health economic grounds. These findings are broadly consistent with existing guidelines on the treatment of anorexia nervosa, which suggest that outpatient treatments should be offered to the majority, with inpatient treatment offered in rare cases, though our findings lend little support to a stepped-care approach in which inpatient care is offered to outpatient non-responders. Outpatient care, supported by brief (medical) inpatient management for correction of acute complications may be a preferable approach. The health economic analysis and user views both support NICE guidelines, which suggest that anorexia nervosa should be managed in specialist services that have experience and expertise in its management. Comprehensive general CAMHS might, however, be well placed to manage milder cases. Further research should focus on the specific components of outpatient psychological therapies. Although family-based treatments are well established, trials have not established their effectiveness compared with good-quality individual psychological therapies and the combination of individual and family approaches is untested. Further research is needed to establish which patients (if any) might respond to inpatient psychiatric treatment when unresponsive to outpatient care, the positive and negative components of it and the optimum length of stay. **TRIAL REGISTRATION:** NRR number (National Research Register) N0484056615; Current Controlled Trials ISRCTN39345394.

160. Gowers SG, Harrington RC, Whitton A, Lelliott P, Beevor A, Wing J, et al. **Brief scale for measuring the outcomes of emotional and behavioural disorders in children. Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA).** *British Journal of Psychiatry* 1999;174(MAY):413-416.

Record no: 98

Abstract: Background: Following the development of a child and adolescent version of the Health of the Nation Outcome Scales (HoNOSCA), field trials were conducted to assess their feasibility and acceptability in routine outcome measurement. Aims: To evaluate the reliability, validity and

acceptability of HoNOSCA in routine outcome measurement. Method: Following training, 36 field sites provided ratings on 1276 cases at one time point and outcome data on 906. Acceptability was assessed by way of written feedback and at a debriefing meeting. Results: HoNOSCA demonstrated satisfactory reliability and validity characteristics. It was sensitive to change and its ability to measure change accorded with the clinicians' independent rating. HoNOSCA was reasonably acceptable to clinicians' from a range of disciplines and services. Conclusions: Provided that training needs can be met, HoNOSCA represents a satisfactory brief outcome measure which could be used routinely in child and adolescent mental health services. Declaration of interest: Supported by a Department of Health grant.

161. Hanssen-Bauer K, Aalen OO, Ruud T, Heyerdahl S. **Inter-rater reliability of clinician-rated outcome measures in child and adolescent mental health services.** Administration and Policy in Mental Health and Mental Health Services Research 2007;34(6):504-512.

Record no: 105

Abstract: This study investigated the inter-rater reliability when 169 out of 171 clinicians working in 10 Norwegian child and adolescent mental health services rated 20 written vignettes using the following outcome measures: Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA), Children's Global Assessment Scale (CGAS) and Global Assessment of Psychosocial Disability (GAPD). Three clinicians rated both patients and vignettes. On vignettes the intraclass correlation coefficient (ICC) for the HoNOSCA total score was 0.81 (single scales 0.47-0.96), for the CGAS 0.61 and for the GAPD 0.60. The reliability was not lower on patients. The rater's profession, experience or clinic did not have effect on the scores. 2007 Springer Science+Business Media, LLC.

162. Hanssen-Bauer K, Gowers S, Aalen OO, Bilenberg N, Brann P, Garralda E, et al. **Cross-national reliability of clinician-rated outcome measures in child and adolescent mental health services.** Administration and Policy in Mental Health and Mental Health Services Research 2007;34(6):513-518.

Record no: 106

Abstract: Clinician-rated measures are in extensive use as routine outcome measures in child and adolescent mental health services. We investigated cross-national differences and inter-rater reliability of the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA), the Children's Global Assessment Scale (CGAS) and the Global Assessment of Psychosocial Disability (GAPD). Thirty clinicians from 5 nations independently rated 20 written vignettes. The national groups afterwards established national consensus ratings. There were no cross-national differences in independent scores, but there were differences in national consensus scores, which were also more severe than independent scores. The ICC for the HoNOSCA total score was 0.84, for the CGAS 0.61 and for the GAPD 0.54. These measures may usefully contribute to cross-national comparison studies. 2007 Springer Science+Business Media, LLC.

163. Hanssen-Bauer K, Langsrud T, Kvernmo S, Heyerdahl S. **Clinician-rated mental health in outpatient child and adolescent mental health services: Associations with parent, teacher and adolescent ratings.** Child and Adolescent Psychiatry and Mental Health 2010;4(29).

Record no: 108

Abstract: Background: Clinician-rated measures are used extensively in child and adolescent mental health services (CAMHS). The Health of the Nation

Outcome Scales for Children and Adolescents (HoNOSCA) is a short clinician-rated measure developed for ordinary clinical practice, with increasing use internationally. Several studies have investigated its psychometric properties, but there are few data on its correspondence with other methods, rated by other informants. We compared the HoNOSCA with the well-established Achenbach System of Empirically Based Assessment (ASEBA) questionnaires: the Child Behavior Checklist (CBCL), the Teacher's Report Form (TRF), and the Youth Self-Report (YSR). Methods: Data on 153 patients aged 6-17 years at seven outpatient CAMHS clinics in Norway were analysed. Clinicians completed the HoNOSCA, whereas parents, teachers, and adolescents filled in the ASEBA forms. HoNOSCA total score and nine of its scales were compared with similar ASEBA scales. With a multiple regression model, we investigated how the ASEBA ratings predicted the clinician-rated HoNOSCA and whether the different informants' scores made any unique contribution to the prediction of the HoNOSCA scales. Results: We found moderate correlations between the total problems rated by the clinicians (HoNOSCA) and by the other informants (ASEBA) and good correspondence between eight of the nine HoNOSCA scales and the similar ASEBA scales. The exception was HoNOSCA scale 8 psychosomatic symptoms compared with the ASEBA somatic problems scale. In the regression analyses, the CBCL and TRF total problems scores together explained 27% of the variance in the HoNOSCA total scores (23% for the age group 11-17 years, also including the YSR). The CBCL provided unique information for the prediction of the HoNOSCA total score, HoNOSCA scale 1 aggressive behaviour, HoNOSCA scale 2 overactivity or attention problems, HoNOSCA scale 9 emotional symptoms, and HoNOSCA scale 10 peer problems; the TRF for all these except HoNOSCA scale 9 emotional symptoms; and the YSR for HoNOSCA scale 9 emotional symptoms only. Conclusion: This study supports the concurrent validity of the HoNOSCA. It also demonstrates that parents, teachers and adolescents all contribute unique information in relation to the clinician-rated HoNOSCA, indicating that the HoNOSCA ratings reflect unique perspectives from multiple informants. 2010 Hanssen-Bauer et al; licensee BioMed Central Ltd.

164. Harnett PH, Loxton NJ, Sadler T, Hides L, Baldwin A. **The health of the nation outcome scales for children and adolescents in an adolescent in-patient sample.** Australian and New Zealand Journal of Psychiatry 2005;39(3):129-135.

Record no: 109

Abstract: Objective: The primary aims of the study were to examine the reliability and validity of the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) in a sample of adolescents requiring medium to long-term in-patient psychiatric treatment and to examine the association between HoNOSCA scores and age, gender and length of treatment. Methods: A multidisciplinary team completed the HoNOSCA for 51 adolescent patients at intake and at 3- and 6-months following admission to the unit. Results: The study provided support for the test-retest reliability, concurrent and convergent validity, but not the internal reliability, of the HoNOSCA. Total HoNOSCA scores at intake were similar to those found in adolescent outpatient samples, although there were some differences at the level of individual items. Similarly, while the total HoNOSCA score showed some sensitivity to change, using the total HoNOSCA score obscured important changes in specific domains of functioning over the course of admission. Conclusion: The HoNOSCA was found to be a valid measure of global functioning at intake, thereby supporting its use in an adolescent

psychiatric unit. However, focusing on individual items, rather than total score, appears more useful in evaluating the impact of inpatient psychiatric treatment on adolescents.

165. Holzer L, Tchamadjeu IK, Plancherel B, Bolognini M, Rossier V, Chinet L, et al. **Adolescent Drug Abuse Diagnosis (ADAD) vs. Health of Nation Outcome Scale for Children and Adolescents (HoNOSCA) in clinical outcome measurement.** *Journal of Evaluation in Clinical Practice* 2006;12(5):482-490.

Record no: 112

Abstract: Background: The Adolescent Drug Abuse Diagnosis (ADAD) and Health of Nation Outcome Scales for Children and Adolescents (HoNOSCA) are both measures of outcome for adolescent mental health services. Aims: To compare the ADAD with HoNOSCA; to examine their clinical usefulness. Methods: Comparison of the ADAD and HoNOSCA outcome measures of 20 adolescents attending a psychiatric day care unit. Results: ADAD change was positively correlated with HoNOSCA change. HoNOSCA assesses the clinic's day-care programme more positively than the ADAD. The ADAD detects a group for which the mean score remains unchanged whereas HoNOSCA does not. Conclusions: A good convergent validity emerges between the two assessment tools. The ADAD allows an evidence-based assessment and generally enables a better subject discrimination than HoNOSCA. HoNOSCA gives a less refined evaluation but is more economic in time and possibly more sensitive to change. Both assessment tools give useful information and enabled the Day-care Unit for Adolescents to rethink the process of care and of outcome, which benefited both the institution and the patients. 2006 Blackwell Publishing Ltd.

166. Hunt J, Wheatley M. **Preliminary findings on the health of the nation outcome scales for children and adolescents in an inpatient secure adolescent unit.** *Child Care in Practice* 2009;15(1):49-56.

Record no: 115

Abstract: To date there is limited research examining the use of the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) with adolescents in secure care. The aim of this article is to examine the inter-rater reliability, concurrent validity and clinical utility of HoNOSCA in an adolescent secure psychiatric unit. Twenty-four adolescents aged 13-18 years met the criteria and took part in the study. The HoNOSCA was completed by two raters, and the Children's Global Assessment Scale/Global Assessment Scale, the Beck Depression Inventory and the Brief Psychiatric Rating Scale were administered. The mean total HoNOSCA score was consistent with previous studies using adolescent inpatient samples. The inter-rater reliability of HoNOSCA total scores and domain scores was significant. Concurrent validity in relation to the Brief Psychiatric Rating Scale, the Beck Depression Inventory and the Global Assessment Scale/Children's Global Assessment Scale was adequate. In conclusion, several issues were highlighted with regard to assessing outcome in this setting, and modifications have been suggested in order to make the scale more suitable to this patient group. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

167. Iachina M, Bilenberg N. **Measuring reliable change of emotional and behavioural problems in children.** *Psychiatry Research* 2012;200(2-3):867-871.

Record no: 118

Abstract: The purpose of this study was to estimate true treatment effect measured by clinicians using the Health of the Nation Outcome Scale for Children and Adolescent (HoNOSCA) corrected for regression to the mean (RTM), and for ceiling and floor effects. The present study was based on routine clinical data from a national database in which HoNOSCA is scored before and after therapy in order to show the treatment effect. We constructed a modified score to correct for the potential bias due to RTM, and used Generalized Linear Models analysis to adjust for the ceiling and floor effect. Our study showed that if these corrections are implemented in routine outcome measurement of children diagnosed with Hyperkinetic Disorder (HKD), the estimate of change in total HoNOSCA score after adjustment is clearly smaller in absolute value than the absolute difference estimate. If RTM and the ceiling/floor effect is ignored it will lead to misinterpretation of the results. 2012 Elsevier Ireland Ltd.

168. Lesinskiene S, Senina J, Ranceva N. **Use of the HoNOSCA scale in the teamwork of inpatient child psychiatry unit.** *Journal of Psychiatric and Mental Health Nursing* 2007;14(8):727-733.

Record no: 136

Abstract: The aims of this study were to introduce the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) into the clinical practice, to assess the possibilities to use HoNOSCA in the interdisciplinary teamwork of child psychiatric inpatient unit and to analyse differences in evaluation of HoNOSCA among team members scoring different diagnostic groups of children. HoNOSCA was translated into Lithuanian and team members were trained to use the scale. Inter-rater reliabilities between various pairs of specialists and between all members of the team were calculated using intraclass correlations calculated for each item of the scale and total score. Scoring differences in children with externalized and internalized disorders between psychiatrists-psychologists versus nurses-caretakers were analysed using t-test. The analysis showed that intraclass correlations estimates of reliability of the HoNOSCA discharge scores were highest for ratings by child psychiatrists-psychologists and nurses-caretakers. Analysis of ratings of patients with externalized and internalized disorders types showed differences in scoring disruptive/aggressive behaviours, self-care and family relationship scales. HoNOSCA had satisfactory inter-rater reliability in clinical multidisciplinary practice of child psychiatric inpatient unit. Implementing HoNOSCA in routine clinical practice and analysis of the rating differences among the multidisciplinary team members was useful to highlight possibilities for improvement of quality of services provided and building more constructive teamwork. 2007 The Authors.

169. Mathai J, Anderson P, Bourne A. **The Strengths and Difficulties Questionnaire (SDQ) as a screening measure prior to admission to a child and mental health service (CAMHS).** *Advances in Mental Health* 2002;1(3):1-12.

Record no: 143

Abstract: The objective of this study was to evaluate the usefulness of the Strengths and Difficulties Questionnaire (SDQ) as a routine measure to screen for emotional and behavioural disorders in children and adolescents referred to a community child and adolescent mental health service (CAMHS). Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) were also utilised and the correlation between the two instruments was examined. The study was conducted with 130 consecutive new CAMHS attendees. Clinicians, parents, teachers and

children (if aged 11 years or older) completed questionnaires at initial attendance. According to parents, 85% of children and adolescents referred exhibited moderate to severe behavioural/emotional problems, and 82% had a SDQ impact score in the abnormal range. Teachers' ratings generally indicated less severe problems. Teachers rated 60% of the children in the moderate to severe range and 61% had an impact score in the abnormal range. Self-reports from the older-aged children showed that 67% rated themselves to be in the moderate to severe range. Fifty two percent rated themselves in the abnormal range for impact. Moderate inter-test (HoNOSCA and SDQ) and inter-rater (SDQ) correlations were found. The findings are consistent with similar studies conducted in the U.K. In conclusion, the SDQ is sensitive in detecting emotional and behavioural problems and may be utilised to screen referrals at intake. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

170. Mathiassen B, Brondbo PH, Waterloo K, Martinussen M, Eriksen M, Hanssen-Bauer K, et al. **IQ as a moderator of outcome in severity of children's mental health status after treatment in outpatient clinics.** *Child and Adolescent Psychiatry and Mental Health* 2012;6(22).

Record no: 144

Abstract: Background: Psychotherapy is an effective treatment for mental health disorders, but even with the most efficacious treatment, many patients do not experience improvement. Moderator analysis can identify the conditions under which treatment is effective or whether there are factors that can attenuate the effects of treatment. Methods: In this study, linear mixed model analysis was used to examine whether the Full Scale IQ (FSIQ), Performance IQ (PIQ) and Verbal IQ (VIQ) on the Wechsler Intelligence Scale for Children - Third Edition, moderated outcomes in general functioning and symptom load. A total of 132 patients treated at three outpatient child and adolescent mental health services (CAMHS) were assessed at three different time points. The Children's Global Assessment Scale (CGAS) and the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) were used to measure the severity of impairments in general functioning and symptom load. IQ was assessed at the start of treatment. Results: Moderator analysis revealed that the FSIQ x time interaction predicted changes in CGAS scores ($p < .01$), and that the PIQ x time interaction predicted changes in HoNOSCA scores ($p < .05$). The slopes and intercepts in HoNOSCA scores covaried negatively and significantly ($p < .05$). The same pattern was not detected for the CGAS scores ($p = .08$). Conclusions: FSIQ and PIQ moderated change in general functioning and symptom load, respectively. This implies that patients with higher IQ scores had a steeper improvement slope than those with lower scores. The patients with the highest initial symptom loads showed the greatest improvement, this pattern was not found in the improvement of general functioning. 2012 Mathiassen et al.; licensee BioMed Central Ltd.

171. Milone A, Ricci L, Ruglioni L, Muratori F. **Global assessment in child and adolescent psychiatry: An evaluation of HoNOSCA in a clinical group. [Italian] Il funzionamento globale nella psichiatria dell'eta evolutiva: Sperimentazione di HoNOSCA su un campione clinico.** *Imago* 2005;12(1):69-79.

Record no: 154

Abstract: Objective: The objective of this study is the use of the HoNOSCA (Health of Nation Outcome Scale for Children and Adolescent) in children and adolescents with different psychiatric problems, to assess its effectiveness, reliability and sensibility to change. Methods: The scale was

administered to the parents of 100 subjects, aged between 5 and 18, and rated both at initial assessment and at a six-months follow-up. A comparative analysis between two groups of patients, to verify correlation among HoNOSCA high scores and the presence of a psychiatric pathology. Results: HoNOSCA demonstrated satisfactory reliability and validity characteristics. Statistically significant difference between the two groups, sensitive to change, its ability to measure change accorded with the clinicians' independent rating are discussed. Conclusions: HoNOSCA is a sensitive, valid measure of change and represents a satisfactory brief outcome measure which could be routinely used in child and adolescent mental health services.

172. Tiffin PA, Rolling K. **Structure of the Health of the Nation Outcome Scales for Children and Adolescents: An ordinal factor analysis of clinician ratings of a sample of young people referred to community mental health services.** *Psychiatry Research* 2012;197(1-2):154-162.

Record no: 193

Abstract: The Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) have been implemented as performance and research measures for youth mental health services in the UK and elsewhere. However, the factor structure of this instrument has not yet been reported. Clinician ratings from a representative sample of 1335 young people seen by community-based Child and Adolescent Mental Health Services were randomised into exploratory and confirmatory datasets. Parallel analysis followed by an exploratory factor analysis was performed on the former ratings. The potential structures elicited were tested using confirmatory factor analyses (CFA). The resulting structures were evaluated in the confirmatory dataset. On CFA a five-factor model with one cross-loading item provided the best fit to the data. However, the internal reliability consistency of some of the postulated subscales was poor. We conclude that the HoNOSCA is a multidimensional measure with a three-factor structure possibly providing the optimum compromise between fit and internal reliability. Thus, it may be most appropriate to summarise clinical outcomes using two symptom subscores, relating to behavioural and emotional problems, rather than using the total scores, as is current practice. Such subscales may be more sensitive to change than total summed scores. 2012 Elsevier Ltd.

173. Urban S, Baier V, Mantzouranis G, Schwery J, Mahi C, Courosse S, et al. **The French adaptation of the Health of the Nation Outcome Scale for Children and Adolescents Self-Rated Form (F-HoNOSCA-SR): Validation and clinical routine use.** *Psychiatry Research* 2014;218(1-2):229-235.

Record no: 201

Abstract: The current study aimed to explore the validity of an adaptation into French of the self-rated form of the Health of the Nation Outcome Scales for Children and Adolescents (F-HoNOSCA-SR) and to test its usefulness in a clinical routine use. One hundred and twenty nine patients, admitted into two inpatient units, were asked to participate in the study. One hundred and seven patients filled out the F-HoNOSCA-SR (for a subsample (N=17): at two occasions, one week apart) and the strengths and difficulties questionnaire (SDQ). In addition, the clinician rated the clinician-rated form of the HoNOSCA (HoNOSCA-CR, N=82). The reliability (assessed with split-half coefficient, item response theory (IRT) models and intraclass correlations (ICC) between the two occasions) revealed that the F-HoNOSCA-SR provides

reliable measures. The concurrent validity assessed by correlating the F-HoNOSCA-SR and the SDQ revealed a good convergent validity of the instrument. The relationship analyses between the F-HoNOSCA-SR and the HoNOSCA-CR revealed weak but significant correlations. The comparison between the F-HoNOSCA-SR and the HoNOSCA-CR with paired sample t-tests revealed a higher score for the self-rated version. The F-HoNOSCA-SR was reported to provide reliable measures. In addition, it allows us to measure complementary information when used together with the HoNOSCA-CR. 2014 Elsevier Ireland Ltd.

174. Vitiello B, Rohde P, Silva S, Wells K, Casat C, Waslick B, et al. **Functioning and quality of life in the Treatment for Adolescents with Depression Study (TADS)**. *Journal of the American Academy of Child and Adolescent Psychiatry* 2006;45(12):1419-1426.

Record no: 24

Abstract: OBJECTIVE: To test whether 12-week treatment of major depression improved the level of functioning, global health, and quality of life of adolescents. METHOD: The Treatment for Adolescents With Depression Study was a multisite, randomized clinical trial of fluoxetine, cognitive-behavioral therapy (CBT), their combination (COMB), or clinical management with placebo in 439 adolescents with major depression. Functioning was measured with the Children's Global Assessment Scale (CGAS), global health with the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA), and quality of life with the Pediatric Quality of Life Enjoyment and Satisfaction Questionnaire (PQ-LES-Q). Random-effects regression models were applied to the data. RESULTS: Compared with placebo, COMB was effective on the CGAS ($p < .0001$), HoNOSCA ($p < .05$), and PQ-LES-Q ($p < .001$), whereas fluoxetine was superior to placebo on the CGAS only ($p < .05$). COMB was superior to fluoxetine on the CGAS ($p < .05$) and PQ-LES-Q ($p = .001$). Fluoxetine was superior to CBT on the CGAS ($p < .01$). CBT monotherapy was not statistically different from the placebo group on any of the measures assessed. Treatment effects were mediated by improvement in depressive symptoms measured on the Child Depression Rating Scale-Revised. CONCLUSIONS: The combination of fluoxetine and CBT was effective in improving functioning, global health, and quality of life in depressed adolescents. Fluoxetine monotherapy improved functioning.

175. Worrall-Davles A, Cottrell D, Benson E. **Evaluation of an early intervention Tier 2 child and adolescent mental health service**. *Health and Social Care in the Community* 2004;12(2):119-125.

Record no: 209

Abstract: While the recommendation issued by the Health Advisory Service in 1995 is for a tiered child and adolescent mental health service, there is little published evidence about the outcomes of such services. Our objective was to evaluate an innovative community-based child and adolescent mental health service in South and East Leeds using before and after measures. The client group of the service was children and families with emotional and behavioural problems and/or parenting difficulties. Standardised assessment of families and young people was followed by brief intervention (solution-focused therapy) to the child and family. Descriptive demographic and referral pathway details were recorded, as were baseline and postintervention Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) scores. South Leeds generated almost four times as many referrals in the 9 months after the Tier 2 Child and Adolescent Mental Health Service (CAMHS) was set up. Clinically and statistically significant

decreases in symptom scores were found for families completing work with the Tier 2 workers. Families referred on to Tier 3 had complex but not more severe problems. The new service encountered previously unmet need among troubled young people in the community, whilst freeing specialist Tier 3 staff to concentrate on complex, chronic problems.

176. Yates P, Kramer T, Garralda ME. **Use of a routine mental health measure in an adolescent secure unit.** *British Journal of Psychiatry* 2006;188(JUNE):583-584.

Record no: 211

Abstract: We examined the use of a staff-completed measure, the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA), to record mental health problems in adolescents in local authority secure accommodation. It proved possible to train staff and implement completion of the HoNOSCA on 64 consecutive admissions. Interrater reliability was high. The HoNOSCA identified high levels of psychological problems on admission (mean 18.5, s.d.=5.5). Follow-up HoNOSCA ratings proved sensitive to change; however, correlation between HoNOSCA and adolescent-completed questionnaires was poor. We concluded that HoNOSCA can be helpful in documenting mental health problems among young people admitted to secure local authority units.

177. Alugo T, Buckley S. **Using the HoNOSCA as a screening tool in eating disorders.** *European Child and Adolescent Psychiatry* 2013;1):S256.

Record no: 37

Abstract: The Health of the nations outcome scale for children and adolescents (HoNOSCA) was launched in 1998 by the Department of health in the United Kingdom. It measures the health and social functioning of people with mental health difficulties. It has been shown to have good face validity, inter-rater reliability and is acceptable for routine clinical practice. It has also been shown to be sensitive to changes in clinical presentations. It is a routine outcome measurement tool that assesses the behaviours, impairments, symptoms and social functioning of children and adolescents with mental health problems. It is used to assess the most severe problems present during the previous 2 weeks. The HoNOSCA is clinician rated and is typically completed at initial assessment, at six weekly intervals and at discharge. It has a set of 13 scales and two optional scales. The 13 scales are added to give a total score. Eating disorders including Anorexia nervosa, Bulimia nervosa and Eating disorder not otherwise specified are a major mental health concern. This is due to the high mortality rate associated with them especially Anorexia nervosa. They form the commonest cause of psychiatric morbidity in adolescent females. The health research board in 2008 showed that eating disorders represented the second commonest diagnosis in child and adolescent psychiatric admissions. The cost to the health service in terms of managing these cases is very high. They often have a long, tortuous course with rather low remission rates. Treatment can be resource intensive because of the multidisciplinary approach that is necessary for good outcomes. Screening for eating disorders has been shown to play an important role in prevention and early detection. Our study aimed to examine the possibility of using the HoNOSCA to screen for features of eating disorders and how these compared with features elicited in the Kiddie-SADS, a structured diagnostic interview schedule. We carried out a retrospective case note review of all adolescents with Eating Disorders assessed over a 1 year period. The clinician rated HoNOSCA on the intake assessments were examined focusing on subscales 6, 7, 8, 10 and 12. The HoNOSCA scores in all the clients with a diagnosis of eating disorder were

clinically significant. There was no difference between the HoNOSCA scores in male and female adolescents with eating disorders or between those with a diagnosis of anorexia nervosa vs. bulimia nervosa. The HoNOSCA appears to be a useful screening tool for Eating Disorders in adolescents.

178. Baillon SF, Simpson RG, Poole NJ, Colledge RJ, Taub NA, Prettyman RJ. **The development of a scale to aid caseload weighting in a community mental health team for older people.** *Journal of Mental Health* 2009;18(3):253-261.

Record no: 46

Abstract: Background: Community mental health teams CMHTs receive high numbers of referrals and staff who work in these teams are under constant pressure to take on more patients. Local CMHT staff expressed the need for a more accurate way to represent their workload than purely reporting numbers of clients on their caseload. Aims: The project aimed to develop a brief case weighting scale CWS specifically to rate cases in CMHTs for older people in Leicestershire. Methods: An eight-item scale was designed to include the main aspects of a client case that contribute to increased work input by CMHT members. A multiple regression model was used to assign different weightings to each of the items in order to predict time spent on the case over a four week period. Results: The items on the scale together "accounted for" 58 of the variation in time spent on client cases. The re-test and inter-rater reliability of the scale were shown to be good. Agreement with the HoNOS 65 was investigated. Conclusions: The CWS can be used to rate both current client cases and new referrals following first assessment, and aims to provide CMHT staff with a useful and useable indicator of their clinical workload. Shadowfax Publishing and Informa Healthcare USA, Inc.

179. Bajo A, Potter S, Bateman A, Lazaro F, Fleminger S. **Measurement of outcome in cognitive behavioural rehabilitation services: HoNOS-ABI & FIMFAM-UK sensitivity to change and lessons from hono rasch analysis.** *Journal of Neurology, Neurosurgery and Psychiatry* 2011;82 (8):e2.

Record no: 47

Abstract: Aims To determine HoNOS-ABI and FIMFAM-UK sensitivity to change following cognitive-behavioural rehabilitation for brain injury, and to examine the psychometric properties of these outcome measures. Methods 324 brain injured survivors underwent cognitive-behavioural rehabilitation at one of three participating centres: Lishman, Blackheath, and Edgware. Effect sizes of pre- and post-rehabilitation ratings were examined at each centre. 194 HoNOS-ABI pre-rehabilitation ratings collected across all centres were entered into an analysis using RUMM2020 (Tennant et al). Results Preliminary results for sensitivity to change and Rasch analyses are reported. Sensitivity: Moderate to large effect sizes were found at individual centres for HoNOS and FAM. HoNOS was the most sensitive tool at Blackheath and LBIU, and FAM was the most sensitive measure at Edgware. Rasch: HoNOS-ABI was found to show significant misfit to the Rasch model. All but one of the questions (cognitive) showed disordered thresholds. A person separation index of 0.63 suggested the HoNOS to be internally unreliable. Visual inspection of Category Probability Curves was used to guide rescoring. A Principal Components Analysis on the Raschtransformed data was used to identify two possible subscales within HoNOS-ABI with potentially better psychometric properties. Conclusions HoNOS-ABI and FAM total scores were moderately to highly sensitive to change following cognitive-behavioural rehabilitation. HoNOS was better able to pick up change at Blackheath and LBIU, whereas FAM would be the measure of choice at

Edgware. Rasch analysis proved to be informative of the strengths and weaknesses of HoNOS as a neuropsychiatric outcome measure, and highlighted that further work is needed to refine it as a tool for rehabilitation outcome measurement. HoNOS total score showed sensitivity to change. However, psychometric issues highlighted with this analysis indicated that a modified version may make this tool more psychometrically robust and may even increase its sensitivity to change.

180. Baldwin R, Pratt H, Goring H, Marriott A, Roberts C. **Does a nurse-led mental health liaison service for older people reduce psychiatric morbidity in acute general medical wards? A randomised controlled trial.** *Age & Ageing* 2004;33(5):472-478.

Record no: 48

Abstract: OBJECTIVE: To determine the clinical effectiveness of a nurse-led mental health liaison service in managing mental health problems in older physically ill inpatients.

DESIGN: Randomised controlled trial.

SETTING: Four general medical wards in a district general hospital in a northern UK town.

PARTICIPANTS: 153 medically ill older people (aged 65 or over) who scored above the threshold for depression and/or cognitive impairment on a brief screening instrument (4-item geriatric depression scale and 6-item orientation-memory-concentration test): 77 were randomised to a nurse-led intervention and 76 to usual care. Included in the analysis were 120 participants who completed 6-8 week follow-up assessments.

INTERVENTION: Multi-faceted intervention led by a mental health liaison nurse.

MAIN OUTCOME MEASURES: Scores on the Health of the Nation Outcome Scale 65+, the geriatric depression scale, and the Standardised Mini-Mental State Examination.

RESULTS: No significant differences were found between groups on the total Health of the Nation Outcome Scale 65+ scores (11.5 versus 11.5, adjusted mean difference -0.04, 95% CI-1.4 to 1.3, P = 0.96) nor on the Standardised Mini-Mental State Examination (20.3 versus 21.8, adjusted mean difference -0.4, 95% CI-2.1 to 1.3, P = 0.63). Subjects randomised to the intervention arm had significantly lower Geriatric Depression Scale scores at 6-8 week follow-up than those receiving usual care (12.2 versus 14.0, adjusted mean difference -2.0, 95% CI-4.0 to -0.1, P = 0.043).

CONCLUSIONS: Nurse-led mental health liaison services which accept all screened cases from acute medical wards are unlikely to be effective in reducing general psychiatric morbidity. Services which focus on the prevention of delirium and target particular patient groups or disorders such as depression are more likely to be effective.

181. Burns A, Beevor A, Lelliott P, Wing J, Blakey A, Orrell M, et al. **Health of the nation outcome scales for elderly people (HoNOS 65+).** *British Journal of Psychiatry* 1999;174(MAY):424-427.

Record no: 65

Abstract: Background: Health of the Nation Outcome Scales (HoNOS) have been developed to measure outcomes in people with mental health problems.

Aims: The particular physical and cognitive problems affecting older people requires a specific scale for their measurement. We describe the development of such a scale, named HoNOS 65+. Method: Pilot, validity and reliability studies were carried out on an amended scale. Validity was assessed by comparison with existing scales reflecting depression, cognitive function, psychiatric symptomatology, activities of daily living and functional abilities. Reliability was measured in two centres. Results: HoNOS 65+ was

successfully amended to include specific aspects of mental health problems in older people including the phenomenology of depression, delusions occurring in the presence of dementia, incontinence and agitation/restlessness. HoNOS 65+ was able to discriminate between people suffering from organic and functional illnesses. Correlations with other scales indicated reasonable validity Reliability was satisfactory. Conclusions: Aversion of HoNOS 65+ is presented (see pp. 435-438, this issue) which is appropriate for use in elderly people with mental health problems. Declaration of interest: Sponsored by REMEDI, the Gatsby Foundation and the Headley Trust.

182. Dickens G, Sugarman P, Picchioni M, Long C. **HoNOS-Secure: Tracking risk and recovery for men in secure care.** The British Journal of Forensic Practice 2010;12(4):36-46.

Record no: 77

Abstract: In this study we demonstrate how the Health of the Nation Outcomes Scales for secure and forensic service users (HoNOS-secure) tracks risk and recovery in men with mental illness and men with learning disability in a secure care pathway. Total and individual HoNOS-secure item ratings made by multi-disciplinary teams across the course of a period of admission (mean 15 months) for 180 men were examined. There was significant positive change on the clinical and risk-related scales of HoNOS-secure for patients in the learning disability care pathway (N = 48) between initial and final ratings. In the mental health care pathway (N = 132 patients) an apparent lack of change masked a more complex picture, where initial decline in HoNOS-secure ratings was succeeded by significant improvement. Results suggest that it is challenging to measure clinical and risk-related medium-term clinical outcomes objectively for these patients, particularly in relation to core issues of treatment of mental disorder, and reduction of both problem behaviour and risk to others. However, it is important that practitioners continue to strive to demonstrate the benefits of care and treatment through appropriate outcomes measures. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract).

183. Dickens G, Sugarman P, Walker L. **HoNOS-secure: A reliable outcome measure for users of secure and forensic mental health services.** Journal of Forensic Psychiatry and Psychology 2007;18(4):507-514.

Record no: 78

Abstract: The Health of the Nation Outcome Scales for users of secure and forensic services (HoNOS-secure) comprises amended versions of the original 12 HoNOS items, and an additional seven-item security scale. HoNOS-secure tracks clinical outcome, including ongoing security needs. To investigate the interrater reliability of HoNOS-secure, 60 inpatients were rated independently by two clinicians. There were 34 raters in total. Intraclass correlation coefficients (ICCs) for six of the seven security items indicated at least moderate agreement; one item indicated fair reliability. ICCs for all 12 HoNOS items indicated fair to substantial consistency between raters. Cronbach's alphas were .73 for the security scale and .79 for the HoNOS scale, indicating acceptable internal reliability. The security scale and the HoNOS items were measured consistently by different raters, indicating that HoNOS-secure is a reliable outcome measure when used in routine clinical practice.

184. Draper B, Busetto G, Cullen B. **Risk factors for and prediction of falls in an acute aged care psychiatry unit.** Australasian Journal on Ageing 2004;23(1):48-51.

Record no: 79

Abstract: Objectives: To evaluate the predictive value of the Aged Care Psychiatry Unit (ACPU) Falls Screen and to describe the outcomes associated with falls in an acute aged care psychiatry unit. Methods: The development of the ACPU Falls Screen for use in an acute aged care psychiatry unit is described. Consecutive admissions to an acute aged care psychiatry unit were assessed prospectively with the ACPU Falls Screen, Health of the Nation Outcomes Scale for older persons (HoNOS 65+) and the Resource Utilization Groups Activities of Daily Living (RUG ADL) Scale. Details of all falls and their consequences were documented on a falls incident form. Other information, extracted from medical records, included psychiatric and medical diagnoses, psychotropic medication prescription, electroconvulsive therapy (ECT), length of stay and demographic data. Multiple logistic regression was used to examine putative predictors of falls. Results: Ninety-five admissions were included in the sample, of which 28 (29%) had falls. Multiple falls occurred in 16% of admissions. No serious injuries were recorded. Falls were associated with significantly higher scores on the ACPU Falls Screen, behavioral overactivity and recent receipt of ECT. However, falls were not associated with significant differences in psychiatric outcome, although multiple falls were associated with an increased length of stay. Receiver operating characteristic (ROC) curves for the ACPU Falls Screen indicated it had poor predictive value for falls. Conclusions: Falls are common in acute aged care psychiatry units. The ACPU Falls Screen was not a good predictor of falls. Universal precautions should be taken to prevent falls, particularly after ECT and in admissions with behavioral overactivity. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

185. Fleminger S, Leigh E, Eames P, Langrell L, Nagraj R, Logsdail S. **HoNOS-ABI: A reliable outcome measure of neuropsychiatric sequelae to brain injury?** *Psychiatric Bulletin* 2005;29(2):53-55.

Record no: 86

Abstract: Aims and method. The Health of the Nation Outcome Scale for Acquired Brain Injury (HoNOS-ABI) is a relatively new outcome measure designed to assess the neuropsychiatric sequelae of brain damage. This study investigated the interrater reliability of this scale. Fifty patients with traumatic brain injury receiving rehabilitation were each rated twice on the HoNOS-ABI, by two different raters. There were 24 raters in total. Results. Weighted kappa values ranged from 0.43 to 0.84 and intraclass correlation coefficients from 0.58 to 0.97 for the ten items assessed. This indicated that agreement was moderate to substantial for all items. Clinical implications. The scales consistently measured the items of interest across different raters. This indicates that HoNOS-ABI is a reliable outcome measure when applied by different raters in routine clinical practice.

186. Gee SB, Croucher MJ, Beveridge J. **Measuring outcomes in mental health services for older people: An evaluation of the health of the nation outcome scales for elderly people (HoNOS65+).** *International Journal of Disability, Development and Education* 2010;57(2):155-174.

Record no: 90

Abstract: The Health of the Nation Outcome Scales (HoNOS) family of measures is routinely used in mental health services in the New Zealand, Australia, and the United Kingdom. However, the psychometric properties of the HoNOS65+ for elderly people have not been extensively evaluated. The aim of the present study was to examine the validity, reliability, and sensitivity to change of the HoNOS65+. Routinely collected HoNOS65+ data

from a psychiatric service for older people (n = 2065) were collated, and a subsample (n = 66) of older service users were assessed with an additional battery of established measures. The individual HoNOS65+ items generally showed adequate concurrent validity and sensitivity to change. Estimates of inter-rater reliability across settings indicated areas of concern however, and confirmatory factor analysis did not support models based on existing subscales. These findings indicate some limitations of the HoNOS65+ as an outcome scale for older people. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract).

187. Hillier B, Wright L, Strydom A, Hassiotis A. **Use of the HoNOS-LD in identifying domains of change.** *The Psychiatrist* 2010;34(8):322-326. Record no: 111

Abstract: Aims and method: To analyse clinical outcome indicator data from the Health of the Nation Outcome Scales for People with Learning Disabilities (HoNOS-LD) in adults with intellectual disability admitted to mental health wards during a 19-month period; and to identify clinically relevant domains of change associated with in-patient admission. Results: Significant improvements were found in mental state, behaviour and social functioning. Improvements were also found in cognition and activities of daily living. Clinical implications: The HoNOS-LD is a useful tool for measuring clinical outcomes in several relevant domains and guiding in-patient treatment in learning disability psychiatry. It may also provide a currency for payment-by-results and influence the commissioning of learning disability services. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

188. Jackson H, Compton S, Taplin K, Tunstall V, Stovell D, Todd D. **Measuring coping with cognitive dysfunction: The behavioural assessment of self-structuring (BASS) - Construct, concurrent validity and the efficacy of rehabilitation.** *Brain Injury* 2012;26 (4-5):345-346. Record no: 119

Abstract: Objectives: It is argued that a core rehabilitative aim of overcoming the handicaps caused by cognitive impairment (especially executive impairments) after ABI is the development of self-structuring. This relates to self-structuring the environment, ones behaviour and thinking skills such as problem solving. The BASS was designed to assess selfstructuring after ABI. This 26 item rehabilitation staff rating scale, developed at the Transitional Rehabilitation Unit (a post-acute ABI rehabilitation programme focusing on cognitive, social, and behavioural impairments) was evaluated in terms of its construct validity (as assessed through principle component analysis) and concurrent validity (as assessed by correlation with other outcome measures). A further aim of this study was to examine the potential of rehabilitation on the ABI clients' ability to self-structure and therefore levels of independence. Methods: A sample of 48 clients with ABI attending for residential rehabilitation at the Transitional Rehabilitation Units were rated on the BASS by their rehabilitation team and at the same time on the following outcome measures. Mayo Portland Adaptability Inventory (MPAI: Malec, 2005); Supervision Rating Scale (SRS: Boake, 1996); Health of the Nation Outcome Scale - Acquired Brain Injury (HoNOS-ABI: 1999); Northwick Park Dependency Score (NPDS: Turner-Stokes et al., 1998); Functional Independence Measure (FIM: Hamilton, et al., 1987); Functional Assessment Measure (UK FIM+FAM: Turner-Stokes, Nyein, Turner-Stokes, & Gatehouse, 1999). Northwick Park Care Needs Assessment (NPCNA: Turner-Stokes & Nyein, 1999). A snap shot survey of the ratings on the 26 items for 45 rehabilitation clients at TRU comparing their initial BASS

ratings with their 'current' BASS ratings were analysed using repeated measures ANOVA in order to investigate the effectiveness of post-acute rehabilitation in terms of the degree of support required to 'self-structure' Results: Principal Components Analysis of the 26 items in the BASS found that 25 of the 26 items loaded significantly on a single principal factor with only "avoided confabulation" failing to load significantly on the principal factor. The BASS correlated significantly with all the other outcome measures with the exception of the NPCNA. BASS ratings on all 26 items improved at snapshot ratings compared to initial ratings. Conclusions: There is a general factor of selfstructuring that is important to influencing adaptation to cognitive dysfunctioning after ABI. The BASS is a valid measure of coping after ABI. The BASS offer a generally sensitive measure of rehabilitation progress. The BASS results suggests that improved selfstructuring results in greater levels of independence. These findings add to the growing understanding of the processes involved in post-acute rehabilitation for cognitive and executive functioning and optimism about its effectiveness. This study is discussed with reference to the underlying assumptions and procedures used in post-acute rehabilitation after ABI.

189. Jackson HF, Tunstall V, Hague G, Daniels L, Crompton S, Taplin K. **The behavioural assessment of self-structuring (BASS): Psychometric properties in a post-acute brain injury rehabilitation programme.** *NeuroRehabilitation* 2014;34(4):695-708.

Record no: 120

Abstract: Background: Jackson et al. (this edition) argue that structure is an important component in reducing the handicaps caused by cognitive impairments following acquired brain injury and that post-acute neuropsychological brain injury rehabilitation programmes should not only endeavour to provide structure but also aim to develop self-structuring. However, at present there is no standardized device for assessing self-structuring. Objective: To provide preliminary analysis of the psychometric properties of the Behavioural Assessment of Self-Structuring (BASS) staff rating scale (a 26 item informant five point rating scale based on the degree of support client requires to achieve self-structuring item). Methods: BASS data was utilised for clients attending residential rehabilitation. Reliability (inter-rater and intra-rater), validity (construct, concurrent and discriminate) and sensitivity to change were investigated. Results: Initial results indicate that the BASS has reasonably good reliability, good construct validity (via principal components analysis), good discriminant validity, and good concurrent validity correlating well with a number of other outcome measures (HoNOS; NPDS, Supervision Rating Scale, MPAI, FIM and FAM). The BASS did not correlate well with the NPCNA. Finally, the BASS was shown to demonstrate sensitivity to change. Conclusions: Although some caution is required in drawing firm conclusions at the present time and further exploration of the psychometric properties of the BASS is required, initial results are encouraging for the use of the BASS in assessing rehabilitation progress. These findings are discussed in terms of the value of the concept of self-structuring to the rehabilitation process for individuals with neuropsychological impairments consequent on acquired brain injury. 2014 - IOS Press and the authors.

190. Kotynia-English R, McGowan H, Almeida OP. **A randomized trial of early psychiatric intervention in residential care: impact on health outcomes.** *International Psychogeriatrics* 2005;17(3):475-485.

Record no: 132

Abstract: BACKGROUND: The prevalence of psychological and behavioral disturbances among older adults living in residential care facilities is high, and it has been shown previously that people with such symptoms have poorer health outcomes. This study was designed to assess the efficacy of an early psychiatric intervention on the 12-month health outcomes of older adults admitted to residential care facilities in Perth, Western Australia. We hypothesized that subjects in the intervention group would have better mental and physical health outcomes than controls.

METHODS: The study was designed as a randomized, single-blinded, controlled trial. All subjects aged 65 years or over admitted to one of the 22/26 participating residential care facilities of the Inner City area of Perth were approached to join the study and were allocated randomly to the intervention or usual care group. Demographic and clinical information (including medications and use of physical restraint) was gathered systematically from all participants at baseline, and at 6 and 12 months. At each assessment, the Geriatric Depression Scale (GDS), the Health of the Nation Outcome Scales for older adults (HoNOS 65+), the Mini-mental State Examination (MMSE) and the Neuropsychiatric Inventory (NPI) were administered. Subjects in the intervention group who screened positive at the baseline assessment for psychiatric morbidity were reviewed within a 2-week period by the Inner City Mental Health Service of Older Adults (ICMHSOA). If clinically appropriate, mental health services were introduced without the involvement of the research team.

RESULTS: One hundred and six subjects and their next of kin consented to participate in the study (53 in each group). Mental health screening and early referral to a psychogeriatric service did not significantly change the average number of medical contacts, self-rated health, use of psychotropic or PRN medication, use of physical restraint, 12-month mortality, or mental health outcomes, as measured by the GDS-15, HoNOS 65+ and NPI ($p > 0.05$ for all relevant outcomes).

CONCLUSION: Systematic mental health screening of older adults admitted to residential care facilities and early clinical intervention does not change 12-month health outcomes. More effective interventions to improve the health outcomes of older adults with psychological and behavioral disturbances admitted to residential care facilities are needed.

191. Macdonald AJ. **The usefulness of aggregate routine clinical outcomes data: The example of HoNOS65+.** *Journal of Mental Health* 2002;11(6):645-656.

Record no: 140

Abstract: There is increasing interest in whether observational data can usefully supplement, enhance, or even replace clinical trials evidence for the efficacy of interventions. To an understanding of the practical and cultural changes necessary for this in psychiatry must be added appreciation of the importance of feedback of appropriately analysed aggregated outcomes data to clinicians. This article describes the development of methods of analysis of routine clinical outcomes data (using ICD10, Health of the Nation Outcome Scale [HoNOS65+] and a developing intervention coding system) in an old age psychiatry service in South London. The minimum dataset necessary, the construction of a database and some core analyses are described. Illustrative findings, fed back to clinicians, are presented, and the positive impact of the process of analysis and feedback is described. (PsycINFO Database Record (c) 2012 APA, all rights reserved).

192. Mozley CG, Huxley P, Sutcliffe C, Bagley H, Burns A, Challis D, et al. **'Not knowing where I am doesn't mean I don't know what I like':**

cognitive impairment and quality of life responses in elderly people. International Journal of Geriatric Psychiatry 1999;14(9):776-783.

Record no: 157

Abstract: OBJECTIVE: To elucidate the extent to which elderly people with cognitive impairment are able to answer questions about their quality of life. Design and setting 308 elderly residents were interviewed within 2 weeks of admission to one of 30 residential or nursing homes in north-west England.

MEASURES: The Mini-Mental State Examination (MMSE), the Lancashire Quality of Life Profile (Residential) (LQOLP(R)), the Crichton Royal Behaviour Rating Scale (CRBRS) and the HONOS-65+.

RESULTS: Of the 308 subjects, LQOLP(R) interviews were attempted with 213 who scored 10 or over on the MMSE. Of the 213, 77.5% were found to be 'interviewable', ie able to answer the majority of questions in the LQOLP(R) and in doing so to give answers in which the interviewer had confidence. Of the seven cognitive domains measured by the MMSE, visual construction and registration were not significantly associated with interviewability. While orientation to time and recall were significantly associated with interviewability, many interviewable respondents had poor scores in these domains. No respondents were interviewable who scored less than 2 (out of 5) for orientation to place or less than 3 (out of 8) for language or less than 2 (out of 5) for attention.

CONCLUSIONS: A high proportion of elderly people can answer questions about their quality of life, even in the presence of significant cognitive deficits. Copyright 1999 John Wiley & Sons, Ltd.

193. Murphy D. **Theory of mind functioning in mentally disordered offenders detained in high security psychiatric care: its relationship to clinical outcome, need and risk.** Criminal Behaviour & Mental Health 2007;17(5):300-311.

Record no: 159

Abstract: BACKGROUND: Theory of mind (ToM) refers to the cognitive mechanisms that allow us to infer our own mental states and those of others. Whilst ToM deficits are frequently observed among individuals with schizophrenia, little is known about their relationship to functional outcome.

AIMS: Among patients with schizophrenia in a high security hospital, to test whether ToM performance, in relation to other cognitive and clinical variables, is related to measures of subsequent clinical outcome.

METHODS: ToM was assessed using the modified advanced test (MAT) and the revised eyes task (RET). Outcome, including ongoing need and risk, was assessed using the HoNOS secure, CANFOR and HCR-20 respectively three years post ToM assessment.

RESULTS: Performance on the RET was the only variable to be significantly correlated with the symptom ratings of the HoNOS secure and the HCR-20 total scores. Performance on the RET also accounted for approximately half of the variance in the CANFOR ratings and a third in the risk management item ratings of the HCR-20. Age, number of years diagnosed with schizophrenia and other aspects of cognition were also significantly correlated with the HoNOS security scale.

CONCLUSIONS: The results suggest that social perceptual ToM may be a useful prognostic indicator, but also that ToM impairments may represent an unmet need. Replication of the work with larger and more diverse samples of people with schizophrenia is necessary, as well as trials of therapeutic effort directed at improvement of ToM impairments. 2007 John Wiley & Sons, Ltd

194. Quinn R, Miles H, Kinane C. **The validity of the Short-Term Assessment of Risk and Treatability (START) in a UK medium secure forensic mental health service.** *The International Journal of Forensic Mental Health* 2013;12(3):215-224.

Record no: 177

Abstract: This study aimed to evaluate the validity of the Short-Term Assessment of Risk and Treatability (START) within a UK medium-secure hospital (665 STARTs derived from N = 80 individuals). Findings showed that START Total Vulnerability and Mean Risk Rating Scores were significantly predictive of Total Aversive incidents at one month, decreasing over time to a nonsignificant small/medium effect at six months. START Total Strength Scores were not predictive at any time point. START scores could discriminate between mentally disordered offenders at different stages of their care-pathway. Females were rated as having significantly less strengths and more risks than males. The START correlates with the HCR-20 and HoNOS Secure, and a crude cost analysis was undertaken. These results suggest that the START is a valid tool in this population. (PsycINFO Database Record (c) 2014 APA, all rights reserved) (journal abstract).

195. Reilly S, Challis D, Burns A, Hughes J. **The use of assessment scales in Old Age Psychiatry Services in England and Northern Ireland.** *Aging & Mental Health* 2004;8(3):249-255.

Record no: 179

Abstract: Implementation of the Single Assessment Process in the UK is designed to ensure that more standardized assessment procedures are in place across all areas and agencies, that practice improves and older people's needs are comprehensively assessed. This study provides a unique picture of the range and prevalence of standardized scales used within Old Age Psychiatry Services in England and Northern Ireland, reported by 73% of old age psychiatrists. Most services (64%) used three or more standardized assessment scales (range 1-12). Sixty-two separate instruments were identified. The six most used measures were the Mini Mental State Examination (95%), the Geriatric Depression Scale (52%) and the Clock Drawing (50%), the Clifton Assessment Procedures for the elderly (26%), the Barthel Index (18%) and the Health of the Nation Outcome Scales (HoNOS) 65 + (18%). A number of factors were associated with greater use of certain standardized assessment scales. Shared documentation, along with other indicators of integration between health and social care were associated with greater use of standardized scales. The provision of a memory clinic was associated with greater use of neuropsychiatric scales and lower levels of use of cognitive scales. These results provide key material for shaping the provision of psychiatric services for older people

196. Roy A, Matthews H, Clifford P, Fowler V, Martin DM. **Health of the Nation Outcome Scales for People with Learning Disabilities (HoNOS-LD).** *British Journal of Psychiatry* 2002;180(JAN.):61-66.

Record no: 182

Abstract: Background: The Health of the Nation Outcomes Scales (HoNOS) have been developed to measure outcomes in people with mental health problems. Aims: Frequent impaired social functioning, problems with communication and associated physical conditions meant that a bespoke instrument was needed for people with learning disabilities. We describe the development of the Health of the Nation Outcomes Scales for People with Learning Disabilities (HoNOS-LD). Method: HoNOS-LD was piloted at 26 sites. Two raters, at two points in time, rated 372 subjects. Analysis determined acceptability, ease of use, interrater reliability, sensitivity to

change and reliability with the Aberrant Behavior Checklist (ABC). Results: The resulting 18-item instrument demonstrated good reliability and validity characteristics and is generally acceptable to clinicians. Conclusions: HoNOS-LD is an appropriate instrument for measuring outcome in people with learning disabilities with additional mental health needs.

197. Shergill SS, Shankar KK, Seneviratna K, Orrell MW. **The validity and reliability of the Health of the Nation Outcome Scales (HoNOS) in the elderly.** *Journal of Mental Health* 1999;8(5):511-521.

Record no: 185

Abstract: Background. The Health of the Nation Scales were designed to be a brief and easy to complete measure of mental health outcomes but they have not been fully evaluated in the elderly. This study investigates the validity and reliability of the HoNOS in patients over 65 in contact with mental health services. Method. One hundred patients from a rural old age psychiatry service in Essex were interviewed using the HoNOS and a selection of other scales. The sources included day hospitals, in-patient units, outpatient clinics, geriatric liaison, and residential homes. Test-retest and inter-rater reliability were measured, and qualitative and quantitative aspects of validity were assessed. Results. One hundred patients were assessed using the package of rating scales. The HoNOS showed moderate to good inter-rater and test-retest reliability and Cronbach's alpha was 0.61. The HoNOS had good criterion validity and was able to predict placement, day patients and out-patients had lower scores than in-patients who had lower scores than residential and nursing home residents. The construct validity was adequate with correlations in line with clinical expectations. It also had good concurrent validity correlating well with other scales. The consensual and content validity suggested that the HoNOS was a useful well-constructed scale. The major areas requiring consideration were: (a) lack of carer's views, (b) safety and risk issues; (c) modification of cognitive scale for dementia, (d) modification of depression scale, (e) separating basic and complex skills in activities of daily living. Conclusion. The HoNOS has good validity and reliability within an elderly population with mental health problems but minor modifications may make it better suited to this group.

198. Spear J, Chawla S, O'Reilly M, Rock D. **Does the HoNOS 65+ meet the criteria for a clinical outcome indicator or mental health services for older people?** *International Journal of Geriatric Psychiatry* 2002;17(3):226-230.

Record no: 187

Abstract: Background: A clinical indicator should demonstrate clinically meaningful change, be relevant, allow comparisons between services, be acceptable to clinicians, and have acceptable validity, reliability and sensitivity to change. The HoNOS 65+ has been suggested as a clinical outcome indicator. The sensitivity to change of the HoNOS 65+ is not known. Methods: This is a prospective study using routine clinical data. A pilot cohort (n = 42) was used to measure that concurrent validity of the HoNOS 65+ with the Mini-Mental State Examination (MMSE), Geriatric Depression Scale (GDS-15) and Brief Agitation Rating Scale (BARS). The main cohort of 245 consecutive referrals to a community mental health services for older adults was used to assess sensitivity to change against the CIBIC+. Results: The HoNOS 65+ was acceptable to case managers, most HoNOS 65+ items had excellent interrater reliability and the HoNOS 65+ had good concurrent validity. Changes in the HoNOS 65+ scores between assessment and discharge had a moderate, but significant correlation with CIBIC+ scores. Conclusion: The HoNOS 65+ meets the criteria for a clinical

outcome indicator or community mental health services for older people. The HoNOS 65+ is sensitive to change. Copyright 2002 John Wiley & Sons, Ltd.

199. Turner S. **Are the Health of the Nation Outcome Scales (HoNOS) useful for measuring outcomes in older people's mental health services?** *Aging and Mental Health* 2004;8(5):387-396.

Record no: 200

Abstract: The Health of the Nation Outcome Scales (HoNOS) were developed to provide a single index in order to enable the government target 'to improve significantly the health and social functioning of mentally ill people' to be quantified. They were intended to be applicable to all adults (including older people), across a wide range of settings so that services in different localities could be compared and changes both within individuals and within services could be measured. In 1999 the HoNOS65+ was launched with a modified glossary for older people. The HoNOS has been formally adopted as the preferred outcome measure for adults of working age. There has been no such formal adoption of the HoNOS65+, or any other outcome measure, for mental health services for older people. This review summarises how the HoNOS was originally developed and validated. Studies with older people, which have used both the original definitions and those developed for the HoNOS65+ are reviewed focusing on data on the reliability and validity of the HoNOS and HoNOS65+ with older people. Finally the question of whether the HoNOS or HoNOS65+ is suitable as an outcome measure in routine clinical practice in services for older people is addressed.

200. Abou-Sinna R, Luebbers S. **Validity of assessing people experiencing mental illness who have offended using the camberwell assessment of need-forensic and health of the nation outcome scales-secure.** *International Journal of Mental Health Nursing* 2012;21(5):462-470.

Record no: 33

Abstract: Evidence-based practices for forensic mental health services have been slow to develop, and there is a lack of measures that assess the mental health and criminogenic needs of people experiencing mental illness who have offended. The present study aimed to investigate the interrelationship between a clinician-rated forensic mental health needs assessment (Health of the Nation Outcomes Scales-Secure (HoNOS-S)), a forensic mental health needs assessment that considers both clinician and patient perspectives (Camberwell Assessment of Need-Forensic (CANFOR)), and measures of general and violent recidivism (Level Service-Case Management Inventory (LS-CMI) and HCR-20 Violence Risk Assessment Scheme (HCR-20)). Needs were assessed for 72 forensic patients aged between 20 and 62 years of age, located in a secure forensic mental health facility. The findings revealed significant positive correlations between the HoNOS-S, CANFOR, and HCR-20. Only the CANFOR was positively correlated with the LS-CMI, and uniquely contributed variance to the HCR-20. Patients and nurses differed in the total number of needs and met needs they identified as present. The findings suggest that the collaborative approach of the CANFOR might be more appropriate for measuring outcomes in the treatment of individuals experiencing mental illness who have offended. 2012 Australian College of Mental Health Nurses Inc.

201. Ashaye OA, Livingston G, Orrell MW. **Does standardized needs assessment improve the outcome of psychiatric day hospital care for older people? A randomized controlled trial.** *Aging & mental health* 2003;7(3):195-199.

Record no: 3

Abstract: There is little evidence to indicate how far psychiatric day hospitals for older people can identify and address the needs of older people who attend. The current practice of Care Programme Approach (CPA) in which multidisciplinary team members, patients and their families meet, may provide a suitable forum for needs to be discussed and interventions planned and implemented. One hundred and twelve new day hospital patients over a period of one year were randomly allocated to an experimental group in which the Camberwell Assessment of Need for the Elderly (CANE). Assessment reports were fed back to day hospital staff but not to the control group in which routine practice was maintained. Similar follow-up assessments were performed after three months in the day hospital or at the time of discharge. At follow-up, both the experimental and control groups had over 60% of their initial unmet needs being adequately met. In both groups, the Health of the Nation Outcome Scales 65+ scores and number of unmet needs were reduced indicating an improvement for both groups. However, there were no significant differences in outcome at follow-up between the experimental and control groups. Day hospitals for older people with mental health problems appear effective in identifying and meeting needs. The feedback from CANE made no difference in terms of outcome.

202. MacDonald AJD, Trauer T. **Objections to routine clinical outcomes measurement in mental health services: Any evidence so far?** Journal of Mental Health 2010;19(6):517-522.

Record no: 141

Abstract: Background: Routine clinical outcomes measurement (RCOM) is gaining importance in mental health services. Aims: To examine whether criticisms published in advance of the development of RCOM have been borne out by data now available from such a programme. Method: This was an observational study of routine ratings using HoNOS65 at inception/admission and again at discharge in an old age psychiatry service from 1997 to 2008. Testable hypotheses were generated from each criticism amenable to empirical examination. Inter-rater reliability estimates were applied to observed differences between scores between community and ward patients using resampling. Results: Five thousand one hundred eighty community inceptions and 862 admissions had HoNOS65 ratings at referral/admission and discharge. We could find no evidence of gaming (artificially worse scores at inception and better at discharge), selection, attrition or detection bias, and ratings were consistent with diagnosis and level of service. Anticipated low levels of inter-rater reliability did not vitiate differences between levels of service. Conclusions: Although only hypotheses testable from within RCOM data were examined, and only 46 of eligible episodes had complete outcomes data, no evidence of the alleged biases were found. RCOM seems valid and practical in mental health services. 2010 Informa UK, Ltd.