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# Exploring potential approaches to measuring personal and interpersonal progress with young people referred to Includem

DRAFT REPORT - NOT FOR CIRCULATION

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# BACKGROUND

Includem was set up in 2000 with the vision of challenging offending behaviour, supporting young people and develop hope for the future through one-to-one relationships. In addition to the support work that they undertake, Includem also places a high emphasis on monitoring and evaluation.

The aim of this literature review was to provide The Glasgow Centre for Population Health (GCPH) and Includem with a range of measures that be used to evaluate the success of the work that Includem undertakes at both a) the personal and b) the social network level. In particular we aimed to identify those measures at both levels that are good quality, relevant, applicable, used in similar contexts, and easy to use.

# **METHODS**

#### Stage 1. Identifying the range of measurable outcomes

Three face to face interviews with Includem staff were conducted in January 2009 by one of the research team (CG). The staff were asked three main questions:

- What are the important qualities/life skills/approaches/attributes for young people to "learn" if they are to be successful in making a positive transition into adulthood (both personal and interpersonal)?
- What do you think are the key areas of young people's life strategies you can influence through the work of Includem?
- What are the key characteristics of young people who succeed through Includem's intervention?

Following these interviews we identified: i) those outcomes that are best measured informally by Includem staff, and ii) those personal and social network outcomes that they might want to measure more formally.

#### Stage 2. Identifying a range of psychometric measures

We undertook two types of searches which complemented and informed each other.

**A.** Searches to identify the range of measures that have been used to evaluate the specific outcomes or factors identified in Stage 1. We searched the following resources (see Appendix 1):

- 1) A range of medical, sociological, psychological and social work databases including Medline, Embase, Cinahl, PsycINFO, Social Care online, Social Sciences Citation Index, Social Services Abstracts and Sociological Abstracts.
- 2) Websites that provide information on relevant psychometric measures
- 3) Books and reports that provide details of potentially relevant measures

**B.** We also searched review-level evidence (e.g. systematic reviews) for interventions that are similar in both content and population to the Includem intervention. No useful reviews were identified as most of the reviews identified only concentrated on outcomes such as re-offending rates.

#### **Stage 3. Appraising the measures**

We appraised each of the identified measures according to the following five criteria:

- 1) The quality and psychometric properties of the measure (e.g. its reliability and validity).
- 2) How closely the measure 'fits' with the outcome that Includem wishes to measure (e.g. whether it actually measure 'planfulness' or only something similar).
- 3) Its applicability (e.g. whether it has been designed and/or validated to be used with young people, or designed/validated for other population groups).
- 4) Its use in other similar evaluations. If a measure has been used across a number of similar project evaluations, this would allow Includem to compare their evaluation data with that of other studies if they wished.
- 5) Its ease of use (including readability, length and format). We also, where possible, ascertained the cost (if any) to purchase the measure

This stage enabled us to summarise the existing literature and evaluate the merits and drawbacks of each of the existing approaches to measurement.

### RESULTS

The interviews with Includem staff, plus a review of the documents they used (e.g. the Includem workbook) revealed a range of personal and external factors which were thought to be important to learn, be taught, or be a predictor of success. These are detailed in Table 1. Most of these factors can be viewed as being protective, and contributing towards resilience. Resiliency theory attempts to address the observable phenomena regarding an individual's ability to adapt despite adversity and the interplay between risk and protective factors. Resilience is associated with the extent to which children are able to make use of, or benefit from, protective factors available to them (Hill, Stafford, Seaman *et al.*, 2007). Protective factors can either be intrinsic (we refer to them as personal, or malleable) or extrinsic (e.g. external conditions such as family situation, community networks, or environmental variables that buffer or mediate the negative impact negative events over time). Intrinsic and extrinsic factors should not be seen as operating independently, as children vary in their ability to make best use of external resources, while the environment is a major influence on children's competencies and coping skills (Hill, Stafford, Seaman *et al.*, 2007).

Personal (malleable) factors	External (social
	factors)
Ability to Plan (Planfulness)	Positive social networks
	(particularly family and
Sense of Purpose	peers)
	T 1 1 1 1 1
Control	Links with their communities
Self Esteem	communities
	Social inclusion
Social Competence	Social metasion
I I I I I I I I I I I I I I I I I I I	
Consequential Thinking	
Moral Reasoning	
Problem Solving	
Problem Solving	
Readiness to Change	
Self Efficacy/Self Belief/Confidence	
Respect	
Empathy	
Pick Assessment/Pick Management	
Risk Assessment/Risk Management	

# Table 1. Factors identified by Includem staff which either predict successful outcomes, or are part of what Includem staff hope to achieve through their work

From the searches of the databases we identified 3759 potentially relevant research articles which we imported into Reference Manager. An initial screening of these references was undertaken by reading the titles and abstracts. In order to make this a feasible activity one of the researchers (CG) focussed on reports which described personal factors, and the other researcher (RJ) focused on the reports that described external factors. Any reports that the researchers were unsure about were included at this stage. Following this initial screening we narrowed the number of reports down to 215 studies which reported the development, validity and/or use of measures. These references were imported into an Access database so that we could extract detailed data about the questionnaires including: the domains being measured, the country, population, and the five criteria detailed previously (e.g. reliability and validity, ease of use, applicability, relevance). We often used these research papers as a starting point to identify potentially useful scales. We then supplemented our searches with additional searches of the Internet, books and report as well as writing to the authors to find out additional information which wasn't included in the research reports. Where possible, we tried to find a copy of the questionnaire and the questions used (this was not possible in all cases, as some were not freely available).

Due to the large number of scales we identified, only scales which met at least two of the five criteria were included in this report.

#### Scales measuring intrinsic (malleable) personal factors

The thirteen intrinsic personal factors we were interested in were those that were identified during the interviews with Includem staff. Table 1 lists these factors according to the importance placed on them by the staff, both in terms of their contribution towards a young person making a successful transition to adulthood, and their potential to be influenced and strengthened through involvement with Includem. Planfulness and sense of purpose were mentioned by all three staff members and were rated as the most important personal factor by one person. Self control, self esteem and social competence were also mentioned during all three interviews although their highest ratings were second, third and eighth, respectively. Consequential thinking, moral reasoning and problem solving were also given high priority by two members of staff, whilst the other factors, readiness to change, confidence, respect, and risk assessment/risk management were all mentioned by at least one staff member.

One hundred and six scales measuring personal factors were identified. Following data extraction sixty scales were included. Twenty five were found to meet at least two of the criteria of relevance, acceptability and reliability and are shown in Table 2. The remainder were either less relevant, appeared to pertain to a trait factor (i.e. one that would be unlikely to be influenced by Includem) rather than a state factor (i.e. one that could be influenced by Includem), or we were unable to obtain enough information about the scale to include it.

As can be seen in Table 2, a number of the instruments assessed a number of intrinsic factors. For example, the Resilience Scale (Wagnild and Young, 1993b) contained items pertaining to planfulness, sense of purpose, control, self esteem, self belief/self efficacy, as well as humour, whilst the Youth at Risk version of the Life Effectiveness Questionnaire (Neill, 2009) contained subscales assessing sense of purpose, control, self esteem, social competence, problem solving respect for others, risk assessment/risk management, as well as communication skills. At least one of the scales (Problem Oriented Screening Instrument for Teenagers (National Institute on Drug Abuse, 1991)) also provided a measure of more external factors; specifically, social functioning and peer relations.

Given the limited attention span of many of the young people involved with Includem, it may be that these global scales, which provide an overview of a range of personal factors, would be more practical than those instruments that provide a more detailed assessment of a single factor, for example the University of Rhode Island Change Assessment Questionnaire (DiClemente and Hughes, 1990). Indeed, it might be more useful to select relevant items from these detailed questionnaires and use them to complement existing items in the global scales. One important caveat to the foregoing recommendation is that global measures may lack the specificity needed to detect the subtle changes in personal factors that might occur during the short time scales (six weeks to two months) over which some Includem staff were hoping to be able to administer the measures.

All of the twenty five scales included in the report had acceptable reliability and most were validated for use with an adolescent population. Moreover, although the Short Self Regulation Questionnaire (Neal and Carey, 2005), the Interpersonal Competence

Questionnaire (Buhrmester, Furman, Wittenberg *et al.*, 1988b) and the Brief Self Control Scale (Tangney, Baumeister & Boone, 2004) had been validated using college students and undergraduates rather than younger adolescents, the items they contained and the language they used seemed largely appropriate for use with Includem clients. A number of the scales (Youth at Risk Version of the Life Effectiveness Questionnaire (Neill, 2009), Youth Rating Scale of the Behavioural and Emotional Rating Scale (, 2009b), Problem Oriented Screening Instrument for Teenagers (National Institute on Drug Abuse, 1991), Self Determination Student Scale (American Institutes for Research, 2007), Interpersonal Reactivity Index (Davis, 1983), Carlson Psychological Survey (Carlson, 1997), Adolescent Problems Inventory (Freedman, Donahoe, Rosenthal *et al.*, 1978)) had specifically been used with delinquent, young offender or "youth at risk" populations.

The majority of the scales appeared to be easy to use; the only exception being the Adolescent Problems Inventory (Freedman, Donahoe, Rosenthal *et al.*, 1978), which is more of a semi-structured interview than a questionnaire. However, this scale was included in the report as it specifically addressed different ways of dealing with a problem situation and had been tested on a population of juvenile offenders. As the original contains 44 items and takes an hour to administer, it is recommended that, if Includem were to use this scale, a subset of the most relevant items should be selected.

Twenty three of the scales were free<sup>1</sup>. The remaining two were included in the report either because of their existing wide application with adolescents (Coopersmith Self Esteem Inventory (Coopersmith, 1981)) or because they were specifically designed for use with individuals involved in the criminal justice system (Carlson Psychological Survey (Carlson, 1997)). Two of the scales (Problem Oriented Screening Instrument for Teenagers (National Institute on Drug Abuse, 1991), Carlson Psychological Survey (Carlson, 1997)) have previously been used in similar evaluations.

The scales contained between 4 (Perceived Social Competence Scale ((Anderson-Butcher, Iachini & Amorose, 2008)) and 139 (Problem Oriented Screening Instrument for Teenagers (National Institute on Drug Abuse, 1991)) items. However, in some of the longer scales, items were grouped into a number of subscales and it may be useful for Includem staff to select the subscales they considered to be most relevant. Even where scales were not explicitly subdivided, it is likely that some of the less appropriate items (such as those aimed specifically at school children) could be dispensed with to make the measures more manageable for the young people who would be completing them. Finally, Includem may want to adapt some of the language used in the scales – many have been developed in the USA – to make them more 'user-friendly'. This could be done through focus group discussions involving young people from the same (or similar) socioeconomic backgrounds as Includem clients.

<sup>&</sup>lt;sup>1</sup> Please note that information about cost and permissions was the best available at the time of publication, but Includem are advised to contact the author or author' representatives prior to using any of the scales included in Table 2.

Table 2. Questionnantes		Juin	18 11	101 11		Zuu		(10		IGHT I	ucu	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				1	
	Assessors Rating	Planfulness	Sense of Purpose	Control	Self Esteem	Social Competence	Consequential Thinking	Moral Reasoning	Problem Solving	Readiness to Change	Respect for Others	Self Belief/ Self Efficacy	Empathy	Risk Assessment/ Risk Management	Other	Cost	Comments
1. Resilience Scale (Wagnild and Young, 1993a)*	4	х	Х	х	Х							Х			Humour	Р	14 or 25 items. Recommended as most resilience scale appropriate for use with adolescents (Ahern, Kiehl, Sole <i>et al.</i> , 2006)
2. Adolescent Resilience Scale (Oshio, Kaneko, Nagamine <i>et al.,</i> 2003)*	4		х	x												N	21 items. This scale is simple and straightforward. 3 subscales deal with novelty seeking, emotional regulation and positive future orientation.
3. Cognitive Autonomy and Self- Evaluation (CASE) Inventory ((Beckert, 2007)*	4						X	X				X		х	Autonomy	N	27 items. The scale quantifies five areas of independent thought, including capacity to: to evaluate thought, voice opinion, make decisions, capitalize on comparative validations and self-assess.
4. Youth at Risk version of the Life Effectiveness Questionnaire (Neill, 2007)*	4		Х	х	X	X			Х		Х			X	Communication Skills/ Respect	N	70 items. This scale covers many qualities, but is supposed to be adapted so that only the relevant subscales are administered.
5. Problem Oriented Screening Instrument for Teenagers ((National Institute on Drug Abuse, 1991)	4						X							х	Social functioning/ peer relations	N	There is an initial questionnaire (139 items) to provide a baseline and a follow up questionnaire (89 items) to assess outcomes. Some of the items could be dropped for Includem clients.
6. Adolescent Self-Regulatory Inventory (Moilanen, 2007)	4	х		x												N	27 items. This scale measures planfulness. – a quality that all three Includem workers highlighted as important.
7. Short Self Regulation Questionnaire (Neal & Carey, 2005)	4	х		x												Р	31 Items. See Adolescent Self-regulatory Inventory above. However, it was administered to college students rather than adolescents.
8. Self Efficacy Scale (Sherer, 1982)	4											х				Р	12 items. A short simple scale that seems appropriate for Includem clients. It has 3 subscales measuring initiative, effort and persistence.

#### Table 2. Questionnaires Measuring Intrinsic Qualities (Personal Factors)

	Assessors Rating	Planfulness	Sense of Purpose	Control	Self Esteem	Social Competence	Consequential Thinking	Moral Reasoning	Problem Solving	Readiness to Change	Respect for Others	Self Belief/ Self Efficacy	Empathy	Risk Assessment/ Risk Management	Other	Cost	Comments
9. State Self Esteem Scale (Heatherton and Polivy, 1991))	4				Х											N	20 items. This scale is designed specifically to measure state, rather than trait, self-esteem. As such it ought to be useful for Includem. There are 3 subscales: performance, appearance and social.
10. Rosenberg Self Esteem Scale (Rosenberg, 1965)	4				х											N	10 items. A well-researched and validated tool for use with adolescents.
11. Youth Rating Scale of the Behavioural and Emotional Rating Scale ((, 2009a))	4		X			X						X				Y	Takes 10 minutes to administer. This scale is specifically designed for referral services, (placing children and measuring their progress). However, Includem would have to buy it to look at it.
12. Self Determination Student (American Institutes for Research, 2007)	4	х			х		х			Х						N	27 items. This scale has been shown to be reliable in a juvenile justice setting.
<ol> <li>Connor-Davidson Resilience Scale (Connor and Davidson, 2003)</li> </ol>	4		х	х	X					х		x			Humour	N	25 items. This scale was considered less appropriate for adolescents than Wagnild & Young's Resilience Scale (Ahern, Kiehl, Sole <i>et al.</i> , 2006).
14. My Life Questionnaire (Weist, Albus, Bickham <i>et al.</i> , 2000)*	4		х			X										N	12 items. There are 3 subscales in this questionnaire: negative peer influences, focusing on the future and religious involvement.
15 Life Skills development – Juvenile Form (Kadish, Glaser, Calhoun <i>et al.</i> , 2001)	4		Х			х			X							Р	65 items. This questionnaire is relevant to Includem clients, but the language may need to be simplified for some of the items.
16. Coopersmith Self Esteem Inventory (Coopersmith, 1981)	3				х											Y	58 items. This scale is widely used with adolescents; however there is a charge for using it. There are two inventories a) School Form (8-15 years), b) Adult Form (16+ years)

	Assessors Rating	Planfulness	Sense of Purpose	Control	Self Esteem	Social Competence	Consequential Thinking	Moral Reasoning	Problem Solving	Readiness to Change	Respect for Others	Self Belief/ Self Efficacy	Empathy	Risk Assessment/ Risk Management	Other	Cost	Comments
17. Interpersonal Reactivity Index (Davis, 1983)	3												Х			Ν	28 items. The empathetic concern and perspective taking scales might be of interest. However, socially desirable responding might be a problem with some delinquent populations.
18. Perceived Social Competence Scale (Anderson-Butcher, Iachini, & Amorose, 2008)	3					х										N	4 items. A very short, simple scale that seems suitable for Includem clients
19. Carlson Psychological Survey (Carlson, 1997)	3				х	х	х									Y	50 items. This questionnaire is specifically designed for individuals with have been involved with the criminal justice system. Significant changes in prosocial tendencies have been found in juvenile offenders in secure rehabilitation units.
20. Interpersonal Competence Questionnaire (Buhrmester, Furman, Wittenberg <i>et al.</i> , 1988a)	2					X										N	40 Items. This scale was assessed using young adults rather than adolescents, although the items seem suitable for a younger population. The scale is rather lengthy – considering it just measures one quality – perhaps items could be selected from it.
21. Brief Self Control Scale (Tangney, Baumeister, & Boone, 2004)	2			х												N	36 items. This scale was not validated in adolescents but its items seem reasonably applicable
22. Nowicki-Strickland Locus of Control Scale for Children (Nowicki and Strickla, 1973)	2			x												N	40 items. This scale is rather lengthy for one that deals with a single quality, but items could be selected from it
23. General Self Efficacy Scale (Hoeltje, Zubrick, Silburn <i>et al.</i> , 1996)	2											X				N	10 items. This scale is short, the questions are relevant, but some of the language might be a bit tricky for Includem clients.

	Assessors Rating	Planfulness	Sense of Purpose	Control	Self Esteem	Social Competence	Consequential Thinking	Moral Reasoning	Problem Solving	Readiness to Change	Respect for Others	Self Belief/ Self Efficacy	Empathy	Risk Assessment/ Risk Management	Other	Cost	Comments
24. University of Rhode Island Change Assessment Questionnaire (DiClemente and Hughes, 1990)*	2									X						N	32 items. This is a rather lengthy and repetitive questionnaire. However, it might be worthwhile selecting a subset of the items.
25. Adolescent Problems Inventory (Freedman, Donahoe, Rosenthal <i>et al.</i> , 1978)*	2								Х							N	44 items. This is more of an interview than a questionnaire and the young person's responses are supposed to be recorded. It is also lengthy, although a subset of items could be selected for use.

\*This scale is contained in Appendix 3

Cost - N="None", Y="Yes", P=Permission is needed for use of the scale.

#### Scales measuring external factors.

The external factors which we were interested in were those that could be protective for children, promote resiliency and be influenced or strengthened through the work of Includem. The three most relevant, inter-related factors are social networks, social support and community involvement.

Social network refers to the range of social relationships available to an individual (family, friends and others). A supportive social network provides young people with opportunities to develop their social skills and develop their understanding of the functions, expectations, and dynamics involved in different relationships (ref). Whilst young people may have large social networks, this does not necessarily mean that the support they get from these networks will be positive.

Social support describes the provisions obtained through these relationships that are largely determined by their perceived adequacy. Social support from family, friends, and others is a multifaceted and complex phenomenon and it often cited as being essential to youth development and resiliency Social support is considered a pivotal component of resiliency in that it serves as a stress-buffering function. It can also assist the development of self esteem and self efficacy. (Brennan, 2008)

Community involvement is an important facet of youth development and communitybuilding, and can lead to effective adult- youth interaction. It has been argued that children need a triad of protective factors to thrive- being strong in themselves; experiencing robust positive relationships in their family; and those who separately and collectively positively connect to their community.(Dolan, 2008) In recent years there has been considerable emphasis on 'social capital' and 'community agency' in promoting child and adolescent wellbeing Community support through social networks can act as a form of collective agency and socialization, especially where like-minded adults provide norms and sanctions concerning children's wellbeing.(Brennan, 2008)

Forty two scales were identified which measured external factors such as social networks, social support, friendships and attachment. Following data extraction, eight measures were included (see Table 3). Seven were found to meet at least three of the criteria of relevance, acceptability and reliability and were included and a further scale was less relevant, but was the most relevant for measuring community involvement. The rest of the scales were excluded and are not referred to further in this report (see Appendix 4 for details of the scales and reasons for exclusions).

Details of all the items included in the scales can be found in Appendix 5)  $^{2}$ 

#### Scales measuring social networks and social support

Seven potentially relevant scales were identified which measure some aspect of social networks and social support (or perceived social support). Several scales could be easily adapted and used to evaluate some aspects of the work of Includem. Most could be used in their entirety, or just specific subscales.

 $<sup>^{2}</sup>$  Please note that where possible details have been provided as to how to use the scales, but this information should be verified before using the scales for evaluation purposes.

In practice it was difficult to separate out those which measured social networks and those which measure social support, as most contained overlapping constructs. For this reason they are reported together and their strengths and limitations discussed within the constructs they measure, and their relevance to the work of Includem.

We assessed the measures against the five quality criteria. All of the seven scales measuring social networks and social support had good reliability and validity, were developed for the adolescent population, were easy to use and free to access. The only criteria where we had difficulty was determining the extent to which any of the scales been used in similar evaluations (criterion no 4). Only the Strengths and Difficulties Questionnaire (SDQ) has been widely used in evaluations.

The number of items (questions) in the questionnaires ranged from 10 (Multidimensional Scale of Perceived Social Support (MSPSS)) to 80 items (People in my life (PIML)). This suggests that some of the scales might be very sensitive and provide very detailed data, but might be wearisome for the respondents to complete. The shorter scales may like the ability to detect important subtle changes. Having said that, none of the scales took more than 20 minutes to complete.

The constructs or domains covered by the measures are detailed in Table 3. Most measure some aspect of social networks, although none really attempted to capture the size of the different networks. For example, many items made the assumption that the respondent already had family and friends, rather than making any attempt to quantify or assess whether these networks did exists. However, it is our understanding that Includem already use a tool to assess the important people in the young person's life so this may not something that can be measured informally.

The questions were often more likely used to determine the strength of the relationship (e.g. attachment) and the social support that they offered. Two measures (the People in my life (PIML) and Family, Friends, and Self (FFS) Form) also measured some of the potential negative aspects of social networks such as 'delinquency', 'trouble' and 'control.'

Two measures also included internal factors such as self esteem (Family Friends and Self (FFS) and social competence (Strengths and Difficulties Questionnaire (SDQ)). Indeed the SDQ is to some extent perhaps more of a measure of the personal rather than extrinsic although several questions do relate to interactions with others. It was included as it is very widely in similar settings and populations to those of Includem. It also has the advantage of being able to be self completed or administered by someone else (e.g. the Includem staff). However, some of the constructs (e.g. hyperactivity) may not be relevant.

Of all the scales measuring extrinsic factors, the Family, Friends, and Self (FFS) Form measured the widest range of domains including both intrinsic and extrinsic factors; and positive attributives (warmth) and negative attributes (conflict, trouble) of social networks. In addition it was the only measure that asked people to rate the quality of the external environment. (e.g. *How do you feel about the house or place where you live'*). It also included items on 'conventional involvement' of friends which could possibly be relevant to the concept of bridging capital (e.g. *'How many of your friends want to go to college?'; How many of your friends are in clubs or other organizations such as scouts*)?

There were some limitations of the scales that need to be acknowledged. First, none of the scales had been developed specifically for young offenders nor used in populations similar to Includem (e.g. young offenders). Some had been developed in the school setting, for school children. The population and setting used for development creates two potential problems. Whilst school children might include some who are similar to Includem's population, they may also be likely to have less chaotic lifestyles, and more social support. Therefore the scale might lack some validity. Having said that, they may still be devised in a language that is applicable to the Includem population and may be measuring support systems that are valid for all children (although you might expect the children from Includem to score lower than children in the general population at baseline). The Family, Friends and Self scale was developed for Mexican American youth admitted to drugs programmes, who may have some common issues.(Simpson and McBride, 1992)

The other issue is also related to validity – in terms of the wording of some of the questions – some talk about school and teachers and are designed to be used in the school setting. These questions may need to be modified to be used in the evaluation of the work of Includem.

#### Scales measuring community involvement or social inclusion

We were not able to identify a robust and relevant measure of social inclusion or community involvement. The only one which could be used if modified significantly (but still may not be robust) is a questionnaire which was developed in the UK for an Arts based project for people with mental health issues (Secker, Hacking, Kent et al., 2009). This was a measure that Includem were initially interested in as it was designed to measure bridging capital, bonding capital, neighbourhood cohesion, engagement in leisure services and citizenship. However, it has several limitations which will limit its relevance to evaluating the work of Includem. Some of the original items included in the questionnaire did not constitute consistent scales and were excluded, although 16 of the 22 items included in the measure could be grouped within three scales measuring 'social isolation', 'social relations' and 'social acceptance'. These are slightly different constructs from what the measure was originally designed to measure. As the authors themselves note *...construct validity* cannot be claimed on the basis of the tests to date, because it is questionable whether the whole construct of social inclusion is fully represented by the three dimensions included in the measure.' Furthermore, as it is a very new measure, specifically designed for a particular project and for a particular population this means that the underlying constructs it is measuring may not be the same in a different setting.

We did identify another social bonding measure (Brisson and Usher, 2007) but again it is not recommended for use by Inclusion as it is a 5 item scale developed for an adult population in the USA.

#### Table 3. Questionnaires measuring external factors

Table 3. Questionnan							1	
Scale	Assessors rating	Social networks (Family, friends,/peers, community)	ment	Social support/ perceived social support	Social capital			lents
	Assess	Social (Famil comm	Attachment	Social percei	Social	Other	Cost	Comments
Family, Friends, and Self (FFS) Form (Simpson and McBride, 1992)	4	Family Friends, School	Family Friends, School	x		Environment, control, school satisfaction, self esteem, conventional involvement, trouble, peer activity level, warmth of relationships	FP	60 items. Encompasses a wide range of domains relating to the quality and quantity of social networks and attachment. Although the FFS appears to be easy to score, multidimensional, and psychometrically sound instrument that may be appropriate for use in settings other than drug programs, its reliability with youth in the child welfare system and its ability to predict outcomes other than drug use have yet to be determined.
Inventory of Parent and Peer Attachment(Armsden and Greenberg, 1987)	4	х	Mother, Father, Friends	X			F	75 items Could be useful, particularly the subscale of peer attachment, although perhaps covered by the FFT scale. Assumes that the person has friends and family (doesn't measure the amount)
Multidimensional Scale of Perceived Social Support (Bruwer, Emsley, Kidd et al., 2008)	4	X		Family, friends, significant others			F	10 items. A useful scale to measure social support. Has been validated and widely used in adolescent populations. Possibly too short to capture domains such as attachment
Social Provisions Scale (Moreira and Canaipa, 2007; Motl, Dishman, Saunders et al., 2004)	4	x	x	x		Guidance, reliable alliance, social integration, reassurance of worth and opportunity for nurturance.	FΡ	24 items. Appears that some of the subscales, if not all the scale might be useful. Is widely used in research. Does not distinguish between family and friends and others in terms of support, which may or may not be important to Includem
Strengths and Difficulties Questionnaire (SDQ)(Goodman, 2001)	4	Peer				Emotional, conduct, hyperactivity- inattention, social competence	F	25 items. Developed and applied in UK adolescent population, but relevance may be less than optimum as measures domains such as hyperactivity. Has versions for 'teachers' and parents. Also includes an 'added value' score for specialist services. A simple approach is to administer the SDQ at the time of first assessment and then repeat it after a fixed interval, say 6 months.
People in my life (PIML) - based on the IPPA above (Ridenour, Greenberg & Cook, 2006)	3	х	х	х		Communication, alienation, peer delinquency	FΡ	80 items. Could be useful to use as considers that peer support and attachment may be negative. Developed for slightly younger school children (10-12 years) and some of the questions may need to be reworded.
A measure of social inclusion (no specific name given)(Secker, Hacking, Kent et al., 2009)	2				х	Social isolation, Social acceptance, social relationships	FP	22 items. Was designed to measure constructs such as bridging capital, bonding capital, acceptance and citizenship, but found a different set of constructs (social isolation, relations and acceptance). Includem staff indicated that at least parts of this measure had face validity. Has not been specifically developed for adolescents and only recently been developed. Some of the scale items are specific to the Arts project and would have to be adapted for Includem. Same people who developed Inclusion Web and includes many of the same constructs

Cost – N="None", Y="Yes", P=Permission is needed for use of the scale.

### SUMMARY AND RECOMMENDATIONS

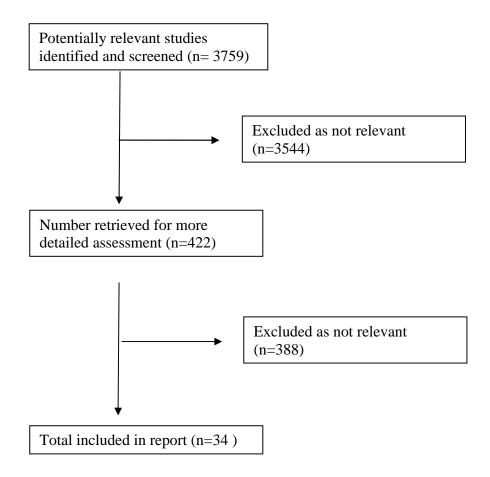
From the searching we were able to identify several useful questionnaires to measure both intrinsic and extrinsic factors in an adolescent population. At least one of the measures of intrinsic factors (Resilience Scale) measured several domains which were listed as being important to Includem such as planfulness, sense of purpose, self esteem. A questionnaire of external factors, the Friends, Family and Self form included domains such as warmth of relationships, conflict and control, as well as perceptions of their environment and self esteem.

We would recommend that Includem use both these scales to evaluate the young people they work with. However, those personal factors that are not assessed by the Resilience Scale (for example, social competence, consequential thinking, moral reasoning, problem solving, respect) should be addressed by supplementing Resilience Scale items with relevant items from other instruments such as the Cognitive Autonomy and Self-Evaluation (CASE) Inventory and the Youth at Risk version of the Life Effectiveness Questionnaire. In addition we would strongly recommend that Includem customises these scales to ensure that their language is relevant and appropriate to Includem clients. One way of doing this would be to follow the example of Weist, Albus, Bickham et al. (2000) and run focus groups with teenagers whose socioeconomic backgrounds are similar to Includem clients to ensure that items are worded appropriately.

#### Appendix 1. Details of searches performed February 2009

Database	Search terms (combined with OR or AND)	Limits	Hits
Medline,	(scale\$ or measure\$ or questionnaire\$ or assess\$ or test\$)	English	2130
EmBase,	(reliability or validity or psychometric)	Language	
PsycINFO	(ability adj2 plan) or (planning adj skill\$) or(consequential adj thinking) or(independent adj living adj skill\$) or	1990-2009	
(OVID)	mutuality	Human	
(0112)	(moral adj reasoning) or(emotional adj (intelligence or security))	Removed	
	(interpersonal adj skills) or hopefulness or ambition or (work adj ethic) or (sense adj1 purpose) or (internal adj	duplicates	
	locus adj1 control)	uupiicaics	
	prosocia* or (peer adj support) or planful\$ or (capital adj (social or bonding or bridging or peer or family))		
	or(trust\$ adj2 other\$) or (change adj1 (willingness or readiness or motivation)) or sociability or(relationship adj form\$) or(aspiration and future) or (social adj (inclusion or exclusion or network))or resilien\$ or ((humour		
	or humor) and (resilien\$ or coping)) or (adolescen\$ or teenage\$ or child\$ or youth\$ or (young adj people))		
	(problem adj solving) not (math\$ or couple\$ or student\$ or therap\$))		
	((communication adj skills) not (school\$ or patient\$ or preschool\$ or student\$ or teacher\$))		
	(autonomy not (teacher\$ or student\$ or patient\$))		
	((goal adj setting) not (teacher\$ or Patient\$ or Sport\$ or occupatio* or employee or employment or colleg\$		
	or school or Athlet\$ or consumer\$))		
	(empathy not (coupl* or patient*))		
	(attachment\$ adj5 (interpersonal or peer\$ or family or social))		
	((social adj (skills or competence or adjustment)) not patient*)		
	((self adj (esteem or image or confidence or control or management or competence or efficacy or belief)) not		
	(therap\$ or student\$ or Read\$ or Patient\$))		
CINAHL	( (ability N2 plan) or (planning N skill\$) or (consequential N thinking) or (independent N living N skills) or	Published	127
	mutuality or (moral N reasoning) or (emotional N intelligence) or (emotional N security) or (interpersonal N	Date from:	1
	skills) or hopefulness or ambition or (work N ethic) or (sense N1 purpose) or (internal N locus N1 control) or	1990-2009;	
	prosocia* or (peer N support) or planful\$ or capital N1 (social or bonding or bridging or peer or family) or	Exclude	
	(trust\$ N2 other\$) or (change N1 (willingness or readiness or motivation)) or sociability or (relationship N form\$) or (aspiration and future) or social N1 (inclusion or exclusion or network) or resilien\$ or (humour or	MEDLINE	
	humor) and (resilien\$ or coping) or problem N solving or communication N1 skills or goal N1 setting or	records; Age	
	empathy or attachments N5 (interpersonal or peers or family or social) or social N1 (skills or competence or	Groups:	
	adjustment) or self N1 (esteem or image or confidence or control or management or competence or efficacy	Adolescence,	
	or belief) ) and AB ( scale\$ or measure\$ or questionnaire\$ or assess\$ or test\$ ) and ( reliability or validity or	13-18 years	
	psychometric ) and AB ( adolescen\$ or teenage\$ or child\$ or youth\$ or (young N people) )	15-10 years	
Social Care	(scale* or measure* or questionnaire* or assess* or test* ) and (adolescen* or teenage* or child* or youth* or	No limits	201
Online	young people) and (reliability or validity or psychometric)		
Social	TS=(adolescen* or teenage* or youth* or (young AND people))	English	1578
Sciences	TS=(adolescen* or teenage* or youth* or (young AND people))	Language	1070
Citation Index	TS =(scale* or measure* or questionnaire* or test*)	1990-2009	
Citation muex	TS=(reliability or validity or psychometric)	1990-2009	
	TS=((interpersonal AND skills) OR hopefulness OR ambition OR (work AND ethic) OR (sense AND purpose)		
	OR (internal AND locus AND control) OR prosocia* OR (peer AND support) OR planful* OR (capital AND		
	(social OR bonding OR bridging OR peer OR family)) OR (trust* AND other*) OR (change AND (willingness		
	OR readiness OR motivation)))		
	TS=((ability AND plan) OR (planning AND skill*) OR (consequential AND thinking) OR (independent AND		
	living AND skills) OR mutuality OR (moral AND reasoning) OR (emotional AND intelligence) OR (emotional		
Social	AND security)) #9 KW=((sociability OR (relationship AND form*) OR (aspiration AND future) OR (social AND (inclusion OR	English	227
	exclusion OR network)) OR resilien* OR ((humour OR humor) AND (resilien* OR coping)) OR (problem AND	English	221
Services	solving) OR (communication AND skills) OR (goal AND setting) OR empathy OR (attachment* AND	Language	(00
Abstracts &	(interpersonal OR peer* OR family OR social)) OR (social AND (skills OR competence OR adjustment)) OR	1990-2009	(98
Sociological	(self AND (esteem OR image OR confidence OR control OR management OR competence OR efficacy OR		SSA
Abstracts	belief))) or (=((interpersonal AND skills) OR hopefulness OR ambition OR (work AND ethic) OR (sense AND		129
	purpose) OR (internal AND locus AND control) OR prosocia* OR (peer AND support) OR planful* OR		SA)
	(capital AND (social OR bonding OR bridging OR peer OR family)) OR (trust* AND other*) OR (change AND		
	(willingness OR readiness OR motivation)))) or ((ability AND plan) OR (planning AND skill*) OR		
	(consequential AND thinking) OR (independent AND living AND skills) OR mutuality OR (moral AND		
	reasoning) OR (emotional AND intelligence) OR (emotional AND security))) and KW=((scale* or measure* or		
	questionnaire* or assess* or test*) and (adolescen* or teenage* or child* or youth* or young people) and		
	(reliability or validity or psychometric))		<u> </u>
Total	Total before deduplication = 4263		
	after deduplication in all databases (some databases retrieved the same references, but had to be de- duplicated separately)		3759
	UUUULAIEU SEDALAIEIVI		1

Appendix 2. Flow chart detailing the inclusion and exclusion process



Appendix 3 Scales measuring internal factors<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Please note that where possible details have been provided as to how to use the scales, but this information should be verified before using the scales for evaluation purposes.

Date: \_\_\_\_\_

Please read the following statements. To the right of each you will find seven numbers, ranging from "1" (Strongly Disagree) on the left to "7" (Strongly Agree) on the right. Circle the number which best indicates your feelings about that statement. For example, if you strongly disagree with a statement, circle "1". If you are neutral, circle "4", and if you strongly agree, circle "7", etc.

			ongly agree			5	Stron Ag	gly ree
1.	When I make plans, I follow through with them.	1	2	3	4	5	6	7
2.	I usually manage one way or another.	1	2	3	4	5	6	7
3.	I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
4.	Keeping interested in things is important to me.	1	2	3	4	5	6	7
5.	I can be on my own if I have to.	1	2	3	4	5	6	7
6.	I feel proud that I have accomplished things in life.	1	2	3	4	5	6	7
7.	I usually take things in stride.	1	2	3	4	5	6	7
8.	I am friends with myself.	1	2	3	4	5	6	7
9.	I feel that I can handle many things at a time.	1	2	3	4	5	6	7
10.	I am determined.	1	2	3	4	5	6	7
11.	I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
12.	I take things one day at a time.	1	2	3	4	5	6	7
13.	I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
14.	I have self-discipline.	1	2	3	4	5	6	7
15.	I keep interested in things.	1	2	3	4	5	6	7
16.	I can usually find something to laugh about.	1	2	3	4	5	6	7
17.	My belief in myself gets me through hard times.	1	2	3	4	5	6	7
18.	In an emergency, I'm someone people can generally rely on.	1	2	3	4	5	6	7
19.	I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
20.	Sometimes I make myself do things whether I want to or not.	1	2	3	4	5	6	7
21.	My life has meaning.	1	2	3	4	5	6	7
22.	I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
23.	When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7
24.	I have enough energy to do what I have to do.	1	2	3	4	5	6	7
25.	It's okay if there are people who don't like me.	1	2	3	4	5	6	7
26.	I am resilient.	1	2	3	4	5	6	7

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## 1a. Resilience Scale (RS-14<sup>TM</sup>) (Wagnild & Young, 1993)

Date\_\_\_\_\_

Please read the following statements. To the right of each you will find seven numbers, ranging from "1" (Strongly Disagree) on the left to "7" (Strongly Agree) on the right. Circle the number which best indicates your feelings about that statement. For example, if you strongly disagree with a statement, circle "1". If you are neutral, circle "4", and if you strongly agree, circle "7", etc.

Circle the number in the appropriate column		ongly agree		S	trong	ly Ag	ree
1. I usually manage one way or another.	1	2	3	4	5	6	7
2. I feel proud that I have accomplished things in life.	1	2	3	4	5	6	7
3. I usually take things in stride.	1	2	3	4	5	6	7
4. I am friends with myself.	1	2	3	4	5	6	7
5. I feel that I can handle many things at a time.	1	2	3	4	5	6	7
6. I am determined.	1	2	3	4	5	6	7
7. I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
8. I have self-discipline.	1	2	3	4	5	6	7
9. I keep interested in things.	1	2	3	4	5	6	7
10. I can usually find something to laugh about.	1	2	3	4	5	6	7
11. My belief in myself gets me through hard times.	1	2	3	4	5	6	7
12. In an emergency, I'm someone people can generally rely on.	1	2	3	4	5	6	7
13. My life has meaning.	1	2	3	4	5	6	7
14. When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7

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## 2. Adolescent Resilience Scale (Oshio et al., 2003)

\* Please arrange these items randomly.

Respondents are asked to rate each item on a scale from 5=Definitely yes, to 1=Definitely no.

#### **Novelty Seeking**

I seek new challenges. I like new or intriguing things I think I have a high level of interest and curiosity I like to find out about things I think difficulties form a part of life's valuable experiences I don't like to do unfamiliar things I find it bothersome to start new activities

### **Emotional Regulation**

I think I can control my emotions I can stay calm in tough circumstances I make an effort to always stay calm I think I have perseverance I find it difficult not to dwell on negative experience\* I cannot endure adversity\* My behaviour varies with my daily moods\* I lose interest quickly\* I have difficulty in controlling my anger\*

#### **Positive Future Orientation**

I am sure that good things will happen in the future I think I have a bright future I feel positive about my future I have a clear goal for the future I am striving towards my future goal

\* Reverse-scored item

# 3. CASE Inventory Items (Beckert, 2007)

Each item offers four choices for response (always, often, seldom, never)

#### **Evaluative** Thinking

2. I think about the consequences of my decisions.

3. I look at every situation from other people's perspectives before making my own judgments.

- 6. I think of all possible risks before acting on a situation.
- 7. I like to evaluate my daily actions.
- 8. I consider alternatives before making decisions.
- 10. I think about how my actions will affect others.
- 11. I think about how my actions will affect me in the long run.
- 12. I like to evaluate my thoughts.

#### **Voicing Opinions**

- 1. If I have something to add to a class discussion I speak up.
- 4. When I disagree with others I share my views.
- 9. I stand up for what I think is right regardless of the situation.
- 13. I feel that my opinions are valuable enough to share.
- 19. At school I keep my opinions to myself.

#### **Decision Making**

- 17. There are consequences to my decisions.
- 18. I can tell that my way of thinking has improved with age.
- 20. I think more about the future today than I did when I was younger.
- 22. My decision making ability has improved with age.
- 24. I am good at evaluating my feelings.
- 25. I am better at decision making than my friends.

#### Self-Assessing

- 15. I am good at identifying my own strengths.
- 21. I am best at identifying my abilities.
- 27. I am the best judge of my talents.

#### **Comparative Validation**

5. I need family members to approve my decisions.

- 14. I need my views to match those of my parents.
- 16. It is important to me that my friends approve of my decisions.
- 23. I need my views to match those of my friends.
- 26. I care about what others think of me.

Original Article available at: http://www.articlearchives.com/population-demographics/demographic-groups-adolescents/1551901-1.html

Respondents are asked to respond to a series of statements that are more or less true ('like you') or more or less false ('unlike you') on an 8 point scale.

#### **Personal Objectives**

#### Self-Esteem (from the Self-Descriptionnaire Questionnaire-II, Marsh, 1990)

#### Self-report

Overall most things I do turn out well. Overall I have a lot to be proud of. Most things I do I do well.

#### Observer

Exhibits a high level of self-esteem.

# Self-Confidence (from the Life Effectiveness Questionnaire, Neill, Marsh & Richards, 1997)

#### Self-report

I know I have the ability to do anything I want to do. When I apply myself to something I am confident I will succeed. I believe I can do it.

#### Observer

Has the self-confidence to manifest what he/she desires in life.

# Locus of Control (from the Review of Personal Effectiveness, Richards, Ellis & Neill, 2002)

#### Self-report

My own efforts and actions are what will determine my future. Luck, other people and events control most of my life. [reverse scored] What I do and how I do it will determine my successes in life. My life is mostly controlled by external things. [reverse scored] If I succeed in life it will be because of my efforts.

#### Observer

Believes that his/her actions and efforts determine what happens to him/her.

# Effective Problem Solving (adapted from the Adolescent Coping Scale, Frydenberg & Lewis, 1993)

#### Self-report

I work hard at solving what's causing my problems. I solve problems to the best of my ability. I am effective at solving the cause of my problems.

#### Observer

Effective at solving problems.

#### **Goal-Setting**

#### Self-report

Goals are important to me. I have specific goals to aim for. I do not have any goals. [reverse scored] Having goals makes my life more enjoyable. I prefer to set my own goals.

#### Observer

Effective at setting and achieving goals.

#### **Reflective Journaling**

#### Self-report

I write about my thoughts and feelings in a journal or diary.Writing in a journal or diary is valuable for my learning.I enjoy using a journal or diary to reflect on what is happening in my life.I use a journal or diary to record my life experiences.I use a journal as a way of dealing with things that are happening to me.

#### Observer

Uses journaling to reflect on his/her experiences.

#### **Creative Self-Expression**

#### Self-report

I express myself in creative ways.

I like to use creative ways of exploring my thoughts and feelings.

I explore my thoughts and feelings creatively, such as through art, drama or music.

I have lots of creative ways to communicate my thoughts and feelings.

I have difficulty finding creative ways to express myself. [reverse scored]

#### Observer

Expresses thoughts and feelings creatively, such as through art, drama or music.

#### Healthy Risk-taking

Self-report

I am good at deciding whether a risk is worth taking. I avoid actions which risk my health and well-being [reverse scored]. I think carefully about the consequences of my risky actions. I balance my risk-taking behaviors -- I am not too risky or too cautious. I make effective use of risk-taking in my life.

#### Observer

Takes healthy risks (not too cautious, not too risky) for the sake of his/her growth and well-being.

Seakayaking Competence [an example of a scale measuring physical skill competence]

#### Self-report

I am a competent sea kayaker I am confident in my ability to handle waves, high winds, and capsizes. I am capable of completing sea kayaking trip of more than six miles. I can safely launch and beach my sea kayak. I can paddle a sea kayak backward in a straight line.

#### Observer

Possesses good sea kayaking skills

### Social Objectives

#### **Respect/Understand Personal Boundaries**

#### Self-report

I respect other people.

I behave appropriately towards other people.

I respect personal boundaries when touching other people.

I understand issues of personal space, touch, and appropriate behavior towards other people.

I have problems respecting other people's personal space. [reverse scored]

#### Observer

Appropriately respects personal space, touch, and rules of conduct.

#### **Conflict Resolution**

#### Self-report

I resolve my conflicts with other people. I avoid unnecessary conflicts with others. I can't deal with conflict. [reverse] If there is a conflict, I try to improve the situation. Other people respect the way I handle conflict.

#### Observer

Effectively heads off and resolves interpersonal and group conflicts.

#### **Communication Skills**

#### Self-report

People understand me when I'm talking. I communicate effectively with other people. I understand other people when they are talking to me. I have good conversations with other people. I communicate well when in a group.

#### Observer

Communicates effectively with others in interpersonal and group settings.

#### **Cooperative Teamwork**

#### Self-report

I cooperate well when working in team. I like cooperating in a team. I am good at cooperating with team members.

#### Observer

Cooperates well working with other team members.

# Effective Leadership (from the Review of Personal Effectiveness, Richards, Ellis & Neill, 2002)

#### Self-report

As a leader, I get people working well together. I am a capable leader. I am a good leader when things need to get done.

#### Observer

Leads effectively when a task needs to be done.

#### **Community Engagement (adapted from Sense of Community Scale)**

#### Self-report

I am proud of my involvement in the community.

I enjoy living in my community.

I influence what my community is like.

If I have problems, there are people in my community who help me to solve them.

I help people in my community to get along with each other.

#### Observer

Has a positive sense of community.

#### **Environmental Objectives**

#### **Environmental Stewardship**

The extent to which a person believes that humans need to engage in understanding, preventing and solving environmental problems.

#### Self-report

I think humans have the right to modify the natural environment to suit their needs. [reverse scored]

I believe humans must live in harmony with nature in order to survive.

I think conserving natural resources is necessary.

I believe humans have a responsibility to solve environmental problems.

#### Observer

Is actively concerned and interested in issues in the ecosystem.

#### Local Environmental Knowledge

Note: Only one item is suggested for this scale in the interests of keeping the overall instrument as short as validly possible. Local environmental knowledge is more objective than personal constructs, therefore may be validly assessable using fewer items. If local environmental knowledge is a major program objective, then it is recommended that a more comprehensive measure be developed. For most youth-atrisk outdoor education programs, however, there are either no environmental objectives, or there are minor environmental objectives.

#### Self-report

I have an in-depth knowledge about the [maybe add/substitute place-specific name] local environment and ecosystem.

#### Observer

Has an in-depth knowledge about the [maybe add/substitute place-specific name] local environment and ecosystem.

Full information about administering and scoring is available at: http://wilderdom.com/tools/leq/YouthDevelopmentLEQScalesPaper.htm#\_Toc42761726

# 4. My Life Questionnaire (Weist et al., 2000)

Respondents are asked to rate each item on a 7-point scale where 1 represents "very untrue" and 7 represents "very true"

#### Items pertaining to avoiding negative peer influences

I try hard to stay out of beefs I let stuff go and walk away I try to ignore "he say she say" When others are angry I try to chill I will refuse to do things I shouldn't do I usually won't say which hood I'm from

#### Items pertaining to focusing on the future

I try to stay focused on the future I care about how I do in school I try hard to learn and study I try to learn new skills

#### Items pertaining to religious involvement

I have a strong religious faith I try to go to church

## Appendix 4.Details of external scales which were excluded

Scale	Reason for Exclusion
4-D	Other similar but more relevant scales identified. Based on Circle of
	Courage, an American Indian Medicine Wheel
Adolescent Friendship Attachment	Only measure 'best' friend relationship. Only just developed and not
Scale	widely used.
Affective Relationships Scale	Not widely used - developed in college students and other adults.
	Other scales more relevant
Arizona social support interview schedule (ASSIS)	Other similar but more relevant scales identified
Child and adolescent social support scale (CASSS)	Designed to measure social support in the school context. Other more relevant scales identified
Children's generalized trust beliefs scale (CGTB)	Not easy to use - requires a lot of reading
Chumship Checklist Trust-Value Friendship (T-V F) Scale	Designed for preadolescents, so probably not relevant or applicable
Cornell Interview of Peers and Friends - Adolescent version	Long questionnaire which needs more work to establish its psychometric properties
Family Relationship Index	Designed for parents, not children
Friendship Motivation Scale for Children	Scale not widely used and probably lacks relevance as developed for younger school children. Measure why they want friends, not the quality of the friendship.
Home Observation for Measurement of the Environment (HOME) Inventory	Takes over an hour to administer – easier scales identified
Index of peer relations	Expensive to use, and not able to find enough details without purchasing it – other scales are as relevant
Interpersonal Support Evaluation List	Many questions not relevant for adolescents – other more relevant measures
Interview Schedule for Social Interaction	Designed for psychiatric patients
Inventory of socially supportive behaviors (ISSB)	Many questions not relevant for adolescents – other more relevant measures
McGill Friendship Questionnaire-	Unable to find further details about the scale - has been used in some
Respondent's Affection (MFQ-RA)	research studies, but non relevant to IncludeM. Think it measure a
McGill Friendship Questionnaire- Friend's Function (MFQ-FF)	persons relationship with a named friend, rather than a peer group
MOS Social Support Survey	Developed for adults – other more relevant scales
Network Orientation Scale	Unclear as to the relevance of this scale - not able to find out much detail.
Peer social competence (SCP)	Not widely used. Other scales more widely used, and applicable.
People In Your Life (PIYL) scale	Unable to get a copy of article - mainly used by one researcher in Japan so applicability is poor
Perceived Emotional/Personal Support Scale	Complex. The PEPSS asks respondents to nominate 9 social network members and then to rate each of these relationships on 4 emotional support items.
Perceived Social Support-Family measure	For completion by parents
Rochester Evaluation of Asset Development for Youth (READY) tool	Might be relevant but given that it costs \$200 per licence and we were unable to look at the scale, it is not recommended.
Social bonding measure(Brisson and Usher, 2007)	5 items, but not developed for adolescents and developed in a USA setting so relevance and applicability is poor
social capital measure (no name given) (De Silva, 2006)	Not relevant to adolescents - more used on a population rather than individuals
Social Connectedness and the Social Assurance Scales	Mainly used and validated in US college students and adult populations.

Scale	Reason for Exclusion
Social Network Scale/ Lubbens	Designed to measure social isolation in older adults
Social Network Scale	
Social Skills Inventory	Expensive, long and not very relevant or applicable
Social support behaviors (SS-B)	Validation study undertaken in adolescents but results of
scale	psychometric analysis indicate that the scale needs further work to
	more accurately assess the salient behavioural dimensions of social
	support
Social support survey	
Stability of Activities in the Family	Measuring family stability but few details and not widely used or
Environment (SAFE)	evaluated
Teenage Inventory of Social Skills	Long form which was developed with school children. Has been
	validated in other countries but not the UK. Has been used in
	evaluation studies of drug and alcohol abuse

#### **Appendix 5** Scales measuring external factors<sup>4</sup>

Social Inclusion Measure (Secker, Hacking, Kent et al., 2009) 1 I have felt isolated from my family 2 I have friends I see or talk to every week 3 My social life has been mainly related to mental health services or people who use mental health services 4 I have been involved in a group, club or organization that is not just for people who use mental health services (not including your arts project) 5 I have learnt something about other people's cultures 6 I have been to new places (other than your arts project) 7 I have felt accepted by my friends 8 I have felt accepted by my family 9 I have felt accepted by my neighbours 10 I have felt that some people look down on me because of my mental health needs 11 I have felt what I do is valued by others 12 I have felt it was unsafe to walk alone in my neighbourhood in daylight 13 I have had problems with my neighbours 14 I have felt insecure about where I live (for example afraid I might be evicted) 15 I have been behind with my rent/mortgage 16 I have done a sport, game or physical activity (not just walking to get somewhere) (excluded) 17 I have been out socially with friends (for example to the cinema, restaurants, pubs, clubs) 18 I have done some cultural activities (for example gone to a library, museum, gallery, theatre or concert) 19 I have helped out at a charity or local group (other than a mental health group) (excluded) 20 I have felt clear about my rights 21 I have felt free to express my beliefs(for example political or religious beliefs) 22 I have felt that I am playing a useful part in society

#### Multidimensional scale of perceived social support

Items were measured on a 5-point scale from 1 \_strongly disagree\_ to 5 \_strongly agree\_. 2 It provides four scores: FA, FR, SO, and total.

Family subscale (FA)

3. My family really tries to help me

4. I get the emotional help and support I need from my family

8. I can talk about my problems with my family

11. My family is willing to help me make decisions

Friends subscale (FR)

6. My friends really try to help me

7. I can count on my friends when things go wrong

9. I have friends with whom I can share my joys and sorrows

12. I can talk about my problems with my friends

Significant other subscale (SO)

1. There is a special person who is around when I am in need

2. There is a special person with whom I can share my joys and sorrows

5. I have a special person who is a real source of comfort to me

10. There is a special person in my life who cares about my feelings

<sup>&</sup>lt;sup>4</sup> Please note that where possible details have been provided as to how to use the scales, but this information should be verified before using the scales for evaluation purposes.

#### **3. Social Provisions Scale**

http://www.iprc.unc.edu/longscan/pages/measures/Ages5to11/Social%20 Provisions%20 Scale.pdfSPA

#### Score Types

The respondent indicates on a 4-point scale the extent to which each statement describes her current social network. Responses range from 1 (strongly disagree) to 4 (strongly agree). After reversal of negatively worded items (indicated by an "R" below) a total score may be computed by summing all items. Subscale scores may be computed by summing items as follows:

- Attachment: Items 2R, 11, 17, and 21R
- Social Integration: Items 5, 8, 14R, and 22R
- Reassurance of Worth: 6R, 9R, 13, and 20
- Reliable Alliance: Items 1, 10R, 18R, and 23
- Guidance: Items 3R, 12, 16, and 19R
- Opportunity for Nurturance: 4, 7, 15R, and 24R

	Strongly	Agree	Disagree	Strongly
	agree			disagree
1. There are people I know will help me if I really need it.	1	2	3	4
2. I do not have close relationships with other people.	1	2	3	4
3. There is no one I can turn to in times of stress.	1	2	3	4
4. There are people who call on me to help them	1	2	3	4
5. There are people who like the same social activities I do	1	2	3	4
6. Other people do not think I am good at what I do	1	2	3	4
7. I feel responsible for taking care of someone else.	1	2	3	4
8. I am with a group of people who think the same way I do about	1	2	3	4
things.				
9. I do not think that other people respect what I do.	1	2	3	4
10. If something went wrong, no one would help me.	1	2	3	4
11. I have close relationships that make me feel good.	1	2	3	4
12. I have someone to talk to about decisions in my life.	1	2	3	4
13. There are people who value my skills and abilities.	1	2	3	4
14. There is no one who has the same interests and concerns as me.	1	2	3	4
15. There is no one who needs me to take care of them.	1	2	3	4
16. I have a trustworthy person to turn to if I have problems.	1	2	3	4
17. I feel a strong emotional tie with at least one other person.	1	2	3	4
18. There is no one I can count on for help if I really need it.	1	2	3	4
19. There is no one I feel comfortable talking about problems with	1	2	3	4
20. There are people who admire my talents and abilities.	1	2	3	4
21. I do not have a feeling of closeness with anyone.	1	2	3	4
22. There is no one who likes to do the things I do.	1	2	3	4
23. There are people I can count on in an emergency.	1	2	3	4
24. No one needs me to take care of them	1	2	3	4

#### 4. Strengths and Difficulties Questionnaire

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of how things have been for you over the last six months.

	Certainly True	Somewhat True	Not True
I try to be nice to other people. I care about their feelings			
I am restless, I cannot stay still for long			
I get a lot of headaches, stomach-aches or sickness			
I usually share with others (food, games, pens etc.)			
I get very angry and often lose my temper			
I am usually on my own. I generally play alone or keep to			
myself			
I usually do as I am told			
I worry a lot			
I am helpful if someone is hurt, upset or feeling ill			
I am constantly fidgeting or squirming			
I have one good friend or more			
I fight a lot. I can make other people do what I want			
I am often unhappy, down-hearted or tearful			
Other people my age generally like me			
I am easily distracted, I find it difficult to concentrate			
I am nervous in new situations. I easily lose confidence			
I am kind to younger children			
I am often accused of lying or cheating			
Other children or young people pick on me or bully me			
I often volunteer to help others (parents, teachers, children)			
I think before I do things			
I take things that are not mine from home, school or			
elsewhere			
I get on better with adults than with people my own age			
I have many fears, I am easily scared			
I finish the work I'm doing. My attention is good			

#### Family, friends, and self

**Note**. Item numbers indicate location of items in questionnaire (Parts A, B, and C), and correlation coefficients of each item with the composite scale score is shown in parenthesis (at the end of each item). Coefficient alpha for each scale is shown, as discussed in D. D. Simpson and A. A. McBride, Family, friends, and Self (FFS) assessment scales for Mexican American youth, Hispanic Journal of Behavioral Sciences, 1992; pp. 327-340.

Response scales for items in Part A are (0) never, (1) rarely, (2) sometimes, (3) often, and (4) almost always; for

Part B (0) none, (1) a few, (2) some, (3) most, and (4) all; and for Part C, (0) very unhappy, (1) mostly unhappy, (2) neither happy nor unhappy, (3) mostly happy, and (4) very happy. "Reflected" items (i.e., with negative weights and marked with asterisks, " \* ") should have response scores reversed before scale scores are averaged for each scale.

#### FAMILY SCALES

#### Part A -- WARMTH (11 items, alpha = .912)

A-1. Is there a feeling of togetherness in your family? (.558)

A-2. Are there times each day when your family is all together? (.550)

A-8. How often do your parents try to understand what you need to be happy? (.619)

A-10. How often does your family sit down to eat together at the same time? (.579)

A-15. How often do your parents pay attention to what you say? (.655)

A-19. How often do your family members try to cheer you up when you're sad? (.716)

A-22. How often do your parents tell you they love and care about you? (.742)

A-25. When you have a problem, does someone in your family help you out? (.571)

A-27. How often do your parents really listen to your problems? (.719)

A-31. How often do your parents make you feel they love you? (.671)

A-32. How often does your family try to do things that are fun for everyone? (.557)

#### Part A -- CONTROL (7 items, alpha = .739)

A-3. Are there exact rules that you have to follow in your family? (.572)

A-7. How often do your parents punish you in some way when you do something wrong? (.659)

A-12.\* Do you make more decisions than your parents about things you do and places you go? (-.454)

A-20.\* Do your parents let you go any where you please without asking? (-.618)

A-24. How often do your parents make decisions for you? (.476)

A-26.\* Do your parents let you off easy when you do something wrong? (-.653)

A-30. Are there definite rules set in your family? (.608)

#### Part A -- CONFLICT (4 items, alpha = .769)

A-6. Do members of your family say bad things about each other? (.688)

A-11. How often do members of your family really get mad at one another? (.734)

A-14. How often do your family members hit or yell at each other? (.744)

A-18. Are there many arguments or fights in your family? (.745)

#### FRIENDS SCALES

Part A -- PEER ACTIVITY LEVEL (5 items, alpha = .821)

A-4. Do you spend time hanging out with your friends? (.811)

A-9. Do you spend a lot of your free time with friends? (.848)

A-16. How often do you and your friends spend time together after school or work? (.702)

A-21. Do your best friends spend a lot of time hanging out? (.586)

A-29. Do you spend time at your friends houses? (.763)

#### Part B -- TROUBLE (7 items, alpha = .858)

B-7. How many of your friends do things that may get them into trouble with the law? (.643)B-8. How many of your friends have ever used a weapon (like a gun, knife, or club) in a serious fight? (.686)

B-11. How many of your friends have been in trouble with the police because of alcohol or drugs? (.722)

B-12. How many of your friends have quit or want to quit school? (.639)

B-14. How many of your friends have damaged other peoples' property on purpose? (.693)

B-17. How many of your friends have ever been stopped or picked up by the police? (.743)

B-18. How many of your friends do things that might get them into trouble at school? (.728)

Part B -- FAMILIARITY with PARENTS (4 items, alpha = .774)

B-2. How many of your friends know your parents? (.789)

B-4. How many of your friends do your parents like? (.633) B-10. How of your friends like your parents? (.742) B-15. How many of your friends do your parents know? (.793) Part B -- CONVENTIONAL INVOLVEMENT (7 items, alpha = .725) B-1. How many of your friends like to play sports? (.447) B-3. How many of your friends get all good grades at school? (.646) B-5. How many of your friends like school? (.675) B-6. How many of your friends do homework after school or at night? (.680) B-9. How many of your friends want to go to college? (.592) B-13. How many of your friends are in clubs or other organizations such as scouts? (.641) B-16. How many of your friends like to read books after school? (.599) SELF-RATING SCALES Part A -- SELF-ESTEEM (5 items, alpha = .751) A-5. Can you think of things that you like about yourself? (.652) A-13. Are you proud of how you act and the things you do? (.728) A-17. Do you think you have a lot to be proud of? (.749) A-23. Are you happy and satisfied with yourself? (.660) A-28. When you do something, do you think you do it well? (.632) Part C -- ENVIRONMENT (6 items, alpha = .821) C-2. How do you feel about your family? (.731) C-3. How do you feel about the house or place where you live? (.757) C-4. How do you feel about the things your family have, like bicycles, cars, TVs, radios, and other things? (.668) C-6. How do you feel about the amount of money you and your family have? (.647) C-8. How do feel about the way you get along with your parents? (.723) C-10. How do you feel about your life in general? (.614) Part C -- SCHOOL SATISFACTION (4 items, alpha = .794) C-1. How do you feel about your school? (.746) C-5. How do feel about your teachers at school? (.782) C-7. How do you feel about the courses you are taking at school? (.782) C-9. How do you feel about your school principal? (.711)

Subscale name and example items Response categories: Almost never or never true Not very true Sometimes true Often true Almost always or always true Parent attachment Trust (10 items) My parents respect my feelings I trust my parents Communication My parents listen to what I have to say I talk to my parents when I am having a problem Alienation (5 items) I feel angry with my parents I feel scared in my home Peer attachment (not including Peer Delinquency) Trust (12 items) My friends accept me as I am My friends can tell when I am upset about something Communication (5 items) I share my thoughts and feelings with my friends My friends can tell when I am upset about something Alienation (7 items) I share my thoughts and feelings with my friends My friends can tell when I am upset about something Alienation (7 items) I feel angry with my friends I wish I had more friends Peer delinquency (3 items) If one of my friends asked me to skip school, I would do it If a friend asked to copy my test, I would let him or her do it (complete questionnaire is provided in a separate file)	People in my life (PIYL) scale (many items based on IPPA see below)		
Almost never or never true         Not very true         Sometimes true         Often true         Almost always or always true         Parent attachment         Trust (10 items)         My parents respect my feelings         I trust my parents         Communication         My parents listen to what I have to say         I talk to my parents when I am having a problem         Alienation (5 items) I feel angry with my parents         I feel scared in my home         Peer attachment (not including Peer Delinquency)         Trust (12 items)         My friends accept me as I am         My friends can tell when I am upset about something         Communication (5 items)         I share my thoughts and feelings with my friends         My friends can tell when I am upset about something         Communication (7 items)         I feel angry with my friends         I wish I had more friends         Peer delinquency (3 items)         If one of my friends asked me to skip school, I would do it         If a friend asked to copy my test, I would let him or her do it	Subscale name and example items		
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If a friend asked to copy my test, I would let him or her do it	<i>Peer delinquency</i> (3 items)		
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(complete questionnaire is provided in a separate file)	If a friend asked to copy my test, I would let him or her do it		
	(complete questionnaire is provided in a separate file)		

6. Inventory of Parent and Peer Attachment (IPPA)

Response categories:

Almost never or never true Not very true Sometimes true Often true Almost always or always true

The next set of questions asks you about your relationship with your female Parent (i.e. mother or whomever takes care of you).

- 1. My mother respects my feelings.
- 2. I feel my mother does a good job as a mother.
- 3. I wish I had a different mother.
- 4. My mother accepts me as I am.
- 5. I like to get my mother's point of view on things I am concerned about.
- 6. I feel it's no use letting my feelings show around my mother.
- 7. My mother can tell when I am upset about something.
- 8. Talking over my problems with my mother makes me feel ashamed or foolish.
- 9. My mother expects too much of me.
- 10. I get upset easily around my mother.
- 11. I get upset a lot more than my mother knows about.
- 12. When we discuss things, my mother cares about my point of view.
- 13. My mother trusts my judgment.
- 14. My mother has her own problems, so I don't bother her with mine.
- 15. My mother helps me to understand myself better.
- 16. I tell my mother about my problems and troubles.
- 17. I feel angry with my mother.
- 18. I don't get much attention from my mother.
- 19. My mother helps me to talk about my difficulties.
- 20. My mother understands me.
- 21. When I am angry about something, my mother tries to be understanding.
- 22. I trust my mother.
- 23. My mother doesn't understand what I am going through these days.
- 24. I can count on my mother when I need to get something off my chest.
- 25. If my mother knows something is bothering me, she asks me about it.

The next set of questions asks you about your relationship with your male Parent (i.e. father or whomever takes care of you).

- 1. My father respects my feelings.
- 2. I feel my father does a good job as a mother.
- 3. I wish I had a different father.
- 4. My father accepts me as I am.
- 5. I like to get my father's point of view on things I am concerned about.
- 6. I feel it's no use letting my feelings show around my father.
- 7. My father can tell when I am upset about something.
- 8. Talking over my problems with my father makes me feel ashamed or foolish.
- 9. My father expects too much of me.
- 10. I get upset easily around my father.
- 11. I get upset a lot more than my father knows about.
- 12. When we discuss things, my father cares about my point of view.
- 13. My father trusts my judgment.
- 14. My father has her own problems, so I don't bother her with mine.
- 15. My father helps me to understand myself better.
- 16. I tell my father about my problems and troubles.
- 17. I feel angry with my father.
- 18. I don't get much attention from my father.

- 19. My father helps me to talk about my difficulties.
- 20. My father understands me.
- 21. When I am angry about something, my father tries to be understanding.
- 22. I trust my father.
- 23. My father doesn't understand what I am going through these days.
- 24. I can count on my father when I need to get something off my chest.
- 25. If myfather knows something is bothering me, she asks me about it.

#### The next set of questions asks you about your relationship with your close friends.

- 1. I like to get my friends' point of view on things I'm concerned about
- 2. My friends can tell when I'm upset about something
- 3. When we discuss things, my friends care about my point of view
- 4. When I discuss things, my friends care about my point of view
- 5. I wish I had different friends
- 6. My friends understand me
- 7. My friends help me to talk about my difficulties
- 8. My friends accept me as I am
- 9. I feel the need to be in touch with my friends more often
- 10. My friends don't understand what I'm going through these days
- 11. I feel alone or apart when I'm with my friends
- 12. My friends listen to what I have to say
- 13. I feel my friends are good friends
- 14. My friends are fairly easy to talk to
- 15. When I am angry about something, my friends try to be understanding
- 16. My friends help me to understand myself better
- 17. My friends care about how I am
- 18. I feel angry with my friends
- 19. I can count on my friends when I need to get something off my chest
- 20. I trust my friends
- 21. My friends respect my feelings
- 22. I get upset a lot more than my friends know about
- 23. It seems as if my friends are irritated with me for no reason
- 24. I can tell my friends about my problems and troubles
- 25. If my friends know something is bothering me, they ask me about it

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