REVIEW ARTICLE

THE INDIVIDUALISED NEEDS FOR SERVICE ASSESSMENT (INSA) FOR CHILDREN AND ADOLESCENTS WITH SERIOUS EMOTIONAL DISTURBANCE

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The Individualised Needs for Service Assessment (INSA) for children and adolescents with serious emotional disturbance was developed in response to the lack of a systematic approach to needs assessment compatible with individualised service planning. Functioning is assessed for 10 functional domains. Service providers rate service provision using a taxonomy of generic service items that are generalisable and comprehensible across different organisational units and systems of care. In addition, service providers rate the anticipated clinical effectiveness of each service item and the acceptability of each item to the child or adolescent and family. Drawing on a similar logic structure to that characterising the Needs for Care Assessment of the British Medical Research Council, these data are linked to produce a need status, for example unmet need, no need and met need. The INSA may be suitable for use by service providers, planners, policy makers, researchers, managed care organisations and service purchasers.

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This paper introduces the Individualised Needs for Service Assessment (INSA) for children and adolescents with serious emotional disturbance (SED), which describes a set of standardised procedures and data definitions that inform the assessment of needs for mental health services. This process was developed in response to a lack of a comparable needs assessment methodology consistent with recent key developments in child and adolescent mental health services research. We shall commence with a review of these developments, which will provide a rationale for the development of the INSA process. Thereafter, we shall describe two other needs assessment methodologies forming the intellectual foundation on which the INSA was built before describing the INSA process in detail and providing an example of its application. Unique characteristics of the INSA will emerge in relief to those of the previous instruments.

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RATIONALE FOR THE INSA

During the 1980s, recognition grew in the USA that there were fundamental deficiencies in the child and adolescent mental health services delivery system.[1] The service system was fragmented; there were several service systems in which children and adolescents requiring services could be seen (such as mental health, child welfare, special education and juvenile justice); and children and adolescents with the most severe problems were frequently served under the aegis of a single public agency, even though their service needs spanned several systems. The Federal response to this scenario was the initiation of the Child and Adolescent Service System Programme (CASSP) by the National Institute of Mental Health (NIMH) in 1983.[2] Federal fiscal policy precluded increased budgetry allocations for mental health services, and effort was therefore focused on increasing the capacity of the states and communities to provide services for children and adolescents with SED.[3] A comprehensive array of 50 community-based service components was defined (for example, mental health, social, educational, health and vocational services) that would need to be co-ordinated and managed in order to meet service needs.[4] CASSP sponsored a project to define a 'system of care' concept and philosophy that would assist states and communities in planning and developing service systems for children and adolescents with SED.[4]

Of particular relevance to the INSA is the second guiding principle of the system of care, namely that 'Children with emotional disturbances should receive individualised services in accordance with the unique needs and potentials of each child and guided by an individualised service plan'.[2]

This principle recognises that each child or adolescent has unique and changing needs, which are related to their age, developmental stage, degree and nature of impairment, and special needs consequent upon, for example, physical disability and minority status.[4] An invidualised service plan should be sufficiently comprehensive and flexible to resonate with these unique and changing needs.

An integral feature of individualised services is the concept of 'wraparound services', as exemplified by the Kaleidoscope

Programme in Chicago, the Alaska Youth Initiative, and Project Wraparound in Vermont.[5-10] Wraparound services have been defined by the International Initiative on the Development, Training, and Evaluation of Wraparound Services[11] as interventions that are 'developed and/or approved by an interdisciplinary services team, are community-based and unconditional, are centred on the strengths of the child and family, and include the delivery of co-ordinated, highly individualised services in three or more life domain areas of a child and family'.[1]

The wraparound process has become known for its emphasis on the delivery of individualised care that is unconditional and provided through flexible funding.[12] Unconditional care refers to the notion that 'if the youth's needs are not met, the individualised programme will be changed, and the youth cannot be "kicked out" when he or she exhibits the very disabilities which stimulated entry into the services in the first place'.[7] Flexible funding has been characterised as the 'linchpin of individualised care'.[5] It allows for the creation of services that are uniquely tailored to the needs of the child or adolescent and family; that may be used creatively to purchase non-traditional services, such as the hiring of a special friend or bringing in staff to live at the family home;[7] and that provide the local discretion and autonomy often not available when funds are tied to eligibility requirements, funding caps, or other pre-existing categorical constraints.[13]

The success of individualised services planning and the wraparound process is clearly predicted on the availability of a valid needs assessment methodology. In a service setting, this is generally conducted by a team (which may include family members). Ideally, the assessment takes advantage of existing records, evaluations, and history, as well as information provided directly by the child or adolescent, family members, other key significant others, and service providers (both from the assessing agency and other relevant agencies).[2,14] The comprehensiveness and thoroughness of assessments in a clinical setting reflects the nature and quality of the training of the mental health professionals involved.

Assuming comprehensiveness and thoroughness, why is the assessment process as conducted in a services setting not sufficient? First, it is not standardised, which precludes comparisons between different settings. Second, the assessment procedures and priorities differ between types of service settings. Besides hindering cross-setting comparability, the types of services available differ between settings. By not broadening the menu of potential services that are considered, important needs for specific types of service may be overlooked. Third, the assessments are (obviously) carried out only in service settings, which implies that they would not be applicable to children or adolescents who are not receiving services.

Assessment is clearly crucial in deciding on a range of services in the context of a wraparound approach.[5,7,8] The team carrying out such assessments considers needs and strengths in the framework of 'life domains', which include residence, family, social, emotional or psychological, educational or vocational, safety, legal, medical, spiritual, cultural, behavioural, and financial.[9] Needs are then prioritised, and solutions, ideas and strategies are identified for each need. Although it will become clear that this approach shares some characteristics of the INSA, its lack of standardisation limits the scope of its applicability. This lack of standardisation is reflected in the evaluation of programmes using a wraparound approach. A failure to define a list of service items, for example, prevents evaluation of the effectiveness of specific items. The effect of a programme is evaluated as a whole, which does not permit conclusions about the contribution of specific programme components to any change that is documented in any of the domains.[5,8,15]

Furthermore, attempts have been made to define on a community level the minimum capacity needed for each service component in a comprehensive system of care.[16,17] These attempts are empirically based in the sense that the needs estimates were derived from actual service demand experiences within defined populations. However, these estimates were based on delivery systems organised by programme components, such as residential treatment facilities, clinics, or day treatment programmes, as opposed to individualised service planning.[8] As such, these approaches are unable to clarify specifically what service items are needed or how service needs can be met by other systems of care that may deliver similar services but use incompatible terminology. It also becomes difficult to apply the findings of these studies to other geographic regions, where services may be organised differently, or for designing new forms of service that would be more efficient in meeting needs.

There have been few efforts to develop systematic approaches to needs assessment consistent with recent developments in the systems of care approach. Specifically, there is a need for a set of specific methods and procedures on which individualised service plans for children and adolescents can be based.[18] The INSA aims to fill this gap.

Existing needs assessments methodologies

Instruments have been developed to document service use by children and adolescents across service systems, together with associated aspects such as attitudes towards service use and barriers that may affect the likelihood of using services. Two examples of such instruments are the Child and Adolescent Services Assessment (CASA)[19,20] and the procedures developed as part of the Methods for the Epidemiology of Child and Adolescent Mental Disorders (MECA) study.[21] However, neither of these instruments makes an attempt to relate service-use information to need, thereby enabling the estimation of the

extent of unmet need. Although it is possible to relate information derived from these instruments to other data in order to produce estimates of unmet need,[22] the assessment of unmet need is not an integral aspect of the instruments. This is an important limitation in the light of recent shifts from a service-based to a needs-led provision of services.[23,24] Planning for community service systems will be most effective if it is undertaken without regard to available interventions.[25] There is the potential hazard that assessments focusing on services will overlook needs that do not mesh with available services.[24]

Two existing instruments in which service-use information is related to need, thus allowing unmet need to be addressed, are the Children and Youth Needs Methodology of the Office of Mental Health (OMH) of the State of New York and the Needs for Care Assessment of the British Medical Research Council.

Children and Youth Needs Methodology of the Office of Mental Health of the State of New York

The Children and Youth Needs Methodology of the OMH of the State of New York combines: (*i*) estimates of service need among children seen within the OMH system; (*ii*) estimates of service need among children not currently in the system; and (*iii*) demographic and prevalence indicators used to disaggregate statewide need estimates for use in more delimited planning areas.

For children seen within the OMH system, estimates of need were projected from a systematic, random survey of approximately 1 000 youngsters who received services from OMH services during a sample week in May 1989. Statewide need among this population was derived from a series of indicators, validated by existing practice and a panel of clinicians and policy makers. The indicators included measures from the survey including diagnosis, severity of psychiatric symptoms, the presence of serious behaviour problems, child or adolescent social functioning, and family functioning. Using these indicators, each child was allocated to one of the following 'clinically relevant groups': (*i*) extreme/acute; (*ii*) most serious; (*iii*) very serious; and (*iv*) serious/moderate. In addition, a decision based partly on family functioning and family choice was made as to whether the child or adolescent should remain at home or be placed out of the home. These data were used to deduce which categories of mental health programmes were indicated. For example, a child or adolescent in the extreme/acute clinically relevant group who remained at home would receive home-based crisis intervention, while if s/he were placed out of the home they would receive acute inpatient treatment. Other programmes include intensive ambulatory community-based intervention, day treatment and clinical support, and intensive case management. Estimates of need among children not seen within the OMH system were based on information about children with serious emotional disturbance seen within other systems of care, including special education and welfare. The results of the needs assessment methodology were used by the New York State OMH in planning a comprehensive system of child mental health services, including decision making related to budget and programme approval.

This methodology represented a substantial advance in the assessment of need for mental health services. For the first time, clinical assessment of the severity of emotional disturbance of children and adolescents was linked to services, on the basis of which estimates of the extent of unmet need were derived.[26] However, there is scope for further development.

1. Services were defined in terms of programmes as opposed to service items, such as 'individual psychotherapy', 'family therapy', and 'medication'. There are two disadvantages to defining services in terms of programmes.

Firstly, more specific information is obtained by defining services in terms of service items. This is important in the light of the large variation in the contents of programmes. Not only does the content of programmes vary between agencies, but the specific components of a programme offered to a particular child or adolescent may depend on the presenting problem. Crisis intervention services, for example, may have the capacity to offer an array of service items such as individual psychotherapy, removal from the family, and sedation (for example, for certain symptoms of psychosis). By including diverse service items in one programme, information that may be crucial for planning purposes is lost.

Secondly, defining services in terms of programmes hinders the application or generalisation of the methodology to systems of care other than the mental health system, such as juvenile justice, special education, and social services. Mental health services as defined by outpatient or inpatient/ residential care offered by mental health professionals represents only a small segment of mental health care offered to children and adolescents with mental health needs.[19] Many programmes, as defined in the mental health service system, do not exist in other systems. However, it is probable that some of the service items comprising these programmes are provided in other systems; for example, although there may not be a programme labeled 'outpatient programme' in the juvenile justice system, counselling (which may be an important component of an outpatient programme) may indeed be offered. If one wishes to study service provision across systems, therefore, it is crucial to define services in a manner that is applicable across systems.

2. The clinically relevant groups in the Children and Youth Needs Methodology were defined in terms of severity of problems or psychopathology. The 'most serious' group, for example, was defined to include children or adolescents who: (*i*) require intermediate/extended treatment or stabilisation or both and who may have a moderate thought or affective disorder in addition to poor impulse control; (*ii*) may have

severe impairment in functioning; or (*iii*) present a danger to self or others. The clinically relevant groups are defined partly in relation to services, which introduces a measure of circularity when relating these groups to services. A further disadvantage is that several dimensions are included in the definition; for example, the 'most serious' group is defined in terms of services needed, psychopathology, impulse control, functional impairment and danger. One has no way of knowing the reason why a particular child or adolescent was included in the group, which may have great implications for which services are indicated. Finally, one has no way of knowing in which functional domains the unmet need exists. One is therefore not able to link the functional domain in which there are difficulties with service items.[27]

3. The Children and Youth Needs Methodology does not take into account the acceptability of services as assessed by the child or adolescent and family. One of the guiding principles of the system of care is that the families and surrogate families of children with emotional disturbances should be full participants in all aspects of the planning and delivery of services.[2] Implicit in this principle is the notion of partnership between service providers and recipients, each of whom has different strengths and potential contributions.[28] Recipients have insight into what may be effective in the light of previous exposure to services and unique knowledge of their physical, psychological, and social contexts. Also, the anticipated effectiveness of a service item is adversely affected if it is not acceptable to the proposed recipients; family therapy, for example, is not feasible in the face of family opposition to this intervention.

The Needs for Care Assessment of the British Medical Research Council

The Needs for Care Assessment Schedule (NFCAS) of the British Medical Research Council (MRC) does not have the above weaknesses of the Children and Youth Needs Methodology of the OMH of the State of New York.[27] The NFCAS has formed the basis for two additional instruments, namely the Cardinal Needs Schedule[29] and the community version of the NFCAS.[30,31] These instruments will not be described since the principles are similar to those of the original NFCAS. In the NFCAS, the need for care is defined as being present when: (*i*) a person's level of functioning falls below, or threatens to fall below, some minimum specified level; and (*ii*) this is due to some potentially remediable or preventable cause.[27,32,33]

These needs for care are assessed for 21 areas of clinical and social functioning, such as neurotic symptoms, side-effects of medications, embarrassing behaviour, use of public transport, and social interaction skills. This differs from the Children and Youth Needs Methodology discussed above in that areas of functioning are defined in terms of areas of difficulty as opposed to levels of severity. The areas of functioning are not defined in terms of diagnostic labels. While certain service items should be considered for specific diagnoses, a person suffering from a specific disorder may have needs in several areas of functioning.[27] Also, the existence of a diagnosis does not necessarily imply a need for intervention, and (conversely) intervention may be indicated even though symptoms are insufficient in number or duration to satisfy diagnostic criteria.[30]

For each area of functioning, a set of appropriate service items is specified. The possible interventions for patients with, for example, positive psychotic symptoms are medication; supervision or monitoring of medication; domiciliary visits; support, and reassurance to patient concerning symptoms; coping advice to patient; coping advice to relatives; family intervention; and sheltered environment.[27] Again, this differs from the Children and Youth Needs Methodology in that services are defined in terms of service items and not programmes.

A major innovation was the linking of need in the areas of clinical and social functioning with the services that are currently being provided to produce assessments of need status. This is not possible in the Children and Youth Needs Methodology since the clinically relevant groups in that study are defined primarily in terms of severity of problems. In short, assessments of need status are based on a comparison of actual service items being provided with the specified appropriate items. For each area of functioning, need status falls into one of the following categories: (*i*) no need — there is no problem, and no action is indicated; (*ii*) met need— a need has attracted some at least partly effective intervention, and no other interventions of greater effectiveness exist; (*iii*) unmet need — a need has attracted only partly effective intervention or no intervention and other interventions of greater potential effectiveness exist; (*iv*) no meetable need — there is a need, but there are no possible interventions that are even partly effective; and (*v*) overprovision — services are being provided in the absence of a need for these services.[27] The assessments of need status have been shown to have good inter-rater reliability.[34,35]

Unlike the Children and Youth Needs Methodology, those using the NFCAS are explicitly enjoined to take into account the client's opinions about the acceptability of services.[36] This is consistent with the socially negotiated nature of need.[24] Ideally, an area of negotiated need should be developed, taking into account both the demand of the child or adolescent and the family and the professional's view of need.[24]

There is no question that the NFCAS and the other instruments that it inspired represent an original and far-reaching advance in terms of assessing needs for mental health services. As will become clear, the INSA owes a considerable intellectual debt to the NFCAS. However, the NFCAS does not

fill the gap, providing the rationale for the development of the INSA. Many of the following reasons for this are related to the fact that the NFCAS was developed for adult populations, whereas the INSA was developed for children and adolescents.

1. The NFCAS was developed for use in mental health systems only. Some of the items of care might be provided under the auspices of other service systems, such as a sheltered environment for patients with positive symptoms of psychosis, but the instrument was not designed for use in other service systems. Related to this is the fact that the NFCAS was designed for use by clinical psychologists and psychiatrists, although others with a clinical background might be able to use it with appropriate training.

This is an important limitation in the context of the systems of care approach, which recognises the fact that children and adolescents receive services for mental health needs in a wide range of service systems such as health, education, social welfare, and juvenile justice.[19] This reflects: (*i*) the fact that emotional disturbance in children and adolescents typically involves interactions with a range of family, educational, social, community, and legal scenarios;[37] and (*ii*) the under-recognition of psychopathology in the other service systems.[21]

What implications does this have for a needs assessment methodology? Firstly, the items of care should be sufficiently inclusive so that services provided in all systems can be documented, whether they are necessitated by mental health needs or not. Secondly, the language used should be understandable and applicable across systems. Different terms may denote essentially similar service items in different systems, and terminology should be selected to ensure that these similarities are identified. The service items included in the NFCAS do not fulfil these characteristics to a sufficient extent for child and adolescent populations.

2. The NFCAS specifies a set of appropriate service items for each area of functioning. This has the advantage that the instrument serves a clinical function in addition to the research aim for which it was developed; the identification of a core of appropriate interventions can be used as a 'standard' against which practice can be measured.[30] However, obstacles present themselves when trying to develop a list of appropriate service items for children and adolescents with serious emotional disturbance. First, there is a high prevalence of co-morbidity.[38] This complicates the production of a list of service items, since the co-morbidity is likely to be manifest in difficulties in multiple functional domains. Also, co-morbidity is likely to influence decisions regarding which interventions are suitable for each of the co-morbid conditions. Second, as mentioned above, various domains are implicated in serious emotional disturbance in children and adolescents, such as the family and school. Such domains can contribute to the initiation, maintenance or exacerbation of the problem. Conversely, intervention in these other domains is frequently integral to resolution of the disturbance. However, there is a considerable amount of variation both between youngsters and service providers in terms of which domains, and which aspects thereof, should be included in the treatment plan. This hinders the production of a manageable list of service items applicable for each functional domain.

3. In rating the effectiveness and appropriateness of interventions using the NFCAS, one of the ratings is: 'Offered in the past year, but refusal, premature termination, or non-attendance by patient'.[27] Although users of the NFCAS are advised to take into account the views of the recipients with regard to the acceptability of services,[36] this is the only place in which explicit reference is made to this aspect. In the community version of the instrument, there is an additional option referring to rejection of the idea of treatment.[39] This was one of the considerations leading to the development of the Cardinal Needs Schedule (CNS), which is a modified version of the NFCAS.[29] In the CNS, the views of the recipients regarding the acceptability of services are elicited by means of a semi-structured interview assessing: (*i*) their attitudes towards receiving help in a number of problem areas; (*ii*) whether they wish to change their accommodation; and (*iii*) whether they are distressed by any current physical problems.[29] The CNS does not inquire about the acceptability of specific service items. This is an important deficiency since there may be variation in the acceptability of the service items suitable for a particular problem area; for example, psychotherapy may be an acceptable intervention for depressive symptoms while pharmacotherapy might be unacceptable.

BUILDING ON THE FOUNDATION — THE INSA

The INSA builds on the NFCAS in that it incorporates modifications designed to address the above points and make it suitable for use with children and adolescents. The functional domains in the INSA (Table I) have been selected to ensure that they are suitable for children and adolescents with a wide range of difficulties. They include domains addressing social role performance (such as social and interpersonal relationships) as well as psychopathology (such as anxiety symptoms). The domains addressing social role performance

Table I. Functional domains in the INSA

1. Self-care
2. Family life
3. Social and interpersonal relationships
4. Learning, school performance, vocational development
5. Disruptive behaviour
6. Mood symptoms
7. Anxiety symptoms
8. Symptoms of psychosis
9. Attention deficit and/or hyperactivity symptoms
10. Alcohol and/or other substance abuse

Table II. Examples of service items

Assistance with securing adequate housing for family
Comprehensive co-ordination of services and case management for child or adolescent and family
Consultation and advocacy with police and other authorities
Consultation and advocacy with school personnel
Day treatment or special education class with clinical staffing
Detoxification from alcohol or other substances for parent(s) or family members
Electroconvulsive therapy for adolescent
Family therapy
Group after-school care or day care for child or adolescent
Home-based support, including homemaker or chore services
Individual psychotherapy for child or adolescent
Legal representation for child or adolescent, parent(s), or family members
Location to drop off child or adolescent when parent(s) need a break, respite care
Methadone maintenance for parent(s) or family members
Pharmacotherapy for child or adolescent
Provision of an alternative living environment for child or adolescent (foster care)
Recreational services for parent(s) or family members
Remedial education outside of regular school hours for child or adolescent
Special education class without clinical staffing for child or adolescent
Specialised counselling for perpetrators of abuse or neglect for parent(s) or family members
Specialised therapies or counselling for victims of abuse or neglect for identified child or adolescent
Specialised therapies or counselling for victims of abuse or neglect for parent(s) or family members
Structured social environment designed to modify behaviours for child or adolescent
Support or advocacy in accessing and maintaining public assistance benefits for child or adolescent, parent(s), or family members
Support to access health/medical services for child or adolescent
Support to access recreational opportunities for child or adolescent
Support to or supervision of child or adolescent in neighbourhood setting
Support to or supervision of child or adolescent in vocational setting
Support to or supervision of child or adolescent to get to school
Support to or supervision of child or adolescent within school
Training in activities of daily living (for example, eating and dressing)
Training in vocational skills for parents or family members
Training or therapies to improve motor functioning and co-ordination for child or adolescent
Training or therapies to improve speech and language functioning for child or adolescent
Transportation services for child or adolescent, parent(s), or family members

were adapted from diverse sources, such as various state and national definitions of serious emotional disturbance among children and adolescents and other instruments designed to measure social role functioning. The domains addressing psychopathology were defined using concepts embodied in the *Diagnostic and Statistical Manual of Mental Disorders* (4th edition) (*DSM-IV*).[40] The child's functioning in each domain is rated according to a four-point scale ranging from 'no problem' to 'severe problem'. Descriptions of each domain are available from the authors.

The list of service items in the INSA differs substantially from that in the NFCAS (Table II). It contains 35 service items, more than double the number in the NFCAS.[41] Services provided in various service systems were included, whether they are necessitated by mental health needs or not. Care was taken to ensure that the terminology would be understandable and applicable across systems. The service items were not linked to specific functional domains. The service items were derived from: (*i*) a review of administrative service taxonomies within the mental health and other child- and adolescent-serving systems; and (*ii*) judgements of service providers and mental health service experts.

The ratings of clinical effectiveness are a more specific version of the system used in the NFCAS (Table III).[27] These judgements are made on the basis of knowledge in the professional literature, such as effectiveness and efficacy studies and practice guidelines, as well as factors specific to the child or adolescent, such as service history. However, unlike the NFCAS, the INSA also contains a rating system for child or adolescent and family opinion about the acceptability of services (Table III). This allows for the assessment of acceptability in a structured manner. The assessment is made taking into account the prior experience of the child/adolescent

Table III. Assessment of effectiveness and recipient acceptability of interventions

	Rating
Effectiveness	
Demonstrated ineffective with adequate trial	0
No adequate trial, but judged to be ineffective	1
No adequate trial, but believed to be effective or partly effective	2
Partly effective based on adequate trial	3
Demonstrated effective based on adequate trial	4
Inconclusive, judgement deferred	8
Not applicable	9
Acceptability	
Rejection	0
Not likely to be acceptable	1
Likely to be acceptable	2
Demonstrated to be acceptable	3
Uncertain	8
Not applicable	9

and their family, cultural appropriateness, and individual preferences.

Assessments of need status are made in a manner similar to that in the NFCAS. The assessment in each functional domain is made on the basis of the service items being provided in relation to their clinical effectiveness, and child or adolescent and family opinion regarding acceptability of services.

The characteristics of the INSA are summarised in relation to the Children and Youth Needs Methodology of the OMH of the State of New York and the NFCAS in Table IV. We will now provide an example of the application of the INSA to a mental health services research project entitled 'Alternative Service Patterns for Children with Serious Emotional Disturbance (SED) Study.'

Application of the INSA to the SED study

A unique feature of this study, funded by the NIMH (principal investigator: Christina W Hoven), is the study of children and adolescents with serious emotional disturbance across several service settings. Of the total sample of 1 260 children and adolescents, a total of 750 are being selected from the following service settings: mental health, substance abuse, juvenile justice, special education, and social services. A large amount of data for each child or adolescent are being gathered from interviews, both with the proband and with their adult caretaker/s. These data include functional impairment as measured by the Children's Global Assessment Scale (C-GAS);[42] and a diagnosis according to the *DSM-IIIR*,[43] made using the Diagnostic Interview Schedule for Children (DISC), Version 2.3.[44]

In a related study funded by the National Alliance for Research on Schizophrenia and Depression (NARSAD) (principal investigator: Alan J Flisher), the INSA is being applied to a subset of 300 youngsters in the SED study who are receiving services in the mental health and substance abuse systems, and who are suffering from serious emotional disturbances.[45] Children are defined as having serious emotional disturbance if they have one or more diagnoses according to the DISC; and if they are suffering from both diagnosis-specific and global functional impairment (as assessed by the DISC and C-GAS, respectively). We estimate that approximately 100 children or adolescents will be found to be suffering from serious emotional disturbance.

The service providers of these estimated 100 children or adolescents will then be approached to provide information about services currently being received. If individual psychotherapy, for example, is being offered, the provider will be asked what type of individual psychotherapy it is (for example, behaviour therapy, psychodynamic psychotherapy); for which period of time it was being provided; how many times per week it was offered; how long each session lasted; for which functional domains the psychotherapy was being provided; the perceived effectiveness of the psychotherapy; and the perceived acceptability of the psychotherapy to the child or adolescent and the family. For the final two questions, the response options listed in Table III above will be employed. Similar questions will be asked with regard to the other services. Also, if a particular service is not being provided, the question regarding acceptability will still be asked.

A team will be assembled to assign a need status for each child or adolescent using the categories developed in the NFCAS. The team will consist of mental health clinicians, representatives of the service systems from which the children or adolescents were selected, a parent advocate, a child or adolescent advocate, and a researcher. This contrasts with the team making assessments in the NFCAS, which is confined to mental health professionals. The researcher will not participate

Table IV. Comparison of mental health needs assessments methodologies

	Children and Youth Needs Methology of the OMH, State of New York	NFCAS of the British MRC	INSA
Population	Children and adolescents	Adults	Children and adolescents
Definition of services	Programmes	Service items	Service items
Definition of problems	'Clinically relevant groups'	'Areas of clinical and social functioning'	'Functional domains'
Acceptability of care included	No	Yes (but not in a structured manner)	Yes (in a structured manner)
Effectiveness of service included	No	Yes	Yes
Assessments of need status produced by relating service items to areas of functioning	No	Yes	Yes
Suitable for use in diverse service settings	No	No	Yes
Psychometric properties established	No	Yes	No
Use in completed projects	Yes	Yes	No

in any of the decision making. Steps will be taken to document the inter-rater and test-retest reliability of the process. The assignment of need status will be made on the basis of the data provided by the service providers as well as information being gathered as part of the SED study.

We believe that the production of descriptive data, such as the service items being provided in each service system together with the additional information about each item (for example, intensity, duration, perceived effectiveness) will contribute meaningfully to the knowledge base in the field of child and adolescent mental health services research. However, the process is orientated to the estimates of need status, including the prevalence and correlates of unmet need. Unmet need (and its correlates) can be examined at three levels: (*i*) for service items, irrespective of functional domain (for example, what are the correlates of unmet need for individual psychotherapy, irrespective of which functional domains are problematical?); (*ii*) for functional domains, irrespective of service items (for example, what are the correlates of unmet need for services for mood symptoms, irrespective of which specific items are needed?); and (*iii*) for a child or adolescent irrespective of service items and functional domains (for example, what are the correlates of unmet need for a particular participant, regardless of which service items are needed, and regardless of functional domain?). Data regarding the potential correlates are being gathered as part of the SED study. Potential correlates of unmet need may occur in the following areas: (*i*) demographic; (*ii*) economic; (*iii*) family; (*iv*) academic; (*v*) opinions regarding the child or adolescent's mental health and the usefulness of services; and (*vi*) access barriers to mental health services.[22]

IMPLICATIONS FOR MENTAL HEALTH SERVICES DELIVERY

The INSA can be regarded as a process as opposed to an instrument. As such it is flexible and can be used for several purposes in diverse settings. We have just provided an example of the use of the INSA by mental health service researchers who wish to study factors associated with unmet need. In addition, it can be used by: (*i*) teams of service providers and families who want to develop individualised service plans; (*ii*) planners and policy makers who want to extrapolate from samples of children and adolescents in order to provide quantitative estimates of need for services at the community level; and (*iii*) managed care organisations and purchasers of services who want to balance issues of ensuring access to needed services while reducing provision of unnecessary, ineffective, or overpriced services.

We therefore believe that the INSA has the potential to fulfil a need for a set of standardised methods and procedures on which individualised service plans for children and adolescents can be based. Even though the INSA has not been applied in any completed projects to date, its performance in the SED study provides some grounds for optimism. Future reports will indicate the extent to which this optimism is justified.

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