

PRIORITY BRIEFING

The purpose of this briefing paper is to aid Stakeholders in prioritising topics to be taken further by PenCLAHRC as the basis for a specific evaluation or implementation research project. This paper was compiled in 2-3 days.

Does standard diagnostic assessment improve clinical outcome, and access to evidence based practice, in Child and Adolescent Mental Health Services?

Question ID: 6

Question type: Intervention

Question: Does standard diagnostic assessment improve clinical outcome and access to evidence based practice in Child and Adolescent Mental Health Services?

Population: Children and adolescents (under the age of 18 years) with mental health symptoms

Intervention: Use of standardised diagnostic assessment in routine clinical care

Control: Usual clinical care/ normal assessment

Outcome:

In relation to service function:

- Speed of access to specialist service
- Accuracy of referral to specialist service
- Patient experience
- Diagnosis of mental health problem

In relation to the use of standardised diagnostic assessment

- Acceptability
- Feasibility
- Validity

*Please note that the details included in the box are from the original submission and have been edited where necessary for clarity and precision

Child and Adolescent Mental Health Services (CAMHS):

CAMHS describe all services that contribute to the mental healthcare of children and young people, including health, social care, education and other agencies. They are organised into four tiers:

- Tier 1: Primary level of care. This includes GPs, school nurses, teachers, social workers, youth justice workers and voluntary agencies.
- Tier 2: Services provided by specialist individual professionals giving advice to workers in primary care. This can include child and adolescent mental health workers, clinical child psychologists, paediatricians, educational

psychologists, child and adolescent psychiatrists, child and adolescent psychotherapists, community nurses and family therapists.

- Tier 3: Specialist services for more severe, complex or persistent disorders.
- Tier 4: Highly specialised services such as day units, specialist outpatient teams and inpatient teams.

Standard Diagnostic Assessment:

A standardised diagnostic assessment is the name for a comprehensive assessment of mental health that provides a label according to specific diagnostic criteria. Examples of standardized assessment tools include the Diagnostic Interview Schedule for Children (DISC), the Development and Well Being Assessment (DAWBA) and the Child and Adolescent Psychiatric Assessment (CAPA). Such assessments are most often in the form of a questionnaire and can be completed by a school nurse, GP or mental health professional. While standardised assessments are considered essential in child and adolescent mental health research, they are rarely applied systematically in routine clinical practice.

Although not currently routinely used, there are two options for where standardised diagnostic assessments could have a beneficial impact:

- i) at the Tier 1 level of CAMHS in primary care – by school nurses, mental health professional and GPs to help identify those children who would benefit from more specialist services, and
- ii) at the Tier 2 level of CAMHS in secondary care – providing a more comprehensive background to assist diagnosis.

The Health Problem:

In the UK, it is estimated that 20% of children and adolescents have mental health problems at some point and that one in ten have a clinically recognisable mental health disorder (Mental Health Foundation 2005). The British Medical Association (2006) estimates that at any point in time up to 45,000 young people under the age of 16 are experiencing a severe mental health disorder, and approximately 1.1 million children under the age of 18 would benefit from specialist mental health services. There is also evidence to suggest that the prevalence of childhood mental health problems is gradually increasing (Department of Health 2004), an example of which is the 70 percent increase in rates of depression and anxiety observed amongst teenagers over the past 25 years (Mental Health Foundation 2005).

In Cornwall it is estimated that 24% of the population, approximately 16,000 children aged 5-16 years, have some form of mental health problem (Focus on mentally healthy children and young people, Cornwall Council, 2009). In Devon, approximately 16,500 children have a mental health issue considered severe enough to need additional support from mental health services (Joint commissioning strategy for emotional health and wellbeing 2008 – 2011, Devon County Council).

Guidelines:

Improving access to mental health care services and improving identification of mental health issues are key recommendations under NICE guidance (NICE clinical guideline 123, 2011, Common mental health disorders: identification and pathways to care.)

NHS Priority:**Regional**

SW SHA Priorities framework 2008-11 (please note this has not yet been updated for 2012)

Local

“Helping people to stay healthy” (including mental health promotion) and “improving mental health and well-being” are listed as key priorities in the majority of South West Primary Care Trusts (South West Peninsula Primary Care Trust Priorities 2010).

The NHS Devon Strategic Plan 2010-2015 identifies children and young people as one of their key priorities. Their strategic initiative “Supporting the most Vulnerable Children and Young People” highlights the need for ongoing development of early intervention support services providing assessment, support and intervention to help improve emotional health and wellbeing (The Way Ahead, NHS Devon Strategic Plan 2010-2105).

‘Addressing variability in primary and community care’ and ‘Improving mental health and learning difficulties’ are also both listed as key themes in the NHS Quality, Innovation, Productivity & Prevention (QIPP) agenda.

Existing Research:**Published research**

No systematic reviews assessing the use of standardised diagnostic assessments compared to usual care for child and adolescent mental health were identified in the search conducted for this briefing.

In relation to assisting diagnosis at the secondary care level (Tier 2 CAMHS), a few studies were identified that compared the use of standardised assessments with routine care for specific conditions. Foreman¹ et al assessed the value of DAWBA for identifying children with attention deficit/ hyperactivity disorder (ADHD). In their study of 84 children, diagnoses of ADHD made by a trained clinician scoring the DAWBA (completed by parent, child and/or teacher) without meeting the patient were as accurate as a detailed ADHD assessment made in secondary care. Their previous observations² highlighted that the use of DAWBA identified cases of ADHD that had not been detected by clinicians following usual care procedures.

The majority of studies identified assessed the validity, accuracy and feasibility of standardised assessments for screening for mental health problems in primary care (Tier 1 CAMHS) with the aim of improving child access to mental health services and assist diagnoses. In a study from Argentina³, DISC administered by non-professional hospital employees (and compared against psychiatrist evaluations) was able to discriminate between youngsters with psychiatric disorders and healthy youngsters. Others have shown standardised assessments to be both feasible and accurate in helping to identify depression^{4,5} or those who need to be referred on for further psychiatric assessment^{6,7}. Nemeroff⁸ reported on the feasibility of DISC, completed by school counselors, to provide early identification of mental health problems in the school setting. The school counselors perceived that DISC facilitated early identification of mental health issues by providing evidence to support diagnostic impressions, encouraging parents to follow through with the school's recommendation, and facilitating communications between the school and local treatment providers. Many other studies identified the need for improving the identification of mental health problems in children and adolescents in current clinical practice.

In terms of the implementation of standardised assessments, one study has carried out a qualitative evaluation of using standardised assessments by those directly involved in CAMHS⁹. This study found both positive and negative attitudes, with few practitioners wholly negative or wholly positive about the use of standardized assessments. Most practitioners were wary of replacing clinical assessment with standardized measures, but acknowledged their utility as an adjunct to diagnosis.

A review of the use of standardised assessments in both primary care and secondary care is warranted.

Ongoing research

No ongoing randomized controlled trials were identified.

Feasibility:

Links are in place with PCMD staff who specialise in child and adolescent psychiatric diagnoses.

References:

1. Foreman, D., Morton, S., Ford, T. 2009 Exploring the clinical utility of the Development And Well-Being Assessment (DAWBA) in the detection of hyperkinetic disorders and associated diagnoses in clinical practice, Journal of Child Psychology & Psychiatry & Allied Disciplines, 50 (4): 60-70

BACKGROUND: The clinical diagnosis of ADHD is time-consuming and error-prone. Secondary care referral results in long waiting times, but primary care staff may not provide reliable diagnoses. The Development And Well-Being Assessment (DAWBA) is a standardised assessment for common child mental health problems, including attention deficit/hyperactivity disorder (ADHD), which can be rapidly scored by skilled specialist clinicians, who may be remote from the interview, thus avoiding referral. **METHOD:** A representative clinic sample of routine cases suspected of ADHD underwent an assessment which included the DAWBA alongside a confirmatory assessment with a skilled clinician. Another clinician provided DAWBA-based diagnoses blind to the clinic view. Bayesian statistical modelling was used to include clinic diagnostic uncertainty in the analyses. **RESULTS:** Eighty-four cases were assessed. For ADHD, the predictive value of a positive or negative DAWBA diagnosis was greater than .8, with negligible bias. Non-hyperkinetic behaviour disorders had higher, emotional and autistic disorders lower predictive values, though all greater than .75: there was, however, evidence of bias. **CONCLUSIONS:** Diagnoses of ADHD based on senior clinician review of the DAWBA completed by parents, teachers and young people aged 11 plus may be sufficiently accurate to permit clinical diagnosis without direct patient contact by the diagnosing clinician. This could improve access to accurate diagnoses of ADHD in primary care while freeing up senior clinicians to focus on complex and refractory cases in secondary care.

2. Foreman, DF., Ford, T. 2008 Assessing the diagnostic accuracy of the identification of hyperkinetic disorders following the introduction of government guidelines in England. Child Adolescent Psychiatry and Mental Health. 2008; 2: 32.

Background: Previous studies have suggested that both underdiagnosis and overdiagnosis routinely occur in ADHD and hyperkinesia (hyperkinetic disorders). England has introduced governmental guidelines for these disorders' detection and treatment, but there has been no study on clinical diagnostic accuracy under such a regime. **Methods:** All open cases in three Child and Adolescent Mental Health Services (CAMHS) in the South East of England were assessed for accuracy in the detection of hyperkinetic disorders, using a two-stage process employing the Strengths and Difficulties Questionnaire (SDQ) for screening, with the cut-off between "unlikely" and "possible" as the threshold for identification, and the Development And Well-Being Assessment (DAWBA) as a valid and reliable standard. **Results:** 502 cases were collected. Their mean age 11 years (std dev 3 y); 59% were clinically diagnosed as having a hyperkinetic disorder including ADHD. Clinicians had missed two diagnoses of hyperkinesia and six of ADHD. The only 'false positive' case was one that had become asymptomatic on appropriate treatment. **Conclusion:** The identification of children with hyperkinetic disorders by three ordinary English CAMHS teams appears now to be generally consistent with that of a validated, standardised assessment. It seems likely that this reflects the impact of Governmental guidelines, which could therefore be an appropriate tool to ensure consistent accurate diagnosis internationally.

3. Kunst, G., Blidner, J., Esrubilsky, V., Longarela, H., Vega E. 2009 Evaluation of the validity of Diagnostic Interview Schedule for Children IV (DISC IV) in the city of Buenos Aires. Vertex. 2009, 20(86):245-51.

The epidemiology of psychiatric disorders in children and adolescents has received little attention in Argentina. One of the problems related to the scarcity of such epidemiological research is linked to the lack of availability of diagnostic interview instruments which have been locally validated. Objectives: The object of the study was to conduct a validation study of the DISC IV (Spanish version), administered by lay interviewers in the City of Buenos Aires. Methods: The sample was obtained from the Hospital de Niños "Ricardo Gutiérrez" in the City of Buenos Aires. Lay interviewers administered the DISC IV to 116 youngsters. Then psychiatrists re-administered the DISC IV a week later and immediately afterwards conducted a semi-structured diagnostic clinical interview. Participant in the sample ranged in age from 9 to 17. Results: The sensitivity was 81.5% and the specificity 66.1%. The test-retest reliability was reasonable (Kappa 0.46 standard error 0.09). Conclusions: In general, the DISC administered by the non-professional interviewer was demonstrated to have the ability to discriminate between youngsters who suffer from psychiatric disorders and healthy youngsters. The confidence level was from moderate to good for the presence of a general psychiatric disorder as well as for disorders of specific states of mind, but for anxiety disorders and behaviour disorders the confidence level was poor.

4. Richardson, LP., McCauley, E., Grossman, DC., et al 2010 Evaluation of the Patient Health Questionnaire-9 Item for detecting major depression among adolescents, Pediatrics, 126(6), 1117-1123

OBJECTIVE: The purpose of this study was to examine the performance characteristics and validity of the Patient Health Questionnaire-9 Item (PHQ-9) as a screening tool for depression among adolescents. METHODS: The PHQ-9 was completed by 442 youth (aged 13-17 years) who were enrolled in a large health care-delivery system and participated in a study on depression outcomes. Criterion validity and performance characteristics were assessed against an independent structured mental health interview (the Child Diagnostic Interview Schedule [DISC-IV]). Construct validity was tested by examining associations between the PHQ-9 and a self-report measure of functional impairment, as well as parental reports of child psychosocial impairment and internalizing symptoms. RESULTS: A PHQ-9 score of 11 or more had a sensitivity of 89.5% and a specificity of 77.5% for detecting youth who met the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition criteria for major depression on the DISC-IV. Receiver-operator-curve analysis revealed that the PHQ-9 had an area under the curve of 0.88 (95% confidence interval: 0.82-0.94), and the cut point of 11 was optimal for maximizing sensitivity without loss of specificity. Increasing PHQ-9 scores were significantly correlated with increasing levels of functional impairment, as well as parental report of internalizing symptoms and psychosocial problems. CONCLUSIONS: Although the optimal cut point is higher among adolescents, the sensitivity and specificity of the PHQ-9 are similar to those of adult populations. The brief nature and ease of scoring of this instrument

make this tool an excellent choice for providers and researchers seeking to implement depression screening in primary care settings.

5. Gleason, M., Zeanah, C., Dickstein, S. 2010 Recognizing young children in need of mental health assessment: Development and preliminary validity of the early childhood screening assessment. Infant Mental Health Journal, 31(3), 353-357

The Early Childhood Screening Assessment (ECSA) is a primary care screening measure developed to identify very young children (1 1/2-5 years old) who need further emotional or behavioral assessment. The ECSA was developed specifically to meet the logistical constraints of primary care settings. This study assessed the preliminary psychometric properties of the ECSA by comparing it with extant validated measures of young children's emotional and behavioral development, comparing it with a diagnostic interview, and measuring test-retest reliability. In the study, 309 mothers in two primary care clinics completed the ECSA and the Child Behavior Checklist (CBCL; 2000). A subset (n = 69) also completed the Diagnostic Interview for the Preschool Age (DIPA; M. 2010). ECSA score correlated significantly and strongly with the CBCL Total Problem T score (Spearman's rho = 0.86, p <= .01). The ECSA was 86% sensitive and 83% specific in identifying DIPA diagnoses. Internal consistency of the ECSA was 0.91. Test-retest reliability at 10 days was excellent (Spearman's rho = 0.81, p <= .01). The ECSA is an easy-to-use screening measure that demonstrates strong convergent validity, criterion validity, and test-retest reliability in the pediatric setting. It shows potential as a feasible and psychometrically strong tool for busy primary care providers to identify preschoolers who need further socio emotional assessment.

6. Luby, JL., Heffelfinger, A. et al 2004. The Preschool Feelings Checklist: a brief and sensitive screening measure for depression in young children, *Journal of the American Academy of Child & Adolescent Psychiatry*, 43 (6), 708-717

OBJECTIVE: Childhood depression is widely underrecognized in primary health care settings. This phenomenon appears to increase with younger age. Evidence has been provided for a valid depressive syndrome among preschool children. Based on the need for the earliest possible identification of depression, the development of a brief screening measure to capture young children with markers of depression from these community settings was developed and tested. **METHOD:** A group of 174 preschool children underwent a comprehensive psychiatric assessment. The majority of this study group was ascertained from primary care settings using a 20-item checklist designed to capture depressive symptoms in young children. The assessment included the Diagnostic Interview Schedule for Children Version modified for young children and the Child Behavior Checklist. Ratings on the checklist were subsequently compared with these independent measures of psychopathology using several analytic strategies. **RESULTS:** The Preschool Feelings Checklist demonstrated high internal consistency, and 16 items showed strong associations with independent diagnostic measures of internalizing symptoms and major depressive disorder.

The Preschool Feelings Checklist demonstrated high specificity and sensitivity for the identification of major depressive disorder at a cutoff score 3 or more. CONCLUSIONS: The Preschool Feelings Checklist is a brief and valid screening measure highly feasible for use in primary care settings. It demonstrated utility for the identification of preschoolers in need of formal mental health evaluation for depression.

7. de la Osa, N., Ezpeleta, L., et al. 2009 Brief mental health screening questionnaire for children and adolescents in primary care settings. International Journal of Adolescent Medicine and Health, 21(1): 91-100

Early detection of mental health problems is important. The implication of primary care professionals and the adequacy of instruments could be of great help. Objective: To study the validity of a brief questionnaire based on psychosocial functioning to detect mental health problems in a high risk general population. Study group: 151 children and adolescents were assessed as part of a longitudinal 3 year follow-up study of two cohorts born in 1989 and 1993, respectively. Method: semi-structured diagnostic interviews were used to evaluate their psychopathological condition, to test for functional impairment, and to determine whether it would be appropriate for them to be referred to Mental Health Services. Parents also answered a Brief Mental Health Screening Questionnaire (BMHSQ) containing questions about main psychosocial functioning areas. Logistic and multiple regressions were applied to study the predictive power of the questionnaire. Results: The BMHSQ showed good clinical screening properties and was useful in determining who should be addressed to a specialized psychopathological service. Conclusion: General practitioners could play an essential role in detecting and referring such disorders if provided with the proper tools. The use of brief questionnaires on functioning and outcomes in pediatric practice could improve comprehensive health care for children and adolescents. Rapid detection of mental health problems in a primary care setting is possible, as is better use and planning of health services.

8. Nemeroff, R., Levitt, JM., et al. 2008 Establishing ongoing, early identification programs for mental health problems in our schools: a feasibility study. J Am Acad Child Adolesc Psychiatry. 47(3):328-38.

OBJECTIVE: To investigate the feasibility of establishing ongoing, early identification services for mental health problems in school settings. METHOD: School counselors and other mental health professionals (N = 41) in middle, junior, and high schools (N= 23) were given training and supervision in the administration of an evidence-based mental health assessment tool, the Voice Diagnostic Interview Schedule for Children IV (DISC-IV), over the course of 1 1/2 school years. RESULTS: During the study, 530 students were selected to be assessed with the DISC, and 72% were confirmed to be at risk for a mental health problem (DISC+). Among DISC+ cases, 71% had never been in treatment before. The most common problems identified by the DISC were symptoms related to suicide (28%), social phobia (20%), attention-deficit/ hyperactivity disorder (19%), and oppositional defiant disorder (19%). Based on schools'

recommendations, 82% of parents with DISC+ children agreed to make an appointment for a follow-up evaluation. Of DISC+ children whose parents agreed to seek further evaluation, 65% of them were evaluated by a health or mental health professional within 2 weeks. CONCLUSIONS: Use of a computerized, evidence-based mental health assessment tool is a feasible strategy for providing early mental health identification services in schools and can help to bridge the gap between mental health providers and the unmet needs of children who are at risk for mental health problems within the community.

9. Martin, A-M., Fishman, R.,Baxter, L.,Ford, T. 2011, Practitioners' attitudes towards the use of standardized diagnostic assessment in routine practice: a qualitative study in two child and adolescent mental health services, Clinical Child Psychology & Psychiatry, 16 (3), 407-420

There is tension within Child and Adolescent Mental Health Services (CAMHS) assessments between the richness of differing practitioner's perspectives and maintaining a basic level of assessment that is acceptable to all disciplines. Standardized assessments are mandatory in research, yet are rarely applied systematically across CAMHS. The use of standardized assessments in routine practice might aid the allocation of families to the practitioners best able to meet their needs and free up time for intervention. However, practitioners' attitudes towards standardized assessment will dictate the success of such an approach. Fifty practitioners working in two CAMHS completed semi-structured interviews that explored their attitudes towards the use of standardized assessments in clinical practice, which were analysed using thematic analysis. Practitioners could identify both advantages and disadvantages of the routine use of standardized assessment. While they valued standardization, opportunities for service organization and increased information, some expressed concerns related to the choice, accuracy and influence of measures, as well as labelling. Almost one-third complained about their lack of pre-registration training in working with children, let alone their assessment. Practitioners, clinicians and policy makers need to consider these issues if they wish to introduce standardized assessments into routine practice. Senior staff need to be aware how unskilled some junior practitioners feel when they start working in CAMHS and offer appropriate support and supervision.